



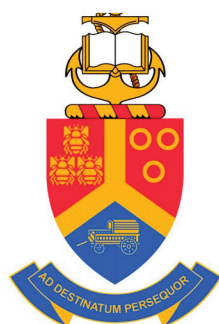
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International Center for Information Ethics.



The *Africa Reader on Information Ethics* is based on papers presented at the First Africa Information Ethics conference that took place under the patronage of UNESCO, on 5–7 February 2007 in Pretoria, South Africa. It was co-organised by the Department of Communications, the University of Pretoria, the University of Wisconsin-Milwaukee and the International Centre for Information Ethics (ICIE).

The goal of the conference, which was attended by more than 80 scholars from Africa and other parts of the world, was to address the ethical challenges of the information society on the African continent, and to integrate leading African scholars into the international ethics debate. Thus started reflection on the impact of ICTs on Africa's cultures, daily life and moral traditions, and on the extent to which it is changing opportunities for development in the economic, political and technological fields.

The editors trust that this publication will serve as a textbook for students, scholars and all who have an interest in, and want to make a contribution to, the development of an African information ethics.

## AFRICA READER ON INFORMATION ETHICS

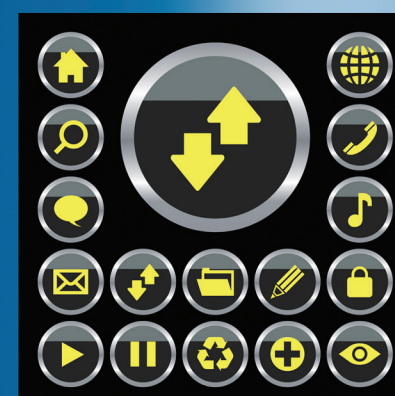


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Eds R. Capurro et al.



# AFRICA READER ON INFORMATION ETHICS

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## **Africa Reader on Information Ethics**

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## Foreword

The *Africa Reader on Information Ethics* is based on papers presented at the First Africa Information Ethics conference that took place under the patronage of UNESCO, on 5–7 February in Pretoria, South Africa. It was co-organised by the University of Pretoria, the University of Wisconsin-Milwaukee and the International Centre for Information Ethics (ICIE), and was fully sponsored by the South African government. In addressing the ethical challenges of the information society on the African continent, the conference was inspired by the Geneva Declaration adopted by the World Summit on Information Society (WSIS) held in Geneva in 2003. It was explicitly conceived as part of the implementation of Action Line C10 of the Geneva Plan of Action.

The idea of this conference emerged during 2004 at an international symposium on information ethics organised by ICIE and sponsored by the Volkswagen Foundation in Karlsruhe, Germany. Leading international experts in the field of information ethics were invited to participate and it was a first of its kind in the world. The symposium focused on the new and challenging ethical questions raised by modern information and communication technologies (ICTs) within the paradigm of globalisation and knowledge economies. Themes discussed included issues such as privacy, access to information, intellectual property rights, quality of information, security, spamming, advanced capitalism, and the digital divide. During this symposium, the following became clear:

- The African continent was not well represented at the symposium in Germany. There was only one representative from South Africa and two other Africans, who live in Europe. There are, of course, many reasons why African scholars were not present. Some of these relate to the mere fact that the scholars were unknown to other international scholars. Lack of funding to attend international events was, and still is, a further serious stumbling block.
- There is an urgent need to research thoroughly the ethical challenges that the introduction of modern ICT poses to the African continent. Not much has been published on the role that African philosophy can play to reflect on these new challenges. Most research from a philosophical perspective takes its departure from the traditional Western philosophical paradigm. Research on how, for example, the African notion of *ubuntu* can affect the interpretation and application of intellectual property rights legislation in Africa is but one example. Other examples may include a study on the African view on human rights – how it would impact on an “African privacy” view.

One of the direct outcomes of the symposium held in Germany was a decision to proceed to investigate and plan an Africa Information Ethics conference in order to integrate leading African scholars into the international ethics debate and start reflection on the impact of ICTs on Africa’s cultures, daily life and moral traditions, and to what extent this impact is changing opportunities for development in different areas, i.e. integrating the economic, political and technological debate. More than 80 scholars from Africa and other parts of the world attended the conference in Pretoria. The proceedings were first published in the *International Review of Information Ethics* (IRIE), Volume 1 of 2007 (<http://www.i-r-i-e.net/issue7.htm>).

Besides the intercultural dialogue between scholars from Africa and around the globe, the conference produced a number of tangible results:

- The Tshwane Declaration was adopted by the participants of the conference as a genuine African contribution to the UNESCO Code of Ethics for the Information Society.
- The African Network for Information Ethics ([www.africainfoethics.org](http://www.africainfoethics.org)) was established, giving African scholars a platform for exchanging and realising their ideas in the field.
- The proposal was made to implement advisory boards to African governments, for giving advice to policy makers on the continent regarding the ethical implications of ICTs.
- The *Africa Reader on Information Ethics*, consisting of a selection of useful articles, is to be translated into main African languages. Future planning includes the development of a curriculum in African information ethics by African scholars, which can be used at universities on the continent that teach information ethics.

- A workshop on the ethical challenges African governments face with regard to the implementation of e-government in their respective countries was held in February 2009, and was jointly sponsored by UNESCO, the South African Department of Communications and SAP Systems. Future workshops in different African countries are being planned.

This publication is a clear illustration of our efforts to contribute to this important debate. We trust that this reader will serve as a textbook for students, scholars and all who have an interest in, and want to make a contribution to, the development of an African information ethics.

The publication was made possible by the generous sponsorships of the South African Department of Communications, the Department of Information Science (University of Pretoria, South Africa), the School of Information Studies (University of Wisconsin-Milwaukee, USA), the Institute for Information Ethics and Policy (School of Information Sciences, University of Pittsburgh, USA) and the International Centre for Information Ethics (Karlsruhe, Germany).

Rafael Capurro  
Johannes Britz  
Theo Bothma  
Coetzee Bester

## **Tribute**

Enoch Nhlapo Mokwining  
1968-2009



The late Mr Enoch Nhlapo Mokwining, Deputy Director-General of the Department of Communications of the Government South Africa, was the champion not only of this project, but on a wider scale also of the Presidential National Commission on Information Society and Development (PNC on ISAD). The purpose of the Commission is to establish South Africa as an advanced information-based society in which information and ICT tools are key drivers of economic and societal development.

The tragic death of Mr Mokwining, and that of four of his children, has left an enormous void in the lives of his family, friends and colleagues. His enthusiasm, energy and dedication towards building an inclusive information society will be remembered with gratitude.

## **Part I:**

# **African Information Ethics**



## Information ethics for and from Africa\*

Rafael Capurro

*This chapter deals in the first part with some initiatives concerning the role of information ethics for Africa, such as NEPAD, UN ICT and AISI, particularly since the World Summit on the Information Society was held. Information ethics from Africa is a young academic field and not much has been published so far on the impact of ICT on African societies and cultures from a philosophical perspective. The second part of the chapter analyses some recent research on this matter, particularly with regard to the concept of ubuntu. Finally, the chapter addresses some issues of the African Conference on Information Ethics held in Pretoria on 3–5 February 2007.*

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## Introduction

This chapter deals first with some initiatives concerning the role of information ethics *for* Africa, such as the New Partnership for Africa's Development (NEPAD), the United Nations Information and Communication Technologies (UN ICT) Task Force and the African Information Society Initiative (AISI), particularly since the World Summit on the Information Society (WSIS) was held in Geneva in 2003, and in Tunis in 2005. Information ethics *from* Africa is a young academic field. Not much has been published so far on the impact of information and communication technology (ICT) on African societies and cultures from a philosophical perspective. The second part of the chapter analyses some recent research on this matter, particularly with regard to the concept of *ubuntu*. Finally, it addresses the issues and outcome of the African Conference on Information Ethics held in Pretoria on 3–5 February 2007.

The theme of this conference, “The joy of sharing knowledge”, echoes the core ideas of WSIS, as stated in the Geneva Declaration of Principles (WSIS, 2003), as well as becoming a part of the Tunis Agenda for the Information Society. The statement of the Geneva Declaration concerning the “Ethical Dimensions of the Information Society” reads as follows:

*56. The Information Society should respect peace and uphold the fundamental values of freedom, equality, solidarity, tolerance, shared responsibility, and respect for nature.*

*57. We acknowledge the importance of ethics for the Information Society, which should foster justice, and the dignity and worth of the human person. The widest possible protection should be accorded to the family and to enable it to play its crucial role in society.*

*58. The use of ICTs and content creation should respect the human rights and fundamental freedoms of others, including personal privacy, and the right to freedom of thought, conscience, and religion in conformity with relevant international instruments.*

*59. All actors in the Information Society should take appropriate actions and preventive measures, as determined by law, against abusive uses of ICTs, such as illegal and other acts motivated by racism, racial discrimination, xenophobia, and related*

*intolerance, hatred, violence, all forms of child abuse, including paedophilia and child pornography, and trafficking in, and exploitation of, human beings.*

The participants of the World Summit in Tunis shared the Geneva vision (WSIS, 2005):

*2. We reaffirm our desire and commitment to build a people-centred, inclusive and development-oriented Information Society, premised on the purposes and principles of the Charter of the United Nations, international law and multilateralism, and respecting fully and upholding the Universal Declaration of Human Rights, so that people everywhere can create, access, utilize and share information and knowledge, to achieve their full potential and to attain the internationally agreed development goals and objectives, including the Millennium Development Goals.*

Former President of South Africa, Thabo Mbeki, reaffirmed this commitment from an African perspective in his statement to the second phase of the World Summit on 16 November 2005:

*Our country and continent are determined to do everything possible to achieve their renewal and development, defeating the twin scourges of poverty and underdevelopment. In this regard, we have fully recognized the critical importance of modern ICTs as a powerful ally we have to mobilize, as reflected both in our national initiatives and the priority programmes of NEPAD, the New Partnership for Africa's Development.*

*We are therefore determined to do everything we can to implement the outcomes of this World Summit on the Information Society and appeal to all stakeholders similarly to commit themselves to take action to translate the shared vision of an inclusive development-oriented information society into a practical reality.*

The idea of this conference emerged in October 2004 during the international symposium on “Localizing the Internet: Ethical issues in intercultural perspective” held in Karlsruhe, Germany, organised by the International Centre for Information Ethics and sponsored by Volkswagen Foundation. All the leading international experts in the field of information ethics were invited to participate. It was the first of its kind, dealing with information ethics from an intercultural perspective. Themes discussed included issues such as the Internet's impact on social,

political, cultural and economic development, addressing particularly questions related to privacy, access to information, intellectual property rights, quality of information, security, advanced capitalism and the digital divide.

All participants were aware of the intercultural challenge of such a meeting, at which some 50 scientists from all over the world participated. During the symposium it became clear that the African continent was not at all well represented. There was one representative from South Africa, namely Johannes Britz, who happened to be one of the initiators of the conference on "African information ethics in the context of the global information society", as well as Willy Jackson from Cameroon and Issiaka Mandé from Burkina Faso, although the latter two both live in Paris. There were, of course, many reasons why more African scholars were not present. Some were unknown to other international scholars, and the lack of funding to attend international events was, and still is, a serious stumbling block to participation.

The participants of the ICIE symposia were well aware of the urgent need to research thoroughly the ethical challenges that the introduction of ICT poses to the African continent. These include the problem of development, particularly the eradication of poverty, the protection and promotion of indigenous knowledge, the archiving of African websites, and especially rights to communicate and to access knowledge in a digital environment so that Africans can become part of the emerging knowledge economy. We can summarise these issues under the label "information ethics for and from Africa".

### Information ethics for Africa

At the celebratory opening of NEPAD's offices at the South African Council for Scientific and Industrial Research, CSIR President and CEO, Dr Sibusiso Sibisi emphasised the unwavering commitment to the work done by NEPAD. Dr Ivy Matsepe-Casaburri, Minister of Communications of South Africa said on this occasion:

*In this era of the Information Society, ICTs are regarded as tools for development. It is incumbent on us to commit ourselves to use these tools to create a better life and a more humane world [...] I have faith in NEPAD because it is a home-grown,*

*ambitious but realisable project of the African Union. Gone are the days when people solved our problems for us and not with us.*

The Presidential National Commission on Information Society and Development has made major contributions to attain this goal in South Africa. It explicitly adheres to the WSIS vision of an information society as one:

*... where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving the quality of lives.*

Another important promoter of a humane information society is the South African NGO Network (SANGONeT), founded as Worknet in 1987 and devoted to involving civil society in the ICT process.

Since WSIS, African societies have been keenly aware that sustainable socioeconomic development requires appropriate ICTs. This awareness was already evident at AISI, launched in 1996 and coordinated by the United Nations Economic Commission for Africa (UNECA). Its goal is to create a pan-African ICT network that gives Africans the means to improve their quality of life and to fight against poverty. AISI's focus areas aim at promoting sectoral applications of ICT for eradicating poverty and improving quality of life. This implies the following:

- *E-strategies*: Information and communication infrastructure at national, sectoral, village and regional level, and the Scan-ICT programme
- *Information and knowledge*: Indigenous capacity to aggregate and disseminate information
- *Outreach and communication*: Involves all societal actors

AISI has already achieved some of these goals. It provided support to 28 African countries to develop their own national ICT infrastructure. There are periodic consultations, starting with the Global Connectivity for Africa (CGA) conference in Addis Ababa in 1998, and the evaluation of ICT impact (Scan-ICT). AISI organised a media training workshop at Addis Ababa, as well as a forum on "ICTs, trade and economic growth" in Addis Ababa in 2006. Workshops on regional information and communication infrastructure have taken place in Dar es Salaam, Kigali, Nairobi and Tangiers since 2004.

In a report published by the UN ICT Task Force, His Excellency Kofi A. Annan, former Secretary-General of the UN, stated in his contribution, "Communication technologies: A priority for Africa's development" (Annan, 2003:xvii):

*Clearly, if we are to succeed, the process must engage all stakeholders: donors, the private sector, civil society organizations, governments, and especially those in the developing world itself.*

In their contribution to this report, Emmanuel OleKambainei, Chief Executive and Programme Director for the African Connection Centre for Strategic Planning, and Mavis Ampah Sintim-Misa, former CEO of this centre, wrote:

*There is a need to promote general ICT diffusion and raise awareness and appreciation as well as e-literacy among our populations, especially children and youth. This should be coupled with efforts to demystify and de-demonise ICT for people to accept it as an everyday tool and not an end in itself. [...] This can be done by targeting and ensuring that basic education and literacy change from the traditional "3Rs" (reading, writing and arithmetic) to a higher standard that can be referred to as "LNCI" or Literacy – reading and writing, Numeracy – working with numbers, Communicacy – communicating effectively, Innovativeness/Initiative. Success in this [...] will give Africa's education, human resource development, as well as research and development the ability to "cheetah pole-vault" so as to catch up with the rest of the global community.*

Indeed, Africa needs a "cheetah pole-vault" ICT strategy and not just a leap-frog one. Joseph O. Okpaku, President and CEO of Telecom Africa Corporation, writes as follows in the introduction (Okpaku, 2003a:11):

*To a large extent, wealth has a vertical structure in African society, with most families consisting of the entire range, from the well-off to the most needy. The structure of family obligations in traditional Africa makes the pursuit of the collective advancement of the entire community a norm. The disruption of this model, through "modernization", has been a threat to reaping the benefits of this tradition for contemporary African development.*

Okpaku (2003a:13) offers a vision of a society in which everyone has a central role to play. This vision corresponds to the original structure of

African society based on the pre-eminence of the "extended family and its mutuality of care, concern and support". In other words, Africa's scholars and politicians must retrieve their own social traditions in order to create a humane and authentic African information society. Some first steps have already been taken. The Africa preparatory conference for WSIS in Tunis, which took place in Accra in 2005, specified that the goal of the African information society community must include all stakeholders (Accra, 2005):

*Building the information and shared knowledge society will contribute to achieving the Millennium Development Goals to improve quality of life and eradicate poverty by creating opportunities to access, utilize and share information and knowledge.*

In February 2005, the African Internet Service Provider's Association envisaged the following actions (AfrISPA, 2005):

*Given that Africa is the most unwired continent in the world, and yet is part of the Information Society, action should be taken [...]:*

- A regional multi-stakeholder coordination body be mandated to coordinate and ensure collaboration among the numerous existing projects in Africa under the New Partnership for Africa's Development (NEPAD);
- Regulators adopt an open and transparent licensing and regulatory regime that propels the access to and building of ICT infrastructure;
- The private sector participates in the technological dynamics of the development and also provides hard investment;
- Civil society creates interest in consumers to demand and ensure service delivery quality and return for money.

*Donors support this development by providing and facilitating access to soft financing and expertise where necessary for PASSIVE infrastructure.*

- Finally, that all the stakeholders above subscribe to the horizontal layering of the communication system in the manner of physical layer (infrastructure), followed by the logical layer, applications layer, content layer, etc.

A recent study on "Ethics and the Internet in West Africa", based on field surveys of five nations in West Africa (two Anglophone: The Gambia and Ghana, and three Francophone:

Burkina Faso, Côte d'Ivoire and Senegal), raises key ethical issues that, once identified, should ensure the adaptation of Internet technology and its integration into the development of African nations (Brunet et al., 2004). According to the authors, certain technologies, such as the cellular phone, might be more readily and efficiently developed in Africa and can contribute, for example, to the dissemination of medical information and to South-South cooperation. In order to avoid the digital gap within African societies, African governments could democratise telecommunication to ensure access for the most disadvantaged people. But, as the authors emphasise, the Internet is no panacea. Their work shows why information ethics matters politically, socially and academically. It matters not only for Africa, but also from it.

### Information ethics from Africa

Information ethics in Africa is a young academic field. Not much has been published on the role that African philosophy can play in thinking about the challenges arising from the impact of ICT on African societies and cultures. Most research on ICT from an ethical perspective takes its departure from Western philosophy. Some recent works on African philosophy that are relevant in a negative or positive sense are subsequently reviewed very briefly below.

African oral and written traditions of philosophy have a long and rich past, going back as far as 3000 BC, with the Egyptian Maat philosophy of ancient Egypt; the Afro-Hellenic tradition of Greek and Roman antiquity; the early Middle Ages (Amasis, Apuleius, Augustine, Euclid, Philon, Plotinus, Tertullian); the Afro-Islamic tradition (Al-Farabi, Averroes, Ibn Battuta); the colonial break with contributions in the Amharic language (Amo, Hannibal, WaldaHawat, Zara Yoqob); the anticolonial philosophy (Césaire, DuBois, Garvey, Senghor); the ethno-philosophy of the 1970s (Kagame, Mbiti); Afrosocialism (Nkruma, Nyerere); universalistic theories (Houtondji, Towa, Wiredu) and contemporary representatives of different schools, such as hermeneutics (Kinyongo, Ntumba, Okere, Okonda, Serequeberhan), sage philosophy (Kaphagawani, Masolo, Oruka, Sogolo) and feminism (Boni, Eboh, Ngoyi, Oluwole), to mention just a few names and schools. These traditions were recently analysed by Jacob Mabe in his book on

oral and written forms of philosophical thinking in Africa (Mabe, 2005:276–278; Ruch & Anyanwu, 1981; Neugebauer, 1989; Serequeberhan, 1996). He also edited the first comprehensive lexicon on Africa in German (Mabe, 2001; 2004), with more than 1 000 keywords including “media” and “Internet” (Tambwe, 2001; 2004).

The Department of Philosophy at the University of South Africa has published a comprehensive reader, *Philosophy from Africa*, edited by Pieter Coetzee and Abraham Roux (Coetzee & Roux, 2002). Of the 37 contributors, 33 are Africans speaking for themselves on the topical issues of decolonisation, Afrocentrism in conflict with Eurocentrism, the struggle for cultural freedoms in Africa, the historic role of black consciousness in the struggle for liberation, restitution and reconciliation in the context of Africa's post-colonial situation (Eze, 1997), justice for Africa in the context of globalisation, the pressures on the tradition of philosophy in Africa engendered by the challenges of modernity, the reconstitution of the African self in relation to a changing community, the African epistemological paradigm in conflict with the Western paradigm, and continuity of religion and metaphysics in African thought. The second edition contains themes on gender, race and Africa's place in the global context. Although the book addresses a broad variety of themes, there is no contribution dealing specifically with ICTs from an ethical or even philosophical perspective, although Paulin Houtondji addresses the problem of “Producing knowledge in Africa today” (Houtondji, 2002). The terms “information” and “communication” are absent, not even listed in the index.

Is there a specific African philosophic and ethical perspective with roots in the African languages, social experiences and values as analysed, for instance, by Mbiti (1969), Gyekye (1996), Nkulu (1997), Mlilo & Soédé (2003) and Bidima (2004)? Yes, there is, if we follow Mogobe Ramose's contribution to this reader, bearing the title “Globalisation and *ubuntu*” (Ramose, 2002), but also, for instance, Kwasi Wiredu's contribution on “Conceptual decolonisation in African culture” through an analysis of African languages and terminology (Wiredu, 1995; Weidtmann, 1998).

I am not making a plea for ethno-philosophy, as criticised for instance by Houtondji (1993), but for a dialogue between both cultures and languages,

and between global and local, as envisaged in the 2004 symposium of the International Centre for Information Ethics (ICIE) (Capurro et al., 2007). My position is related to Wiredu & Oladipo's interpretation as a "third way in African philosophy" (Oladipo, 2002), as well as to Oruka's "sage philosophy" (Oruka, 1990). My view aims at a critical analysis of the oral and/or written African traditions, as analysed for instance by Anthony Appiah in his article for *Routledge Encyclopedia of Philosophy* (Appiah, 1998).

I explicitly acknowledge modern reason, without assuming that its manifestations are inviolable, particularly when they serve the purposes of colonisation. I locate ethical discourse between the particular and the universal. My aim, following the Kantian tradition, is universality, but I am aware, with Aristotle, that moral and political utterances are contingent, subject to different interpretations and applications based on economic interests and power structures. They are also objects of a critical analysis that envisages the good and seeks a humane world free from the dogmatic fixations of norms that merely reflect, implicitly or explicitly, particular points of view. In other words, ethics reflects on the permanent flow of human life and its modes of empirical regulation that make possible, on the basis of mutual respect, manifestations of humanity in unique and multiple forms. We are all equal, and we are all different.

According to Ramose (2002:643), *ubuntu* is "the central concept of social and political organization in African philosophy, particularly among the Bantu-speaking peoples. It consists of the principles of sharing and caring for one another". He discusses two aphorisms "to be found in almost all indigenous African languages", namely *Motho ke motho ka batho* and *Feta kgomo tschware motho*. The first aphorism means that "to be human is to affirm one's humanity by recognizing the humanity of others and, on that basis, establish humane respectful relations with them. Accordingly, it is *ubuntu* which constitutes the core meaning of the aphorism". The second aphorism means that "if and when one is faced with a decisive choice between wealth and the preservation of life of another human being, then one should opt for the preservation of life" (Ramose, 2002:644).

Following this analysis we can ask: What is the role of *ubuntu* in African information ethics?

How is the intertwining of ICT with the principles of communalism and humanity expressed in aphorisms such as *Motho ke motho ka batho*, which can be translated as "people are people because of other people"? What is the relationship between community and privacy in African information society? What kind of questions do African people ask about the effects of ICT in their everyday lives?

One of the few detailed analyses of the relationship between *ubuntu* and information ethics, or more precisely, between *ubuntu* and privacy, was presented by H.N. Olinger, Johannes Britz and M.S. Olivier at the Sixth International Conference on "Computer Ethics: Philosophical Enquiry" (CEPE, 2005). They write as follows (Olinger et al., 2005:292):

*The African worldview driving much of African values and social thinking is "Ubuntu" (Broodryk, 2002). The Ubuntu worldview has been recognized as the primary reason that South Africa has managed to successfully transfer power from a white minority government to a majority-rule government without bloodshed (Murithi, 2000). The South African government will attempt to draft a Data Privacy Bill and strike an appropriate balance within the context of African values and an African worldview.*

According to these authors (Olinger et al., 2005: 296), *ubuntu* ethical principles have been applied in South Africa in the following areas:

- Politics (the African Renaissance)
- Business (through collective learning, teamwork, sustainability, a focus on local community and an alternative to extractive capitalism)
- Corporate governance (through the attitudes of fairness, collectiveness and humility)
- Restorative justice (through the use of dialogue, collective restitution and healing)
- Conflict resolution and reconciliation (through the *ubuntu* ethos of the Truth and Reconciliation Commission).

The authors emphasise the specificity of the *ubuntu* worldview as a community-based mindset, as opposed to Western libertarianism and individualism, but close to communitarianism. The Nigerian philosopher, Simeon Onyewueke Eboh, has written a profound study on African communalism (Eboh, 2004). Olinger et al. (2005) remark critically that the population of southern

Africa has to rediscover *ubuntu*, because many have not experienced it and also because many live in two different cultures, practising *ubuntu* in the rural environments and Western values in the urban environments. If this is the case, not only in South Africa but also in other African countries, then there is a great deal of theoretical and practical work to be done!

The authors translate the aphorism *Umuntu ungumuntu ngabanye abantu* (in the Nguni languages of IsiZulu and IsiXhosa) as “a person is a person through other persons” (Olinger et al., 2005:293). According to Broodryk (2002), *ubuntu* is an African worldview “based on values of intense humanness, caring, respect, compassion and associated values ensuring a happy and qualitative human community life in a spirit of family”. This means that personal privacy – being a key ethical value in Western countries – might be considered less important from an *ubuntu*-based perspective, even if we accept that there are several conceptions of privacy in both the West and the East (Ess, 2005; Capurro, 2005).

In a comparative study of ethical theories in different cultures, Michael Brannigan addresses African ethics with the utterance “to be is to belong” (Brannigan, 2005). An analysis of this thesis could lead to a foundation of African information ethics based not on the abstract or metaphysical concept of Being of some classical Western ethical theories, but on the experience of Being as communal existence. The task of such an analysis would be to recognise the uniqueness of African perspectives, as well as commonalities with other cultures and their theoretical expressions. This analysis could lead to an interpretation of ICT in an African horizon and, correspondingly, to possible vistas for information policy makers, responsible community leaders and, of course, for African institutions.

Johannes Britz chaired a session on ICT in Africa at the symposium on “Ethics and electronic information in the twenty-first century (EE21)” held at the University of Memphis (Mendina & Britz, 2004). He said that an important condition for Africa’s finding a place in the 21st century is a well-developed and maintained ICT infrastructure. Both Britz and Peter Johan Lor, former Chief Executive of the National Library of South Africa, think that the present North-South flow of information should be complemented by a South-North flow in order to enhance mutual under-

standing. They appeal for a shift towards the recognition of the “local” within the “global”, following the idea of “thinking locally and acting globally”. In ethical terms, this means having respect for different local cultures and strengthening their active participation in intercultural dialogue (Lor & Britz, 2004:18).

Although Africa is still far from a true knowledge society, there is hope of success on certain fronts, such as investment in human capital, stemming the flight of intellectual expertise, and the effective development and maintenance of information technology infrastructure (Britz et al., 2006). Dick Kawooya of the Uganda Library Association stresses the ethical dilemma confronting librarians and information professionals in much of sub-Saharan Africa, namely concerns about general literacy, information literacy and access to the Internet on the one hand, and “dwindling budgets” for educational institutions, particularly libraries, on the other (Kawooya, 2004:34). Michael Anyiam-Osigwe, Chief Executive of the Africa Institute for Leadership, Research and Development, stresses the importance of ICT in attaining sustainable democracy in Africa (Anyiam-Osigwe, 2004).

According to Coetzee Bester, a former Member of Parliament in South Africa and co-founder of the Africa Institute for Leadership, Research and Development, the problem of ICT in Africa includes all stakeholders. He writes as follows (Bester, 2004:12):

*A program to reconstruct communities as holistic entities is necessary. This should include leadership, followers, agreed-upon principles and values, as well as effective interaction among all these elements.*

A value-based reorientation would imply personal awareness, an understanding of information, effective interactions between leaders and their communities without limitations of time and space, and mutual confidence in representative leadership.

In the already mentioned study on “Ethics and the Internet in West Africa” (Brunet et al., 2004), the authors identify six types of ethical issues related to the development of the Internet in Africa, but which are also relevant for other countries, namely:

- Exclusion and inequity

- Culture (Internet content)
- Internet costs and financing
- Sociotechnical aspects of Internet integration (resistance, uses)
- Political power
- Economic organisation

There is no such thing as morally neutral technology. This is not just to say that technologies can be used and misused, but also to express the deeper insight that all technologies create new ways of being. They influence our relationships with one another; they shape, in a more or less radical way, our institutions, our economies and our moral values. This is why we should focus on information technology primarily from an ethical perspective. It is up to the African people and their leaders to question how to transform their lives by these technologies. African educational and research institutions should also reflect critically on these issues.

As Bob Jolliffe, Senior Lecturer in Computer Science at the University of South Africa, has pointed out, there is an implicit connection between free software, free culture, free science, open access, and the South African Freedom Charter (Jolliffe, 2006). A major task of information ethics in South Africa, as well as in other African countries, is to align such ideals with concrete social, political, economic and technical processes. ICT in Africa should become a major contribution to opening “the doors of learning and culture”, to use the wording of the Freedom Charter. The space of knowledge as a space of freedom is not, as Jolliffe rightly remarks, an abstract ideal. It has a history that limits its possibilities. It is a space of rules and traditions of specific societies, in dialogue with their foundational myths and utopian aspirations. We are morally responsible not only for our deeds, but also for our dreams. Information ethics offers an open space to retrieve and debate these information and communication myths and utopias.

The main moral responsibility of African academics is to enrich African identities by retrieving and recreating African information and communication traditions. From this perspective, cultural memory is an ethical task if we want to create a humane community based not only on the number of people, but also on the relations between them, as the German Egyptologist Jan Assmann remarks following Friedrich Nietzsche in his *Genealogy of Morals* (Assmann, 2000;

Nietzsche 1999b:294–300). Cultural memory must be reshaped again and again to build the core of a humane society. This means no more and no less than basing morality on memory and communication, thereby establishing information ethics at its core. The function of cultural memory is not just to express what belongs to the *collective* memory of a community, but also to engage the will of its members to connect themselves through the task of creating it. Cultural memory is *connective*. It is related to our myths and to our dreams. We remember Nietzsche’s (1991a:117) ambiguous warning: “You want to be responsible for everything! But not for your dreams!” I call this warning “ambiguous” because Nietzsche, like Sigmund Freud, was well aware of the limits of the human will and our tendency to repress or forget what we consider painful. In antiquity, the Egyptian god Thot was a symbol of cultural memory as a social task. He was the god of wisdom and writing, as well as the messenger of the gods, particularly of the sun god Re, and was associated with the goddess Maat, the personification of justice. Thot, the Greek Hermes, was represented as an ibis- (or a baboon-) headed man with a reed pen and a palette, known in the Western tradition through Plato’s criticism of writing in his *Phaedrus*.

I think that retrieving the African cultural memory with regard to information and communication norms and traditions is the main information challenge for African information ethics. It should recognise the different strategies of social inclusion and exclusion in the history of African societies, including traumatic experiences such as slavery and apartheid. Since the emergence of the Internet, this challenge is discussed under the heading of “the digital divide”. But African information ethics implies much more than just the access and use of this medium. The problem is not a technical one, but one of social exclusion, manipulation and exploitation of human beings. It is vital that thought about African information ethics be conducted from this broader perspective.

## Prospects

The final goal of ethics is not only to speak about the good, but also to do the good and to dream about it. We owe this insight about the relationship between ethical thinking and action to Aristotle, the founder of ethics as a scientific discipline in Western tradition. Our 2007 conference



has brought together scientists and politicians to discuss what could, and should, be thought and done to create a good African information society. This conference is unique in several respects. First, it deals with information ethics in Africa from an African perspective. Second, it encourages African scholars to articulate the challenges of a genuine African information society. Third, the conference is devoted to fundamental ethical challenges as listed in its programme:

*Topic 1: Foundations of African information ethics*

- *Respect for human dignity: information-based rights*
- *Freedom of expression*
- *Freedom of access to information*
- *Information wrongdoings, information corruption and information injustice*

*Topic 2: Cultural diversity and globalisation*

- *Protection and promotion of indigenous knowledge*
- *Global security, human security, privacy and transparency*
- *E-government and related topics*
- *Cultural diversity and development*

*Topic 3: Development, poverty and ICT*

- *Using ICT for a better life in Africa: Case studies*
- *Internet and exclusion (sociopolitical and economic exclusion)*
- *North-South flow of information and information imperialism*
- *Flight of intellectual expertise from Africa*

The outcome expected of the conference can be summarised as follows:

- To agree on the Tshwane Declaration on Information Ethics in Africa.
- To establish the African Network for Information Ethics (ANIE). ANIE will cooperate with international partners, such as the International Centre for Information Ethics (ICIE), the International Society for Ethics and Information Technology (INSEIT) and the University of Wisconsin-Milwaukee. ANIE will be housed at the School of Information Technology, Department of Information Science at the University of Pretoria. It will act as a platform for exchanging information about African teaching and research in the field of information ethics. It will provide the opportunity for scholars around the world who have a shared interest in African information ethics to meet each other and to exchange ideas. It

will provide news on ongoing activities by different kinds of organisations involved in African information ethics and related areas.

- To establish the Information Society and Development Advisory Council to advise the South African government and other stakeholders on ethical issues pertaining to the development of an African information society.
- To publish a reader on African information ethics that can be used as a textbook for students and scholars. It will contribute to the development of a distinct field of African information ethics.
- To ensure that African scholars in this field are part of the international scholarly community. This outcome will be achieved by the creation of a virtual research network linking disparate scholars. It will be coordinated and maintained by the African Centre for Information Ethics.
- To initiate research projects with a focus on grant proposals. During the conference, scholars and practitioners from around the world have the opportunity to meet in smaller groups to discuss and identify possible research opportunities in the field of African information ethics. It is envisioned that foundations, such as the Gates and Ford Foundations, will be approached for funding. The focus of the research will specifically be on the practical implications of the ethical challenges associated with the use of information and knowledge sharing in Africa.
- To establish a Summer School on Information Ethics that will be hosted at the School of Information Studies at the University of Wisconsin-Milwaukee. The main purpose of such a school will be to train African practitioners and scholars on relevant issues pertaining to African information ethics.
- To publish the proceedings of the conference in the *International Review of Information Ethics* (IRIE).

There is a short and a long history of information ethics in Africa. The second part of this chapter has pointed briefly to the short one. The long history concerns Africa's rich oral and written traditions throughout many centuries about different kinds of information and communication practices, using different moral codes and media based on the dynamic and complex processes of cultural hybridisation. Critical reflection on this history promotes greater aware-

ness of Africa's cultural legacy, which provides the foundations for the digital ICTs that will create unique and genuinely African information societies. An information ethics opens a space of critical reflection for all stakeholders on established moral norms and values; it provides the catalyst for a social process and is a space for retrieving the rich African cultural memory necessary to our field. This cultural memory permits the reshaping of African identities and contributes to the world's information and communication cultures.

Let us start this fascinating debate on information ethics for, and from, Africa with a well-known insight of Sir William Arthur Lewis: "The fundamental cure for poverty is not money but knowledge". ICT can certainly contribute to the goal of sharing knowledge in Africa. Let us think together about how to share knowledge using ICT in Africa for the sake of African people. I am convinced that the best way to do it is in a mood of joy. By this I mean the kind of joy that is uniquely African. The South African Coat of Arms, written in the Khoisan language of the /Xam, has a wonderful phrase in its motto:

*!ke e: /xarra //ke*

The /Xam did not use abstract words, such as "unity" or "diversity". The motto can be translated as "diverse people unite" (Smith, 2006). It addresses each individual effort to harness the unity between thought and action in, and for, an African community. Today, the /Xam language that once was spoken in a large part of Western South Africa no longer exists. Fortunately, it was recorded by a German linguist, Dr Wilhelm Heinrich Immanuel Bleek, born in Berlin in 1827. Dr Bleek wrote the famous *Comparative Grammar of South African Languages* published in London in 1862 and 1869. By appointment of Sir George Grey, Governor of the Cape, Dr Bleek was elected as curator of the South African Public Library in 1862. He occupied this position until his death in 1875. Thanks to him, the /Xam language survived in 12 000 pages taken down word-for-word from some of its last speakers, who gave us the gift of their myths, beliefs and rituals. Let us follow the example of Dr Bleek by retrieving, saving and reshaping the rich African cultural memory so necessary to our field.

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## **The joy of sharing knowledge: But what if there is no knowledge to share? A critical reflection on human capacity building in Africa\***

Johannes J. Britz

*This chapter focuses on the current trends and initiatives in human capacity building in Africa. It takes as its starting point that human capacity development is essential for Africa to become an information and knowledge society and therefore an equal partner in the global sharing of knowledge. Four knowledge areas are identified and discussed: education, research and development, brain drain, and information and documentation drain. The author concludes that there is a clear understanding in Africa that its future lies with education and that most African leaders have a strong political will to invest in human capacity building on the continent. It is also clear that much has been done, particularly with regard to primary education. Africa will most definitely benefit from this in the long run. Problem areas remain, however. These are the needed growth of research and development, and the way in which to address the brain and information drain phenomena.*

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\* Part of this research is based on a doctoral thesis by the author in 2006.

## From Karlsruhe to Pretoria: The eye of the (knowledge) hippo

In October 2004, an international symposium on information ethics was held in Karlsruhe, Germany. It was organised by the International Centre for Information Ethics (ICIE) and sponsored by the Volkswagen Foundation in Germany. Leading international experts in the field of information ethics were invited to participate and it was a first of its kind in the world. The symposium focused on the new and challenging ethical question raised by modern information and communication technologies (ICTs) within the paradigm of globalisation and knowledge economies. The themes discussed included issues such as privacy, access to information, intellectual property rights, quality of information, security, spamming, advanced capitalism and the digital divide, which included the question of the information rich versus the information poor (ICIE, n.d.).

It became clear to all present that the African continent was not well represented at the symposium. There were only a few Africans in attendance, most of them expatriates. There were, of course, many reasons why the African scholars were not present. Some of the reasons relate to the mere fact that the scholars are unknown to other international scholars. Lack of funding to attend international events is also a stumbling block and last, but not least, not much research has been done on the African continent on this very important topic. It seems, in terms of scholarly publications, that African scholars did not have much to offer to their global counterparts on the ethical challenges facing Africa in the era of globalisation. Rafael Capurro did a search on publications related to African information ethics by African scholars and came across a limited number of publications (ANIE, n.d.).

There is therefore an urgent need to integrate leading African scholars into the international ethics debate on the impact of new ICTs in Africa. This led to the organisation of the first ever African Information Ethics conference, held in February 2007. The event took place in Pretoria, South Africa, and was attended by scholars from more than 21 countries, most of them from Africa. The theme of the conference was very appropriate: "The joy of sharing

knowledge". The lack of contribution by African scholars to the debate on information ethics presents, figuratively speaking, only the eye of the hippo, as it is symptomatic of a larger "knowledge problem" facing the African continent.

To a large degree, as will be argued in the rest of this chapter, Africa is knowledge poor, as most of its knowledge wealth is still imbedded in its people. It is not made explicit; neither is it shared with the rest of the world. The following two examples will illustrate this point. Only 1% of the global scholarly publications originate from Africa – most of these are from South Africa. Also, roughly 60% of all adults living in Africa are still illiterate. This makes Africa, in terms of its own development, vulnerable and dependent. According to the African Union (AU), Africa in many respects still lacks the intellectual capacity to address its own problems in a scientific manner (CfA, 2005).

Related to this question is the mere fact that if Africa does not invest more in education, and specifically in relevant research and development (R&D) activities, the continent will not only fall further behind economically, but also run the risk of being excluded from the global innovation networks. Nearly ten years ago, the Rector of the UN University, Hans van Ginkel, commented that if Africa does not invest heavily in its own knowledge sector, it will remain in a dangerously dependent position (UNU, 1998).

Human capacity building therefore needs to be a top priority of any agenda dealing with Africa's road to becoming an information and knowledge society. It is evident that most of the political leaders on the continent share this view. This explains why the AU explicitly stated that one of its highest priorities is to make Africa part of the global information and knowledge society (NEPAD, 2004).

The obvious reason is that knowledge forms the cornerstone of an information and knowledge society – not only the use thereof, but more so the ability to produce and export it. Knowledge is the main facilitator of growth and economic development that allows people on the African continent to reach their full potential and achieve their human wellbeing. Even though there is no lack of political will in Africa, the question still remains: How much does Africa invest in its

people, not only to ensure growth and prosperity, but also to enable them to become an equal partner in sharing the global body of knowledge?

### From primary education to research and development: The size of the (knowledge) hippo in Africa

The rest of the chapter will attempt to answer the question above. The argument is built around the different “knowledge initiatives” on the continent focused on addressing the challenges associated with human capacity building, namely:

- Education
- Research and development (R&D)
- Brain drain
- Information and document drain

#### Education

Sheer numbers and statistics make a compelling argument that some African countries are making good and steady progress in their primary and secondary educational sectors. Two relevant statistics in support of this argument are highlighted below.

Based on an analysis of OECD countries, more than 90% of primary school children are actually attending school in Africa (OECD, 2006). In comparison with most developed countries, a number of African countries, for example Kenya, Lesotho and South Africa, allocate more or less the same percentage of their gross domestic product (GDP) towards education (Table 1).

Some African countries, including Mozambique and Zambia, still fall far behind in terms of allocation of money to primary education. It is also important to bear in mind that although the percentage allocated to education might be equivalent to that of developed nations, the dollar amount is significantly lower.

These statistics are supported by a strong political will in Africa to invest in its people and in education. It is important to quote Thabo Mbeki, former president of South Africa, which is seen to be the most powerful nation in Africa:

*If the next century is going to be characterized as a truly African century, for social and economic progress of the African people, the century of durable*

Country	Population (mil.)	% GDP for education	Total GDP (\$ billion)
Australia	8	4.8	522
Botswana	1.6	2.1	18.72
Finland	5	6.3	161.9
Ivory Coast	17	4.6	13.7
Kenya	34	6.2	14.4
Korea	48	4.9	605.3
Lesotho	1.8	10	1.362
Mozambique	19.4	2.4	6.43
Namibia	2.03	7.9	15.14
Niger	14	2.3	3.43
South Africa	45	5.7	159.9
Tanzania	36.5	2.1	12.12
Ukraine	48.5	4.2	49.5
UK	60	4.8	1 795
United States	300	5.7	10 949
Zambia	11.2	1.9	5.351

**Table 1:** Comparative statistics on the allocation of GDP towards education (Source: National Geographic, n.d.)

*peace and sustained development in Africa, then the success of this project is dependent on the success of our education systems. For nowhere in the world has development been attained without universal and sound primary education, without an effective higher education and research sector, without equality of educational opportunity.*

This quotation (Butcher, 2003) was taken from Mr Mbeki’s opening address at the “Conference on education for African Renaissance in the twenty-first century”. Much of this sentiment is reflected in the priorities set by the New Partnership for Africa’s Development (NEPAD) in 2005. NEPAD is a vision and strategic framework for Africa’s renewal. The NEPAD strategic framework document was developed from a mandate the AU gave to the five initiating heads of state (Algeria, Egypt, Nigeria, Senegal and South Africa) to develop an integrated socioeconomic development framework for Africa (NEPAD, 2005a). Human development, in particular education, is one of NEPAD’s top ten priorities (NEPAD, 2004).

As part of its human capacity development strategy, NEPAD has also launched an e-school initiative focusing on teaching both school children and teachers ICT skills (CfA, 2005). Some African countries have also put their money where their mouth is and have made remarkable progress in primary education. For example:

- Mozambique succeeded in doubling the number of school enrolments over a period of five years (2000–2005).
- Zambia is currently revisiting its current policy of free education up to Grade 7, in order to introduce free education up to Grade 12.
- Kenya introduced free primary education, successfully bringing back 1.2 million children to school.
- Tanzania built more than 1 000 new schools over the past couple of years. In addition, 18 000 new teachers have been recruited (G8 Gleneagles, 2005).

Africa also faces some steep educational challenges. Many African countries simply lack the resources to address their educational needs adequately. According to the NEPAD Secretariat's weekly newsletter, more than 40 million children in Africa are not in school and have never been exposed to any formal education. There is an estimated shortage of 3 million teachers on the continent. Furthermore, Africa has the lowest average school completion rate – it is on average 60% or less. Africa also has the highest number of girls not attending school, namely 23 million (NEPAD, 2005b).

A further example illustrating the education crisis in Africa is the fact that in 2000, Nigeria – the most populous country in Africa and one of the richest in terms of natural resources – only had the capacity to accommodate 12% of qualified candidates for higher education (CfA, 2005; WEF, 2003). Another drawback is the low level of literacy (Britz et al., 2006). In 2005, the average illiteracy rate on the African continent was 35%. A sign of hope is the fact that the average illiteracy rate of people aged 15 to 24 years is substantially lower at 20% (OECD, 2006:581).

### **Research and development**

Although Africa is still facing some serious educational challenges, one can argue that substantial progress is being made, particularly with regard to primary education. Investing in

children's education ensures that the next generation will be able to effectively generate and utilise knowledge that will foster economic growth and development. This leads us to the next important question: Who are the people in Africa that are actively involved in research and knowledge generation? In other words, what is the current status of R&D in Africa; who are the knowledge creators on the continent; and to what extent is Africa able to address and solve its problems by way of locally created knowledge?

It is clear that most African countries value R&D and understand that it is crucial to any economic development. According to a recent study by the Commission for Africa, there are some excellent R&D facilities in Africa. Examples include the South African Council for Scientific and Industrial Research (CSIR), the African Economic Research Consortium (AERC), Biosciences Eastern and Central Africa (BECA), as well as the Community and Individual Development Association (CIDA) City Campus in South Africa (CfA, 2005). Under the leadership of NEPAD, the number of academies of sciences in sub-Saharan Africa have increased to ten (Schneegans & Amelan, 2006).

African political leaders are, however, weary of the fact that not nearly enough money is invested in R&D activities. For example, NEPAD organised a meeting of African Ministers of Science in 2004, where it was agreed that Africa should increase its spending on R&D to at least 1% of GDP in the next decade. Current spending is less than 0.1% (SDN, 2003). This will, at least in terms of percentages, compare more favourably with the European Union's 1.93% of GDP. Japan and the US invest more than 2% of their GDP on R&D. This call for African countries to increase their spending on R&D to at least 1% of GDP by 2010 was reiterated in 2007 at the meeting of the African Ministers of Science and Technology (IISD, 2007).

Alarming, however, is the fact that nearly 60% of all R&D activities in Africa are centred in South Africa. According to the Commission for Africa Report, in the greater Congo basin there is virtually "no science at all" (CfA, 2005).

African political leaders also realised that there is a lack of an indigenous base for science and technology, which hampers the development of Africa. This led to the establishment of the



African Ministerial Council on Science and Technology (AMCOST) in November 2003, under the auspices of NEPAD and the AU. AMCOST is a “high-level platform for developing policies and setting priorities on science, technology and innovation for African development” (IISD, 2007).

The main purpose of AMCOST is to provide political and policy leadership for the implementation of Africa’s Science and Technology Consolidated Plan of Action (CPA), which was decided upon in 2003. The CPA “articulates Africa’s common objectives and commitment to collective actions to develop and use science and technology for the socioeconomic transformation of the continent and its integration into the world economy” (IISD, 2007).

With this initiative, it seems as if Africa is now trying to find answers from within and not relying as much on answers and solutions from abroad to address its unique problems. Finding answers from within also implies that one needs to find the researchers from within. This leads us to the next knowledge challenge facing Africa: the brain drain.

### **The migration of the (knowledge) hippo from Africa: Brain drain**

The economic reality of the brain drain in Africa hits African governments very hard. Based on statistics, as well as initiatives to reverse the trend, it is clear that Africa’s political leaders understand the seriousness of this condition. The migration of well-educated people to the developed world is one of the major stumbling blocks for Africa to become an information and knowledge society. The alarming fact is that the monetary value of the exodus of people from Africa exceeds the value of all the development aid that African countries have received from the developed world (Britz & Lor, 2003).

The World Bank (2002) estimates that more than 70 000 highly qualified African scholars leave the continent on a yearly basis to work abroad, many never to return. It is estimated that Africa spends more than US\$4 billion annually to replace these lost skills. Some African countries have introduced radical measures to retain and/or benefit from Africans in the diaspora. A few of these initiatives are listed below.

- *Intellectual diaspora networks.* More than 40 countries in Africa are part of these networks (Meyer et al., 2001). Their main aim is to maximise the use of expatriates’ skills and knowledge in such a way that they can contribute to the particular country’s development. This initiative is based on the idea that a pool of knowledge must be potentially available without the expatriates having to return permanently to their home countries (Brown et al., 2001).
- *Transfer of Knowledge through Expatriate Networks (TOKTEN).* This programme was initiated by the UNDP. It is closely related to the abovementioned initiative and the main aim is to promote greater use of well-skilled expatriates to train Africans at home. The focus is, however, on short-term service in economic and social development (TOKTEN, 2006).
- *South African Network of Skills Abroad (SANSA).* In South Africa, a similar programme, known as the South African Network of Skills Abroad, has been initiated. The idea is to encourage expatriate South Africans to make their body of knowledge and skills available, so as to continue contributing to South Africa’s development without having to return to the country permanently (NRF, 2002). According to South Africa’s National Research Foundation (NRF), contributions can include activities such as the participation of South African scholars in training or research with South African counterparts abroad; the transmitting of knowledge, information and results of research that are not locally available, as well as the facilitation of business contacts abroad (SANSA, n.d.).
- *Renewing the African University project.* This is yet another initiative to change the threat of African brain drain into an opportunity. The Association of African Universities and the Association of Commonwealth Universities have played a leading role in initiating this project, whose main aim is to enhance higher education in Africa. Renewing the African University is a ten-year partnership programme, with an estimated cost of US\$500 million per annum. The G8 Commission on Africa Report strongly recommends that the international community should support this initiative (Renewing the African University, 2005; CfA, 2005:138).

These initiatives by Africans and others abroad not only to counter the brain drain, but also to change its threat into an opportunity, must certainly be applauded. Their success has, however, not yet been determined and very little data is available on the achievements (be it success or failure) of these projects. The Renewing the African University project is also ambitious and costly, and it is uncertain where the necessary funding will come from to ensure its success.

### **The starving of the (knowledge) hippo in Africa: Information and documentation drain**

A further contributing factor to Africa's inability to share in the joy of sharing knowledge relates to the international trade in information and documentation, referring specifically to the international flow of scientific and scholarly publications. It is a well-known fact that only a small proportion of the world's scholarly and scientific literature that is published in high-ranking journals and indexed in key research tools originates from developing nations. Africa, for example, is responsible for only 1% of the world's scholarly publications (Britz & Lor, 2003; Gibbs, 1995; De Koker, 1995).

Contributing to the lack of African publications are the obstacles that most of these scholars and scientists face when they wish to contribute to the international body of scientific and scholarly knowledge. Based on the findings of an article I published with Peter Lor in 2003, a number of these barriers are summarised below.

Scientific research that is done in African countries is sometimes viewed as of lesser quality or inferior. Apart from this prejudice, it is unfortunately true that some of the research undertaken by African scholars is indeed of poor quality. Factors contributing to this state of affairs include poor training or education, lack of equipment, and a poor command of English and/or French.

Much of the research that is done in Africa therefore ends up being published in the "grey literature". Due to poor bibliographic control, among other things, it can therefore remain inaccessible to the global scientific community. In addition, the number of academic journals in Africa is declining, and academic libraries

around the world are reluctant to subscribe to these journals because they are poorly managed (Rosenberg, 2002:51, 54, 55). Most of these journals are also not indexed in the major indexing databases. This has also led to the perception that these journals are not up to standard and that the content is of a lesser quality.

The fact that local journals from Africa are not always well managed, and in many cases not indexed in prestigious international indexing and abstracting databases, has inclined many African authors not to publish in their local journals (Britz & Lor, 2003:164). This trend poses a serious threat to the survival of African-based journals. Furthermore, many scholars and scientists from Africa choose to publish in high-ranking international journals, because it is more advantageous to their own professional development and careers (Fernandez, 1999:23; Cao & Suttmeier, 2001:968).

The inadequate flow of scientific literature from the developed world to Africa also makes it difficult for African researchers to gain access to the cutting edge of work in their respective fields. One of the main reasons for this inadequate flow is the high costs that are involved. High-quality scientific journals are expensive and most research libraries in Africa cannot afford to subscribe to them.

These factors have led to asymmetric power relationships. To access and use their own scholarly and scientific knowledge, many African scholars and researchers need to access the international indexing and abstracting services. These services are mostly located in developed countries, thereby making scholars in Africa dependent on those countries to access their own scientific knowledge.

Closely related to the above is what Peter Limb has labelled "document drain" (Limb, 2002:52). This refers to the initiatives by some major research libraries in the developed world (mostly the West) to purchase materials published in Africa and other parts of the developing world. These well-resourced libraries include the Library of Congress; the Melville J Herskovits Library of African Studies, Northwestern University, Evanston, Illinois; the Centre for African Studies Library at Leiden University, the Netherlands; and the School of Oriental and African Studies Library, University of London, England (Britz &

Lor, 2003). The implication of this trend is clear – scholars from Africa and other developing countries will find more comprehensive and better preserved collections of their own body of knowledge in these libraries than in their own.

Africans and also the larger international research community are aware of the scale of this problem and some initiatives have been taken to make scientific and scholarly research more accessible to African researchers. Two of these are a local African endeavour, as well as an international project to make healthcare information more accessible.

The local initiative referred to is African Journals OnLine (AJOL), launched in 1998 in an effort to make Africa's own body of scientific and scholarly knowledge more accessible to Africans and to the rest of the world. As a service, AJOL displays the tables of contents of African journals and provides an article delivery service to scholars. This is done free of charge for African scholars. The project is run on Open Source software and is managed from South Africa in partnership with the National Inquiry Service Centre (NISC). It currently covers over 220 titles. The NISC also launched the NiPAD database, which provides access to over 2 million African records in 40 databases, some with full-text links (NISC, 2006).

Health InterNetwork Access to Research Initiative (HINARI), an initiative of the World Health Organisation (WHO), is an international project aiming to make research on healthcare more accessible. Its main focus is the distribution of health information to developing countries, in particular Africa. As a service it provides free, or highly subsidised, access to major journals in biomedicine and related fields to selected non-profit organisations. These include universities, medical libraries, hospitals and government offices in developing countries that meet eligibility criteria based on per capita GDP (HINARI, 2005). African countries such as Ethiopia and Sudan are eligible for free access, but richer nations like South Africa pay a fee based on their GDP (Aronson, 2003).

Six major international journal publishers joined HINARI in 2001: Blackwell, Elsevier Science, John Wiley, Springer Verlag, Wolters Kluwer International Health Science, and Harcourt Worldwide STM Group. More publishers have

joined during the last few years and the number currently stands at 70. The total number of titles available exceeds 2 000 and includes some full-text articles.

## Conclusion

This chapter looked into the current status of the knowledge sector in Africa. It asked the question, "To what extent is Africa able to become an information and knowledge society, thereby being an equal partner in the sharing of global knowledge?" Four knowledge categories were discussed: education, research and development, brain drain, and information and documentation drain. We can arrive at the following broad conclusions:

- There is a clear understanding in Africa that its future lies with education.
- Most African leaders have a strong political will to invest in human capacity building on the continent.
- Much has been done in this regard, particularly with primary education, and Africans will most definitely benefit from the efforts in the long run.
- There seems to be few short or medium-term solutions that will successfully address the lack of local R&D activities in Africa.
- Brain drain is a reality. It must be accepted and the current initiatives to reach out to Africans in diaspora must be supported to ensure success.
- The information and document drain can be partially turned around if enough resources are made available and the distribution cost of information products and services can be substantially reduced.

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# **The feasibility of ICT diffusion among rural African women: A case study of South Africa and Kenya**

Alice K. Wafula-Kwake & Dennis N. Ocholla

*This study explores whether ICT use is feasible in the rural areas of South Africa and Kenya by using largely a survey research method. The survey involved interviewing 400 women aged between 16-60 from both Kenya and South Africa. The multi-stage sampling data was obtained from census household data of four magisterial districts of Umlalazi in South Africa (Amatikulu, Eshowe, Gigindlovu and Mtunzini) and from the subdivisions of the Kaplamai division in the Trans-Nzoia district in Kenya (Kimoson, Makutano, Sinyerere and Sitatunga). The survey results signify that problems of access and exclusion are still predominant. For instance, while a meagre average of 11 (5.4%) of the respondents in South Africa use modern technologies, such as computers and the Internet, more than half of the respondents (115, 57.5%) faced problems ranging from affordability to distance and time. Additionally, there is a marked correlation between, on the one hand, educational level and type of ICTs accessed, and information need and purposes on the other hand. It is observed that ICTs alone are insufficient for significant benefits to emerge. Information ethical challenges are identified and recommendations made.*

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## Introduction

Although definitions as to what exactly information and communication technologies (ICTs) are differ widely, they do bear some similarities. A fairly authoritative definition of ICTs is provided by the European Commission (2001:3), which states that ICTs include:

*... a wide range of services, applications and technologies, using various types of equipment and software, often running over telecommunications networks.*

The EC enumerates such technologies to include:

*... well-known telecommunication services such as telephony, mobile telephony and fax. Applications include video-conferencing, tele-working, distance learning, management information systems, and stocktaking. Technologies can be said to include a broad array, ranging from old technologies such as radio and TV, to new ones such as cellular mobile communications. Networks may comprise copper or fibre optic cable, wireless or cellular mobile links, and satellite links. Equipment includes telephone handsets, computers and network elements such as base stations for wireless service. Software programs are the lifeblood of all these components, the sets of instructions behind everything from operating systems to the Internet.*

The EC sums it up adequately by stating that:

*ICTs are enabling and facilitating technologies. Individuals, community groups, business or government departments with access to affordable communications and computers can use them to save time and money and improve the quality of their work or home lives.*

The benefits of ICTs are difficult to gauge in most African countries, particularly in the wake of poverty, hunger and disease. For example, the United Nations Commission on Science and Technology for Development (UNCSTD) (in Marcelle, 2000:1) stresses that:

*ICTs do not offer a panacea for social and economic dislocation, and these may lead policy makers to give lower priority to the need to create effective national ICT strategies. However, on the basis of the evidence, it is apparent that the risks of failing to participate in the ICT revolution are enormous. Failure to give priority to ICT strategies that enable developing countries and countries in transition*

*both to develop their national infrastructures and to join the GII (Global Information Infrastructure) will exacerbate the gap between rich and poor. There is a growing need to evaluate the social and economic impacts of ICTs and to create opportunities for capacity building that will ensure their beneficial use and absorption within national economies and civil society.*

Needless to say, views on the role and usefulness of ICTs in African development initiatives are diverse and occasionally contradictory. For instance, Kenney (1995) argues that access to ICTs is dependent on education and income distribution, while Moyo (1996) stresses the inevitability and pervasion of information technology (IT) in all sectors of the economy. Some authors, like Chowdhury, are of the opinion that “the poor cannot eat high-speed Internet”, while others like Barlow maintain that “Africa should skip Industrialism entirely and leap directly into the information era” (both in Adeya, 2002:1).

Generally, viewpoints on the role of ICTs in rural development can be grouped into four major categories: political, economic, social, and technological, giving the acronym PEST.

Economic implications primarily focus on the importance of science and technology. Basson (1996) stresses the need for African governments to utilise science and technology and compete in commerce and industry. This is in keeping with Rathgeber (2000), who identifies poor infrastructure – including telecommunications infrastructure – and the lack of skilled manpower as Africa’s major challenges. She observes that newly industrialised Asian countries took on this challenge and offered foreign investors both skilled labour and an excellent infrastructure. In 1995, ICTs accounted for more than 25% of all exports from East Asian economies (Crede & Mansell, in Rathgeber, 2000:3).

According to the World Bank (1998/9:20), this capacity for ICT production has immensely contributed to economic growth in East Asia. The World Bank further asserts that the “knowledge gap” in many developing countries is a contributory factor to poverty, and that there is no better way to bridge this divide than through the use of ICTs. Due to their ability to “decouple” or separate information from its physical repository, ICTs are excellent channels of communication. This view is supported by Pohjola (in Bedi,

1999:4), who argues that this decoupling characteristic is “revolutionary”, as large bodies of information can be accessed by individuals, irrespective of time and space. Bedi (1999) adds that the use of ICT networks enables email access to a vast number of individuals.

One of the most innovative breakthroughs of the 20th century was the Internet, whose effects are changing the way in which traditional technologies are used and wireless technologies are deployed. According to Marker et al. (2002:14), the Internet dramatically reduces the costs associated with making information available to others and accessing global information and knowledge resources. The authors further add that satellites and other advanced technologies make new things possible – recent innovations in hand-held devices, mobile telephony and satellite communications have led to cutting-edge information and communication tools specifically relevant to the needs of the poor. In some developing countries, rural health workers are now using small hand-held devices to record health data from their clients.

The social implications of ICTs are also highly regarded. Studies by Marker et al. (2002:9–13) maintain a positive approach towards the role of ICTs in development, and affirm that ICTs do in fact have an impact on the standards of living and poverty alleviation at various community levels. Examples of ICT access by the African rural poor in addressing their information needs are largely drawn from the health, agriculture, community mobilisation, and education and training sectors.

When citing political implications, a narrative by Mudhai (2004:2–4) at the World Summit on the Information Society (WSIS) held in Geneva, Switzerland, underscores the importance of ICTs in uniting African countries in development. Mudhai reflects on the latest developments initiated by African governments to leap into the information age, citing examples of achievements in Nigeria, where fixed telephone lines have increased from 300 000 to 720 000, and mobile phone subscribers from 500 000 to 2.5 million over the last two years. Other examples provided by Mudhai are that of Egypt, which stresses the importance of the E-Africa Connection project within NEPAD; and the heads of state of Mozambique and Rwanda, who reiterate that Africans have gone beyond the dilemma of

choosing between ICTs and other development priorities. Mozambique has established a high-level multi-sector task force for ICTs, while Rwanda, a landlocked country, has “an ambitious ICT programme” poised to make it the technological hub of East Africa, with broadband fibre-optic and wireless access to all schools within three years. Equally encouraging is the example of Botswana, which is investing in ICTs as an imperative industry with the proposed US\$300 million Eastern Africa Submarine Cable System (EASSy). This cable system’s intended docking points are situated in Djibouti, Kenya, Madagascar, Mozambique, South Africa, Tanzania and Uganda. All such efforts are no doubt a step in the right direction for Africans, as ICTs can and will provide a new window for Africa to accelerate sustainable human development, which would inherently benefit rural women.

The significance of the role women play in development is crucial, given that they represent slightly more than half of Africa’s population. However, it is lamentable that, although these women are agents of production, growth and change, most are impoverished and live in economically fragile areas (Amoake, in Soltane 2002:1; Adhiambo, 2001:1).

The UNDP (2001:3–16) argues that harnessing ICTs for human development requires awareness raising and constituency building across all levels of society. As maintained by the UNDP, the link between ICTs and many development challenges is not always obvious, especially in countries with high levels of illiteracy, low levels of basic telecommunication infrastructure and electrification, and high levels of debt.

Similarly, several other authors cite examples in which these shortcomings are clearly spelt out. For instance, Marker et al. (2002:9–14) argue that problems underlying rural development in most African countries include issues of access and exclusion, which are still quite significant. By the same token, Bridges.org (2001) illustrates that “real access” to technology is one of the key elements necessary for integrating technology into society. This organisation further describes access with the term “physical access”. In other words, is the technology in question available, physically accessible and affordable?

Reports from authors such as Harris (2004:35) and the World Bank (2002) stipulate that poverty,

and not ICTs, is the primary bottleneck to ICT development initiatives in most developing countries. According to these authors, ICTs act as an amplifier for such underlying processes, and what makes development function well, can be made to function better using ICTs. Needless to say, ICTs are dependent on national policy, the regulation of broadcasting licences, and on the ensuing skills required to utilise and manage this industry. The situation is still wanting in many developing countries, as there is a lack of enthusiasm on the part of decision makers to embark on ICT projects. For instance, as opposed to South Africa, which does have a national ICT policy framework, the ICT policy debate in Kenya still awaits parliamentary approval after numerous years of trial, discussion and debate.

Given their multiple roles in society as mothers, wives and workers, women's voices are insufficiently heard. To this end, the Intermediate Technology Development Group has expressed the view that women rarely contribute to the policy debate surrounding poverty, as most are often illiterate and may lack confidence and mobility (ITDG, 2005). Related problems and challenges have also been noted in studies by Ngimwa et al. (1997) on Kenya; Jiyane & Ocholla (2004) on South Africa; Ikoja-Odongo (2002) on women entrepreneurs in Uganda; and Mooko (2002) on Botswana.

This study is largely informed by the info-mobilisation theory. In the light of the aforementioned concepts of systems and socio-technical systems theories, Harris (2004) describes info-mobilisation as an organic process of change in which collaborative groups discover and explore problems and address solutions together. It is a form of interactive development that caters for a collaborative learning process, based on the evolving needs of a community. Thus, in Harris' view, info-mobilisation involves adaptive learning and community learning, as well as the alignment of social and technological systems, participative values, and social and stakeholder groups. The overall view by Harris (2004:1) suggests that the development community should look towards the corporate world in order to understand the paths that they have traversed in adopting ICT:

*It is the program that must be developed and ICT placed within context, rather than the familiar idea*

*of "build it" and the applications will naturally flow; or, build it and then let's see what evolves serendipitously.*

Accordingly, the concept of "community" is understressed and not given the attention it deserves. To this end, Harris (2004:35–38) focuses and expounds on three important approaches in which he analyses and gives insights into the info-mobilisation theory:

- Info-mobilisation is concerned with the information requirements of communities. It addresses the design, delivery and utilisation of community information systems.
- ICTs can only have optimal impacts in rural communities if they are imbedded within other community development initiatives.
- The success of ICTs in rural development yields better results when social, political and economic factors, and varying modes of communication, are taken into account and used during implementation.

The present study set out to investigate and identify ICTs that provide access to and use of information, enhance quality of life, and improve the economic standards of rural women by conceptualising a model for the development, management, exploitation and use of ICTs in an African rural environment. As the study is a comparative analysis of Kenya and South Africa, this aim is conceptualised with the two countries in mind, although the accruing principles could be applied to rural set-ups in any African environment.

The study answered the following questions: How do ICT development, policies and strategies in Kenya and South Africa compare? What are the ICT information needs and e-services of rural women in areas such as health, education, agriculture, social welfare, entertainment, commerce and industry, in both Kenya and South Africa? What are the ICT training needs of rural women in Kenya and South Africa? What are recommendations, and what are the implications of these findings to information ethics?

## Methodology

A survey method was used to collect data from a cross-section of female members of the South African and Kenyan populations in order to determine their current status in relation to



information and the use of ICTs. The study was carried out in both countries.

In South Africa, the study narrowed its focus down to the Umlalazi (KZ 283) Municipality. According to the Uthungulu District Municipality report (2003), most of the population within the Umlalazi subregion is migrant, resulting in larger female numbers in the region. The Umlalazi subregion is mostly rural in nature, with only a few urban settlements. This municipality is located in the Uthungulu District in the province of KwaZulu-Natal (KZN), South Africa. Uthungulu has the third highest population in the province, after the Durban Metropolitan Council and the Umgungundlovu District Municipality. KZN has the largest population per province in South Africa – approximately 9.3 million (SSA, 2001) – with 43% of the population living in urban areas and 57% residing in the rural areas (Profile KZN, 2001).

In Kenya, the study focused on the Trans-Nzoia District, which is situated in the Rift Valley province of Kenya. It is one of eight provinces in Kenya and has a population density of 7 million people (Opondo & Sekou-Ochieng, 2000). The Rift Valley province is one of the largest and most economically vibrant provinces in Kenya. The Trans-Nzoia District is an administrative district of this province and is located between the Nzoia River and Mount Elgon. Although the area has mainly been inhabited by the Kalenjin community, Kenya's independence in 1963 saw many of the farms vacated by white settlers and bought by individuals from other ethnic groups in Kenya (Wikipedia, 2005).

The study used non-probability (purposeful) and probability (simple random) sampling techniques to create a sampling frame. In order to achieve the desired representation from various subgroups in the population, purposive sampling was first applied. This sampling technique allowed the researchers initially to identify suitable regions in Kenya and South Africa that possessed high population densities. Using the random sampling technique, suitable wards/divisions had an equal chance of being selected. This sampling technique also helped to prevent bias in the selection process. By using the snowball technique, women directly and indirectly connected to each other were interviewed.

In Stage 1, the study purposefully selected provinces in South Africa and Kenya with similar characteristics. As the units of study were the rural women of both countries, the first stage of the study selected populations that were homogeneous in nature. For instance, the choice of the KwaZulu-Natal province in South Africa, and the Rift Valley province in Kenya, was based on the fact that they are both densely populated. Additionally, most of the population in both regions resides in the rural areas.

In South Africa, the first stage was achieved with the help of demographic data adopted from the Umlalazi Integrated Development Plan (UIDP, 2002:1). In order for the sample size to be representative of the mixed racial population found in South Africa, the study purposefully selected suitable wards from this frame list. This was done by identifying wards with not only high population densities, but also a population with a fair mix of the four predominant races (black, white, Indian and coloured). In Kenya, the first stage was achieved with the help of census data from the Population and Housing Census of 1999. By the same token, the study selected suitable subdivisions with high densities.

In Stage 2, the study adopted the simple random technique to select its population from both countries. This method was deemed suitable because of the distances between respondents in rural areas. It was therefore important to minimise and control bias, and cut down on time and cost related to this survey.

In South Africa, wards 11, 12, 13, 15, 16, 18 and 25 of the Umlalazi Municipality served as good starting points from which to draw four wards. In order to avoid bias in the selection of suitable wards, the above names were placed in a box, from which four were randomly drawn, namely Amatikulu, Eshowe, Gigindlovu and Mtunzini. In Kenya, the subdivisions of the Kaplamai division (Biribiriet, Kapolet, Kapsara, Kimoson, Makutano, Motosiet, Sinyerere and Sitatunga) served as suitable starting points from which to draw four subdivisions. Having placed these names in a box, four were drawn: Kimoson, Makutano, Sinyerere and Sitatunga.

In Stage 3 of the sampling, the snowball technique was applied, whereby women respondents connected to one another through direct and indirect links were identified and consequently

interviewed. Approximately 400 respondents were sampled from both countries. The selection of the sample size was based on Gay's (1996:125) guidelines:

- The larger the population size, the smaller the percentage of the population required to get a representative sample.
- For smaller populations ( $N < 100$ ), there is little point in sampling.
- If the population size is around 1 500, 20% should be sampled.
- Beyond 5 000, the population size is irrelevant and a sample size of 400 is adequate.

The sample size was deemed suitable, as the sample population approximated the qualities and characteristics of the general population. The main categories sampled for the study included women between the ages of 15–20, 21–30, 31–40, 41–50 and 51–60 years.

Data was collected using a structured questionnaire to interview the respondents. In situations where the respondents were unable to understand English, the region's national languages, namely Swahili (in Kenya) and IsiZulu (in South Africa), were used to communicate with them. The completed questionnaires from 400 respondents formed the basis of data analysis and the interpretations for survey research. A total of approximately 400 questionnaires were administered and divided into the following categories:

- Section I: Personal information
- Section II: The information needs and seeking behaviour of rural women, which included:
  - Health information needs, purposes, sources and ICTs used
  - Educational information needs, purposes, sources and ICTs used
  - Social welfare information needs, purposes, sources and ICTs used
  - Agricultural information needs, purposes, sources and ICTs used
  - Commerce and trade information needs, purposes, sources and ICTs used
- Section III: Enhancement of quality of life and social welfare
- Section IV: Hindrances to ICT tools and services
- Section V: Training needs

A coding scheme was developed and entered into the Statistical Package for Social Sciences

(SPSS). Data was then analysed using descriptive statistics, where frequencies, percentages and means were calculated and data presented accordingly. Relationships among variables were compared and interpretations made.

## Results

### *Demographic profile of the respondents*

Respondents were asked questions about personal information such as their age, field of occupation and educational attainment. The structured questions were meant to determine relationships between demographic characteristics and the purposes and uses of ICTs. The overall response rate of the respondents was 100%, as the researcher and research assistants administered the survey.

Regarding age group, data obtained from rural KZN indicates that the highest numbers of respondents were between the ages of 31–40 years (66; 33%), followed by respondents in the 13–20 age group (41; 20.5%). Respondents between the ages of 41–50 and those over 50 ranked third and fourth, with 35 (17.5%) and 37 (18.5%) respectively. The lowest number consisted of 21 (10.5%) respondents between the ages of 21–30 years.

In Kenya, the highest numbers of respondents were between the ages of 31–40 years (83; 41.5%), followed by respondents between 13–20 years (58; 29%). Respondents between the ages of 41–50 and those over 50 came third and fourth, with 29 (14.5%) and 19 (9.5%) respectively. The lowest number consisted of 11 (5.5%) respondents between 21–30 years.

The P-value for age group levels in both countries indicates that there was a significant difference between rural women in the age groups of 13–20, 21–30, and those over 50 in South Africa and Kenya. More specifically, while there were more respondents between the ages of 13–20 residing in the rural areas of Kenya, there were more respondents between the ages of 21–30 residing in the rural areas of South Africa. There was also a larger percentage of respondents over the age of 50 residing in the rural areas of South Africa than in Kenya.

Analysis by levels of education revealed that in rural KZN, most respondents (81; 40.5%) had

acquired secondary education, while 62 (31%) had primary education. However, only 34 (17%) respondents had acquired tertiary college/university education, with 23 (11.5%) reportedly having no schooling at all. Thus, an average of 72 (35.8%) respondents had acquired basic education.

In rural Rift Valley province (RVP), the results indicate that most respondents (71; 35.5%) had acquired primary education, 66 (33%) secondary education and 33 (16.5%) tertiary college/university education. Some 30 (15%) respondents had no schooling at all. On average, 69 (34.2%) of the respondents had obtained basic education.

The P-value for education levels in both Kenya and South Africa revealed that there was no significant difference between the education levels of rural women in both countries. While an average of 34% of respondents in both Kenya and South Africa had basic education, well over 10% in both countries had no schooling at all.

In terms of the occupations of rural women in KZN, it was established that 58 (29%) respondents were small-scale traders, followed by those who worked as housewives/homemakers (48; 24%). Other categories were farmworkers (25; 12.5%), domestic workers (18; 9%), educators/teachers (16; 8%) and students (15; 7.5%). Only 3 (1.5%) respondents were entrepreneurs owning large-scale enterprises: a guesthouse, a sugarcane plantation and a fruit farm. Nine (4.5%) respondents were clerical and community development workers (6; 3%). There were two preachers (2; 1%).

In RVP, the study's empirical results indicate that 68 (34%) of the respondents were small-scale traders, followed by housewives (29; 14.5%); educators/teachers (27; 13.5%); farmers (26; 13%) and students (11; 5.5%). Domestic workers and preachers accounted for 10 (5%) each. This was closely followed by farmworkers (6; 3%); large-scale entrepreneurs (5; 2.5%); nurses (4; 2%); clerical workers (2; 1%) and community development workers (2; 1%).

According to the study, the single largest occupation of the respondents in both Kenya and South Africa was that of small-scale traders.

The P-values for the occupations of rural women in both countries indicate that, with the exception of traders and preachers (in which percentages for Kenya are higher), there was a higher

percentage of housewives, farmworkers, domestic workers, students, educators/teachers, entrepreneurs, clerical workers and community development workers in South Africa than in Kenya. The study further illustrates that, whereas Kenya's respondents had a fair share of farmers and nurses, there was no record of these occupations among South Africa's rural respondents.

### ***ICTs frequently used to access/receive information in Kenya and South Africa***

The survey took into account the possibility that an individual could use a combination of different technologies while accessing or seeking information. Respondents were therefore at liberty to name all ICTs they used to access information, whether traditional or modern. By capturing these responses, the survey was able to ascertain the ICTs that the respondents accessed and frequently used. Notably, they also used other sources to obtain information, such as printed material, libraries, friends, neighbours and so on (Table 1).

In the field of education, the information needs of the respondents in rural KZN varied from student services/colleges (48.8%), to course work/research topics (25%), further studies (7.5%) and funding sources (7.5%), occupational information (5%), social work (1.3%) and business management (1.3%). Reasons for yielding educational information included personal welfare and better living standards, study assignments, counselling, further studies and job opportunities.

Table 1 reveals that radio broadcasts were still highly prevalent as a source of information (160; 80%), but the use of television for this purpose was relatively low (82; 41%). While 32 (16%) respondents also used film to access educational information, 25 (13%) respondents used a cell-phone or telephone. Videos were also common (30; 15%). Compared with other sectors, the educational sector had the highest number of respondents using a computer and/or the Internet to access educational information (22; 11%). Only 8 (4%) respondents used mobile cinema and CD-ROMs (2%) to do so.

In rural RVP, the information needs of respondents ranged from course work/research topics (23.5%), to student services/colleges (22%), occu-

ICTs	Education		Health		Business		Agriculture		Social welfare		Average		P-value
	K %	SA %	K %	SA %	K %	SA %	K %	SA %	K %	SA %	K %	SA %	
Radio	77	80	88	81	65	55	65	71	77	80	74.4	73.4	0.8200
Television	41	41	33	44	36	34	36	35	43	43	37.8	39.4	0.7430
Film	13	16	24	20	7	18	9	26	20	16	14.6	18.2	0.3315
Cellphone	12	13	20	18	7	13	7	14	18	17	12.8	15.0	0.5252
Telephone	4	13	3	4	4	5	4	12	5	17	4.0	10.2	0.0000
Video	4	15	5	6	3	6	5	1	6	11	4.6	7.8	0.0000
Computer/Internet	3	11	–	6	1	3	–	1	1	6	1.0	5.4	0.0000
Mobile cinema	3	4	4	5	3	1	3	3	3	6	3.2	3.8	0.2092
CD-ROM	–	2	–	2	–	1	–	–	–	–	–	1.0	–

**Table 1:** ICTs frequently used to access/receive educational, health, business/trade, agricultural and social welfare information in Kenya and South Africa [n=400]

pational information (12%), preschool/primary school information (11%), further studies (10.5%), business education/financial management (9.5%), teaching (8.5%) and curriculum studies (3%). Reasons for seeking educational information included personal welfare and better living standards, study assignments, counselling, child welfare, job opportunities, study assignments and future careers.

Table 1 shows that use of the radio was also highly prevalent among RVP respondents (154; 77%), and that television was used by 81 (41%) to gain information. While 25 (13%) used film, more used a cellphone (24; 12%) than a telephone (7; 4%). Video was used by 7 (4%) respondents, while only five (3%) used computers and the Internet, and mobile cinema, respectively.

With regard to health, the information needs of the respondents from rural KZN included respiratory illnesses, such as tuberculosis and asthma (21.3%), HIV/AIDS (21.3%), arthritis (10.6%), terminal and chronic diseases, such as cancer (6.3%), waterborne diseases (6.3%), diet/nutrition (6.3%), rheumatism (5%), family planning (5%), rabies (4%), snake bites (3.8%), sexually transmitted diseases (3.8%), dentistry (3.8%) and fits (2.5%). Reasons for obtaining this information included personal welfare, children's welfare and general awareness. The radio scored

highly as a source of information, as survey results revealed that 162 (81%) respondents used it to access information. Television was equally important, as 88 (44%) of the respondents used it on occasion to source their health information. While 40 (20%) respondents used film to access health information, more used a cellphone (35; 18%) than a telephone (8; 4%). An insignificant number of respondents (12; 6%) used a computer/the Internet and video (12; 6%) to access health information. Only 10 (5%) used mobile cinema, while 3 (2%) used CD-ROMs.

The information needs of rural respondents from RVP ranged from family planning/gynaecology (32.5%) to tropical diseases, such as malaria (24%), HIV/AIDS (17%), respiratory illnesses/coughs (7%), cancer (2.5%), sexually transmitted infections (3.5%), snake bites (3), waterborne diseases (2.5%), diet/nutrition (1.5%), diabetes (1%), dentistry (3.5%) and fits (2%). Reasons for obtaining this information included personal welfare, child and family welfare and, in some instances, general awareness. The radio came first as a source of information (176; 88%), followed by television, which was only used by 65 (33%) of respondents. While 47 (24%) of the respondents used film as a source of information, 40 (20%) used a cellphone and only 5 (3%) used a telephone. Likewise, 10 (5%) respondents made use

of video and only 7 (4%) used mobile cinema to access information. Notably, no respondents used computers/the Internet or CD-ROMs for their health information needs.

In the field of business and trade, areas in which respondents in RVP required information included starting up a business (30%), pricing/marketing (14%), finance/bookkeeping (12.5%), planning/management (10.5%), supplies/purchasing (8%), animal husbandry (7%), poultry keeping (7%), craftsmanship (5.5%) and the exchange rates (5.5%). Reasons for obtaining this information included stocking, embroidery, financial management, business techniques, better living standards, profit making, income generation and family welfare.

Survey findings for business and trade reveal that while 130 (65%) of the respondents used radio, 71 (36%) used television for their information needs. Notably, 13 (7%) used film as a source of information, while 14 (7%) used a cellphone and only 8 (4%) used a telephone. The use of a computer/the Internet was negligible, with only 2 (1%) of the respondents accessing it for information. None of the respondents used CD-ROMs. Video was used by 6 (3%) respondents, whereas mobile cinema was used by 5 (3%).

In KZN, respondents required information ranging from starting up a business (46.3%), to cookery (13.8%), pricing/marketing (10%), purchasing/supplies (10%), stock management (7.1%), financial management/bookkeeping (6.3%), horn covering/tourism (2%), hair and beauty salons (2.5%), and poultry and animal husbandry (2%). These needs seem to be closely related to the findings of a study by Ikoja-Odongo (2002). Reasons for obtaining this information included skills enhancement, embroidery, stocking, financial help, financial management, business techniques, income generation, seeking customers and family welfare.

Survey findings for business and trade reveal that while 110 (55%) respondents used radio alone for their information requirements, 68 (34%) used television. Only 9 (18%) used film to obtain business information. Notably, although not necessarily unusual in modern times, more respondents used a cellphone (25; 13%) than a telephone (10; 5%). Videos were accessed by 12 (6%) respondents for business-related needs. A negligible number (6; 3%) used a computer and/

or the Internet to obtain information. Two respondents used mobile cinema, and only one used CD-ROMs.

The agricultural information requirements of the respondents from KZN included topics such as farm inputs/new technology (28.8%), crop type/diseases (22.5%), soil types/fertility (18.8%), live-stock keeping (13.8%), herbicides/fencing (10%) and gardening/crop management (6.3%). This information was required for ensuring good harvests, enhancing animal fertility, preventing crop and animal diseases, improving sales and aesthetics, and making spiritual offerings. Most of those interviewed (142; 71%) used radio, while less than half of this number (70; 35%) used television. Cellphones were utilised for information gathering by 28 (14%) respondents, and telephones by 23 (12%). Only 6 (3%) respondents used mobile cinema, while two (1%) used a computer/the Internet and video.

The agricultural information needs of respondents from RVP included animal husbandry (35.5%), farm inputs/new technology (47%), soil type (5.5%), crop type/diseases (4.5%; 1.5%) and gardening/crop management (6%). This information was required for ensuring good harvests, improving farming, enhancing herd fertility, preventing diseases, and for aesthetic reasons and health. Most of those interviewed (130; 65%) used radio for their information needs, while 71 (36%) used television. While 17 (9%) respondents used film for their information needs, more respondents used a cellphone (14; 7%) than a telephone (8; 4%). Video was used by 10 (5%) respondents for their agricultural information needs. Only 5 (3%) respondents used mobile cinema. Notably, there were no respondents using a computer, the Internet or CD-ROMs.

Social welfare information needs in rural KZN covered water resources and pit latrines (42.5%), music/religious gatherings (23.8%), travel/holidays (10%), community projects/women's group activities (8.8%), pension (8.8%) and shopping/movies (6.3%). Reasons for obtaining such information included leisure activities, entertainment, spiritual growth and relaxation, and improved standards of living. Once again, radio as a source of information scored high (160; 80%); television (86; 43%) and films (32; 16%) were also useful. Users of cellphones and telephones stood at 34 (17%) and 32 (16%) respectively. Video was used by 22 (11%) respondents to source inform-

ation, compared with 12 (6%) who used computers/the Internet for this purpose.

In Kenya, the need to acquire social welfare information included topics such as community projects/social meetings (154; 77%), water resources/pit latrines (11; 5.5%), spiritual matters (21; 10.5%), sport (4; 2%), shopping/travelling (3; 1.5%) and pension/housing (7; 3.5%). Reasons given for accessing this information dealt with leisure activities, spiritual growth, women's empowerment, improved standards of living, relaxation and health. Radio as a source of social welfare information ranked first, used by 153 (77%) respondents, with television used by 85 (43%) and films by 39 (20%) respondents. Cellphones were used by 36 (18%) respondents and telephones by only 9 (5%). Computers/the Internet played no significant role, as only 2 (1%) respondents used it to access information. While 6 (3%) respondents used mobile cinema, none used CD-ROMs.

On the whole, information on the radio is evidently highly accessed, being used by approximately 73% of rural women in South Africa, particularly for education, health and social welfare needs. Some 39% of the respondents used television for their information requirements. Cellphones (15%) had a clear advantage over telephones (10.2%). Those respondents who were mostly in the fields of education (30; 15%) and social welfare (22; 11%) used video. Although users of computers and/or the Internet maintained a low average of only 5.6%, this ICT was mostly used by those respondents in the field of education (22; 11%).

Kenya's empirical results indicate that radio and television were the most commonly used ICTs among rural women. An average of 74.4% respondents used radio for their information needs, while television was used by an average of 37.8%. Cellphones (12.8%) had an advantage over telephones (4%), with the use of films (14.6%) being notably higher. While 4.6% of the respondents used video, 3.2% used mobile cinema for their information needs. Data indications are that computers/the Internet and CD-ROMs had little value among rural women in Kenya.

On the whole, radio was evidently highly accessed and was used by approximately 73% of the rural women in South Africa, particularly for education, health and social welfare needs.

Television also played an important role in this regard, with 39% of the respondents using it for their information requirements. Cellphone usage (15%) had a clear advantage over telephone usage (10.2%). Those respondents who were mostly in the field of education (30; 15%) and social welfare (22; 11%) used video. The average use of computers/the Internet stood at 5.6%, mostly used in the field of education (22; 11%).

Kenya's empirical results indicate that radio and television were the most commonly used ICTs among rural women. An average of 74.4% of the respondents used radio for their information needs, while an average of 37.8% used television. Cellphones were used by 12.8% of the respondents to source information, telephones by 4% and films by 14.6%. While 4.6% used video, 3.2% used mobile cinema. Data indications are that computers/the Internet and CD-ROMs have little value among rural women in Kenya.

From the above results, the study could safely deduce that an average of 74% of the respondents from both countries used radio as a medium of accessing information, while an average of 38% used television. Whereas 10.2% of respondents in KZN used telephones for this purpose, only 4% from RVP did. In both countries, the use of modern technologies such as computers and the Internet was negligible.

### ***Alternative sources of information among rural women in Kenya and South Africa***

In this question of the study, respondents were at liberty to mention all, or any other, sources of information that they used in their quest for information, aside from ICTs. This question aimed to gather information that would help determine the effectiveness and efficiency of rural information systems in the rural environments of Kenya and South Africa.

In Table 2, survey results indicate that family (53.2%), friends (43.3%) and neighbours (38%) informed the bulk of alternative sources of information among the respondents in RVP. This was closely followed by community leaders (38.6%), books (30.9%), exhibitions/trade fairs (20.8%), area leaders (15.8%), educators (10.8%) and social/extension workers. Others, such as traditional healers (7.8%), information centres (4.9%),

Source of information	Education		Health		Business		Agriculture		Social welfare		Average		P-value
	SA f	K f	SA f	K f	SA F	K f	SA f	K F	SA f	K f	SA %	K %	
Newspapers	5	5	3	2	5	8	5	4	15	5	3.3	2.4	0.0469
Magazines	5	5	3	2	5	8	5	4	15	5	3.3	2.4	0.0469
Family	160	54	133	110	43	88	43	111	83	169	46.2	53.2	0.1623
Friends	103	73	100	81	133	65	93	69	113	145	54.2	43.3	0.0298
Neighbours	90	64	88	79	128	73	73	86	105	78	48.4	38.0	0.0364
Books	68	46	75	72	58	91	43	69	53	31	29.7	30.9	0.7941
Information centres	8	11	5	6	8	10	23	18	–	4	5.5	4.9	0.2305
Community leaders	60	41	30	97	13	55	25	80	83	113	21.1	38.6	0.0002
Area leaders	–	–	–	–	–	–	3	5	13	68	4.0	15.8	0.0000
Traditional healers	–	–	13	11	–	11	15	16	25	24	8.8	7.8	0.0081
Social/extension workers	10	6	43	46	–	12	30	25	3	4	10.8	9.3	0.0000
Educators	90	60	13	14	5	11	23	10	–	13	16.3	10.8	0.1089
Farmers' associations/cooperatives	–	–	–	–	–	–	–	3	–	–	–	1.5	–
Exhibitions/trade fairs	–	–	5	–	23	54	10	29	–	–	6.3	20.8	0.0000
Nurses/midwives	–	–	23	1	–	–	–	–	23	2	11.5	1.5	0.3025
Local/city councils	8	–	–	–	3	–	8	–	8	–	3.3	–	–
Schools	3	6	–	3	–	–	3	–	–	3	1.5	2.0	0.1890

**Table 2:** Alternative sources of information for educational, business/trade, health, agricultural and social welfare information among women in Kenya [n=200] and South Africa [n=200]

newspapers (2.4%), magazines (2.4%), farmers' cooperatives (1.5%) and nurses/midwives (1.5%) were less frequently used to gain information.

Similarly, friends (54.2%), neighbours (48.4%) and family (46.2%) were highly favoured as alternative sources of information among the respondents in KZN. Other sources included books (29.7%), community leaders (21.1%), educators (16.3%), social/extension workers (10.8%) and nurses/midwives (11.5%). Information centres (5.5%), magazines (3.3%) and newspapers (3.3%) were not popular sources of information among these rural women.

The P-value for alternative sources for educational, business/trade, health, agricultural and social welfare information among women in Kenya and

South Africa illustrates that there is a higher use of alternative sources of information, such as newspapers, magazines, friends and neighbours, in rural KZN than in RVP. However, community leaders, area leaders and trade fairs/exhibitions played a more significant role in RVP than in KZN.

### **Comments on the use and availability of ICTs in rural KZN and rural RVP**

In Table 3, respondents were asked to give their personal responses to an open-ended question on the use and availability of ICTs in their community. The aim was to capture varying opinions and attitudes related to ICT use and accessibility.

<i>Comments</i>	<i>Freq.</i>	<i>%</i>
Unavailable, difficult to use	57	28.5
Costly and unaffordable	25	12.5
Handy	20	10.0
ICT centres to be near rural women	20	10.0
Easily available and accessible	19	9.5
Affordable	18	9.0
Lack of power	13	6.5
Great improvement in ICTs	10	5.0
Poor television and radio networks	10	5.0
There's no trust in ICTs	8	4.0
Total	200	100

**Table 3:** Comments on the use and availability of ICTs in the community in South Africa [n=200]  
(Note: Freq. = Frequency)

Data was then analysed using content analysis. The survey revealed that a significant number (57; 28.5%) of the respondents in KZN felt that ICTs were not only unavailable and inaccessible to them, but also difficult to use. Similarly, 25 (12.5%) felt that ICTs were costly and unaffordable. Coincidentally, the numbers of those who found ICTs to be handy (20; 10%) and those who felt that ICT centres should be established near rural women (20; 10%) were similar. Nineteen (9.5%) respondents were of the opinion that ICTs were easily available and accessible, while 18 (9%) deemed them affordable. A few respondents pointed out problems with infrastructure, such as lack of power (13; 6.5%) and poor television and radio networks (10; 5%).

In Table 4, results from Kenya indicate that a large number of respondents (63; 31.5%) believed that ICTs were unaffordable, followed by 48 (24%) stating them as unavailable and 28 (14%) as inaccessible. Therefore, on average, the survey revealed that 139 (69.5%) respondents felt that ICTs were too far, too costly or entirely unavailable. Only 16 (8%) acknowledged the usefulness and availability of ICTs, citing that they were "handy" (2; 1%) or "improved access to information" (14; 7%).

### ***How ICTs have enhanced rural women's quality of life***

A number of arguments have been raised as to

<i>Comments</i>	<i>Freq.</i>	<i>%</i>
Would like affordable ICTs	63	31.5
ICTs should be made available	48	24
ICTs should be made accessible	28	14
ICTs improve information access	14	7
ICT use depends on one's lifestyle	11	5.5
ICTs are very handy	2	1
A need for ICT centres in rural areas	15	7.5
Television/radio networks are poor	2	1
Lack of power hinders use of ICTs	15	7.5
Total	200	100

**Table 4:** Comments on the use and availability of ICTs in the community in Kenya [n=200]

whether or not ICTs contribute to improving a society's quality of life. With this in mind, a structured question making use of the Likert scale was designed. Respondents were expected to answer the question based on the areas in which ICTs have served them best (Table 5). In this scale, 4 denoted a high and favourable response ("always"), followed by 3 ("often"), 2 ("sometimes"), 1 ("never") and "not applicable". By calculating the average for each area listed, the study was able to arrive at conclusive remarks.

Evidently, ICTs enable most women to keep abreast of current affairs. Many rural women underscored the role ICTs play in daily news broadcasts. Most respondents (KZN 91.5%; RVP 91%) felt that ICTs, particularly radio and television, helped them to enrich their lives socially. This was followed closely by the need to keep in touch with family and friends (KZN 81%; RVP 87%). For most, cellphones were particularly useful. Under entertainment, respondents cited the ability to listen to music and other entertaining programmes as being important.

With the help of ICTs, this service recorded the highest result overall (KZN 71.5%; RVP 94%). Interestingly, although the use of fax machines (44%) stood out as an important activity, particularly in South Africa, it scored less in Kenya (16%).

Additionally, the P-value for how ICTs have enhanced rural women's quality of life illustrates



Activity	Always		Often		Sometimes		Never		N/A		Average (%) 4+3+2		P-value
	SA	K	SA	K	SA	K	SA	K	SA	K	SA	K	
Listening to news	157	121	12	35	14	26	12	12	5	6	91.5	91.0	0.8596
Keeping in touch	160	85	2	35	8	54	24	20	6	6	85.0	87.0	0.5647
Entertainment	88	117	35	42	20	30	47	6	10	5	71.5	94.5	0.0000
Fax documents	41	11	17	5	30	16	90	162	22	6	44.0	16.0	0.0000
Data processing	38	9	5	6	15	31	115	147	27	7	29.0	23.0	0.1721
For research	20	7	15	13	18	73	130	103	17	4	26.5	46.5	0.0431
E-commerce/ trade	10	10	13	4	18	20	118	160	41	6	20.5	17.0	0.3704
Contact business support agency	25	12	3	14	10	46	138	123	24	5	19.0	36.0	0.0002
Internet-related services	20	3	6	7	12	34	160	152	2	4	19.0	22.0	0.4578
Distance education	28	11	5	20	6	46	134	120	27	3	16.5	38.5	0.0000

**Table 5:** How ICTs have enhanced women's quality of life in South Africa [n=200] and Kenya [n=200]

Training needs	Very essential (4)		Essential (3)		Quite essential (2)		Not very essential (1)		N/A		Average % (4+3+2)		P-value
	SA	K	SA	K	SA	K	SA	K	SA	K	SA	K	
	f	f	f	f	f	F	F	f	f	f	%	%	
Basic primary education	25	36	5	9	8	6	98	144	64	5	19.0	25.5	0.1189
Secondary school education	50	47	–	14	3	29	100	105	47	5	26.5	45.0	0.0001
Computer/ Internet training	98	77	15	51	20	35	35	32	32	5	66.5	81.5	0.0007
Vocational training	68	41	15	46	18	38	38	70	61	5	50.5	62.5	0.0159
Adult education	73	48	8	23	3	20	23	106	93	3	42.0	45.5	0.4809

**Table 6:** Training needs for Kenya [n=200] and South Africa [n=200]

that respondents in both Kenya and South Africa felt that ICTs helped them in accessing and receiving news items and keeping in touch with family and friends. There was, however, a higher percentage of respondents in Kenya than in South Africa who felt that ICTs enhanced their lives through offering entertainment, research information and distance education.

### **Training needs for Kenya and South Africa**

In Table 6, respondents were expected to answer a question based on the type of training they would require in order to assist them in accessing ICTs more often. In this question, the scale of 4 denoted a favourable response ("very essential"), followed by 3 ("essential"), 2 ("quite essential"), 1

("not very essential") and N/A ("not applicable"). By calculating the average for training needs under scales 4, 3 and 2, the study was able to arrive at conclusive remarks.

Survey results indicate that 19% of the respondents in KZN and 25.5% of those in RVP felt that basic education was essential. Similarly, while 26.5% had a need for basic education in KZN, an average of 45% in RVP also felt that they needed secondary education. Notably, 42% and 45.5% in KZN and RVP respectively believed that adult education was essential. Interestingly, from all the listed training needs, computer/Internet training scored highly, with 66.5% (KZN) and 81.5% (RVP) stating that such training would be essential. This was followed by 50.5% (KZN) and 62.5% (RVP) indicating that vocational training would be of foremost importance to them.

The P-value for training needs for Kenya and South Africa illustrates that, with the exception of basic primary education and adult education, there was a significant difference in the training needs of Kenyan and South African rural women. On the whole, results from both countries indicate that there was a definite need for computer/Internet training for rural women in order to assist them in accessing ICTs more often.

## Discussion and conclusions

Essentially, while there were more respondents between the ages of 13–20 residing in the rural areas of Kenya, there were more respondents between the ages of 21–30 in the rural areas of South Africa. In addition, a larger number of respondents over the age of 50 resided in the rural areas of South Africa than in Kenya. In terms of education, the study indicates that there was no significant difference between the education levels of rural women in South Africa and Kenya. More specifically, while an average of about 34% in both countries had basic education, well over 10% of all the respondents had no schooling at all.

It was further noted that, with the exception of traders and preachers (in which percentages for Kenya were higher), there was a higher percentage of housewives, farmworkers, domestic workers, students, educators/teachers, entrepreneurs, clerical workers and community development workers in South Africa than in

Kenya. It is further illustrated that whereas Kenya had a fair share of farmers and nurses among the respondents, South Africa had no records of either of these occupations among its rural respondents.

The ICTs most commonly used by rural women indicate that an average of 74% of the respondents from both South Africa and Kenya used the radio as a medium of accessing information. An average of only 38% used television for their information needs. In both KZN and RVP, the use of cellphones for this purpose had a clear advantage over the use of telephones. In both countries, the use of modern technologies such as computers and the Internet was negligible. Family, friends and neighbours formed the bulk of alternative sources of information in both Kenya and South Africa. There was also a higher use of sources such as newspapers, magazines, friends and neighbours in rural KZN than in rural RVP. However, community leaders, area leaders, trade fairs/exhibitions played a more significant role in RVP than in KZN.

A large number of respondents in KZN felt that ICTs were not only unavailable and inaccessible, but also difficult to use. Some felt that ICTs were costly and unaffordable. Coincidentally, the number of those who found ICTs useful and those who felt that ICT centres should be established near rural women were similar. A few respondents were of the opinion that ICTs were easily available and accessible, while others felt that they were affordable. A few pointed out problems with infrastructure, such as lack of power and poor television and radio networks. In Kenya, a large number of respondents indicated that ICTs were unaffordable, followed by fewer listing them as unavailable and inaccessible.

There is also an indication that respondents in both countries felt that ICTs helped them in accessing and receiving news items and keeping in touch with family and friends. There was, however, a higher percentage of respondents in Kenya than in South Africa who felt that ICTs enhanced their lives through entertainment and made research and distance education possible. Results from both countries indicated that there was a definite need for the training of rural women in computer and Internet use in order to assist them in accessing ICTs more often.

## Recommendations and information ethical issues

In order for rural women to benefit most from ICTs, the following issues need to be addressed.

### Literacy

Due to high levels of illiteracy in computer technology and basic education among rural African women, there is a need to integrate ICT with literacy education in many areas.

In order to create a demand-driven ICT consumer community in rural areas, hindrances to accessibility must be significantly reduced, either before or during the provision of the technology. This necessitates training and skills enhancement initiatives, among other participatory development programmes, such as focus group discussions, direct interviews and workshops.

The development of professionals and teachers as viable intermediaries in bridging the digital divide experienced by low-literate or illiterate youth in school education programmes in rural areas is also of crucial importance.

### Cost

The cost of ICT access particularly affects women due to their family responsibilities, such as health and the education of their children. It is therefore necessary to effect and implement policies that involve connectivity and take into account the constraints facing the marginalised. According to the World Bank, competition between telecommunication companies can slash service costs and improve access to technology. As large telecom operators tend to limit their operations to high-income urban areas, privatisation should be extended in order to allow small entrepreneurs to supply telecommunication services to rural areas. Through regulation and subsidies, private operators can be invited to bid for the provision of services in areas that are not commercially viable, in return for a subsidy financed with a universal access fund.

### Training

As rural women generally experience lower levels of education than men and a lack of

proficiency in English, ICT training for women would need to be gender sensitive and offered by female trainers wherever possible. There is also a need to support programmes that provide hardware, modems and online access to women's non-governmental organisations (NGOs) and women's centres in organisations and institutions that are embedded in appropriate women's support and distribution systems.

It is also important to support the implementation of ICT technical training programmes for women, and women's access to higher-level training in technical expertise and repair services by examining the role that existing local and national-level women's NGOs can play in ICT distribution, training and support in partnership with technology providers. Women need to be encouraged to feel confident in their ability to use ICTs by focusing on thematic ICT activities that provide tangible benefits of participation. These include:

- Health information and advocacy for women and children (especially concerning reproduction and AIDS)
- Women's rights and legal frameworks supporting the education of women and girls
- Business and entrepreneurial information

### Time

Women generally have heavy responsibilities, particularly those involving their families, which result in time constraints. It is therefore imperative that ICTs should be incorporated not only according to the information needs of women, but also in the light of other activities and projects aimed at empowerment, such as women's NGOs, health centres, educational institutions, self-employment and entrepreneurial centres, and churches. In this way, women would be able to experience the tangible use of ICTs.

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## **The Third World and the paradox of the digital revolution**

**Mohamed Mesbahi**

*We, the people of the Third World, greeted the revolution in information technology with great enthusiasm, perceiving it as the harbinger of an equalitarian and democratic society and the encapsulation of a new humanism. The question is whether or not this new utopia has effectively brought an end to the great divide regarding access to information and knowledge.*

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## The oneness of reason

We, the people of the Third World, greeted the revolution in information technology with great enthusiasm, perceiving it as the harbinger of an equalitarian and democratic society and the encapsulation of a new humanism. The question is whether or not this new utopia has effectively brought an end to the great divide regarding access to information and knowledge.

In principle, access to information has been opened up thanks to the advent of worldwide networks, to the extent that it escapes any religious, political and social control. The Internet has had a levelling effect and puts different people on an equal footing, enabling them to engage in dialogue among themselves.

Thus, we can say that the digital revolution has brought about a new phenomenon: the oneness of reason. This oneness seems to be very close to Averroes' concept of "virtual or potential intellect". Virtuality in the context of the Internet is digital. Though ubiquitous, it cannot be located anywhere, or be assigned one place or any particular place. It operates as an empty signifier that is detached from any signified or referent, and has no anchor. It is, in other words, a void, which paradoxically has fullness.

The new "virtual reason" encapsulated by the Internet is also similar, in many aspects, to the enlightenment reason, in the way that both of them encourage progress and innovation, and create their public domain. It should be noted, however, that the new virtual reason consists mainly of programmes and technological procedures and not only of the apriori principles, as in the enlightenment reason.

## The digital divide

New information and communication technologies (ICTs) have brought about a new mode of life for human beings that should not be confined to the world of computer science and other related technological domains. This new mode of life is not shared by all humanity. Far from bringing about the world's unity, ICTs increase differences and hierarchies both between the First and the Third World and within each of these worlds.

The appearance of the digital divide urged us to

review our optimistic enthusiasm about the digital utopia that promised to unify humanity as far as the right of information and development is concerned. In fact, the information and communication revolution, like all revolutions, carried along with it a new and more important gap between social classes and nations. The divide in the capacity to buy a computer and new technological equipment, the facility to access the world of the Internet, the ability to understand its complicated programmes, the skilfulness of interpreting the data and posing suitable questions ... these are only the apparent face of the digital informatics divide. Therefore, we start to see the limited influence of the digital revolution to bridge the gap between social classes and between individuals.

The indicators of the digital divide – such as the teledensity indicator, technical progress indicator, technical achievement indicator, network readiness indicator, media usage indicator, information intelligence quotient, standard number of digital access – inform us that the divide between nations and also within the same nation is increasing. For instance, the percentage of all Internet users in the Arab world has reached only 5%.

We cannot deny, of course, that the logic of the worldwide networks of the new technologies does not acknowledge the existence of borders between nations, cultures and civilisations. This is so because these technologies all try their best to nibble at the nations' sovereignty over their cognitive and information space in favour of the worldwide market. Despite the resistance of the Third World to ICTs, the ongoing technological revolution will eventually affect our part of the world and change it from a semi-industrial, semi-agricultural world into a computer-driven world, geared to advertise and sell its products. This affords us an opportunity to achieve progress and close this digital divide.

## Continuing illiteracy

Even if the world has witnessed the birth of new technologies for more than four decades, the spread of information knowledge in the nations of the South is still very limited. Concerning the African nations, apart from use of the Internet in public institutions, industrial sites, private information services and educational institutions,

illiteracy in electronic information remains widespread. This illiteracy is not only due to the difficulty of acquiring new technological tools (hard and soft), or the sophisticated ability to use them, but is also a consequence of illiteracy and poverty (both moral and material).

Some think that people's lack of responsiveness to the products of the digital revolution lies in the fact that the spread of this revolution in Africa and the Third World started first in the security departments of these countries. Consequently, people felt that use of these technologies in general is linked to falsification and oppression of political beliefs and freedom, and this of course made them turn away from these technologies. Whatever the pressure of globalisation may be, the domains of use of these technologies in our countries have been limited to health, education and finance, and for those searching for jobs either in or outside the same country, or for carrying out research.

We cannot deny that digital technology has indeed affected economies, employment structures and even the way the younger generation thinks and feels. Even though this influence has not been visible enough to reduce the impact of poverty among people, we cannot reject the success of different experiments led by a number of associations and organisations of the civil society in penetrating the countryside (e.g. hand-crafts). These associations have developed light industries, businesses and other services that ultimately aim to ensure human development.

In spite of this, the effect of digital technology, which can help to achieve this development, is still very restricted because of computer illiteracy and poverty, as mentioned before. However, this illiteracy does not prevent large-scale use of the cellphone, which has proven efficient so far.

The knowledge society does not leave any room for illiterate people. An example of this can be found in the persistence of illiteracy in the Arab world, where the percentage is more than 45% of the population – about 111 million, of which 74 million are women. The propagation of poverty and the lack of suitable informatics programmes concerning education and the training of workers, farmers, free traders – all these factors make the emergence of a knowledge society very difficult in our countries. If we add to this the violent reaction of Islamic fundamentalists to

ICTs, we will understand the extension and danger of the problem of the digital divide.

This does not mean that we are inviting people to reject ICT because it leads to more cognitive discrimination. On the contrary, we believe that it is an opportunity that must be seized so that we can develop new and suitable ways to reduce the effects of any severe and negative results of ICT on individuals and society. We can also consider these technologies as a tool that will help reconsider the distribution of mental and material wealth all over the world. For example, ICT can be used, in a way, to counter illiteracy, control administrations, train or retrain professionals and also take care of citizens' health.

### **A total approach**

All that has been mentioned above reveals that the digital divide is not just about the difference between those who can or cannot afford to buy and use a computer, but it is also a total and complex phenomenon that requires total treatment. These techniques urge us to re-examine the human, cultural, economic and political development process, taking into consideration humankind as a starting point for any development process. Thus, if we do not find solutions to the problems of poverty, illiteracy, unemployment, education and lack of democracy – that is, if we do not re-evaluate the status of people – we can never profit from the advantages of ICT in general. In other words, putting an end to the digital gap starts with the abolition of all gaps, such as social, cultural, health and employment gaps.

The digital revolution is not a magic wand that can solve all our complex and permanent problems. It is essential to find solutions first to the structural problems in order to provide suitable conditions that would allow us to profit from the advantages of the information and communication revolution. For instance, introducing computers at schools and universities will not automatically lead to a better level of education unless we restore and improve the educational system. Otherwise, the introduction of computers may in a way cause the educational level of students to go down. Similarly, equipping administrations with computers cannot give an effective result if employers are not retrained or promoted culturally and materially so that they

can cope with the new culture brought by these new machines. Spreading the culture of computer use and new technologies must start in primary schools, youth organisations and local authorities, and not only in ministries and public administrations.

A total view does not require regarding ICT accidentally – that is, not to consider these techniques only as instruments for resolving our temporary economic and social problems. It does, however, imply that we regard them as strategic instruments for building a knowledge society based on abundant information. In short, we have to set the human element at the centre of any development concerning ICT.

The ICT revolution has created its own culture and values. Our devotion to this culture is necessary for our adherence to the environment of the Web, provided that we remain cautious and vigilant to the levelling and anarchy that it creates. The passage from a traditional and particular system of values and conventions to the universal system that the Web imposes has to be smooth; otherwise, the “informatics antibodies” will attack this new culture and demand to impose restraints on the new space, which is to prevent citizens from having free access to the world of knowledge. The implantation of this new culture in our countries implies the reconsideration of all our educational and cultural systems. However, this does not mean that we call for the standardisation and eradication of cultural diversity, or for believing in the necessity of tutelage on the informatics space, but we do make a call for being open to the universal without ignoring local cultures.

The principle of transparency is essential for information ethics, because we cannot fight corruption, violence and exclusion if there is an information blackout. Unfortunately, Africa has a very bad ranking with regard to its level of transparency and democratic participation.

We believe that the entrance of the informatics discourse in our culture can refresh our development discourse so that it can go beyond its artificial contradictions. This is so because the informatics discourse does not raise any objection to joining opposites such as modernity and tradition, reason and revelation. However, our greatest and enduring problem is that our past is so voluminous. If, however, we apply informatics

programmes to this rich heritage, we can dominate and reconcile it with the new culture of ICT.

What is strange about this is that, although there are more than 233 universities in the Arab world, with 10 million students, and over 1 000 centres of scientific research, they cannot transform these scientific capacities into efficient capabilities in the world of ICT. We notice that even if the Arab world is rich in written and oral heritage, it cannot convert this heritage into a cultural industry. This does not imply that the Arab world does not appear on the geocultural informatics map, but it means that its contribution and participation are not transformed into a knowledge society.

The digital revolution has revealed our economic, political and cultural deficiencies, and given us a rare opportunity to catch up with the march of progress. It has also done more than this, as it is trying to reconstruct the human mind so that it can be fit and take up the new challenges of progress. In this context, is our African reason, though deeply rooted in heavy tradition and obsessed by fundamentalist and nationalist demagogues, able to be transformed in the light of the new methods and approaches of “virtual reason”? The answer is still to be found, and it is incumbent upon us to endeavour to find it.



## **Cultural diversity and globalisation: An intercultural hermeneutical (African) perspective**

Chibueze C. Udeani

*In today's global age, one of the central challenges facing Africa is that of coming to terms positively with its cultural diversity. Furthermore, Africa is confronted with the challenge of global cultural diversity that has been characteristic of our global age. One of the questions raised here is how the intrinsic African cultural diversity can be made comprehensible, not only to non-Africans, but also to Africans themselves. Talking of understanding makes the issue a hermeneutical one. Hence the following questions: How can this hermeneutical challenge be mastered? What tools are required in order to accomplish this mission? Any efforts towards accomplishing this task will have to take many dimensions into consideration. These include, among other things, the historical, regional, political, economic, and so on. Such efforts would imply, not only that Africa would be occupied with itself culturally, but also that it needs to become relevantly conscious of the implications of these cultural dynamisms, understand it with reference to itself and the rest of the global community and, finally, interpret this phenomenon from an African perspective. These are the issues being addressed in this chapter.*

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## Introduction

One of the central aspects of globalisation today is the issue of cultural diversity. More than ever before, the different cultures of the world are culturally drawn together closely on different levels. This proximity makes the issue, as well as the challenges and, in lesser cases, the chances of cultural diversity within the process of globalisation more conscious. This awareness of cultural diversity has led to diverse opinions and reactions within the global community. Scholars differ on the prospects and implications of this development.

## Globalisation, Africa and cultural diversity

The issue of globalisation is certainly an issue of development, both politically, technologically, economically, culturally, and so on. There is a link between culture and development; this is especially so when development is viewed more broadly. This link could be seen from the point of view that culture can serve as an ultimate catalyst for, or even a hindrance to, development. Considering the position of Africa within the process of globalisation today, this would entail examining the relationship between culture, in terms of cultural diversity, and globalisation from an African perspective. For Africans, globalisation in its present form implies an ever-increasing process of marginalisation.

A closer look at Africa from the perspective of cultural diversity reveals that there is an inherent and intrinsic relationship between Africa and cultural diversity, which could be likened to the identity relationship between a snake and a lengthy body. Cultural diversity is a central part of the African collective identity. This central aspect of the African identity has not always proven to be a blessing for Africa in dealing with itself and also in its history, especially in its encounters with the rest of the world. This is due to, among other things, the fact that the intrinsic African cultural diversity is predominantly an ethnicised cultural diversity. This implies that the respective African cultures are specifically bounded and integrated mostly within particular groups. These define different parts of the continent in contradistinction to one another, emphasising more of the differences and local

contextualities at the expense of the collective African perspective. As Bell (2002:ix) states:

*... [the African] regional cultures were broken up and destroyed (or at least radically altered) primarily by the European and Islamic incursions going back some 500 years. The slave trade, introduction of new diseases, forced colonization, foreign language and religious impositions, and alien administration threw most of the continent into social, religious, political, and cultural confusion. Some of these regional cultures once had great civilizations and kingdoms, but a minimum of texts survived to record their ideas and achievements. What remains of them are fragmentary pictures: icons from ritual life, histories of smaller communities passed on orally [...] A true recovery, however, of these regional cultures [...] of a pre-colonial Africa, is extremely problematic – and this is made even more problematic by the nature of developments in the postcolonial experience.*

In the present global age, as Van Binsbergen (2004:118) describes it:

*... local contexts in the world are more and more dissolving into a worldwide network of interaction under the influence of technological innovations that have reduced to virtually zero the costs (in terms of time and money) of communication and information. Globalization was, in the first instance, observed with regard to transnational movements of capital along electronic media, but in the meantime turns out to have important cultural dimensions.*

Globalisation, in its present form and stage, strongly promotes a “meta-local world culture, without local specificity and local validity [...] and hence devastating for any localizing cultural identity like the African one” (Van Binsbergen, 2004:123). This makes it all the more necessary to pose the question of cultural diversity and globalisation from an African perspective.

Cultural diversity here has to be seen from two sides: the diversity intrinsic within the African cultural landscape, and the diversity of cultures with which Africans are now being more intensively confronted within the process of globalisation. Globalisation, as stated above, is not simply an economic phenomenon, but also “a new stage in the evolution of humankind and hence of creation as a whole. As it constitutes a

new way of being in terms of the whole and hence relationally, the issue becomes that of living with all the peoples and cultures of the world" (McLean, 2003:2).

In Africa, globalisation in particular, through its trespassing on cultures, undermines acculturation and human relations and creates a conflicting situation (Dalflovo, 2001:267). This is a hermeneutical challenge for Africa. Africa is called upon to address, understand and interpret both its own and the global predicaments and cultural diversity for itself within the context of the present global age. Dalflovo (2001:268) points out:

*Such contextualisation (like the issue of conflicts in Africa) implies, among the rest, that [...] Africans themselves provide the definitions of the criteria necessary to deal with conflict, together with the supporting structures needed to prevent, manage and resolve conflicts in Africa.*

For Africans, this hermeneutical task entails understanding and interpreting the two forms of cultural diversity within the frame of globalisation, the global age and "village" in terms of their own possibilities.

### On intercultural hermeneutics

Hermeneutics developed as an effort to describe more subtle and comprehensive patterns of comprehension, more specifically the "historical" and "humanistic" modes of understanding. As the study of interpretation and understanding of texts, it "involves two different and interacting focuses of attention: the event of understanding a text, and the more encompassing question of what understanding and interpretation as such are" (Palmer, 1969:8).

Though hermeneutics is not a household word – be it in philosophy or literary criticism, not to mention common areas of human activities – most of the human daily actions could be termed hermeneutical. Most of these are efforts towards, or processes of, interpretation and understanding. One needs to consider the ubiquity of interpretation and the generality of the usage of the term "interpretation". In fact, from the time we wake up in the morning until we fall asleep, we are "interpreting". On waking we glance at the bedside clock and interpret its meaning. We

recall what day it is and in grasping the meaning of the day we are already primordially recalling ourselves in the way we are placed in the world and our plans for the future. We rise and must interpret the words and gestures of those we meet on the daily round. Interpretation is, then, perhaps the most basic act of human thinking; indeed, existing itself may be said to be a process of interpretation (Palmer, 1969:8ff).

In our present global world, existence in itself could be understood as a constant process of interpretation. "The science of hermeneutics as an act of interpretation and understanding undergoes a fundamental change in today's global context [...] and it experiences an unprecedented widening of its horizons" (Mall, 2000:15). The issue might then boil down to the question of what kind of interpretation one needs today to grasp the dynamics of globalisation, especially with regard to African cultural diversity.

The foregoing indicates that we need a new form of approach when it comes to understanding within the context of African cultural diversity today. The kind of hermeneutics needed here is the intercultural form. This is because, among other things, what is involved here entails a laying open of a culture or cultures, a laying out that implies "reasonable explanation" and translation not only within a single culture, but also from one cultural world into the other (Palmer, 1988:13). As Bell (2002:1) puts it:

*Thus in approaching Africa [...] we must work hard to determine what is significant from the point of view of its people. Understanding anything is always tied to its surroundings, which include language, customs, geography, iconic traditions, and especially the ordinary practices of its people.*

The above also applies when one tries to understand one's own culture and the other's culture. For Africa, this would imply that it involves the process of bringing African cultures, and equally non-African cultures, to the understanding of Africans and non-Africans in such a way that they would be in a position to serve as catalysts for Africans within the process of globalisation. What applies to the understanding between Africans and non-Africans applies equally to Africans among themselves and between the different local African cultures.

The hermeneutics entailed here involve a type of

mediation and “message-bringing” process for Africans for themselves; from African cultures, through Africans, to themselves and to non-Africans on the one hand, and on the other hand, letting other non-African cultures address the African cultural worlds, especially within the context of globalisation. There is a need for “laying open” African cultures to Africans themselves and non-Africans. This will imply a discursive process in understanding. Africa here has to assert itself and its cultures. This leads to a “laying out”; that is, explaining it to both parties involved. Three dimensions are implied, as set out below.

Firstly, the culture in question, be it African or non-African, has to express itself. This is a stage where it will be left for this particular culture in its peculiarities to express itself as such. This is not an issue of instrumentalising the cultures, be it by its members or external agents, to achieve any other purpose. The central purpose must be that of making this particular culture to be appropriately understood. Hence, an honest effort towards objective self-expression of the culture in question is presupposed.

Subsequent to this is the phase of explanation. Explanation emphasises the discursive aspect of understanding a culture. It makes the explanatory rather than the expressive dimensions in a cultural encounter the main focus. The primary goal here is to explain a culture, rationalise on it and make it clear both to its members and non-members. Here, that which is brought to expression in the first phase, in our case a particular African culture for instance, will have to be made intelligible, not only to the culturally other or cultural outsider, but also to the members of the particular African culture in question. This includes an introduction into, and invitation to participate in, the intrinsic logic, values, judgments, conclusions, etc. of the particular culture in question.

This is followed by the phase of translation. Among other things, translation brings the particular African culture into a kind of clash with itself through its members and also with the cultural world of the non-members. The already expressed and explained particular African culture gets translated into the cultural framework of the real (spatial and temporal) contextuality of its members and non-members. This gives room, among other things, for critical

self-reflection and dialogue, and what would be an understanding of the culture in question.

Cultural diversity in the context of globalisation from an intercultural hermeneutical (African) perspective would, in the long run, mean a laying bare of African and non-African cultures; a laying out that implies an explanation, not only to outsiders, but also to ourselves; coupled with a translation from the African cultural into the non-African world and vice versa. This will go a long way in reversing the negative dynamics of the intrinsic African cultural diversity and make the diverse African cultures serve as an ultimate catalyst for the development of Africa in our global age.

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# Globalisation, knowledge economy and the implication for indigenous knowledge

Kgomotso H. Moahi

*This chapter considers the impact that globalisation and the knowledge economy have on the protection and promotion of indigenous knowledge (IK). It is asserted that globalisation and the knowledge economy have opened up the world and facilitated the flow of information and knowledge. However, the flow of knowledge has been governed by uneven economic and political power between developed and developing countries. This has a number of ramifications for IK. The dilemma faced is that whichever method is taken to protect IK, such as intellectual property rights (IPR) regimes, documenting IK, etc., it exposes IK to some misappropriation. Protecting IK through IPR is also fraught with problems. Documenting IK exposes it to the public domain, which makes it that much easier to be misused. However, not protecting IK runs the danger of having it disappear as the custodians holding it die, or as communities become swamped by the effects of globalisation. The conclusion, therefore, is that governments have to take a greater interest in protecting, promoting and using IK than they have been doing.*

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## Introduction

According to Mazrui (2001), there are three distinct ways in which globalisation is interpreted: as economic interdependency across vast distances; information availability and movement across vast distances; and reduction of the world into a global village. He states further that two forms of globalisation can be identified: economic and cultural globalisation.

Globalisation is also viewed as the opening up and interconnectedness of the world. This openness and interconnection have been given impetus by the need to open up economic and trade markets, as well as by developments in information and communication technology (ICT) culminating in the so-called “knowledge economy”. Many people assert that globalisation is characterised by a mismatch of political and economic power, and that it is the more powerful countries in the North that benefit from globalisation.

It has been stated in some quarters that colonialism can be viewed as the first stage of globalisation (Saul, n.d.). Mazrui (2001) agrees, stating that although the term “globalisation” is new, the actual process started centuries ago, fuelled by four major engines: empire building, economy, religion and technology. Colonialism was about empire building, finding raw materials and new markets. To do this effectively, some colonisers used religion to undermine the rich cultures of the colonised people. At the same time, many people were displaced from their cultural lands to pave the way for settlers and for development; cultural objects and artifacts were plundered and carried away from the colonised countries; and the indigenous knowledge (IK) of communities was denigrated, as it was appropriated by the colonisers to create new products and ideas.

Misappropriation of indigenous knowledge and other products and artifacts is therefore not a new thing and has been going on for many centuries. It was only in the 20th century that the issues of intellectual property of communities from which the IK originated, who were mostly in developing countries, was given any thought. These issues are still being debated and grappled with, and it is contended that globalisation and the knowledge economy necessitate the protection and promotion of IK – a move that has ethical implications.

## Indigenous knowledge and its importance

Many writers have defined IK as the knowledge, ideas and practices that are peculiar to a particular community and embody the community's identity and ways of surviving and maintaining the environment they find themselves in. Jones & Hunter (2003) maintain that there are varied meanings of IK and these emanate from the fact that IK itself is “embedded in the cultural fabric, woven with the social, economic, technical and scientific threads of a people developed and refined over time”. However, some definitions of IK are based on the fact that it is derived from communities that are indigenous to a region or place, such as the Maori of New Zealand, the Basarwa of Botswana, American Indians and the indigenous people of Canada. But, also, IK is often associated with rural-based communities that possess limited or no education and who still live as one with nature, using IK to survive the vagrancies of nature.

It is, however, the contention that IK is not only a preserve of indigenous people or rural communities, but is the knowledge that is held communally by communities that have lived in a particular area for a significant amount of time. These communities may be indigenous, rural or urban. IK therefore represents a strategy that is used by communities to deal with everyday issues of life, be it food production, health, education, the environment, and so on. Kigundu (2007a) distinguishes between indigenous knowledge and indigenous knowledge systems (IKS). He states that IK is also referred to as folklore, and IKS refers to the techniques and methods used by communities to harness the IK.

Most IK, especially in developing countries, is not documented and is transmitted orally from generation to generation. As such, it is vulnerable to gradual disappearance due to the influence of globalisation and as individuals who lived life the old way pass away. Arguments have been raised that undocumented IK is considered to be in the public domain and therefore available to all, with the possibility of being easily misappropriated. It is for these reasons that the documentation of IK has been advocated. The creation of digital libraries is seen as a way in which ownership of IK can be articulated and the databases used to check whether the IK is new, or has always existed, and therefore cannot be patented to individuals wishing to own it.

The importance of IK has been acknowledged as crucial for health and agriculture, and for commercial value in many other products. Arts and crafts emanating from IK have also attracted a great deal of attention. Products of IK are part of a multimillion trade and investment in the world. Moahi (2005), quoting Sahai, notes:

*The global market for herbal products is exploding; it is estimated to touch 5 trillion by 2020. Four out of ten people in the US are using what they call alternative medicine, even when the cost is not covered by medical insurance.*

The issue is that, since such information is undocumented and is thus in the public domain, it has been used to produce goods and products from which the communities who own the IK have not benefited. It is for these reasons that people have advocated documentation to guard against the disappearance and misappropriation of IK. In spite of this interest and the money that is being made from IK, communities who own it are sliding further and further into poverty.

According to Daes (1998), IK is also a very important resource for communities because it is very much tied to the socioeconomic, spiritual and cultural aspects of the owners' lives. She concludes that the protection of IK cannot be divorced from rights to land, culture and adequate livelihood for communities who own IK. At the same time, IK is also important for the world as a whole and should be shared as long as communities are consulted and acquiesce to its use – and, most importantly, benefit from such use.

### **Globalisation and IK as a public good**

Economic globalisation is characterised by transnational and multinational corporations seeking to extend their markets and sources of raw materials and ideas. Generally, they tend to look for these in less-developed countries. Indeed, Luna (2005) notes the current great rush to the world's forests to learn about the potential of medicinal plants. This, according to Mudiwa (2002), is because biological resources are the mainstay of humankind's survival and are mostly found in developing countries. Although the contention is that biological resources are meant for the good of the entire world, the irony is that the finished products, such as drugs, are

patented and are out of reach for poor countries and communities.

### **Negating IK**

Cultural globalisation can contribute to the erosion of people's languages and culture. This may have an effect on IK, as the tendency is to be dismissive of undocumented, unscientific knowledge. Developments in media and ICT contribute to this state of affairs. The effect has been to engender a negative attitude in most people towards all things indigenous, such as traditional practices relating to health, education, agriculture, and so on. The major argument advanced is that such practices have no scientifically proven basis. Indigenous information is regarded as inferior because it is not backed and validated by scientific methods.

### **Individualisation and commercialisation of IK**

Globalisation has commoditised and privatised knowledge, resulting in the knowledge economy. Indigenous knowledge has not been exempt from this privatisation. Knowledge that was in the public domain, owned by communities and passed down from generation to generation, has been privatised by applying intellectual property rights (IPRs) that confer rights on individuals, thus effectively robbing whole communities.

Daes (1998) states that globalisation is a "two-edged sword": on the one hand, it has opened up the world so that there is a free flow of ideas; on the other hand, however, a few voices and global corporations have drowned out other voices. It therefore comes as no surprise that IK is said to be under threat.

### **IK as a knowledge system worth having**

Developments in ICTs have fuelled what is now commonly referred to as the knowledge economy. The basis of this economy is that we live in a world where the major currency is information and knowledge – just as much, if not more than, capital and land. It is posited that whoever has access to information and knowledge and uses it effectively can expect to develop and generate wealth. A major argument is that developing

nations are not progressing because they do not have access to knowledge that they would use to improve production and generate wealth. However, knowledge is available for use by developing countries, but it is not attractive because it is said to be unscientific, and can only be useful if subjected to scientific methods that are mainly a Western construct that the rest of the world adheres to. The development of ICT has, however, brought IK into focus as a knowledge system worth having – hence the clamour to obtain IK and develop products and services of value.

### The paradox of IPRs

The knowledge economy has had a number of influences and impacts on IK and communities who own it. Pradip & Nyamnjoh (2007) have succinctly spelt out the ways in which both globalisation and the knowledge economy have impacted IK. First, in the knowledge economy, intellectual property has been given a very high profile and represents greater economic value. Indeed, much of the intellectual property of knowledge products is not vested in those who created it, but rather in global corporations that become the content providers and therefore command the greatest profits. The efforts being made to apply IPRs, which are by nature individualistic, to knowledge that is communally owned, such as IK, has created myriad problems, especially for the communities who own the IK. Pradip & Nyamnjoh (2007) further state that some elements of IK, such as:

*... music, weaves, symbols, artifacts, knowledge of natural resources, dance steps, motifs – are steadily becoming privatized and have become part of the circuits of knowledge production, distribution and consumption.*

The effect has been commercialisation of these products, with the result that they become trivialised and lose their sacredness and meaning. Indeed, as stated before, communities whose baskets, etc. are commercialised do not benefit to the extent that global capital does. For example, women may weave baskets in Botswana, sell these to a middleman who conducts brisk trade in supplying some global partner, who then makes much more money than the women will ever see from products of their own knowledge and hands. Pradip & Nyamnjoh (2007) state that as the knowledge economy spreads its tentacles,

it begins to displace IK from the hands of its owners, the communities. The knowledge is then “reconfigured in response to the asking and dictates of global capital”.

### Dispossessing communities of IK

Globalisation, or neocolonialism as some refer to it, has played a large role in dispossessing communities of their knowledge and identity. Many ideas and knowledge have been removed from communities through agreements for bilateral aid. Research organisations and governments in developing countries benefit from donor funding as long as they will accept foreign students and researchers to come and conduct research and, invariably, take home all the data and findings. These eventually find their way back to developing countries as products developed in the West and patented there. Clearly there is a dire need for intervention aimed at protecting IK and ensuring that the economic gains of communities and the protection of their sacred and confidential knowledge are assured.

### Ethical dilemmas of not protecting IK

Given the problems of protecting IK, there are, however, some ethical dilemmas of not protecting it. Ng’etich (2005) points these out clearly:

- Many communities that own documentation are slowly disappearing and their way of life is changing. It is therefore crucial that IK be preserved through documentation.
- Although there are issues with Western technology through multinational corporations bankrolling the appropriation of IK, it is a fact that this technology is required, as many communities do not have the means to facilitate the appropriation.
- Not documenting IK means that it is taken to be in the public domain, to be picked up and used by anyone who has the means. Documenting it means that there is a database against which patent claims can be checked.
- Knowledge and information have been shown to be the means to development and economic benefits, protecting and securing IK for appropriation by the communities themselves, through what Ruiz (2005) refers to as contracts and know-how licences that regulate access to



IK and establish terms under which such IK can be used, as well as the way in which communities should benefit.

### Issues of protecting and promoting IK

According to various authors, such as Chisenga (2002), developing countries (especially Africa) contribute a minimal amount of knowledge or content on the Internet. The Internet is completely dominated by the US, Europe and Asia. Such writers have insisted that these countries need to put their own indigenous information on the global network so that they not only look to foreign, Westernised information to solve their problems, but also have access to their own. The argument is that such countries do have knowledge that is indigenous to their situation and can assist them both in surviving and in generating wealth, and this information can be a means of bridging the knowledge divide that seems to exist. However, there are problems and issues to deal with.

The first concern is the failure of governments to harness IK, even as they acknowledge that sustainable development can be abetted by integrating IK. There is talk of the importance of IK and the need to protect it, but governments have not done much, with a few exceptions, such as Brazil, India, South Africa, and so forth. The vacuum created by the governments tends to be filled by other international organisations and researchers, who may do so legally or illegally. Where international organisations provide support to efforts by governments to harness and document IK, agreements are made that provide access to external forces to the IK, sometimes without consulting the communities (Pradip & Nyamnjoh, 2007).

Intellectual property rights agreements and conventions have been signed which, according to owners of IK, propose measures that run counter to the beliefs and cultures of the communities. They tend to take a non-holistic approach that does not consider the rights of IK owners to land, biodiversity and self-determination. In situ IK protection should therefore be considered (Pradip & Nyamnjoh, 2007):

*Indigenous peoples have called for approaches for protection of rights over IK to be holistic, reflecting their holistic worldviews, where knowledge is*

*inextricably linked to traditional territories, resources and culture.*

Swiderska & Argumedo (2006) reviewed eight UN agencies' activities around the protection of IK. They found a common thread of weaknesses in the work of all these agencies, which lends credence to the criticism levelled against these organisations by communities owning IK and other interested parties. These include the following issues:

- An artificial boundary is created between IK, biodiversity, and folklore and crafts.
- IK is treated in isolation from the human rights of the communities that own the IK.
- There is a need for more recognition in this regard, and it has been missing.
- Membership is typically made up of government representatives and communities are hardly represented; therefore they are excluded from making decisions that affect them.

Second, there is reliance on Western science and technology to transform IK and products into value-added products. Once this is done, communities tend to lose control of the product and do not benefit from the profits that are made – and yet the knowledge originated from them. According to Kawooya (2006), African scholars, researchers and scientists are said to be reluctant to digitise IK because the very tools of the information society make it easy for such knowledge to be misappropriated. Others have argued that documenting IK exposes it to the public, whereas some communities would prefer to keep their own IK to themselves rather than expose it. Moreover, some communities may have their own laws and regulations about what information may be disclosed and under what circumstances. This may be at variance with the establishment of national IK repositories or even IPRs. Another argument is that putting IK in the public stage may disadvantage communities that are rural and poor, who may be unable to defend their knowledge and resources against misappropriation once they are out there.

Third, it is argued that IK can be protected by *sui generis* laws, where the state legislates on behalf of the communities who own IK. Writers have expressed concern about this, stating that it is undermining indigenous peoples' right to self-determination and control of their own resources

and, in some instances, may result in the exploitation and marginalisation of such communities. Organisations such as the World Intellectual Property Organisation (WIPO) and World Trade Organisation (WTO) advocate the use of existing or novel *sui generis* measures to protect IK. WIPO's "Model Provisions for National Laws on the Protection of Expressions of Folklore against Illicit Exploitation and Other Prejudicial Actions" provides a *sui generis* model for countries to adopt (Kawooya, 2006). In spite of this, few countries have such protection, particularly in the African context.

Fourth, it has been argued that access to the Internet will enable developing countries to put their own content on the Internet. However, Daes (1998) argues that it will then be a struggle for indigenous people to keep their most sacred and private knowledge off the Internet:

*At the touch of the finger, volumes of confidential material will be placed irreversibly on the global public domain – the global commons – where it can then be transformed and commercially exploited by others.*

Questions do arise:

- Who will be responsible for putting IK content on the Internet?
- Will communities be able to access their own content?
- What powers will communities have to control access to, and use of, that content?

These are very real issues that must be addressed if IK is to come into its own and drive the development process.

### Approaches to protect and promote IK

Given the weaknesses found in international efforts at protecting IK, there is a need for homegrown solutions that will take the holistic rights of communities into consideration and involve them in policy making, decision making and implementation. At present, governments in developing countries, particularly in Africa, have not expended their energies on the issue of protecting IK. If there are any activities, they are restricted to universities and research institutions without the participation of government in devising policies and legislations governing bioprospecting, research and trade in IK,

biodiversity and artifacts. According to Moahi (2005), governments can, and should, take more active interest in matters concerning IK. They should do this by setting the national agenda through developing national IK policies and formulating legislature that would protect and promote the use of IK for national interest.

In taking an active position regarding IK, governments should do so in consultation with the various communities that own IK. There has to be collaboration and agreement on how, for example, sacred IK is to be treated; how communities should be consulted and play an active role in the protection, promotion and use of their IK; and ensuring that IK protection is done in a holistic manner that takes all aspects of IK into consideration. In considering what should be done to protect and promote IK in Botswana, Kiggundu (2007b) suggests that the University of Botswana should take the lead and therefore educate communities on their IK rights. This would be a good approach and it is the contention here that governments should move to designate organisations to protect and promote IK while, at the same time, educating communities about the importance of IK rights.

Governments can also act by supporting and championing IK resource centres or repositories to act as clearinghouses for collecting, documenting and disseminating IK by sponsoring and encouraging research into IK in the same way that governments in Brazil, India and South Africa are doing. They can involve communities in IK documentation exercises to ensure that holistic documentation is maintained.

Another form of promoting and protecting IK is to document IK in databases and on websites to establish prior existence and deter fraudulent claims of intellectual property. This should be done in consultation with communities where the responsibility of putting IK in a database is clearly articulated, access issues are taken into consideration and measures are put in place to ensure proper use of the IK. According to Kiggundu (2007b), once IK is documented in digital form, it becomes easier to market it for the benefit of communities and to prevent what he terms "unauthorized and surreptitious exploitation". This has been done in countries such as Brazil and India.

Governments should also, in consultation and

collaboration with communities, put in place *sui generis* legislation to govern the flow and use of IK in a bid to protect it from misappropriation on the grounds that it cannot be patented because it does not have novelty value. This can be done by adding legislation within the existing laws that govern IPRs. Kiggundu (2007b) gives an example of how this may be done, especially with regard to IK in areas of food, drink and medicine. He states that such knowledge can be protected by geographic indications where patenting may not be possible.

## Conclusion

This chapter has shown how globalisation and the knowledge economy have affected indigenous knowledge. Globalisation and the knowledge economy have exposed the potential and actual value IK has yielded to the world's most powerful multinational corporations. At the same time too, globalisation has negated IK by viewing it as untried and untested unless processed by Western technology. IK has also been individualised and commercialised to the point where symbols that are held sacred by communities are trivialised as slogans and logos, which are used and patented.

From the above, it is very clear that efforts must be expended to protect IK, if only to mitigate these issues. This chapter has considered a number of ways that have been used to protect IK, such as enacting *sui generis* laws, documenting IK, seeking contract licensing, and so on. However, in order for this to work, governments will have to take a more proactive stance and be at the forefront instead of the background.

Despite the above, there are many initiatives in the developing world that are aimed at providing the much needed intervention to protect and promote IK in the face of globalisation. South Africa, for example, has an IKS policy that was adopted in 2004 and supports research into IKS. Nigerians were recently urged by President Obasanjo to set up a training and research institute in the field of traditional medicine. South Asian countries are poised to create a digital library of the region's traditional knowledge and develop laws against misappropriation. India has its own traditional knowledge digital library, which has been used as a benchmark by other countries.

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## **The information gap, the digital divide, and the obligations of affluent nations\***

Kenneth Einar Himma

*This chapter aims to accomplish three things. First, it provides a broad and brief overview of the effects of absolute poverty in creating an information gap and a digital divide, and the effects of these gaps in perpetuating absolute poverty. Second, it shows that ordinary case intuitions, normative ethical theories and theological considerations converge in entailing a moral obligation to help those in poverty. Third, it argues, all too briefly, that although this surely involves making donations of both cash and food – free of the sorts of conditions that are frequently imposed by organisations like the IMF and World Bank – it also involves donations of a sort that are specifically targeted to close the information and digital divides.*

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## Introduction

The global distribution of material resources should bother any conscientious person. One billion of the world's six billion people live on less than US\$1 a day, while two billion live on less than US\$3 per day. Poverty in the affluent world is largely relative in the sense that if someone is "poor", it simply means he has significantly less than what others around him have. But since wealth is, unfortunately, frequently associated in the West with moral worth, it is important to realise that relative poverty is a genuinely painful condition. People who live in conditions of relative poverty are generally treated with less respect – hence they are denied something that is essential to human wellbeing.<sup>1</sup>

In the developing world, poverty and the suffering it causes are considerably worse. Here, poverty is characteristically "absolute" in the sense that people do not have enough to meet their basic needs consistently. People in absolute poverty lack consistent access to adequate nutrition, clean water and healthcare, and face death from a variety of diseases that are easily cured in affluent nations. Indeed, 15 million children die every year of malnutrition in a world where the food that is disposed of as "garbage" by affluent persons is enough to save most, if not all, of these lives.

Fortunately, life-threatening poverty has begun to attract the attention of parties and organisations that hold passionately conflicting views on many other pressing moral issues. Liberals and conservatives in the US might disagree about, say, abortion rights, but everyone seems to agree that something should be done about absolute poverty.

It is hard to overstate the significance of this emerging consensus on absolute poverty. People

in the US commonly believe that the only moral obligations we owe to others are negative, in the sense that they require only that we refrain from performing certain acts. For example, we are obligated not to shoot other people, but not necessarily to do something to save someone's life. That citizens in the US are converging on a desire to help the absolutely poor, given this unfortunate view of moral obligations, is quite remarkable.

In this chapter, I would like to do three things. First, I would like to provide a broad and brief overview of the effects of absolute poverty in creating an information gap and a digital divide, and of the effects of these gaps in perpetuating absolute poverty. Second, I would like to show that ordinary case intuitions, normative ethical theories and theological considerations converge in entailing a moral obligation to help those in poverty. Third, I would like to argue, all too briefly, that although this surely involves making donations of both cash and food – free of the sorts of conditions that are frequently imposed by organisations like the International Monetary Fund (IMF) and World Bank – it also involves donations of a sort that are specifically targeted at closing the information and digital divides.

The argument for this latter conclusion will be grounded in two considerations. First, it will be grounded in certain basic principles that have governed "globalisation" – the process by which trade barriers between countries have systematically been reduced over the last couple of decades – usually to the advantage of affluent nations and the disadvantage of developing nations.

Second, it will be grounded in certain claims about the most efficacious way in which to satisfy our collective and individual obligations to alleviate conditions of life-threatening poverty. I will conclude that (1) these measures should be borne both individually and collectively by taxpayers in affluent nations; and (2) corporations should waive certain intellectual property rights which, up to now, they have been extremely reluctant to do in order to prepare developing nations for a global economy that satisfies basic principles of fairness.

## The bi-directional relationship between absolute poverty and the divides

There are gaps in access to information and

<sup>1</sup> Poverty is, however, becoming more serious in countries like the US, where a recent study shows an increase in the percentage of the population in "severe poverty", which is defined as having an income less than half of that defined by the federal poverty line. The number of people living in severe poverty increased by 26% from 2000 to 2005. (See, for example, Pugh, 2007.) Moreover, there is some absolute poverty in the US, as there were, at the time of writing, more than 750 000 homeless persons (Olemacher, 2007).

information and communication technologies (ICTs) within nations and between nations. In the US, for example, there are such gaps between rich and poor citizens, whites and blacks, and urban dwellers and rural dwellers. According to the Department of Commerce (NTIA, 1999):

*The 1998 data reveal significant disparities, including the following: Urban households with incomes of \$75,000 and higher are more than twenty times more likely to have access to the Internet than rural households at the lowest income levels, and more than nine times as likely to have a computer at home. Whites are more likely to have access to the Internet from home than Blacks or Hispanics have from any location. Black and Hispanic households are approximately one-third as likely to have home Internet access as households of Asian/Pacific Islander descent, and roughly two-fifths as likely as White households.*

*Regardless of income level, Americans living in rural areas are lagging behind in Internet access. Indeed, at the lowest income levels, those in urban areas are more than twice as likely to have Internet access than those earning the same income in rural areas.*

Other things being equal, poor people in the US are less likely to have access to online information and ICTs that make access possible than affluent people do. Similar gaps exist between the affluent developed world and the impoverished developing world. Although Internet access is increasing across the world, it is still the case that a comparatively small percentage of the developing world's poor has Internet access. A 2005 UNESCO report indicated that only 11% of the world's population has access to the Internet, but that 90% of these persons live in the affluent industrialised developed world (Ponce, 2005).

Although these differences in access to ICTs and information correlate with differences in wealth, there is a causal relation between them. Obviously, people who are too poor to meet their immediate survival needs fully cannot afford either ICT access or the training that would prepare them to take advantage of such access. However, not being able to afford such training and access is likely to perpetuate poverty in a global economy that is increasingly requiring the ability to access, process and evaluate information. Lack of access owing to poverty is a vicious circle that contributes to ensuring continuing poverty.

## **Moral dimensions of the information and digital divides**

As there is confusion and disagreement about the concepts of digital and information divides, I would like to provide a brief explanation of these notions as used in this chapter. A "digital divide" between groups A and B refers to a gap in *meaningful* access to ICTs, which requires the ability to use ICTs to their economic and cultural advantage. Based on this concept, someone who has the relevant ICTs but does little more with them than, say, to download music from online sharing sites has access, but not *meaningful* access, to ICTs. This person therefore does not have the ability, opportunity or disposition to use them in a way that promotes his or her cultural knowledge or economic wellbeing.

An "information gap" between groups A and B refers not only to a gap in access to information that can potentially improve a member's cultural knowledge and economic wellbeing. It also refers to a lack of ability, opportunity or disposition to use that information in a way that contributes to that member's cultural knowledge and economic wellbeing. Someone who can find information that can ground economically productive activity, but lacks the ability (perhaps because of under-developed analytic skills) or opportunity to put it to use, would suffer from an information gap relative to someone who is succeeding in the information or knowledge society.

These kinds of divides are typically characterised as problems to be remedied, but the ethical issues are more complex than is commonly assumed. Someone who thinks that such gaps unambiguously present a moral wrong that must be rectified focuses primarily on the benefits of ICTs and their meaningful use. Having meaningful access to ICT, which includes the skills to be able to process information in a way that creates marketable value, results in benefits that are both economic and non-economic in character. Clearly, there are a host of marketable things that people who are competent with ICTs can do to improve their standard of living and wellbeing. Likewise, if we think that there are many things about the world that are worth knowing for their intrinsic value (as opposed to their value in bringing about some other means, such as an increase in wealth), then meaningful access to, and use of, ICTs can increase a person's

understanding of the world – something that seems sufficiently valuable, along with the economic benefits, to characterise lack of such access to ICTs as a problem needing solution.

Of course, the moral calculus is never so simple as it may initially appear. The worldwide availability of mass media featuring content from all over the world can have the effect of reducing cultural diversity. Human culture can be thought of as analogous to artistic product – although it is collective in a way that, say, paintings are not. Human beings manufacture the cultural norms and conditions in which they live by converging upon shared assumptions about what is and is not valuable, by expressing shared tastes in the development of indigenous art, fashion, language, knowledge and food. Exposure, say, of African nations to certain cultural content from the West can certainly expand an African's sense of the cultural possibilities and result in new cultural forms that are hybrids of African and Western influences – and this can certainly be seen as good from a moral vantage point.

However, the availability of a particular culture's content can also have the effect of eliminating cultural forms that, as a moral matter, should be preserved. Many persons, I think, share the intuition that the progressive Americanisation of cultures ranging from Western European to African and Asian (in the form of, for example, a proliferation of American corporate franchises, such as Starbucks, McDonald's and the Gap, in an increasing number of international cities) raises moral issues.

Moreover, resolving the divide between North and South threatens the multilingualism endemic to, for example, nations in Africa. More than 75% of the World Wide Web's content is in English – a percentage that will continue to increase as more people in the developing world gain meaningful access to the Web – and yet English is the native language of less than 50% of people with Internet access (including, of course, people in Western European nations). The proliferation of ICTs and the skills needed to use them requires fluency in English and threatens, according to some estimates, as many as 6 000 languages currently being spoken, the majority of which are in Africa (Ponce, 2005).

It is, however, as important to avoid a cultural paternalism leading to steps that insulate existing

indigenous cultures from outside influences, as it is to avoid the sort of cultural imperialisation of which the US is often accused, especially in cultures in which life-threatening poverty is endemic.

There are no easy choices here with respect to the kind of gaps with which we are concerned. If it is important to preserve distinct cultures for the same reason it is important to preserve works of art, it is also important to protect the autonomy rights of individuals to choose the cultural forms that best express their developing sense of values and priorities. It is equally important, on this assumption, to protect the right of people subject to conditions of absolute – or, for that matter, relative – poverty to improve their standard of living so as to ensure a healthier, happier life in which they can flourish in all the ways that are reasonable to think of.

Given that total globalisation of economic activity appears inevitable, I think it is fair to assume that, while the value of preserving culture is an important moral value, the values associated with making possible a more economically affluent life for the one billion people who live on less than US\$1 a day and the two billion who live on less than US\$2 a day outweigh the admittedly important moral value of preserving diversity. Life is more valuable than art and culture – although art and culture are obviously an important part of what makes life worth living.

This should not be taken to deny that every possible step should be taken to preserve cultural diversity and multilingualism as the affluent world attempts to solve the problems associated with the various divides (ICT, knowledge, information, skills). If diversity can be preserved while raising standards of living among the most wretched poor of the world, then it should be done. The cultural richness made possible by the world's diverse customs and languages is, from any evaluative standpoint (aesthetic, prudential and moral) of tremendous importance and should be protected by every feasible means.

The point is, rather, that the moral value associated with alleviating conditions of poverty that threaten life, health, security and human dignity outweighs the value of such diversity if they come into irresolvable conflict. If the cost of feeding chronically malnourished individuals and making possible a certain level of affluent



self-sufficiency among the world's poorest people means the disappearance of certain cultures, so much the worse for those cultures – although we should not lose sight of the fact that something of genuine moral importance is being lost. Of course, it should be emphasised that no claim is being made here that these two values cannot both be protected and secured; the claim is rather that alleviating a poverty that is beyond what most people who have never seen it can imagine, outweighs preserving the diversity that enriches even the lives of people who never travel beyond the confines of the nearest large metropolitan area.

This is not, of course, an entirely comfortable position to take, but reflection on one's own preferences seems to require it. One should always be aware that intuitions and preferences are culturally conditioned, so there is a danger that my intuitions are not universally shared; if so, that is a gap in my argument. But I will take a full belly and a materially comfortable life over adherence to any particular cultural form – including the one with which I am most comfortable. It is true, of course, that Western intuitions are conditioned by the West's atomistic conception of the individual as supreme, whereas other Eastern cultures conceive of the group to which one belongs as supreme. Still, it is hard to imagine any practically rational being preferring the chronic discomfort of serious poverty to membership of any group that does not have a religious character.

### **Do affluent nations have a moral obligation to help developing nations overcome poverty and the information and digital divides?**

To say that something is "good" is to not to say that it is obligatory. Failure to do something morally good is not necessarily morally wrong, and does not of necessity merit blame, censure or punishment. It would be good if I were to run into a burning building to try to rescue someone, but it is not morally wrong for me to refrain from doing so; risking my life to save another is *supererogatory* – that is to say, morally good but beyond the call of obligation. Failure to do something morally obligatory, however, is necessarily morally wrong and merits blame, censure or punishment. We praise superero-

gatory acts, but not obligatory acts. We blame non-performance of obligatory acts, but not non-performance of supererogatory acts.

It is uncontroversial that it is *morally good* for affluent persons or nations to help impoverished persons or nations, but there is considerable disagreement about whether affluent persons and nations are *morally obligated* to help alleviate the effects of absolute poverty. As noted above, many persons in the US take the position that the only moral obligations we have are *negative* in the sense that they require us only to abstain from certain acts; we are obligated, for example, to refrain from killing, stealing, lying, etc. Based on this view, we have no moral obligations that are *positive* in the sense that they require a positive affirmative act of some kind. It follows, on this view, that we have no moral obligation to help the poor; helping the poor is good, but beyond the demands of obligation.

Indeed, some would argue that it is a conceptual truth (derived from the content of the concept, as opposed to being derived from substantive moral norms) that helping the poor is good, but not morally obligatory. On this line of analysis, helping the poor is, as a conceptual matter, "charity". It is a conceptual truth, however, that charity is morally good, but not obligatory; that is to say, it is a deeper implication of the very meaning of "charity" that it is supererogatory. Accordingly, charity is praiseworthy, but failure to be charitable is not blameworthy.

I think this view is both mistaken and pernicious. In the next four subsections, I will argue that this view is inconsistent with the ethics of every classically theistic religion, ordinary intuitions about certain cases, and each of the two main approaches to normative ethical theory: consequentialism and deontological ethical theory. Taken together, these arguments provide a compelling case for thinking that the affluent are morally obligated to help alleviate the conditions of absolute poverty wherever they are found.

### ***Theological considerations***

To begin with, it is clear that Christian ethics entail a robust moral obligation to help the poor. Jim Wallis (in Curry, 2005) points out, for example, that there are 3 000 references in the Bible to alleviating poverty. Jesus frequently

spoke of helping the poor as a constituent of authentic religious faith in God. Matthew 25:31–46 states:

*When the Son of Man comes in his glory, and all the angels with him, then he will sit on the throne of his glory. All the nations will be gathered before him, and he will separate people one from another as a shepherd separates the sheep from the goats, and he will put the sheep at his right hand and the goats at the left.*

*Then the king will say to those at his right hand, "Come, you that are blessed by my Father, inherit the kingdom prepared for you from the foundation of the world; for I was hungry and you gave me food, I was thirsty and you gave me something to drink, I was a stranger and you welcomed me, I was naked and you gave me clothing, I was sick and you took care of me, I was in prison and you visited me."*

*Then the righteous will answer him, "Lord, when was it that we saw you hungry and gave you food, or thirsty and gave you something to drink? And when was it that we saw you a stranger and welcomed you, or naked and gave you clothing? And when was it that we saw you sick or in prison and visited you?" And the king will answer them, "Truly I tell you, just as you did it to one of the least of these who are members of my family, you did it to me."*

*Then he will say to those at his left hand, "You that are accursed, depart from me into the eternal fire prepared for the devil and his angels; for I was hungry and you gave me no food, I was thirsty and you gave me nothing to drink, I was a stranger and you did not welcome me, naked and you did not give me clothing, sick and in prison and you did not visit me."*

*Then they also will answer, "Lord, when was it that we saw you hungry or thirsty or a stranger or naked or sick or in prison, and did not take care of you?" Then he will answer them, "Truly I tell you, just as you did not do it to one of the least of these, you did not do it to me." And these will go away into eternal punishment, but the righteous into eternal life.*

The implicit conception of authentic faith here is that it is not just about believing certain propositions; it is also about doing things – and one of these is to help the poor. Not helping others in need is tantamount to rejecting Jesus

himself. Since (1) this is justifiably punished and (2) punishment is justified only for failure to do what is obligatory, it follows that helping others is morally obligatory. If more is needed, Matthew 22:34–40 describes the foundational principles of Christian ethics as follows:

*When the Pharisees heard that he had silenced the Sadducees, they gathered together, and one of them, a lawyer, asked him a question to test him. "Teacher, which commandment in the law is the greatest?"*

*He said to him, "'You shall love the Lord your God with all your heart, and with all your soul, and with all your mind.' This is the greatest and first commandment. And a second is like it: 'You shall love your neighbour as yourself.' On these two commandments hang all the law and the prophets."*

In this portion of Scripture, Jesus informs his questioner that we are "commanded" – and hence obligated – to love our neighbours as ourselves. But "love" cannot refer to the emotions or feelings we ordinarily use the term "love" to pick out.

- First, what we feel is beyond our direct volitional control and we cannot be obligated to do what is beyond our direct volitional control; as it is usually put, "ought implies can". As I cannot efficaciously will to feel towards some stranger the joyous emotion that I feel, for example, towards my wife or towards my nieces, I cannot be obligated to do so.
- Second, we do not experience that feeling towards ourselves; while we are self-interested and regard ourselves with esteem, this is different from the kind of emotion we feel towards other people we love. The day I look in the mirror and feel in response what I feel when I see my dear nieces is a day I will immediately seek some therapy for what is clearly a pathological narcissism!

Although many theologians have interpreted "neighbours" as applying only to Christians, this is implausible.<sup>2</sup> The New Testament is clear about the passages in which it refers to all people. Christians are typically referred to as "brethren" or as comprising the "body of Christ" (or the Church). Neighbours, properly construed in

<sup>2</sup> I am indebted to Johannes Britz for this insightful concern.

conjunction with the other verses in which Jesus insists upon helping the poor, are best construed as referring to all people – Christians and non-Christians alike. Indeed, the Pauline letters are famous for the egalitarian view of salvation that is promoted; there are no “chosen people” as the Old Testament seems to assert; we are all offered the opportunity for salvation.

The obligation to love our neighbours as ourselves is properly construed as an obligation to treat the interests of other people as being as important as our own – and this clearly entails that the affluent are obligated to help the poor. Someone who spends money on unnecessary fashionable clothing is not treating the interests of someone in conditions of life-threatening poverty as being as important as his or her own, because basic needs clearly outweigh desires for life’s luxuries. It is clear that this first principle of Christian ethics requires the affluent to deploy some of their disposable income to help alleviate absolute poverty.

Judaism grounds *tzedakah*, an obligation to help the poor, in both the Torah and the Talmud. At the outset, it is important to note that Leviticus 19:18 states the very law that entails an obligation to help the poor in Christianity:

*You shall not take vengeance or bear a grudge against any of your people, but you shall love your neighbour as yourself: I am the LORD.*

The same interpretive considerations applied to the New Testament statement are relevant here, as Jesus was a teacher of the Jewish tradition and was regarded by his followers as the fulfilment of Jewish prophecy. Other verses are more specific. Leviticus 23:22 illustrates it in terms of agricultural products, but the point remains the same:

*And when you reap the harvest of your land, you shall not reap all the way to the edges of your field, or gather the gleanings of your harvest; you shall leave them for the poor and the stranger. I am the LORD your God.*

Similarly, Deuteronomy 14:28-29 explicitly requires tithing (giving a tenth of one’s increase):

*At the end of every third year you shall bring out the tithe of your produce of that year and store it up within your gates. And the Levite, because he has no portion nor inheritance with you, and the stranger and the fatherless and the widow who are*

*within your gates, may come and eat and be satisfied, that the LORD your God may bless you in all the work of your hand which you do.*

The Talmud is no less specific. Tractate Baba Bathra states:

*It has been taught: R. Meir used to say: The critic [of Judaism] may bring against you the argument, “If your God loves the poor, why does he not support them?” If so, answer him, “So that through them we may be saved from the punishment of Gehinnom.”*

As Rabbi Maurice Lamm (2001) sums up the Jewish view: “Support for the disadvantaged in Judaism is not altruism. It is nothing less than justice.” To do justice, of course, is obligatory; in the case of Judaism, it is necessary to save the Jew from a “meaningless death”. As such, it is a commandment and an obligation.

Finally, Islam regards the obligation to help the poor (*Zakat*) as one of the five basic obligations (or “pillars”, as these obligations are commonly called) of its faith. These pillars obligate Muslims (1) to declare that there is no God but Allah and Muhammad is the Messenger of God (*Shahada*); (2) to worship in prayer five times daily while facing Mecca (*Salat*); (3) to fast from sunrise to sunset during the month of Ramadan (*Sawm*); (4) to make a pilgrimage to Mecca (*Hajj*); and (5) to give to the poor and needy (*Zakat*) (Ruthven, 1997). Once a tax collected by the government, satisfaction of the obligation to help the poor is left to the conscience of the believer.

However, it is no less an obligation in virtue of being left to the believer. The law of a government does not necessarily reflect the content of a Muslim’s moral obligations. Only insofar as a government’s law incorporates the content of Sharia law does it express the content of the moral obligations defined by the Koran, because Sharia law is directly derived from the Koran. Whether enforced by a state or not, every Muslim is obligated to help the poor – and this obligation is part of Sharia law as expressed in Islamic Scripture. While there is much that the Abrahamic classically theistic faiths disagree upon, they are united in holding that helping the poor is a moral obligation.

Nor should it be thought that there is any requirement for recipients to have exhausted all efforts to create opportunities for themselves. The

Scriptures of all these religions were written at a time when resources were so scarce that one simply could not create appropriate economic opportunities at will. While we now live in a world in which one can do exactly that (provided one has adequate resources, at least in the form of proper training), the concern of these religions with the duty to alleviate poverty is not with such contingencies.<sup>3</sup>

### ***Peter Singer's drowning infant case***

Well-known philosopher Peter Singer asks us to consider the following situation. An adult notices an infant face down at the edge of a nearby pond in some very shallow water and can see the infant is flailing. Instead of simply bending over and removing the infant from the water, a gesture that would cost him no more than a few seconds and some wet hands, he walks by without doing anything and allows the infant to drown. People almost universally react to this case with a judgment that the adult has done something grievously wrong.

Most people view this situation as a counter-example to the view that we have no positive obligations to help others – even, in my experience, persons who initially hold this view. Indeed, I frequently present this case in applied ethics classes to students who nearly all begin this portion of the class with the view that all our obligations are negative. Despite this, they almost universally respond to the above example quite passionately, stating that a grave wrong has been committed. After realising that their initial view is inconsistent with their reaction to this case, they overwhelmingly abandon their initial view that all our obligations are negative.

Singer infers from this example that we have an obligation to save the life of another person if we can do so without sacrificing something of comparable moral significance, but the example will not support such a strong principle. The reason is that the example involves a person who can save an infant at trivial cost to himself; it would be another thing if he had to risk injury to do so. However, the example is couched so that the costs are minimal – temporary wet hands and a few seconds of lost time.

At most, we can infer the weaker principle that we have an obligation to save the life of another person if we can do so without incurring a significant cost to ourselves, but this is strong enough to entail a robust obligation on the part of the affluent to alleviate the life-threatening conditions of absolute poverty. Sacrificing a US\$30 shirt one does not need in order to save the life of a desperately malnourished child for one month is a trivial cost for someone who makes US\$40 000 a year, which is about the average income in the US. A national commitment of even US\$100 billion per year to foreign aid is insignificant in an economy worth US\$12 trillion. Indeed, US\$100 billion is about 3.5% of the US\$2.9 trillion budget President Bush asked Congress to approve. In 2005, the US spent about US\$28 billion in foreign aid (Shaw, 2006). Clearly, even the weaker principle that can be extracted from Singer's example entails that the US is morally obligated to do much more.

### ***Alleviating life-threatening effects of "bad moral luck"***

It might be tempting to think that merit largely determines how material resources are distributed in the world. On this line of thinking, we are affluent and they are not, because we have earned it and they have not. While poverty is always regrettable, it does not necessarily involve justice – as long as people have everything they deserve, there is no injustice in their having less than they need. We are our own keepers, and our respective merits determine what distributions are just. In other words, we have what we have because we have earned and hence deserve it.

While desert (something deserved) plays a role in explaining why people have what they have, "luck" may play as large a role. Had, for example, Bill Gates' parents lived in conditions of absolute poverty in a developing nation instead of an affluent suburb of Seattle, he might not be living anything like the kind of life he presently lives. He would surely not be the world's richest man or the head of the Microsoft Corporation, because he would not have had access to the resources available in an affluent nation like the US, including an education that made it possible for him to achieve the level of digital and business sophistication needed to start such a successful corporation. Indeed, the probability

<sup>3</sup> Another outstanding point I owe to Johannes Britz.

that Gates would not also be mired in conditions of absolute poverty is so low as to be morally negligible. Although his personal merits obviously played an important role in his success, “luck” played an equally important role. He was fortunate enough to be born into the affluent world instead of the developing world, and that has made all the difference.

The same is true of anyone who lives in the affluent developed world. Most of us who enjoy affluence in these nations have done something to deserve it, but we also owe what we have to not having had the misfortune of being born to parents living in conditions of life-threatening poverty, who lacked access to the basic resources affluent persons take for granted, such as adequate nutrition, water and shelter, as well as 12 years of free education and government funding available for a university education.

There is, of course, nothing morally wrong with being fortunate. What we “luck into” is, by definition, beyond our control and hence not subject to moral evaluation. The idea that someone commits a moral wrong in virtue of having something happen to him or her that is utterly beyond his or her control is clearly absurd.

But whether we keep all we have “lucked into” is something within our control and subject to moral evaluation. Of course, it would be ridiculous to claim that it is always wrong to keep what we have lucked into; this would imply that we all should give up all our material resources, given that what all of us have depends so critically on the good fortune of having been born or raised in an affluent country.

Sometimes it is just, and hence morally permissible, to keep all that you have lucked into on a particular occasion. If, for example, my neighbours and I contribute a modest amount to fund a lottery game we will all play, it seems reasonable to think that, other things being equal, there is no injustice in the winners keeping the prize – even though the result of the game is determined by luck and no one can antecedently claim to have deserved the winnings.

However, substantive principles of justice link the justness of a holding to its being deserved. As a general matter, justice requires that people get what they deserve – whether we are talking about retributive, corrective or distributional justice. Although the last paragraph suggests that

it is not necessarily unjust to keep undeserved holdings, undeserved holdings are presumptively problematic in the sense that keeping them requires justification. In the context of retributive justice, for example, it is clear that giving people more punishment than they deserve is unjust.

It is reasonable to think that the intrinsic worth of human life entails that every person *deserves*, at the very least, a fair opportunity to survive. Of course, if there is really not enough to go around, then some people will not survive, and this does not raise any issues of injustice as long as resources are otherwise as fairly distributed as is compatible with their being so scarce. In this world, people die and no one can be blamed on the grounds of justice – even if some who survive owe their survival to “luck”. In this tragic world, it is not unjust to hold on to undeserved resources needed to survive.

But this is not the world in which we live; our world is one where there is much more than enough to go around; yet some have billions of dollars while others lack consistent access to adequate food and water. Someone who has much more than needed to survive, partly in virtue of luck, denies to others a fair opportunity to survive. Keeping all those resources to oneself, then, is keeping something one did not deserve, while denying to others something they do deserve – and this seems clearly unjust.

Here it is important to remember that it is the moral equivalent of a “game of chance” that determines where one is born. When people cannot opt out of a game of chance and the results of that game largely determine whether they will have much more than they need to survive, or whether they will instead struggle mightily just to satisfy their basic needs (and sometimes fail to do so), those who have the good fortune to draw birth in the affluent world owe an obligation of justice to those who have the misfortune of drawing birth in conditions of absolute, and hence life-threatening, poverty.

### ***Consequentialism and deontological moral theories***

There are two main species of normative ethical theory that evaluate acts rather than character, namely consequentialism and deontology. Consequentialism is the view that the moral value of

any action is entirely determined by its consequences in bringing about some objectively desirable state of affairs; for example, act utilitarianism holds that the first principle of ethics is the obligation to maximise “utility”, which may be defined in terms of pleasure, wellbeing, happiness or satisfied preferences. Strictly speaking, deontology can be accurately described as the negation of consequentialism: the moral value of at least one act is partly determined by features intrinsic to the act, rather than the consequences of the act. For example, act utilitarianism would have to explain the wrongness of lying in terms of features extrinsic to the lie (namely, the effects of the lie on total utility), whereas a deontologist can explain the wrongness of lying in terms of its inherent features (namely, its deceptive character).

While there are different consequentialist theories and different deontological theories, a brief consideration of two of the most historically influential ones, I hope, will suffice to show that these different theories generally converge on the view that we have a moral obligation to help the poor. This is not to say that every consequentialist and deontological theory has this result; there may well be particular theories that hold that helping the poor is good but not required. But this, as I hope will be evident, will be the exception and not the rule.

Consider, to begin with, act utilitarianism claims that our sole obligation is to maximise utility. Here it is important to note that material resources have diminishing marginal utility once basic needs are satisfied. Once basic needs are met, each successive increment of disposable income has less value to us than the last increment of the same amount. For example, a person making 45 000 dollar a year, other things being equal, would derive less utility from a 5 000 dollar raise than would someone making 40 000 dollar a year. If this is correct, then utility will be maximised by moving it from people who have more than they need to people who have less than they need.

Indeed, it is for this reason that many act utilitarian theorists believe we are obligated to distribute material resources so that everyone has an equal share. If you have 50 000 dollars and I have 40 000, the utility of an additional 5 000 dollars to me exceeds the utility of the 5 000 dollars you have over 45 000 dollars. According-

ly, to satisfy your obligation to maximise utility, you should give me 5 000 dollars, which would equalise our share of the resources.

The point here is not that all act utilitarians are egalitarian with respect to distributive justice; many would argue that, notwithstanding the diminishing marginal utility of non-necessities, an equal distribution of income would ultimately reduce community utility because it would remove an incentive to engage in productive activity that increases the community’s material resources. The point, rather, is that egalitarians with respect to distribution of income are quite frequently act utilitarians who ground their position in the diminishing marginal utility of resources not needed to satisfy basic needs. One way or another, the diminishing marginal utility of non-basic material resources pretty clearly implies, in an act utilitarian view, an obligation to move disposable income to persons who lack basic necessities.

Deontological theories almost universally hold that we have an obligation to help the poor. Consider, for example, Immanuel Kant’s view that the first principle of ethics, the first categorical imperative, entails an obligation to help the poor. According to the first categorical imperative, we should act only on those maxims (i.e. principles that explain our acts) that we can consistently universalise (i.e. consistently use these maxims as universal laws *everyone* always acts upon). Here is what Kant (1785) has to say about its application to the issue of whether or not we are obligated to help the poor:

*A fourth, who is in prosperity, while he sees that others have to contend with great wretchedness and that he could help them, thinks: “What concern is it of mine? Let everyone be as happy as Heaven pleases, or as he can make himself; I will take nothing from him nor even envy him, only I do not wish to contribute anything to his welfare or to his assistance in distress!” Now, no doubt if such a mode of thinking were a universal law, the human race might very well subsist and doubtless even better than in a state in which everyone talks of sympathy and goodwill, or even takes care occasionally to put it into practice, but, on the other side, also cheats when he can, betrays the rights of men, or otherwise violates them.*

*But although it is possible that a universal law of nature might exist in accordance with that maxim,*

*it is impossible to will that such a principle should have the universal validity of a law of nature. For a will which resolved this would contradict itself, inasmuch as many cases might occur in which one would have need of the love and sympathy of others, and in which, by such a law of nature, sprung from his own will, he would deprive himself of all hope of the aid he desires.*

Of course, many theorists worry that the first categorical imperative, applied as Kant intends, will not have many of the substantive results that Kant believes it has; the first categorical imperative seems to work only on acts that involve some sort of deception. But the point is that Kant himself believed that we have a moral obligation to help the poor, and he believed this was a transparent application of the first categorical imperative – after all, he devotes only one paragraph to the argument.

Another influential deontological theorist, W.D. Ross, took the position that we have a number of prima facie duties that, taken together, determine what we are obligated to do on any given occasion. As Ross (2002) describes it:

*“Prima facie duty” is a brief way of referring to the characteristic (quite distinct from that of being a duty proper) which an act has, in virtue of being of a certain kind (e.g. the keeping of a promise), of being an act which would be a duty proper if it were not at the same time of another kind which is morally significant.*

A duty is a prima facie duty in the sense that it is presumptive and can be overridden by a stronger prima facie duty; what we are ultimately obligated to do is determined by the strongest of these presumptive duties. Ross gives what he takes to be a complete list of prima facie duties, namely those resting on:

- A promise
- A previous wrongful act
- Previous acts of other persons (e.g. services that may give rise to a duty of gratitude)
- A distribution of pleasure or happiness
- Persons whose conditions we can make better (duties of beneficence)
- The ability to improve our own conditions (duties of self-improvement)
- The harmfulness of certain behaviours on others (duties not to harm others)

The fifth proposition, of course, describes a prima

facie obligation to help the poor. Notoriously, Ross does not provide any theoretical considerations that would enable us to determine what is, all things considered, our proper (or ultimate) duty; however, this is not really relevant for our purposes here. Certainly, the obligation to help the poor is not absolute in the sense that it takes precedent over all other duties. It seems clear that people of limited means have a duty to take care of their families that outweighs the duty to help the poor if they cannot do both.

The point of this section is simply to suggest that, whatever else they might disagree upon, consequentialist and deontological theories typically (although not necessarily) agree that the affluent have a moral obligation to help the absolutely poor.

### **What would have to be done to solve these problems?**

If we assume, as I am willing to do, that these divides are problems of justice that require a solution, the question is how we should go about solving them? This much is clear: the solutions will be expensive and much more complicated than can be addressed in a few short pages. Accordingly, I purport to do no more than provide a brief sketch of some obstacles to bridging the divide and the poverty it perpetuates.

At the outset, it is worth noting that the affluent world cannot provide all the benefits associated with meaningful access (construed to include some threshold level of skill in using them) to ICTs simply by providing the relevant ICTs and training to impoverished nations.

There are a number of problems here. First, and most obviously, one cannot eat ICTs, Internet access or information. If we are dealing with countries with life-threatening poverty (and much poverty in the developing world is absolute in this sense), then the very first step in providing meaningful access to ICTs is to ensure that these more basic needs are met. Someone who is malnourished and sick will not be in a position to take advantage of ICTs, no matter what else is done. So part of the programme will have to include provision of foodstuffs, clean water and healthcare to free people from having to devote all their time and energy just to ensure that their bellies are full enough to keep from

keeling over – something that affluent nations have done far too little to address up to now.

Second, other kinds of physical infrastructure are needed in developing nations to ensure that people have access to the opportunity to participate in the online economy. And as Johannes Britz pointed out to me, the affluent have no problem ordering goods from Amazon.com because they have homes with road access making it possible for UPS or Fed-Ex to deliver those goods. In many places in Africa, especially Ethiopia, people live away from roadways and must walk long distances to school and to work, but this situation also prevents UPS and Fed-Ex from delivering goods there. Indeed, one must have a credit card to make such purchases – and impoverished people in the developing world do not have credit cards.

Third, and most importantly, people must not only have the relevant ICTs, but also the ability to utilise them in order to produce output that is ultimately marketable in a global economy. People once thought that having access to radio technology would improve the economic lot of poor persons in the developing world. Evidence now suggests there are more radios in South Africa than mattresses, but unemployment is high at over 30% and disproportionately affects black people. Similarly, Internet access does no good in alleviating poverty if all that is done with it is to download the latest product from Hollywood for the purpose of amusing oneself.

What is needed is a particular type of skills – the type that enables a person to use ICTs and information to produce output that is in demand. Only where impoverished persons are in a position to produce something others want to buy can they raise their standards of living. Obviously, these skills include programming, designing websites, and so on; less obviously, they require at this point in time training in English, which is increasingly becoming the world's language of commerce. It would clearly be the ideal to ensure the easy availability of devices that accurately translate the contents of a website in one language into any other of the world's written languages. Sadly, the developing world lacks the resources to provide such training.

Even adequate training is not enough, however. To improve the lot of poor countries, affluent

countries must provide *fair*, competitive opportunities for a person to take advantage of his or her skills. While more and more people are getting such opportunities through corporate outsourcing, they do not necessarily receive a fair wage – though what they receive is more than what they could otherwise earn.

The benefits of these new opportunities are often offset through laws that protect the interests of affluent developed nations at the expense of developing nations. The most conspicuous example here is the law of intellectual property, and especially the protection of intellectual property rights (IPRs) in software. To compete in a global economy in which information is an increasingly valuable marketable commodity, people need meaningful access to the software that makes the utilisation of ICTs so productive in the affluent world. However, current intellectual property laws have the effect of allowing corporations to maintain pricing levels that effectively bar legal access to these products among people in the developing world. If, for example, a highly successful multinational company's outsourcing of menial work (at exploitative wages) improves the standard of living of employees in the developing world, it does not raise that standard enough to enable those persons to acquire the software and skills to lift themselves out of a condition where they must perform menial and uninteresting labour just to survive.

Corporations can, and should, do something to change this unfortunate state of affairs. Corporations surely have a morally legitimate interest in the content they create and make possible, and surely deserve a fair rate of return for that product. But when it comes to products that are needed to alleviate absolute poverty, which include not only software, but also medicine for diseases that are endemic in the global South, they should, as a moral matter, waive these rights so as to make these products genuinely available in the developing world.

Moreover, corporations should ensure that jobs outsourced to absolutely poor nations be paid a fair wage. Too often, the wages paid to people in absolute poverty are far less than what would be paid to an employee in a Western nation. Although it is true that workers in the developing world make more from outsourced work than they otherwise would and thereby benefit



economically, it is also true the wages are so much less than the work would merit in the nations from which the job is outsourced that it borders on exploitation. Corporations should contract on fair terms; the economic benefits alone do not justify exploiting persons.<sup>4</sup>

Economic benefits made possible by corporate outsourcing of work to the developing world are also offset by unfair conditions attached to foreign aid. Sadly, the World Bank and IMF (and even the US agency responsible for providing foreign aid) frequently tie the provision of aid to the satisfaction of conditions that often make matters worse, because they ignore a culture's history, mores, social conventions and ways of organising economic activity. The most frequent condition is to insist that recipient countries immediately carry out system-wide political and economic reforms. This typically makes things worse, in part, because affluent nations tend to demand full access to all emerging markets in developing nations, while protecting vulnerable markets (like agriculture) in affluent nations where costs of labour are much higher. The effect is that emerging industries in developing nations are destroyed along with what few jobs there might be to support the population. In some instances, it seems reasonable to think that these nations would be better off without such conditional aid, but the conditions of absolute poverty make it difficult to turn the aid down.

This is a complicated issue that cannot be done justice to here, but there are two conspicuous examples illustrating the folly of one economic and political culture trying to impose an image of itself on another. Shortly after the Berlin Wall fell, the IMF was charged with the responsibility of overseeing a process in which Russia went from a centrally organised economy run by the state to a fully privatised system of free enterprise. The result, thus far, has been a disaster. Many people are far worse off in both economic and security terms, and Russia is poorer and more dangerous than it was under Soviet-style socialism. Indeed, the complaint is not infrequently heard among Russians that the country was better off as a socialist totalitarian state.

This is, of course, not to say that Soviet-style

socialism was good. It is rather to point out the folly of efforts by market fundamentalists, such as those who have disproportionate influence in the IMF, to foist total privatisation on countries whose history and culture afford no reason for thinking that such a transition could be anything other than an unmitigated disaster.

Unfortunately, these problems are consistently lost on decision makers in the IMF who continue, along with the World Bank, to tie loans and other forms of aid to developing nations to economic conditions that are all but certain to exacerbate, rather than alleviate, absolute poverty and the accompanying divides in both ICTs and information. One would have hoped that the obvious problems caused in Russia would reduce the temptation to try to remake every developing nation in our image without sufficient knowledge of the history, culture and traditions of the affected nations.

In contrast, China is one of the economic success stories of the 20th century. The process of privatisation in China has been gradual, having begun almost accidentally with the discovery among farmers tending a collectivised farm that allowing people to take control over particular sub-parcels and keep the profits resulting from their efforts dramatically increased production figures and net wealth. In response, China sanctioned the privatisation of farming and enjoyed spectacular results – all the while protecting vulnerable industries that were unable to compete favourably with corresponding Western industries, a practice that was quite common in Western industrialised nations.

Indeed, it is particularly worth noting that the spectacular growth of the US economy prior to the formation of the World Trade Organisation (WTO) depended in large measure on economic barriers on trade designed to protect vulnerable developing industries. These barriers included such devices as tariffs and special taxes on goods imported to the US from other countries, as well as legal restrictions on imported goods – a practice the WTO continues on a more limited basis even while insisting, as a condition of aid, that developing nations completely open their markets to foreign competition.

The result of controlled privatisation of Chinese economic activity is that no country has had more success in moving from state socialism to

<sup>4</sup> I am indebted to Johannes Britz for yet another insightful point here.

free enterprise. While the gap between rich and poor has, of course, widened, China has taken steps to ensure that the very poorest have also benefited. As a consequence, it is reasonable to think that China will be a democracy in 50 years from now, and will also be the world's largest economy and the US's fiercest rival in the competitive world market at that time. The contrast between the failure of instant privatisation in Russia and the success of gradual, controlled privatisation in China, as well as the reasons for this contrast, could not be clearer.

Yet the IMF, World Bank and USAID continue to condition loans and other financial aid to developing nations on policies that have ruined Russia's economy and would have ruined the US's own economy had those policies been imposed there. It is tragic that these mistakes continue to be made when they could be so easily avoided with some cultural sensitivity.

Compounding the problems of poor nations, of course, is the staggering debt many of them owe to representatives of affluent nations, such as the IMF and the World Bank. A few statistics suffice to convey the desperate character of the situation. African nations annually pay about US\$15 billion in debt service on an outstanding debt of US\$230 billion. That is US\$1.30 in debt service for every US\$1.00 in foreign aid.

If these numbers seem, at first blush, significant from the perspective of an affluent nation, one need only consider that President Bush recently asked Congress for a federal budget of US\$2.9 trillion in 2008. US\$230 billion dollars is "chump change", indeed, less than 10%, compared with the size of the US budget. It is also less than 2% of the value of the US economy last year: in 2006, the GDP of the US was approximately US\$13 trillion. If citizens of the US were to bear the cost of forgiving the debt, it would amount to a tax increase of no more than US\$80 per citizen per year for ten years (which is significantly less than the price of a pair of designer jeans). If citizens of affluent European nations were to do their share in bearing the cost of forgiving the debt, it would reduce the cost per citizen to US\$31 per year (which is about the price of a movie and a carton of popcorn for two people) for ten years.

Although these figures are trivial for nations as rich as the US and European nations, they greatly inhibit the ability of African nations to address all

the important problems of absolute poverty. African nations spend about one quarter of the cost of debt service per year on healthcare. In some nations, healthcare spending is US\$7 per year per person – a fraction of what is needed to deal with the HIV pandemic in Africa. Education expenditures in Africa have decreased dramatically, forcing schools to close or charge exorbitant fees. The result is a workforce that is less knowledgeable, less skilled and more likely to be left further behind in an increasingly competitive global economy.

No comparatively short discussion of the problems faced by absolutely poor nations can possibly be sufficient to convey the full spectrum of problems faced by the developing world, but it is enough that a number of conclusions can plausibly be drawn.

This much is clear: the solution to the information and digital gaps between the developed and developing world will have to involve a multifaceted approach that includes, at the very least, the following elements:

- Unconditional cancellation of all debts owed to the IMF and World Bank, unless there is compelling reason to think that the relevant regime is so corrupt that debt cancellation will not result in improvement in the condition of the poor
- Increasing unconditional aid to the developing world that is targeted at providing food, healthcare and infrastructure that will produce meaningful opportunities for citizens to improve their lives in the information society
- Unconditional aid directed at providing education necessary for persons to use ICTs and information to their economic benefit
- A commitment to provide all such unconditional aid, until at the very least, two conditions are satisfied. First, the life-threatening effects of absolute poverty have been permanently eradicated; and, second, the population has access to ICTs and possesses all the intangible (e.g. knowledge) and tangible (e.g. roads and other infrastructure) resources to significantly benefit from information-related market transactions among nations in the global economy.

While there are doubtless other conditions that must be fulfilled and, hence, that those enumerated above are not sufficient to eradicate

absolute poverty, they are surely necessary. No collective or individual effort that fails with respect to one of these particulars can hope to make real progress in efforts to provide the poorest nations with access to the information economy that will enable them to achieve significant economic progress in addressing their worst problems.

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## Information divide, information flow and global justice\*

Soraj Hongladarom

*There is a significant information divide between the countries in the North and those in the South. This is detrimental to economic growth, as information feeds into knowledge production. The divide is exacerbated by a series of uneven and unjust flows of information between the North and the South. Two related patterns of this flow are explored, namely the flow of biological resources and information, and the flow of rare manuscripts and published materials. This chapter argues that the concept of global justice is an appropriate tool for comprehending the situation; this is an addition to the ideas offered in Britz & Lor (2003). Furthermore, the need for increasing the intra-South information flow is discussed. This will strengthen southern countries as a whole, as the flow will link the countries together so that they have a stronger voice and have the opportunity to learn from each another directly.*

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## Introduction

Information has become a precious resource. It is commonly known that today's economy is being driven by knowledge and information, and that today's advanced technologies in many fields are deeply infused with information. However, it is also well known that this type of information lies mostly in the hands of the highly developed Western countries that generate the information to serve the needs of their industries and enterprises through basic and applied research. These industries, in turn, feed the economies of these countries, which come back to provide more funding for further research. Thus, a cycle has developed whereby industrialised economies are able to sustain their pace of economic development and progress.

On the other hand, the countries and economies in the developing world do not seem to fare as well. The same kind of virtuous cycle that has already taken place in the developed world has largely not found its way to getting started yet. The key to this "non-starting" is the apparent lack of information. Without effective research, development facilities and infrastructure, countries in the developing world seem to lack a means of generating information and knowledge that are necessary to fuel their own industries. Without these industries, there is little that these countries can rely on in order to provide their own funding for research and development.

I would like to call this situation an "information divide". It is broader than what is commonly known as the digital divide, in that the latter is focused more on the actual access to information technology and the global computer network, whereas the information divide here is more a matter of a society's capability of generating its own information that could be harnessed in its economic development. The digital divide, as commonly known, is then only part of the wider information divide. Many scholars have agreed that a way to solve the digital divide problem is to increase the flow of information. Nonetheless, there are some serious problems concerning this, most notably involving certain types of injustice that are involved in the flow of information, especially between the North and the South.

What I aim to do in this chapter, then, is to lay out a conceptual map of the whole issue, firstly by outlining the ethical issues involved, then by

providing some conceptual clarifications – it is clear that the very concept of information needs to be clarified. I contend that the concept of global justice is necessary as a tool to understand the situation where there is disparity and injustice in the flow of information. Then I conclude by suggesting some concrete means by which this information gap can be reduced.

## Ethical issues

As for the first part of the ethical conception, I argue that the disparity in information between the developed and developing world is not simply a matter of one side having more information than the other. On the contrary, it is actually a matter of the capability of "harvesting" or "mining" the information that is already there, everywhere. This capability has, in fact, spilled over from the territorial confines of the developed world when, for example, biologists and pharmacologists from the West come to countries like Brazil or Thailand searching for biological samples that could be developed into new drugs. The information is already there, but some expertise is needed to extract it. This issue, known as "bioprospecting" or "biopiracy", has created controversy and protests from those in the developing world (as well as their allies in the developed world), who see this to be an injustice, as the drugs that will be developed will often cater to the interests of rich consumers in the West. Hence, the sharing of information has become a crucial issue in the relations between the developing South and the developed North. What needs to be ironed out now is how this sharing of information (from biological resources and otherwise) should be spelled out in detail in practice.

Apart from biopiracy or bioprospecting, authors Johannes Britz and Peter Lor (2003) have also examined the case of information flow from Africa to the North in the form of library materials that are purchased by rich Western libraries. Not only is this happening in Africa, but it also occurs on a significant scale in Thailand, as libraries in the West and Japan are buying up precious books and rare manuscripts from the country, leaving that country with fewer products of its own intellectual tradition than in the Western countries.

The key ethical issue here is that of international

or global justice – is it just for Western libraries to buy up intellectual resources in the South? It might, however, be argued that buying up such resources could be necessary in case they are in danger of disappearing altogether. In Thailand, for example, rare manuscripts found in rural temples may not be appreciated by the local people, who either do not understand them or do not regard them as important. In any case, the manuscripts might not be well taken care of. Hence, it is likely that the precious information found in these manuscripts might be lost forever if not for the effort of Western libraries to care for them.

The same line of argument can also be made regarding the mining of biological resources. If the value of these resources were not recognised and developed into medicines through sophisticated techniques found yet only in the North, then what is the use of keeping them there in the jungle? However, the question is to which group of people the benefits will go. In the case of rare manuscripts and published materials, the benefits usually go to those who have access to those libraries themselves, and these usually are scholars in the North. As for the biological resources, in many cases they are developed into medicines that are geared towards the needs of those in the West, who are better prepared to pay for the medicine than those in the South (Schüklenk & Kleinschmidt, 2006). In both cases those in the South are left out, even though they could be said to be the custodians of the very resources that are developed to benefit those in the North.

Thus, it is imperative that a just and equitable scheme of benefit sharing be devised and fully implemented. For the library resources and information flow, this could mean that those in the South should be compensated in some way for the information that is taken from them. It is, however, important to note here that such a compensation scheme should be the last resort. It should be enacted only in the circumstance where the southern locale in question is unable to take care of its resources, or where the information resources are in danger of being lost otherwise. Such circumstances are very few, and it would be more beneficial to everyone involved if rich libraries in the North entered into a form of information sharing through the building up of networks of libraries between the North and the

South. Hence, the compensation needs not be in monetary form only, but could also come as programmes for building up the capacity of the southern communities so that they are better equipped to cope with the increasingly complex world.

One specific way in which this could be done is perhaps by funding educational effort by national governments in the South, or funding local governments directly. One should not forget that information resources, such as rare manuscripts or books published in the South, are integral parts of the people's lives and traditions. If possible, therefore, such books and manuscripts should remain within the communities of readers for which these books and manuscripts are intended. As information flows from the South in an apparently unjust form, information should then flow back to benefit the South in order to redress the situation. Thus, I agree broadly with the proposal by Britz & Lor (2003:162) that the concept of justice should be one that governs the South-North flow of information.

## Global justice

In their paper, Britz & Lor (2003) argue that three concepts of justice, namely commutative, distributive and contributive justice, should be put forward as a scheme to ensure a fair and just flow of information from the South to the North. Basically, the first is the kind of justice that obtains when there is fairness in exchanging; the second concerns fair distribution of resources, while the last is about giving and taking between individuals and their community. However, these three concepts do not directly address the issue of disparities and unfairness *among nations*. Commutative, distributive and contributive justice is relevant in all instances of dealings between people or groups of people, but none of them addresses the issue of global justice needed for the global disparity in resources or capacity. I would therefore like to propose that the concept of global justice be added. This will point to the fact that the ethical issue in question is an international one and, consequently, requires international effort to provide a solution.

When global justice is added to the picture, what emerges is that the distinction between North and South as groups of countries is highlighted. In commutative or distributive justice, an

instance of injustice can be solved within the boundary of a nation state. When one party fails to follow up on its commitment, such as failing to honour a contract, the offended party can go to the national authority to help redress the matter. The authority in question has jurisdiction over both parties. However, in the case of global injustice, it is unclear who should be turned to in order to help redress the situation. The United Nations, to take the supreme example of an international organisation, does not have authority over the sovereign states.

In this situation, global justice is markedly different from other types of justice. In fact, the international and cosmopolitan dimension of global justice is the subject of lengthy debate among theorists, as to whether it deserves a totally different set of conceptual tools to address it, or whether the same tools used in the more familiar types are adequate (see, for example, Mandle, 2006; O'Neill, 2000; and Pogge, 2001). An adequate discussion of this difficult topic would obviously be beyond the scope of the present chapter. What I propose here, is that global justice be considered as one of the concepts that are relevant to the discussion on information flow. Depriving local communities of their precious intellectual resources, such as books and manuscripts, without due compensation clearly constitutes an injustice, and in order to redress this concerted international effort is needed.

The putative fact that local people may not be taking adequate care of their own intellectual resources might not be tenable in support of an argument for taking local resources out of the area, unless it can be demonstrated that these resources stand to be in grave danger if left with the local people. Yet this attests to the fact that the local people need to be empowered, so that they have the means to take care of their intellectual resources. So, rather than removing these resources from the communities and arguing that they would be safer somewhere else, the local people should be provided with capacity-building schemes that enable them to take proper care of the resources. Moreover, national governments should be the ones who protect these documents (in case the local communities are actually unable to do so), rather than the Western libraries, as they stand as intermediaries between the local population and

the wider international circles, and should protect the intellectual resources within their countries.

Talking about sharing information and justice also implies that one should talk about the flow of information from one region to another. Hoping that the problem of the information divide could be solved simply by letting information flow from the North to the South will not work, because that would mean the information that is already there in the South is not put to use, a point also agreed to by Britz & Lor (2003; also Lor & Britz, 2005), as we have seen.

Hence, I propose a system of flow of information that also reflects global justice better. Instead of the one-directional flow, and in addition to the scheme of just information flow from South to North discussed above, information needs to flow in and out in both directions, including among the southern countries themselves. In order for the South actually to be strengthened, information also needs to be able to travel from one part to another, all within the South itself. This, unfortunately, is not happening on a significant scale, as developing nations still look towards Western countries for models and for knowledge and expertise.

For the above to be feasible, there has to be a network of southern developing countries. This is not as easy as it might seem, for a number of obstacles need to be overcome, such as different languages, cultures and, perhaps more significantly, the idea that there is nothing to be learnt from one's counterpart in another developing country. Another important point is that there has to be an effective way of "mining" or "extracting" information so that valuable information in the South is not lost to the whole world. This also involves looking towards the traditions of cultures of the South (and indeed those of the North) in order to find insights and even expertise in dealing with contemporary problems.

### **Means of reducing the information divide**

Let us look at how all this is done in a little more detail. Firstly, strengthening the South-South information flow is facilitated by the people in the South themselves getting more connected to one another. A vestige of colonialism that is still

visible today is that former colonial countries usually interact with their former master countries. Thus, Indonesia interacts quite a lot with the Netherlands; and South Africa and Australia with Britain, for example. These are historical ties and in principle there is nothing wrong with them. However, when these ties, also those between the South and the North, are exclusive, South-South interaction and communication suffer. A clear disadvantage of this is that the southern countries then are forever dependent on their former colonial masters, and there is no chance for them to get together in order to form a united front to strengthen themselves.

The picture is like that of a planet with a number of satellites orbiting it, where the satellites are in no way able to break away. The alternative picture I am proposing is that of a number of former satellites banding together to form a larger unit, thereby strengthening each part. This is one way to redress the global injustice problem, because strengthening southern countries through increasing the channels of communication and information flow among them is a prerequisite for southern countries to help one another. Without this help and connection, there is little chance of breaking away from the pattern of dependency that afflicts most southern countries today.

Secondly, people in the South need to free themselves from the mindset that tells them there is little to be learnt from their peers across the borders or in other southern countries. This is a strong misconception, because most in the South have learnt that the path to development lies through following the North's lead. In fact, a further advantage of focusing on intra-southern information sharing is that it dissolves the global/local dichotomy that seems to be prevalent in today's discourse about information flow, where the "global" is represented by the North and the "local" by the South. The North is global in the sense that it acts like the planet around which "locals" orbit like satellites. This picture clearly illustrates that the West (or the North) is the hegemonic force that is capable of dominating the world, becoming global in the process and thereby forcing non-Western cultures to be the locals. This is clearly an instance of global injustice.

On the contrary, developing a South-South flow would mean that everywhere is global and local

at the same time, and nowhere is it exclusively either global or local. However, Lor & Britz (2005:73) point out that the prospect for a robust South-South information flow is currently poor and will not take place on a large scale any time soon, although there are some "bright spots". It is indeed true that the South-South flow has a great many obstacles to overcome, but we should not forget that we are not talking about the satellites becoming a big planet. Instead, we are talking about the satellites linking with one another. So, the flow takes place between two southern countries, for example, on a much smaller but more intimate scale. The Internet can be of tremendous help in this regard (Lor & Britz, 2005:73), so too personal dialogues and communication in other forms.

Strengthening an intra-South flow of information is possible, because the South does have its store of information that is ready to be shared for the benefit of the world. The challenge is only how to bring that out in such a way that does not require being dependent on the North.

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## **Cultural centrisms and intercultural polylogues in philosophy**

Franz Martin Wimmer

*A “dilemma of culturality” for philosophy, tending to universality, is given with the fact that there is not a single and definitely adequate language or tradition of philosophy. There are many, each of which is cultural, not natural. The question is about the possibility of systematic philosophy, with the presupposition that there are different cultural coinages in every philosophical thinking, which can be influential on every level of reflection and argumentation. Intercultural philosophy is bound to reflect on this problem. In the following chapter, I propose to distinguish four different types of centrism being influential in intercultural encounters: expansive, integrative, separative, and tentative centrism. Thereafter, some examples are given for certain types of centrism in the fields of history and philosophy. Finally, I shall argue for dialogical, or rather polylogical, interactions in the field of philosophy.*

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## The dilemma of culturality of philosophy

The project of philosophy, as I understand it to be, is fundamentally a trial to ascertain insights concerning basic ontological, epistemological and normative questions, and to express such insights adequately, thereby making them approachable and arguable in an intersubjective way. With respect to its content, philosophy can be characterised in a traditional (Western) way as dealing with either ontological, or epistemological, or else ethical questions, in order to clarify concepts and propositions connected with such fields. Philosophy, we may say, basically tries to solve questions of ontology, epistemology or ethics. It does so by way of argumentation, which means that reason and logic in some way or other are to be expected as being universally used. With respect to its form, philosophy is developing definitions, as well as some sort of meta-language, which allows the making of explicit general statements.

Philosophy in this technical sense of the word can be found in the heritages of different ancient societies, although one must not agree that it has developed in literally any human group. Therefore, philosophy in a technical sense is neither the unique outcome of only one – say, the Greek or Occidental – heritage, nor must we assume that it can be found in the traditions of all and every society or culture. It may be safe to look for philosophical contributions in some of the Eurasian populaces, beginning with the Axial Period (±800–200 BCE) as Karl Jaspers and others have suggested. However, one has to consider equally origins of philosophising in sub-Saharan Africa, in Arabic Islam, or in pre-Spanish America, to mention but the most eminent cases. The crucial point is that we have to deal with several origins of later philosophies, originating in societies that were different linguistically, socially, and with respect to their worldviews and religions. Some of those traditions, especially the traditions of ancient China, Greece and India, as well as the aforementioned ones, still remain influential in today's societies in such a way that different orientations are provided that may be incompatible with each other in some respects. At the same time, by the process of modernisation and globalisation is given the necessity to promote, or at least to develop, common ideas. The fundamental question for philosophy in such a situation consists in the need to inquire about

the conditions of the possibility of systematic philosophy, with the presupposition that there are different cultural coinages in every philosophical thinking that can be influential on every level of reflection and argumentation.

A “dilemma of culturality” for philosophy, tending to universality, is given with the fact (which is irritating for every argumentation) that there is not a single and definitely adequate language or tradition of philosophising. There are many, each of which is cultural, not natural. More is at stake here than just a completion of Eurocentric historiography of philosophy by the depiction of non-Occidental traditions and by comparisons with them, if we are to be entitled to talk about interculturally oriented philosophy at all.<sup>1</sup> The Latin prefix *inter-* denotes a mutual relationship and it may suffice, hinting to the fact that we are using the adjective “intercultural” with respect to the noun “philosophy”. Thereby it is indicated that what is under consideration is not some sort of “philosophical” or “historiographical” interculturality, but is merely philosophy – however, philosophy in such a way that this discipline itself has to reflect constantly its own concepts, questions and methods with respect to the fact of its own culturality.

One of the consequences of such a situation is that one inevitably has to interpret the thoughts of others by one's own concepts and categories. Given this fact, the question arises whether such a “centrism”, inevitable as it may be, always works along identical lines. I want to show that there are different types of centrism, whose differences are relevant to philosophy and to chances and forms of intercultural encounters.

## Types of cultural centrism

### *Expansive centrism*

By “expansive centrism” we understand the idea that “the truth” about something, or “the optimum” of a certain way of life is already reached definitely, and therefore has to be disseminated

<sup>1</sup> For comparative philosophy cf. Bahm (1995:7): “It [comparative philosophy] is not preoccupied directly with the solution of particular problems, such as the nature of truth or self or causality.” If Bahm is right, one seriously has to doubt the “philosophical” impact of such comparisons.

everywhere. Such an idea can be read from several fundamentalist stances, as well as from theories about the necessity of modernising and civilising non-European humankind. The idea is that there is a centre, where reigns true faith, definite knowledge and objective progress. There is also a periphery, ruled by paganism, superstition, backwardness and underdevelopment.

It is the task of the centre in that perspective to expand and to supersede, and ultimately to eliminate everything else. This leads to the imagination of a monologic process, a proclamation of salvation in the religious sense, and of prosperity and happiness in the secular sense. Since it is essential in such an idea that there are no serious alternatives to the truth or the optimum proclaimed, the “monologue” has to go to all directions, but no response from elsewhere ought to touch the centre. Therefore, we can illustrate this type of expansive centrism in the following way:

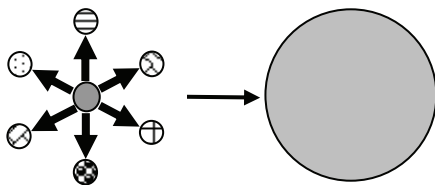


Figure 1: Expansive centrism

### ***Integrative centrism***

A second type, which can be coined “integrative centrism”, may start from the same conviction about the objective superiority of one’s own ways of thinking and living, but one may at the same time be convinced that no particular activity is necessary to overcome rivals. One’s own way could be thought to be attractive to such a degree that it would be sufficient in itself to attract and integrate others. We find such an idea in classical Confucianism, when Mencius is discussing the question on how to gain power. The task of the centre in such a view consists in the permanent maintenance or restitution of what is known to be the right order. No further activity of the centre is thought to be necessary, since the attractivity of the centre is so strong that every activity comes from the periphery, aiming to adapt people to the way of the centre. With such an idea the result is a monologic process, too, in the sense of offering the good way of life. There

can be no more alternatives to that offer than is the case with the first type. In both cases, there is a complete antithesis of one’s own way, held to be the only right way, with the many foreign ways being on the other side.

Both types, too, have in common that there is nothing valuable to be expected from the outside and that the differing ways of thinking and living will therefore ultimately vanish. It is the common conviction of both these types of centrism that their respective ways of thinking and acting are held to be without rival. In this sense, the conviction not only of superiority, but also of exclusivity, prevails. The idea of an “integrative centrism” can be depicted as follows:

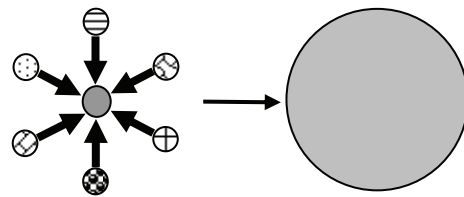


Figure 2: Integrative centrism

True dialogues – and polylogues – in philosophy not only require that the participants be open to each other’s arguments, but also that they are convinced of their own way of thinking and do not give this up without sufficient reasons. This leads to a decisive question: Are there orientations that are compatible with the conviction of the optimality of one’s own way of thinking, and that do not imply the assertion of exclusive validity or truth?

The question will be decisive, if we accept the description of the situation of philosophy in the process of globalisation given above. It implies that orientations will coexist that are incongruent and even incompatible, but which are rooted in well-developed and differentiated discourses. If, under such conditions, something valuable is expected to result from encounters, we will have to look for types of “centrism” that are not exclusivistic.

### ***Separative or multiple centrism***

We can distinguish a third attitude, which accepts that there coexist several or many convictions side by side. They may tolerate each

other, and there may even been mutual esteem, so that the situation is characterised by a multitude of separate “centres”. In this perspective, diversity and multiplicity, not homogeneity, is basically accepted in a “multicultural” understanding. The danger of such a view – which is probably fatal for philosophy – can be that differences are seen to be insurmountable, as if they were conditioned naturally, not culturally.

The main task of the various centres in this view will consist in the conservation of their respective identities and heritage, and in the differentiation from other traditions. These traditions will persist in neat segregation from each other. Under certain conditions, they will tolerate each other, but they will not allow influences in questions of “truth” and “values”; there will be no discourse between them. The situation can be illustrated as follows:

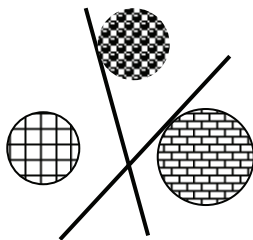


Figure 3: Separative or multiple centrism

### ***Tentative or transitory centrism***

Another type of centrism can be seen as transitory or tentative, allowing both the conviction of being right, and openness to basically different views of others, who are equally convinced of being right. It may even be a necessary condition for an adequate understanding of the other’s conviction that I am “absolutely” sure about my view. Here, too, plurality and not uniformity is thought to be foundational, though in such a way that every concrete instance of thinking is not held to be final, but provisional.

Suppose that there are four possible participants in a dialogue or polylogue on some issue. Any one of them can be interested in the others and open to them to different degrees. They are all acting and thinking from their respective fields of evidence and all have “cultural coinages”. Still, these conditions may lead to processes of

influencing that can be intended to develop mutual argumentation. Every participant in such a situation remains a “centre”, but none of these centres is held to be the definitive one. Everyone essentially agrees that there may be views and insights different from, and even contrary to, his or her own.

When there are sufficient motives for dialogues, each centre will try to convince the others (or some of them), if they are philosophising at all. By a process of convincing I understand a qualified form of influencing somebody, which ought to be distinguished from manipulating as well as from persuading. All of these expressions and respective argumentative actions have in common the aim to change somebody’s opinions or ways of behaving and acting.

However, only processes of convincing ought to be considered decisive, even if persuading or manipulating practically may lead to the same effects. In a tentative understanding of being “centres”, there will be persistence, openness, acceptance of arguments and criticism of others, which may be illustrated as follows:

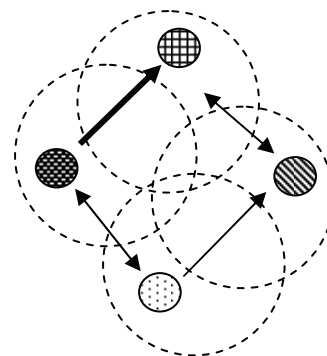


Figure 4: Tentative or transitory centrism

### **Exclusive centrisms in action**

Every one of the four mentioned types of apprehending and criticising thinking that is different from one’s own, is developing certain strategies to demonstrate its own superiority. In this sense, every type is centrist. They differ according to the different hierarchies of knowledge and abilities they imply and, consequently, in the difference in expectations and valuations of the other. The three types mentioned first have in common that everything that is thought to be of real interest and reliability is supposed to be found within

one's own tradition. Expansive centrism, as well as integrative and separative centrism, do not seriously expect that there is something to learn from other cultural traditions.

### ***The example of history***

This can imply – in a Euro-centrist understanding – that the history of humankind in general, and the history of human thought in particular, is seen as one great process, the essential contents and results of which can be learnt best – or rather, exclusively – from Occidental history. Examples of such a view can be found in the history of several historical disciplines.

Concerning world history, the view was held commonly until the 18th century that the Bible contains all essential stages and personages of humankind. For example, some people surmised that Chinese history was seen to have started with Noah, identified as the “Yellow Emperor” and having founded that culture in the East, far away from the reigns of his sons Sem, Japheth and Ham (Gottsched, 1756:7ff). The British historian Walter McDougall (1986:19) depicts more recent views within his field quite ironically, when characterising Anglo-Saxon traditions of history writing at the beginning of the 20th century:

*Once upon a time the historical profession was more or less united, at least in the English-speaking world. Professional historians shared a common exposure to the classical and Christian traditions, a common Anglocentric perspective, and a common interpretive theme: the progress of freedom. This, of course, was the liberal or “Whig” interpretation of history that traced mankind’s pilgrimage from Mesopotamia to Mount Sinai, to Runnymede, Wittenberg, and “two houses of Parliament and a free press” – and assumed that backward peoples, if not weighed down by anchors like Hinduism, would follow the Anglo-American peoples to liberty.*

This tale, McDougall (1986:19) is thinking, can no longer be told in such a way:

*This vision held sway until the cataclysm of 1914–18 made belief in progress more difficult to sustain, the Great Depression eroded faith in liberal institutions, and decolonization forced consideration of non-Western cultures on their own terms.*

One may wonder whether the same could be said about some politicians of today, when talking about developmental goals and means.

### ***The example of philosophy***

Concerning philosophy and its development in the singular, the view of the German idealist Hegel (1982:33) may still be with us. He describes the activity of the “spirit” as being a unique, progressive movement of self-development, in a very vivid metaphor. That movement Hegel sees as a series of developments, which together do not sum up to a straight line, but to a circle, whose periphery is made up by a lot of circles. It is decisive for Hegel’s understanding that these “many circles”, forming the one great circle of philosophy, are seen to be exclusively Occidental.

For example, scepticism is one of the spirit’s realisations, such that a peripheral circle can be symbolised by the name of “Sextus Empiricus”, but there is none by the name either of “Nagarjuna” or of “Wang Chong”, both also sceptics in their respective contexts. Hegel explicitly excludes such a possibility. So-called “oriental philosophy” is none of his business when describing the philosophy of humankind – it is only “something preliminary”, which has to be dealt with for the sole reason to show “why we do not treat it in a more extensive way and how it is related to the concept of true philosophy” (Hegel, 1982:111).

Hegel’s reasoning is that philosophical thinking everywhere realises in particular, special ways. Such thinking, however, will not gain solidity everywhere. In “oriental intuition”, the “particular is destined to vanish”. Solid thought has its ground: the “firm, European reason”. And it is only to abstain from such solidity that “oriental ideas” are useful, Hegel (1982:136) tells us.

Up to our time, it can be learnt from Western philosophers that “philosophy in a strict sense” can be found nowhere except in Occidental tradition. One example may suffice. The German philosopher Hans-Georg Gadamer, well known in the field of hermeneutics, quite recently stated that basically it is “a question of mere arbitrariness” whether we call “the talk of a Chinese sage with his pupil ‘philosophy’, or ‘religion’, or ‘poetry’” – and that the same is true of Indian traditions. The “concept of philosophy”, so

Gadamer (1993) tells us, “is not yet applicable to the great answers given by the cultures of East Asia and India” to the fundamental questions of mankind “which have been asked for by philosophy in Europe all the time”.

Unfortunately, with such utterances we often – and also in Gadamer’s case – do not come to know whether they are meant to hold in the same sense for every “Chinese sage”, for any “Indian tradition”, etc. It obviously does make a difference what author and what text are meant when classifying something as philosophy, religion or poetry. It makes a difference in both Eastern and Western lore and, of course, it makes a difference elsewhere, in Africa and America – everywhere.

It seems obvious to me that the argumentations of Mencius and Xunzi on human nature, of Mozi on knowledge, morality and justice, of the Zhuangzi on the criteria of truth, and so on are contributions to philosophy. Why such texts could indiscriminately be classified as religious, I just cannot see. And, if some of such texts evidently possess poetical quality, the same is true for philosophical texts from Parmenides to Wittgenstein.

The point is not to equate one cultural tradition of philosophy with philosophy itself. Avoiding such a shortcut – which reminds strongly of the theologian’s phrase *extra ecclesiam nulla salus* – will require the elaboration of both a generic concept of philosophy, and of transcultural hermeneutics. Either can be done only if mono-centrism and exclusiveness in the understanding of the history of philosophy are overcome.

Such exclusiveness is met not only with Occidental thinkers. I may quote the answer of the director of an Institute of Buddhist Dialectics (quoted in Garfield, 2002:229) to the proposal to give lectures about Western philosophy at his institute:

*I can understand why you have come to India to study Buddhist philosophy, for our tradition is indeed deep and vast. But I frankly don’t see what we have to learn from you, for Western philosophy is very superficial and addresses no important questions.*

Of course, it would be interesting to know about the specific understanding of “Western philo-

sophy” allowing this judgment. The very same sentence about either position can be – and has been – passed within Western philosophy itself.

Exclusive forms of centrism must be expected to rise from different conditions and convictions. Sino-centrism can be met with, but also Afro- and Islamo-centrism and others. In any case, as it is with Euro-centrism, different extra-philosophical motives will have to be taken into account: religious as well as nationalist and chauvinist, racist or ideological persuasions may be decisive.

### Consequences and tasks: The model of a polylogue

The first consequence considering the situation of globalised humankind with basically different regional ways of thinking consists in a (self-) critical evaluation of philosophy as a profession. We have to acknowledge that any professional training of philosophers that equates the general term “philosophy” with the culturally bound term “Occidental philosophy” is misleading. For a long period, such an equation has been the case with almost all professional philosophers. It will therefore be no easy task, since as a necessary precondition – but by far not a sufficient one – Euro-centrism has to be criticised and developed into a general criticism of centristic ways of thinking, and moulded into a theory of non-centristic philosophy.

The relevance of cultural traditions for the present and the future has to be analysed. The first step, again, will be to reconstruct different traditions of thought in a comprehensive and differentiated way. In this field, contemporary African philosophers have done pioneering work. However, if their work is not limited to providing better self-understanding, but to leading to better understanding between persons of different cultural coinages, new categories and concepts must be elaborated. This will be a continuation of the project of European enlightenment with different means, not by relying on a unique method of science, but by creating a polylogue<sup>2</sup> of traditions.

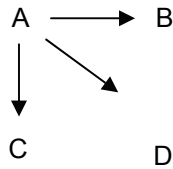
<sup>2</sup> I am talking about “polylogues” rather than “dialogues” to indicate that many sides, not just two, can be involved. Though *dia-* in “dialogue” means “in

Different degrees and forms of the influence of one or more traditions on other traditions have to be distinguished. To illustrate, let us take the case of, say, four relevant traditions: A, B, C, D.<sup>3</sup> Between all of these traditions there might be unilateral ( $\Rightarrow$ ) or bilateral ( $\Rightarrow\Leftarrow$ ) influences. Under these conditions we can formally distinguish the four models discussed below.

### **Unilateral centristic influence: Monologue**

$$A \Rightarrow B \text{ and } A \Rightarrow C \text{ and } A \Rightarrow D$$

Such an “ideal” monologue of A towards B, C and D would look like this:



There are no influences whatsoever coming from others in the direction of A. Second, there is indifference and ignorance on the part of all others. Third, the influence of A works equally in any direction. Fourth, there is only one intention of influencing going into all directions. It is to be doubted whether any of these features of the model ever occur in real discourse. However, real processes can be intended to come close to such a model. There are unilateral conceptions of superiority, as we have discussed with respect to “centrisms”. They may, for example, result in a

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between”, and does not linguistically imply “two”, the association is common that a dialogue is between two persons or positions. Even comparative philosophy often tends to twofold, not manifold, comparisons and dialogues. Here, the term “polylogue” is used in the sense that many persons, coming from many philosophical traditions, enter into discourse with each other on a topic or problem.

<sup>3</sup> It is not at all evident in a given discussion that there will be unanimous agreement about what A, B, C or D means, nor about what traditions are relevant. If, for example, in an argument about human rights Confucianist as well as Occidental and Islamic conceptions of humankind are confronted with each other, the *muntu* concept of African traditions also has to be reflected upon – and such a list of likely candidates may become rather long.

lack of South-South dialogues in philosophy. Moreover, there was, and perhaps still is, the concept of “the white man’s burden” to act into all regions and directions in order to “civilise” the rest of the world.

However, the idea itself is not realistic. Could it be something like a regulative ideal? One would have to hold a very strong presupposition to believe that – one would have to be sure that A is right in every respect where there are differences with others. I doubt whether this could ever be shown by culturally independent means. Historically, the three models that follow seem to be more realistic.

### **Unilateral and transitive influence: Extended monologues**

$$A \Rightarrow B \text{ and } A \Rightarrow C \text{ and } A \Rightarrow D \text{ and } B \Rightarrow C$$

In this stage, no dialogues are necessary, although through the double-sided influence on C (from A as well as B) comparative descriptions between A and B will become possible. For the tradition A, in this case, the other traditions remain “barbarian”, B ignores D, and C ignores D. But B imitates A and therefore “civilises” C with concepts partly derived from A.

### **Partially bilateral and multilateral influence: Dialogues**

There are many logically possible stages from:

$$A \Rightarrow\Leftarrow B \text{ and } A \Rightarrow C \text{ and } A \Rightarrow D$$

via:

$$A \Rightarrow\Leftarrow B \text{ and } A \Rightarrow C \text{ and } A \Rightarrow D \text{ and } B \Rightarrow C$$

up to:

$$A \Rightarrow\Leftarrow B \text{ and } A \Rightarrow\Leftarrow C \text{ and } B \Rightarrow\Leftarrow C \text{ and } B \Rightarrow\Leftarrow D \\ \text{and } C \Rightarrow\Leftarrow D \text{ and } A \Rightarrow D$$

Between each of these models several stages can be distinguished. We can skip listing all of them. Partially bilateral and multilateral influences are processes of selective acculturation. For tradition A, some other traditions are not “barbarian” any longer; they become “exotic”. The same holds true for B, C and D in an increasing manner, but mutual influencing is never complete. The stage symbolised in the last paradigm represents a



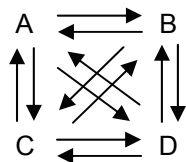
polylogue between all relevant traditions, with the exclusion of D. In this situation, comparative philosophy is firmly established.

Let us now imagine an “ideal” polylogue between A, B, C and D.

### **Complete multilateral influence: Polylogues**

$A \Rightarrow \Leftarrow B$  and  $A \Rightarrow \Leftarrow C$  and  $A \Rightarrow \Leftarrow D$   
and  $B \Rightarrow \Leftarrow C$  and  $B \Rightarrow \Leftarrow D$  and  $C \Rightarrow \Leftarrow D$

There are influences from all sides to every tradition; everyone is interested in every other; all of the influences are working with equal intensity. There is one and only one intended influence from every stance to any other. The situation looks like this:



This again is not depicting reality. It is, however, important to ask whether such an ideal can serve as a regulative idea for practising philosophy on a global scale. It seems preferable for logical reasons, as there will be no presupposition of absolute rightness as long as there are different views. The presupposition here merely is that activating human reason in as many directions as possible will be effective.

### **Conclusion**

Philosophers of all ages wanted to consider ontological, epistemological and ethical questions relatively independent of their own cultural and religious environments. The specific problem of contemporary philosophy arises from a situation where one of the cultural settings of the past has been more successful than others in establishing itself on a global scale – as being non-traditional but rather a “scientific” enterprise.

Obviously, it is the clandestine claim of philosophers to arrive at judgments that are transculturally valid. Even if that claim is illusory, philosophers have nevertheless tried to achieve this goal. This road has been taken in many

different ways in the past. In the present situation, intercultural reorientation of philosophy becomes a necessity that arises in the context of globalisation; it is not a choice, but a need. In this context there seem to be two alternatives. There is the programme of relying on method without reliance on tradition. This is the consequent alternative to ethnocentric and traditional thinking, but it is not feasible. It was not feasible in its Cartesian form, nor in the form it took in phenomenology or analytic philosophy. Every effort to philosophise in an exclusively methodological manner is led by criteria and concepts rooted in a cultural context.

The second alternative is seemingly less rigid. It consists in the confidence in one’s own position within the classical tradition. One’s own way of thinking, terminology and methods of argumentation seem reliable in this view. However, this is nothing more than ethnophilosophy, even if it is explicit, differentiated and well documented.

Is there a third way, a real alternative to Eurocentrism and the separatism of ethnophilosophy? I think there is. It consists in a procedure that is no longer merely comparative, or dialogical, but rather polylogical. Questions of philosophy – questions concerning the fundamental structures of reality, the knowability, the validity of norms – have to be discussed in such a way that a solution is not propagated unless a polylogue, between as many and as different traditions as possible, has taken place. This presupposes the relativity of concepts and methods, and implies a non-centristic view to the history of human thinking. At the very beginning, a rule can be formulated for practice:

*Do not expect philosophical theories to be well founded, whose authors stem from one single cultural tradition.*

The rule can be formulated in a positive way too:

*Wherever possible, look for transcultural overlapping of philosophical concepts and theories, since it is probable that well-founded theories have developed in more than one cultural tradition.*

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## **Towards an information democracy: A research agenda**

**Albert K. Boekhorst**

*People, organisations and societies need knowledge to satisfy their needs, so that they can survive, develop themselves and move forward in time and space. This knowledge is about themselves, and their social and physical surroundings. Those who are better equipped than others are able to satisfy their information needs in an effective and efficient way. They can participate in the relevant information networks and are more capable to survive and develop themselves than those in less advantageous circumstances. However, there are barriers that complicate, or can even block, successful access to needed information and to the information economy. Four types of potential barriers based on interdependencies between people – economic, political, affective and cognitive – are described.*

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## Introduction

People, organisations and societies need information to satisfy their needs so they can survive, develop themselves and move forward in time and space – knowledge of themselves and their social and physical surroundings. Those who are better off than others are able to satisfy their information needs in an effective and efficient way, and participate in the relevant information networks. They are more capable to survive and develop themselves than those in less advantageous circumstances.

However, there are barriers that complicate, or can even block, successful access to needed information and to the information economy. We distinguish four types of potential barriers that are based on interdependencies between people: economic, political, affective and cognitive.

## Economic barriers

Economic relations refer to the fact that people are dependent on the production and distribution of scarce resources, including food, clothing and housing. Information can also be seen as a quantifiable unit to which one can assign a value depending on supply and demand. Since the 1970s, information is often seen as the fourth production factor, which functions as the driving force of the economy. This means the application of supply and demand factors is applicable to the production, use and control of information. This includes not only the information itself, but also the infrastructure that is needed.

At the same time, producing information products is relatively much more profitable than industrial or agricultural ones. As information needs a carrier and an infrastructure, we distinguish between content, technical infrastructure and a social infrastructure. For each of these elements the laws of supply and demand are applicable.

## Discussion item 1

The uneven distribution of wealth in the world leads to differences in infrastructure and the possibility to “buy” and “sell” information products. This is relevant for both technical

infrastructure and social infrastructure. The information economy is dominated by Western countries. For information products, this can be demonstrated by checking ISSN, ISBN and patents by country. The digital divide is mainly an “economic” problem.

## Research item 1

The implementation of open source software and academic repositories for scientific information, suitable for the African situation, should be investigated. In addition, there is a need for possibilities of affordable access to general information for development and recreation.

The World Bank produces annual World Development Reports (WDRs). They offer invaluable access to the economic, social and environmental state of the world today. Each year, the WDR provides an in-depth analysis of a specific aspect of development.

## Political barriers

Political relations are the effect of people’s need to protect themselves against physical constraint and the aggression of others. To obtain this, a regulation of violence is needed whereby specialists can enforce their power. Hereby the law and order of a society is formally stipulated. These rules have reference to all relationships people have with one another. Laws on information are, for example, regulations on authors’ rights, archive laws, access to government information and press freedom. These legislations can be seen as political regulations through which access to certain types of information is controlled.

## Discussion item 2

Access to information is not guaranteed in all countries in the same way. Some countries have legislation that entitles their citizens access to government information and/or to files on themselves, while others have not.

## Research item 2

A comparative investigation into “openness” to (government) information and legislation on information privacy can give insight into formal

barriers to information, both for retrieval and dissemination. "Over seventy countries around the world have implemented some form of freedom of information legislation" (Wikipedia, n.d.).

### **Affective barriers**

Affective relations refer to the fact that people have feelings for each other. People need each other for affection, love and support. These friendships and emotional relations are not limited only to other people, but also include objects and organisations that are appropriate to a person's culture. Computers and other information sources, such as books, computers, CDs and television, can also be included.

This affinity has reference not only to the information type, but also to the information itself. For example, differences in the appreciation of diverse forms of ballet and poetry are noted from the sales figures of books/magazines and the user records of public libraries. Of course, emotional factors such as anxiety, frustration and confidence do influence the search process.

### **Discussion item 3**

The format in which information is made public can influence the ease of access for people and the chance to sell it. Information products and transfer are mainly based on (digital) texts and are not very accessible for persons and societies with an oral tradition. The law of less effort is also applicable here.

### **Research item 3**

Research is needed on how to access people who need information for development from printed and digital resources, while they were brought up in an oral tradition. Among others, Kuhlthau (2004) and Brenda Dervin have given attention to the emotional aspects in search processes.

### **Cognitive barriers**

Cognitive relations refer to the fact that people are dependent on one another because they learn from each other. People create knowledge and distribute this among one another in the form of

information. Up to the development of writing, people communicated mainly through speech and verbal communication. Writing and printing made it possible for information to be disseminated in spite of borders of time and space. Learning from each other happens in diverse ways and is not limited to education at school.

The scope and content that are taught to people depend on their social position and societal relations. An illiterate farmworker in the 18th century was not as affected by his illiteracy as an illiterate Westerner in the first decade of the 21st century. To be able to survive and develop themselves, people, organisations and societies need to be information literate. Information literacy is strongly connected with lifelong learning. National governments should give attention to the recognition of lifelong learning and information literacy as key elements for the development of generic capabilities, which must be required for the accreditation of all education and training programmes.

### **Discussion item 4**

Ongoing technisation, differentiation and globalisation (informatisation process) lead to an explosion of information accessible via a variety of information media and channels. More skills and knowledge than ever before are needed to locate, select and evaluate the information that is required to satisfy a person's information needs to be able to move forward in time and space.

Being able to distinguish information needs, and being able to satisfy these needs effectively and efficiently, is called being "information literate". The informatisation process asks for continuing attention to information literacy in all phases of formal and informal schooling to prepare learners for successful lifelong learning and to empower them to be productive members of their society.

### **Research item 4**

Tools should be developed for the implementation of information literacy in the regular curricula of schools. The role of school, public and academic libraries should also be made clear. The Alexandria Proclamation on Information Literacy and Lifelong Learning offers an excellent

departure for the assessment and implementation of integrated information literacy in all levels of schooling.

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## **Cybernetic pluralism in an emerging global information and computing ethics**

Charles Ess

*This chapter traces the development of an emerging global information and computing ethics (ICE), arguing that ethical pluralism – as found in both Western and Asian traditions – is crucial to such an ICE. In particular, ethical pluralism – as affiliated with notions of judgment (phronesis in Aristotle and the cybernetes in Plato), resonance and harmony – holds together shared ethical norms, as required for a shared global ethic, alongside the irreducible differences that define individual and cultural identities. It is demonstrated how such pluralism is already at work in both contemporary theory and praxis, including in development projects in diverse cultures. The chapter concludes with a number of resonances between this global pluralism and African thought and traditions, which thus suggest that such a pluralism may also succeed in the African context, as diverse African cultures and countries seek to benefit from information and communication technologies while maintaining their cultural identities.*

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## Introduction

I begin the first section of this chapter<sup>1</sup> with sample definitions of computer ethics, information ethics and professional computing ethics as initial definitions that, as was appropriate at the time of their crafting, are addressed to specialists and professionals. But given that “information processing”, including communicating via computer networks, is now undertaken by over one billion people on the planet, we need an information and computing ethics (ICE) for “the rest of us”.

This global reach further requires an emerging ICE that conjoins globally shared norms and values with the values, norms, traditions and practices of diverse cultures – cultures that are irreducibly different from one another, and must remain so for the sake of preserving their identity. I then suggest that how we develop such a global ICE further depends on whether we will seek out simply commonalities and pragmatic agreements based on shared economic interests, for example, and/or, in the words of the Japanese comparative philosopher Nishida, if we seek to know “the Other” through a *resonance*, a structure of connection alongside the irreducible *differences* defining individuals as distinct from one another. Such resonance intersects with various forms of *ethical pluralism* that meet, I

argue, the central requirement of a global ICE to conjoin shared norms with the irreducible differences defining both individual and cultural identities.

(We will see in greater detail in the third section how this pluralism seeks to go beyond the pluralisms developed in contemporary political philosophy by John Rawls and Charles Taylor. In the fourth section, the conclusion, I return to how such resonances entail greater ethical demands on us than the quest for commonalities.)

The second section is a careful examination of *ethical pluralism*, beginning with its Western roots in what I call Plato’s *interpretive pluralism* and then Aristotle’s notion of *pros hen* or focal equivocals. These pluralisms further require *phronesis*, Aristotle’s conception of practical judgment as precisely the ability to discern how shared norms may indeed be understood and applied in diverse ways in diverse contexts. *Phronesis*, in turn, derives from Plato’s use of the *cybernetes*, the pilot or helmsman, as an exemplar of ethical judgment that emphasises the capacity for *ethical* self-correction – the basis, nicely enough, for *cybernetics* as a central concept in computer science. Happily, both religious traditions (including Islam) and Eastern traditions (including Confucian, Daoism and Buddhism) likewise develop similar notions of judgment, ethical pluralism and the core metaphors of harmony and resonance that describe pluralism’s conjunction of shared norms and diverse interpretations, as made possible by judgment.

Hence, such notions and metaphors may serve as a framework for a global ICE – i.e. one that brings together East and West, African and indigenous traditions, etc. – that sustains irreducible differences alongside shared norms. In fact, such pluralism can already be seen in the contemporary ICE theories developed by Terrell Ward Bynum and Luciano Floridi.

In the third section we see, moreover, that such ethical pluralisms are instantiated at the level of praxis in contemporary ICE in several examples, including a procedural approach to determining what “emancipation” might mean in diverse cultures (Stahl) – an understanding supported by a striking example of how women in Jordan have learnt to use information and communication technologies (ICTs) for an emancipation that emerges from, and meshes with, their particular

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<sup>1</sup> The original paper was originally developed out of a lecture delivered in my capacity as an Information Ethics Fellow (2006–2007) at the Centre for Information Policy Research (CIPR), University of Wisconsin-Milwaukee, on 13 November 2006. I have subsequently expanded and modified it in the light of various presentations and discussions held during the first African Information Ethics Conference, “Ethical Challenges in the Information Age”, on 5–7 February 2007, Pretoria, South Africa. I wish to express my deepest gratitude to Dr Elizabeth Buchanan, Director of CIPR, for the opportunity to first develop this paper, as well as to Drs Buchanan and Johannes Britz, Dean and Professor, School of Information Studies, University of Wisconsin-Milwaukee, for their kind permission to develop this paper for this venue. In addition, I wish to express my deepest gratitude to the members of my Theme Group, “Cultural diversity and development” – Sarah Kaddu, Chibueze Udeani, Retha Claasen, Ismail Abdullahi, Anthony Löwstedt, Coetzee Bester and Jill Maimela – who graciously discussed, tested and confirmed the central ideas proposed here.

cultural contexts (Wheeler); an open source software developed for the Indymedia movement – one that, as open source, allows itself to be modified to meet local interpretations of open access and free speech (Van der Velden); a pluralistic framework for notions of “privacy” and affiliated codes and laws regarding data privacy protection in both Western and Eastern countries (Ess); and an exploration of Theravada and Mahayana Buddhist approaches to privacy vis-à-vis modern Western notions of individual privacy (Hongladarom).

This last exploration, finally, contributes to the sort of pluralism that Soraj Hongladarom and I seek to develop – one that, in contrast with Rawls’ notion of overlapping consensus, extends beyond the boundaries of liberal states and further allows participants in a dialogue intending to develop a global ICE to “bring their specific backgrounds to the table” (Hongladarom & Ess, 2007:xv).

The fourth section then seeks initially to outline some specific obligations and duties for a global ICE, beginning with the primarily negative rights and duties affiliated with seeking commonalities in our online cross-cultural engagements (e.g. do not violate another person’s right to data privacy), and then moving to possible, primarily positive rights and duties entailed by seeking to meet “the Other” online in *resonant* ways structured by judgment and interpretive pluralism. Unfortunately, what we must do to establish trust and deal with ambiguity as embodied beings may not always “translate” easily to online venues. But we may nonetheless, as Hongladarom argues, positively cultivate the sort of character and compassion that would prevent violation of rights (e.g. to privacy) by reducing our egoistic self-interest and greed. More broadly, we will need to be more aware of how evil – defined in part as the systematic dehumanisation of “the Other” – may be at work within the very theoretical frameworks we seek to use to foster social justice in a global ICE (Kvasny). We will further need to explore how diverse religious traditions may be positively incorporated into a global ICE that seeks to preserve cultural identities (Bhattarakosol).

Finally, a number of important resonances between African thought and Western and Eastern traditions already woven together in a global, pluralistic ICE suggest – if only in an initial way –

that a pluralistic approach to the development of an African information ethics may likewise succeed in connecting African ethics with shared, global norms, while simultaneously sustaining and fostering the irreducible differences that define African cultures and traditions.

## What is ICE?

### *Initial canonical definitions*

Computer ethics, as one of the foremost pioneers in this field, Terry Bynum, has carefully documented and explored, begins in the English-speaking West with the work of Norbert Wiener (1948; see Bynum, 2000; 2001; 2006). We will see later on that Wiener’s work – specifically, his effort to define computer ethics in terms of using our technologies to contribute to human *flourishing* – certainly remains pertinent. In particular, Bynum builds his understanding of computer ethics in part on the work of James Moor (1985: 266), whose famous paper, “What Is Computer Ethics?” includes the observation that problems arise in relation to computers because of “policy vacuums” (the lack of policies, guidelines, etc.) in the face of especially the new ethical issues and social impacts of computing technology.

For their part, Bynum & Rogerson (1996:119) subsequently offered the following definition of computer ethics, as based on both Wiener and Moor:

*Computer ethics identifies and analyzes the impacts of information technology upon human values like health, wealth, opportunity, freedom, democracy, knowledge, privacy, security, self-fulfilment, and so on.*

### *Information ethics*

Intersecting the focus on computers and computer networks as specific forms of technology is a second definition – one that emphasises rather the primary fact that computers are used as information processors. While the exact definition of information – especially in contrast with what many of us take to be different types of knowledge most broadly (including data, knowledge and wisdom) – is a matter of dispute (e.g. Zins, 2007), if we agree in an operational way that what computers process is information,



then information ethics “comprises all the ethical issues related to the production, storage, access, and dissemination of information” (Hauptman, 1991:121).

### **Professional ethics**

Of course, the first people who really had to wrestle with these ethical issues were, as Wiener illustrates, computer scientists. Over the years, professional organisations such as the Association for Computing Machinery (ACM) and IEEE have developed statements of the ethical obligations and standards of the professionals responsible for the design, deployment and use of these technologies. So, for example, the ACM (1992) code of ethics includes the following:

*As an ACM member I will ...*

- 1.1 *Contribute to society and human well-being*
- 1.2 *Avoid harm to others*
- 1.3 *Be honest and trustworthy*
- 1.4 *Be fair and take action not to discriminate*
- 1.5 *Honor property rights, including copyrights and patent*
- 1.6 *Give proper credit for intellectual property*
- 1.7 *Respect the privacy of others*
- 1.8 *Honor confidentiality*

The code includes still more specific professional responsibilities, such as:

- 2.1 *Strive to achieve the highest quality, effectiveness and dignity in both the process and products of professional work*
- 2.2 *Acquire and maintain professional competence*
- 2.3 *Know and respect existing laws pertaining to professional work*
- 2.4 *Accept and provide appropriate professional review*
- 2.5 *Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks*
- 2.6 *Honor contracts, agreements, and assigned responsibilities*
- 2.7 *Improve public understanding of computing and its consequences*
- 2.8 *Access computing and communication resources only when authorized to do so*

To be sure, such ethical norms and obligations are crucial. But, as is both clear and appropriate to their origins and intended audience, these norms are addressed primarily to computing

professionals; i.e. those specialists and experts in the various fields surrounding computation as an intellectual, technical and/or business enterprise, including computer scientists, systems administrators, etc.

Obviously, as the use of computers and computer networks to communicate globally, as well as to process information in increasingly diverse ways (e.g. from word processing to online banking; the various forms of computer-mediated communication (CMC), including email, instant messaging, chats, social network sites, etc.; art and entertainment uses, including audio and video production and distribution; shopping; religion online [Ess, 2007a]), has become more and more a requirement and presumed feature of everyday life in the developed world. More and more of us who are not computer specialists face an increasing range of ethical issues and difficulties that are not directly addressed by a professional ethics that is powerfully but narrowly focused on the needs and experiences of the comparatively few technical experts.

### **Ethics for the rest of us?**

As Barbara Paterson (2007:153) points out:

*Deborah Johnson (1999) predicts that because the majority of moral problems will be computer ethics issues, computer ethics will cease to be a special field of ethics (Bynum, 2000). Kristina Gõrniak-Kocikowska (1996) predicts that the computer revolution will give rise to a revolution of ethics and that computer ethics will become a global ethics relevant to all areas of human life. Bynum and Rogerson (1996) and Moor (1998) suggest that the second generation of computer ethics should be an era of global information ethics.*

To say it again: within a very short period of time, ICTs have become increasingly ubiquitous in the developed world – so much so, in fact, that they now have become so interwoven in our lives that we are no longer so astonished, mystified and occasionally terrified by them. Rather, they are increasingly becoming like refrigerators and automobiles – technologies that work largely in the background rather than the foreground of our lives. And as we will soon see below, ICTs are likewise diffusing rapidly throughout the world. While in many places they are not likely to become so ubiquitous in the ways that we now

take for granted in the developed world, ICTs now connect over one billion people on the planet. But this means, in turn, that we all use – or will need to use – ICE every day.

To my knowledge, however, such a “pedestrian” – rather than specialised and professional – ICE is only now starting to emerge. Certainly, there are many excellent texts and courses available for teaching ICE (e.g. Tavani, 2007) but, to my knowledge at least, these remain largely in the province of specialised courses in the curricula for computer science and library science. At the same time, at least to my knowledge, the topics and problems of information ethics are not widely represented in the various anthologies used to teach ethics and applied ethics in the US, for example Boss (2005).

Therefore, a primary goal of contemporary ICE is to attend and respond to the multiple ethical issues that confront more or less everyone who uses a computer to receive, manipulate, present and distribute information. The list here is extensive:

- Simple netiquette and related politeness rules for using email and participating productively in listserves, chatrooms, instant messaging, etc.
- Ethical dimensions of social networking software, such as Facebook, including how far such communications can be considered private and/or protected under free speech, etc.
- Ethical dimensions of blogs and blogging, such as what may be fairly cited without permission, what requires permission, etc.
- Posting photos and videos online – with or without restrictions, with or without permissions, etc.

The list also includes “big ticket” items, such as:

- Privacy issues, both local, as in the post 9/11 US, and global, as different countries and traditions establish different expectations regarding privacy and correlatively different codes and laws for data privacy protection
- Copyright/copy left and intellectual property rights
- Cross-cultural communication online: freedom of self and cultural expression vis-à-vis “computer-mediated colonisation”, violating and/or offending important cultural and religious taboos, etc.
- Various issues surrounding such practices as

hacking, surveillance, cyber-stalking, “cyber-bullying”, sexual predation and abuse

- The digital divide and related issues of social justice, etc.

If anything – as ICTs continue to diffuse around the world and throughout our lives, both individually and collectively – we can expect the list of ethical issues to expand proportionately.

### ***A global information ethics? Basic requirements***

It is helpful to begin with a quick review of the dramatic scope and speed of global ICT diffusion. The Internet, beginning with 213 hosts in 1981, counted approximately 376 000 hosts by 1991. At the time of writing (April 2007), there were more than 433 193 199 hosts (ISC, 2007). Building on the Internet, the World Wide Web was first instantiated in 1991 and expanded to include just 26 servers worldwide by November 1992 (BBC, 2006). Currently, there are over 113 658 468 websites online (Newman, 2007).

Culturally, as late as 1998, the Internet and the Web remained solidly in the cultural domains of its English, European and US inventors – indeed, about 84% of Web users were located in the US (GVU, 1998). Now, a scant eight years later, over one billion (1 114 274 426) persons throughout the world have access to the Web. Of these, Asian users constitute 35.8% of the Web population, while Europeans make up 28.3% of world users and North Americans only 20.9% (IWS, 2007).

For our purposes, there are at least two immediate consequences of this global diffusion. The first is usually couched in terms of the digital divide: the distribution of ICTs globally generally follows pre-existing structures of wealth, power and status, both between nations and within nations. Certainly, many early proponents of the so-called Information Revolution or the “electronic global village” ardently hoped and argued that ICTs would bring about greater freedom, equality and economic opportunity – and certainly, we can find heartening examples that support this hope. By and large, however, it appears that ICTs work here – as they do elsewhere – as something like social and political amplifiers. Because of the associated economic start-up costs and, equally importantly, what Bourdieu (1977) has helpfully identified in terms

of social capital, the poor and socially marginalised face often insurmountable obstacles to joining the so-called revolution. Crudely, but importantly, here – as elsewhere – the poor stay poor and the rich get richer ...<sup>3</sup>

The second has to do with matters of cultural identity, diversity and the irreducible differences that establish and define the multiple lines between “us” and “them”. Briefly, as Hongladarom (2007) points out, until relatively recently, computer ethics – in parallel with ICTs themselves, as emerging primarily in the Western/North/English-speaking world – have remained largely the work of Western ethicists. Of course, contemporary Western ethical traditions are themselves diverse and in some ways irreconcilable – to name only some of the most prominent, for example:

- Utilitarianisms
- Deontologies
- Virtue ethics
- Feminist ethics and ethics of care
- Environmental ethics

Nonetheless, these ethical traditions rest upon shared assumptions – first of all, regarding the nature and reality of the individual, and related assumptions about the relative role and importance of the community and other forms of relationship to the identity and function of the individual.

As we are about to see, these and related contemporary Western assumptions come to the foreground as we consider non-Western ethical traditions, such as:

- African thought
- Confucian traditions
- Buddhist traditions
- Indigenous traditions, and so forth

That is, as we undertake the work of comparative philosophy, both the shared commonalities and irreducible differences between these diverse

traditions become clear and explicit. So, for example, we will see that many of these non-Western traditions share an understanding of the individual as a relational being, one whose identity and reality essentially turn on his or her relationships with others in the larger community (and, perhaps, nature and/or divinity itself). So Paterson (2007:157–158), drawing on the work of Menkiti (1979) and Shutte (1993), suggests that in general:

*In African philosophy, a person is defined through his or her relationships with other persons, not through an isolated quality, such as rationality.*

This means in turn that:

*African thought sees a person as a being under construction whose character changes as the relations to other persons change. To grow older means to become more of a person and more worthy of respect.*

Finally:

*In contrast to Western individualism and its emphasis on the rights of the individual, Menkiti (1979) stresses that growth is a normative notion: “personhood is something at which individuals could fail” (p. 159). The individual belongs to the group and is linked to members of the group through interaction; conversation and dialogue are both the purpose and activity of the community.<sup>4</sup>*

Hence, these irreducible differences between cultures are not trivial. Rather, they work to define the differences between cultures – and thereby between individuals as shaped by these cultures. To say it differently, these foundational differences are essential to defining our identities as cultures and members of cultures.

<sup>2</sup> The digital divide was a primary theme, of course, in our conference, beginning with its central importance for Topic Three, “Development, poverty and ICT”. In addition, Sarah Kaddu (2007) documents in great detail how various deficits in social capital led to a number of very regrettable failures in ICTs for Development (ICT4D) projects in Uganda – just one example, unfortunately, of a very broad trend in ICT4D work.

<sup>4</sup> In his keynote address opening the first African Information Ethics Conference, Rafael Capurro (2007) helpfully focused on *ubuntu* as a particular expression of what we may now think of as the more communitarian or collective emphasis described here by Paterson, characteristic of not only African traditions but, as we will further see, also of Buddhist and Confucian traditions, as well as others around the world. I will return to the implications of these linkages for the development of an *African* information ethics by way of conclusion. Linux users will recognise *ubuntu* from the (excellent) Ubuntu distribution of the Linux OS (see [www.ubuntu.com](http://www.ubuntu.com)).

I will assume here (although I have argued elsewhere – Ess, 2007b) that persons and cultures have a basic right to identity. Such rights are spelled out, for example, in UNESCO's Universal Declaration on Cultural Diversity. And, as Rafael Capurro (2006) points out, the Declaration of Principles of the World Summit on the Information Society (WSIS) in 2003 explicitly addresses "Cultural Diversity and Identity, Linguistic Diversity and Local Content" in Point 8, including the affirmation that:

*52. Cultural diversity is the common heritage of humankind. The Information Society should be founded on and stimulate respect for cultural identity, cultural and linguistic diversity, traditions and religions, and foster dialogue among cultures and civilizations. The promotion, affirmation and preservation of diverse cultural identities and languages as reflected in relevant agreed United Nations documents, including UNESCO's Universal Declaration on Cultural Diversity, will further enrich the Information Society.*

Alongside these sorts of commitments to honour and foster the irreducible differences that define our individual and cultural identities – as we seek to develop a global ICE – we must do so in ways that simultaneously foster and sustain a shared ethos or set of ethical practices. That is:

*... just as we require commonly shared technical standards if our computers are to "talk" with one another around the globe; and just as we require a common language, a shared lingua franca, if we are to be able to communicate and mutually understand one another ...*

So it seems that in an "electronic global village":

*– better, an electronic global metropolis (Hjarvard, 2002), in which, as we have seen, ca. 1/6th of the world's population are now able to communicate with one another (more or less) directly and instantaneously – we will also require a shared ethics that guides our uses and expectations surrounding the use of ICTs.*

This requirement for a shared ethos, we may notice, is itself an assumption shared by all major ethical traditions. That is, every major ethical system, both East and West, assumes that a shared ethics or ethos is necessary, however much they may vary as to the content of that shared ethos. So, for example, deontologists,

especially following the German philosophers Kant and Habermas, take up a rationalist emphasis on (near-absolute) rights, duties, etc., as universal – an emphasis further embedded in such documents as the United Nations Universal Declaration of Human Rights (1948). As Bernd Carsten Stahl (2004:17) goes on to observe, French moralism in Montaigne and Ricouer is by contrast teleological, i.e. oriented towards the goal or *telos* of discerning and doing what is necessary for the sake of an ethical and social order that makes both individual and community life more fulfilling, productive, etc., through "the propagation of peace and avoidance of violence".

Still again, ethics in the Anglo-American world tends to emphasise a utilitarian interest in "the greatest good for the greatest number" as the primary ethical norm towards which all actions should aim, while various communitarian views emphasise the good of the community in still other ways, e.g. the Confucian emphasis on communal harmony (*te*), the African emphasis on community wellbeing, the Aristotelian emphasis on harmony, development of the *polis*, etc., and the Buddhist emphasis on compassion as a practice essential both to individual enlightenment and community peace and harmony.

In addition to what we might think of as a formal requirement of an ethical system – i.e. this aim towards a shared set of norms, procedures, etc. – we should note that there are also contents shared among the major ethical systems and religions of the world. So, to begin with, we can find a version of the "Golden Rule" in the Abrahamic religions (Judaism, Christianity, Islam), Confucian thought (e.g. *Analects* 15.23), Taoism, Shinto, Hinduism (*Mahabharata* 5:1517), Jainism, Sikhism and Native American traditions (Granoff, 2003). Other candidates for "content universals" include those offered by Tu Wei-Ming: the Golden Rule; a sense of justice/fairness; rules of civility; a notion of wisdom as an important goal in individual development and as a respected quality; and trust as a basic social glue.

Finally, the venerable James Moor (2002:204; cf. Adam Moore, 2003 – both cited in Hongladarom, 2007:110) argues that all human groups focus on the values of "life, happiness, freedom, knowledge, ability, resources, and security" – and thereby privacy.

### ***A global ICE: Ethical pluralism and “intercultural information ethics”***

These two requirements then lead directly to what many of us now regard as a central issue in ICE: if an information ethics is to be genuinely global – i.e. achieve normative legitimacy among a wide diversity of cultures and ethical traditions – such an ethics must:

- Address both local and global issues evoked by ICTs, CMC, etc.
- Function in ways that both sustain local traditions, values, preferences, etc.
- Provide shared, (quasi-) universal responses to central ethical problems

Or, as Soraj Hongladarom (2007:115) puts it more succinctly, specifically with regard to the issue of privacy and in the light of the radical differences between Eastern and Western conceptions of privacy:

*The task for the theorist is then to search for a system of justification of privacy which respects these diverse cultural traditions, but at the same time is powerful enough to command rational assent of all involved.*

Ethicists and philosophers will recognise that the challenge of creating such a global ethics is in fact an ancient one – and in a little while I will explore two ancient solutions to the problem, namely Plato’s interpretive pluralism and Aristotle’s subsequent *pros hen* or “focal” pluralism.

In the context of ICE, our colleague Rafael Capurro articulated this difficulty very early on. As Barbara Paterson (2007:162) points out:

*The pressing issue is not providing access to technology in order to turn more people into receivers of information that was created elsewhere and may not be useful to them, but, as suggested by Capurro (1990), it is to find ways that African countries can promote their identities in information production, distribution, and use. In terms of a global information ecology, he stresses the importance “of finding the right balance [...] between the blessings of universality and the need for preserving plurality” (Capurro, 1990).*

Preserving this plurality – in my terms, the irreducible differences that define individuals and cultures – is thus one of the central tasks of what Capurro (2005) has subsequently come to

call “intercultural information ethics” (IIE).

One of the conditions of developing such an IIE or global ICE, finally, is that these ethics must emerge from cross-cultural dialogues, marked by a fundamental respect precisely for the irreducible differences that define our cultures and our identities. As Paterson (2007:162) points out, “a great conversation is necessary that transcends limitations of discourse among members of particular social groups” – a conversation that has been called for by Berman (1992), Moor (1998), and as early as 1990 by Rafael Capurro.

### ***Variations on the theme: How far ought we go towards “the Other”?***

As I have explored these matters over the past few years, it has become increasingly clear to me that we must ask still one more question before proceeding to develop a global ICE – and that is: How far do we want/need/ought to go to meet “the Other”? This question is central, because our responses to it will determine how far we may remain satisfied with an ethics that emphasises shared assumptions and obligations only – and how far we may be willing, if not required, to take up additional ethical obligations necessary in order to honour and foster the irreducible differences that define our cultural and individual identities.

In the following, I begin to sketch out the characteristics of each of these responses. In the concluding section, I will return to these two possible approaches to ICE and summarise a number of concrete suggestions, especially regarding the second possibility (what we will see referred to in terms of a “resonance ethics” or Good Samaritan ethics) that emerge in some of the most recent work on ICE.

### ***Minimal standards – emphasis on commonalities***

Briefly, we can identify what might be thought of as a set of minimal ethical standards for the electronic global metropolis – ones that emphasise commonalities more than differences for the sake of largely pragmatic economic interests.

As an initial example, Johnny Søraker (2006) has pointed out that pragmatic arguments – i.e. those

arguments that appeal to our shared economic interests – are strong candidates for inclusion in a global ICE, precisely because they largely bypass foundational cultural and political differences. So he argues, for example, that both the Western nations and China might be persuaded to agree on less regulation for the Internet at its basic levels (physical infrastructure, TCP/IP protocols, etc.) rather than more, despite the radical differences between them – simply because agreements on sharing identical infrastructures at these base levels are economically less expensive for all participating parties. If there is to be regulation, he argues – especially as based on political or moral concerns specific to a given country – such regulation can be carried out more effectively and economically at the “upper” levels of the Web and the Net, namely at the layers of applications, etc.

There is certainly warrant in praxis for this approach. For example, China has agreed to the Human Subjects Protections endorsed by the World Health Organisation (WHO) as required for medical research, even though these protections are quite alien to the philosophical foundations of Chinese cultures and earlier medical practices. The motivation for accepting these protections was simple: the World Trade Organisation (WTO) made acceptance of these protections a requirement for joining the WTO, as China did in 2001 (Döring, 2003). In addition, as we will see below, shared economic interests are driving China and other Asian nations to move towards at least limited but nonetheless recognisable conceptions of privacy and data privacy protection, despite radical differences with the assumptions and values that underlie Western notions of privacy and data privacy protection.

Similarly, as Dan Burk (2007) points out, the (comparatively) rigorous Data Privacy Protection requirements of the European Union (EU) have managed to spread around the world – including into non-Western cultures – in what he characterises as “viral” fashion. Quite simply, the EU privacy protections include the stipulation that EU countries may not share personal information with countries outside the EU unless those countries also ensure data privacy protections equivalent to those specified in the EU Data Privacy Protection Acts. Very simply, if countries outside the EU want to enjoy the economic benefits of trade with the EU, insofar as such

trade entails the sharing of private data, those countries are then required to meet the EU data privacy protection standards (Burk, 2007). Again, as Søraker (2006) has suggested, pragmatic concerns – including economic self-interest – may motivate diverse countries and individuals to agree upon a shared set of standards, despite their radical differences.

Finally, we may expect a global ICE to include agreements on identical values and standards because globalisation – as fuelled by ICTs themselves – fosters a cultural hybridisation and the creation of “third identities” (i.e. syntheses of two distinct cultural values, practices, beliefs, etc.) that represent precisely a shared, global identity. One of the clearest examples of such a third identity is again in the domain of privacy. As a number of commentators have observed, young people in Asian countries – specifically Japan, Thailand and China – increasingly insist on a Western-like practice of individual privacy, one that directly contradicts traditional Asian notions (see Nakada & Tamura, 2005; Rananand, 2007; and Lü, 2005, respectively). Clearly, young people in these countries are influenced by their exposure to Western notions of individual privacy. And, coupled with the growing economic prosperity that makes individual privacy possible, they are coming more and more into agreement with their counterparts in the West. Insofar as there is a shared – indeed, identical – set of understandings and values surrounding notions of individual privacy in both East and West, then we may expect that a global ICE will be able to develop a single, (quasi-) universal set of norms and practices for protecting that privacy.

### *Towards resonance: Online Good Samaritans and a new Renaissance?*

But is that all? What happens as the irreducible differences defining diverse cultures and identities are not eradicated or overshadowed by such hybridisations and homogenisations? Again, how can we craft a global ICE that will preserve such irreducible differences?

As I have suggested, our answers to this question depend in part on how far we believe we ought, need or want to go beyond pragmatic relationships, motivated primarily by economic self-interest, relationships that emphasise our shared

commonalities – and thus, how far we are prepared to engage “the Other” as Other, i.e. in ways that recognise, respect, indeed foster our irreducible differences.

To highlight the contrasts I see at work here, allow me to introduce what I believe is a central – and centrally important – model for encountering “the Other”, namely the Japanese Buddhist and comparative philosopher Kitarō Nishida’s understanding of *resonance*. This notion of resonance, we will see, is of interest in part because it represents a notion that is shared between such Western philosophers as Plato and Aristotle, and such Eastern philosophers as Confucius, and it is also found in Daoist and Buddhist traditions. As well, if our goal in the intercultural engagements made possible by ICTs in the electronic global metropolis is to take up relationships with “the Other” that seek to foster the irreducible differences that make these resonances possible, then we will find that our global ICE will look somewhat more complex – and demanding – than a global ICE based primarily on pragmatics and commonalities.

### Nishida and resonance

Nishida (1988) draws on the language of German philosophy, so as to emphasise that our relationships with one another always take place across the difference of “absolute opposites” (*Entgegengesetzter*) if we are to preserve our identities as irreducibly distinct from one another. But obviously, if only sheer difference defines our relationship, then there will be no connection or unity (*Vereinigung*). To describe human relationships as a structure that holds together both irreducible difference and relationship, Nishida turns to the term and concept of resonance.

How do we know “the Other” as absolute Other? In part:

*... through the resonance [hankyō] of my personal behavior [with you] I can know you, and you can know me through the resonance of your personal behaviour [with me].*

This resonance clearly entails relationship, specifically a “speaking with one another” (*miteinander Reden*) and an “answering to one another”. At the same time, however, this relationship sustains the irreducible differences required

to keep our identities and awareness separate:

*Even if I know the thoughts and feelings of the other human being – this is not a simple unification [Vereinigung] of me with the other human being: my consciousness and the consciousness of the other must remain absolutely distinct from one another.*

What emerges is the conjunction of what appears to be contradictory, i.e. connection alongside irreducible difference:

*The mutual [gegenseitige] relationship of absolute opposites [Entgegengesetzter] is a resonant [hankyō] meeting or response. [...] Here we encounter a unity of I and You and at the same time a real contradiction.*

### Resonance and pluralism

It is important to note – especially for the philosophers and political scientists – that this notion of resonance is deeply implicated with the lengthy and extensive discussion of pluralism in both ethics and political philosophy. To begin with, as I have developed more fully elsewhere (Ess, 2006a), resonance and an affiliated pluralism are central to the work of eco-feminist Karen Warren (1990) and specifically the information ethics of Lawrence Hinman (1998). Similar notions of resonance emerge in contemporary political philosophy, most specifically in the work of Charles Taylor. Attempting to move beyond both a *modus vivendi* pluralism that “lets differences lie”, i.e. tolerates difference by not insisting on connection, and John Rawls’ notion of “overlapping consensus”, Taylor seeks a stronger notion of connection in the face of difference – in part, as Madsen & Strong (2003:12) point out, as Rawls’ notion still runs the risk of allowing radical difference to lead to the dehumanisation of “the Other”. In order to fully accommodate difference, Taylor takes up a notion of complementarity understood as a coherency between two irreducibly different entities, where this coherency emphasises a positive engagement between these two as one side enhances and expands on the characteristics of the other. So Taylor (2002:191) says:

*The crucial idea is that people can bond not in spite of but because of difference. They can sense, that is, that their lives are narrower and less full alone than*

*in association with each other. In this sense, the difference defines a complementarity.*

Moreover, this strong notion of resonance is not restricted to other human beings. We may further seek – or believe ourselves required to seek – such resonance with:

- The larger community, and/or
- The natural order, and/or
- Divinity (in so far as we believe it to exist)

Broadly speaking, the further we understand our interrelationship with “the Other” to extend, the more extensive our ethical obligations will become. Between Nishida and Taylor, then, we can discern models of resonance and complementarity for our engagements with “the Other” – whether in human, natural and/or divine form – that insist on preserving and fostering the irreducible differences that define our identities as distinct from one another. Simultaneously, they sustain relations that, ideally, foster the flourishing of all. In particular, in contrast with a Rawlsian approach that requires us, as it were, to leave our metaphysics – our cultural worldview and affiliated values, practices, etc. – at home before we seek to develop an overlapping consensus in the political sphere, as Soraj Hongladarom and I further develop these notions of resonance, harmony and pluralism, they allow us precisely to bring our metaphysics to the table of ethical discussion.

This understanding of the sorts of harmonies we are to strive for, moreover, is not restricted to Nishida’s Buddhism and Taylor’s political philosophy. On the contrary, as we have seen – and as we will explore still more fully below – such notions of harmony guide the ethical and political thought of a range of world traditions, including Aristotle, Confucian thought, African thought, and so on. At the same time, this emphasis on harmony is likewise a theme shared by contemporary virtue ethics, ecofeminism and environmental ethics. Hence these notions of resonance, complementarity and harmony appear to offer a kind of ethical lingua franca that may serve as common grounds for a global ICE. But we will also see that the ethical demands and obligations these notions entail go well beyond those that follow from an initial – but minimal – emphasis on commonalities alone. These additional demands, that is, may be required of us as we seek to foster engagements with “the Other” via ICTs distributed globally in ways that

preserve the irreducible differences at work in such resonant relationships.

In particular, these additional ethical requirements may emerge as necessary conditions for a global ICE that includes both shared norms and values, but precisely as these can be (rationally) endorsed from the perspective and standpoint of particular and distinct cultures and individuals. In the next section, I turn to the possible ways – first in theory and then in praxis – of developing such a global ICE, one that constructs a pluralism constituted by shared ethical norms and values alongside multiple interpretations or applications of these values, as refracted through – and thus reflecting and preserving – irreducibly different cultural traditions, practices, etc.

### **Ethical pluralism: West and East**

Because the difficulty of developing an ethics that works across diverse cultures and traditions is an ancient problem, we should not be surprised to discover that the ancients in both Eastern and Western traditions have developed often highly sophisticated ways of resolving the apparently conflicting demands between agreement and difference. But what is striking – and, at the same time, heartening for those of us hoping for a global ICE that will conjoin shared norms with individual and cultural differences, including the differences between Eastern and Western traditions – is just that the ancient Western and Eastern solutions in fact closely resemble one another in several fundamental ways.

In the first part of this section, I explore these close resemblances – which I will eventually call their resonances and harmonies – as a way of bringing to the foreground, first at a theoretical level, central notions of judgment, pluralism, harmony and resonance as these appear to bridge Eastern and Western traditions in ways that, in turn, suggest that we may build a global ICE on such notions, and thereby progress towards the goal of an ICE that incorporates both shared norms as well as the irreducible differences that define individual and cultural identities. In the following section, I then turn to examples drawn from contemporary praxis, i.e. norms and values articulated in diverse instances of cross-cultural ICE, which thus make clear that ethical pluralism is not simply a theoretical possibility, but also a practical reality in an emerging global ICE.



### ***Ethical pluralism West: Plato, Aristotle, phronesis and “cybernetic pluralism”***

Both Plato and Aristotle, and subsequently Aquinas, responded to this complex requirement in at least two key ways. To begin with, Plato developed a view that I have characterised as “interpretive pluralism” (Ess, 2006a). On this view, as elaborated especially in *The Republic*, we may conjoin shared ethical norms with irreducible differences by recognising that diverse ethical practices may represent distinctive interpretations or applications of those shared norms. Such differences do not necessarily mean, as ethical relativists would argue, that there are no universally legitimate ethical norms or values; rather, such differences may mean only that a given norm or value is applied or understood in distinctive ways – precisely as required by the details of a given context as shaped by a particular tradition, cultural norms and practices.

So, for example, elderly persons suffering from kidney disease are treated differently in different cultures and places. In the US – at least for those able to afford health insurance with good coverage – such a person may reasonably expect to receive treatments such as kidney dialysis to sustain his or her life, despite their great expense, without restriction, for example as determined by age. In the UK, by contrast, the national healthcare system has imposed an upper age limit of 65 on patients for whom it will subsidise such treatments (Annis, 2006:310). Finally, in the harsh environment of the Canadian Arctic, at least early in this century, an elderly member of the community who was no longer able to contribute to the wellbeing of the Kabloona community might voluntarily commit a form of suicide (Boss, 2005:9f).

For the ethical relativist, these three different practices might be thought to demonstrate that there are no values or norms shared universally across cultures. Alternatively, however, we can also understand these three practices as three diverse interpretations, applications and/or judgments as to how to apply a single norm, namely the health and wellbeing of the community – in three very different environments and cultures. Quite simply, at least the well-to-do in the US can afford the health insurance that will provide kidney dialysis without age limit, while a nationalised health system, even in a relatively wealthy country such as the UK, would quickly

go bankrupt unless it imposed limits on subsidised healthcare. Similarly, in the unforgiving environments of the Kabloona, the wellbeing of the community would be jeopardised if scarce resources were diverted to caring for those who no longer could contribute to the community. Hence such care is literally not affordable by the community, nor, apparently, expected by the individual.

Secondly, Aristotle builds on Plato’s teaching in several ways, beginning with his notion of *pros hen* or “focal” equivocals. Such equivocals stand as linguistic middle grounds between a homogeneous *univocation* (which requires that a term should have one and only one meaning) and a pure *equivocation* (as a single term may have multiple but entirely unrelated meanings; for example, “bat” can refer both to a winged mammal and a wooden stick used in baseball). *Pros hen* or focal equivocals, by contrast, are terms with clearly different meanings that simultaneously relate or cohere with one another, as both point towards a shared or focal notion that anchors the meaning of each. Aristotle (*Metaphysics*, 1003b2–4; cf. 1060b37–1061a7) uses the example of “healthy” to illustrate his point: “... the term ‘healthy’ always relates to health (either as preserving it, or as producing it, or as indicating it, or as receptive of it”. In his later elaboration on Aristotle’s understanding of such equivocals, Aquinas (1969:13.5) illustrates the point more fully:

... there is the case of one word being used of two things because each of them has some order or relation to a third thing. Thus we use the word ‘healthy’ of both diet and passing water, because each of these has some relation to health in a man, the former as a cause, the latter as a symptom of it.

So we could say, for example, that a particular diet is healthy<sub>(1)</sub> and good kidney functioning may also be said to be healthy<sub>(2)</sub>, but the two terms are not univocals; that is, they do not have precisely the same meaning. On the contrary, with healthy<sub>(1)</sub> we mean that the diet contributes to the state of being healthy, while healthy<sub>(2)</sub> means that good kidney function is a reflection of the state of being healthy. At the same time, however, precisely because healthy<sub>(1)</sub> and healthy<sub>(2)</sub> refer to the same “state of being healthy” that, as a shared focal point, thus grounds their meanings. Their differences in meaning are thus conjoined with a coherence or connection alongside

these differences.<sup>5</sup> For Aristotle (as well as for Aquinas), this linguistic analysis is significant because language is assumed to reflect the structure of reality itself. In particular, Aristotle says rather famously that *being* itself is such a focal or *pros hen* equivocal: "... there are many senses in which a thing is said to 'be', but all that 'is' is related to one central point, one definite kind of thing, and is not said to 'be' by a mere ambiguity" (*Metaphysics*, 1003a 33). That is, all things *are* – in ways that are both irreducibly different and yet at the same time inextricably connected with one another by way of reference to a single focal point.

For Aristotle, our ability to negotiate the complex ambiguities of *pros hen* equivocals is affiliated with a particular kind of practical judgment, which he calls *phronesis*. Just as we can recognise and appropriately utilise terms that hold different but related meanings, so *phronesis* allows us to discern what and how general ethical principles apply to diverse contexts, thereby making ethical decisions and actions possible. As Aquinas (in Haldane, 2003:91) puts it:

*Practical reason [...] is concerned with contingent matters about which human actions are concerned, and consequently, although there is necessity in the general principles, the more we descend to matters of detail, the more frequently we encounter deviations [...] Accordingly, in matters of action, truth or practical rectitude is not the same for all in respect of detail but only as to the general principles, and where there is the same rectitude in matters of detail, it is not equally known to all.*

This is to say: *phronesis* allows us to take a general principle (as the ethical analogue to the focal term ground two *pros hen* equivocals) and discern how it may be interpreted or applied in different ways in different contexts as the ethical analogues to the two *pros hen* equivocals (i.e. that are irreducibly different and yet inextricably connected). But what *phronesis* thereby makes

possible is an ethical pluralism that recognises precisely that shared ethical principles and norms will necessarily issue in diverse ethical judgments and interpretations, as required by irreducibly different contexts defined by an extensive range of fine-grained details.<sup>6</sup>

Such ethical pluralism, finally, as engaging such structures of connection alongside irreducible difference, and as rooted in a *phronesis* that is precisely the cultivated, experientially informed ability to judge as to how to interpret and apply shared principles to diverse contexts, thereby carries us beyond Hinman's notion of "potential compatibility", and even Rawls' notion of overlapping consensus.

In fact, Aristotle's understanding of *phronesis*, and thus of ethical pluralism, is intimately connected with a central component of computation, namely *cybernetics*. Of course, most of us are familiar with the term – as originally developed by Norbert Wiener – as referring to the ability of computer systems to self-regulate and self-correct their processes through various forms of feedback mechanisms. What is apparently forgotten or unacknowledged, however, at least in more recent literature, is that "cybernetics" is derived from Plato's use of the *cybernetes*. The *cybernetes* is a steersman, helmsman or pilot, and Plato uses the *cybernetes* as a primary model of ethical judgment, specifically, our ability to discern and aim towards the ethically justified

<sup>5</sup> Aquinas's example apparently draws from Aristotle's discussion of *pros hen* equivocals in *The Topics*: "... 'healthy' means 'producing health' and 'preserving health' and 'denoting health' " (I.xv, 106b35–37). We should also note that there are important differences between the *pros hen* and analogical equivocals that both Aristotle and Aquinas make use of, but these differences, so far as I can see, are not significant for the current discussion.

<sup>6</sup> As I have pointed out earlier (Ess, 2004:164), *phronesis* for Aristotle is an excellence or virtue (*arete*), that consists in "a truth-attaining rational quality, concerned with action in relation to the things that are good for human beings" (*Nicomachean Ethics*, VI.v.6). The Aristotle scholar, Werner Jaeger, describes Aristotle's notion of *phronesis* as "an habitual disposition of the mind to deliberate practically about everything concerning human weal and woe" (Jaeger, 1934:83, referring to 1140b4 and 220). We should further note that Aristotle again follows Socrates and Plato here, as Jaeger (1934:83) comments, "To Socrates *phronesis* had meant the ethical power of reason, a sense modeled on the common usage that Aristotle restores to its rights in the *Nicomachean Ethics*". Indeed, as we are about to see, Aristotle's understanding of *phronesis*, as it derives from Socrates, is thus allied with Plato's use of the *cybernetes* – the pilot or steersman – as an exemplar of ethical or moral judgment. For additional discussion of *phronesis* in recent ICE, see Dreyfus (2001) and Hinman (2004:61).

path in the face of a wide range of possible choices. So Plato has Socrates observe in *The Republic* (360e–361a; cf. *The Republic I*, 332e–c; VI, 489c):

*... a first-rate pilot [cybernetes] or physician, for example, feels the difference between the impossibilities and possibilities in his art and attempts the one and lets the others go; and then, too, if he does happen to trip, he is equal to correcting his error.*

“Cybernetics”, then, means more originally the capability of making ethical judgments in the face of specific and diverse contexts, complete with the ability to self-correct in the face of error and/or new information. This is to say, the *cybernetes*, as a model of ethical self-direction, thereby embodies and exemplifies the sort of ethical judgment that Aristotle subsequently identifies in terms of *phronesis*; i.e. precisely the ability to discern what general principles may apply in a particular context, and how they are to be interpreted to apply within that context as defined by a near-infinite range of fine-grained, ethically relevant details.

Given this conjunction between the *cybernetes* and *phronesis*, where *phronesis* is the ethical judgment capable of discerning what general principles may apply, and how they apply in diverse ways as required by diverse contexts, we can then meaningfully speak of a “cybernetic pluralism” in information and computer ethics. I thereby refer to precisely the ethical pluralism that follows from recognising the role of *phronesis*/practical judgment in attempting to apply/interpret/understand ethical norms in diverse ways (depending on specific circumstances and larger cultural frameworks), one that is self-correcting in primarily ethical, not simply informational ways.

### **Bridge notions with Eastern thought: Pluralism, harmony and resonance in Confucian thought**

Happily, these notions of judgment and pluralism are by no means restricted to these ancient Western thinkers. On the contrary, similar notions are found throughout diverse religious and philosophical traditions including, for example, Islam (Eickelman, 2003), as well as Confucian thought. So Joseph Chan (2003:136)

observes that, “insofar as the framework of *ren* [authoritative humanity or co-humanity<sup>7</sup>] and rites remains unchallenged, Confucians are often ready to accept a plurality of diverse or contradicting ethical judgments”. Chan’s description of this Confucian pluralism thus closely parallels the interpretive pluralism we have seen in Plato, Aristotle and Aquinas. In particular, Chan (2003:137) emphasises the point that a shared ethical norm – in the Confucian case, *ren* – precisely allows for a diversity of judgments as to how the norm is to be interpreted or applied in a given case:

*If after careful and conscientious deliberation, two persons equipped with ren come up with two different or contradictory judgments and courses of action, Confucians would tell us to respect both of the judgments.*

Here we can see, then, that Confucian thought thus closely parallels especially Aristotle’s understanding of *phronesis* and the affiliated understanding that a plurality of judgments are not only possible, but are in fact required by the application or interpretation of a given ethical norm across diverse circumstances and contexts. That is – just as Being and the Good, as refracted through *phronesis*, allow for a diversity of legitimate meanings, interpretations, applications – so *ren* allows for different, even contradictory judgments in Confucian thought.<sup>8</sup>

### **Metaphors of resonance, harmony as structure of pluralism: Connection along-side irreducible differences**

These close similarities regarding basic understandings of judgment and pluralism, in fact, extend to the central metaphors used to describe such pluralisms. In particular, the German comparative philosopher Rolf Elberfeld has extensively described how the metaphors of harmony and resonance appear in both Western and Eastern traditions, beginning with Plato’s

<sup>7</sup> See Ames & Rosemont (1998:30).

<sup>8</sup> Similarly, Prof. I.J. Mosala, in his address to our conference, noted that: “In culturally diverse communities it is quite likely that everybody will accept these [basic] principles [of information ethics], but the way that they strive to promote them could vary.”

account of the role of music as critical to education in *The Republic* (401d). We can further note here that for Plato, justice itself emerges as the proportional harmony between the three distinct elements of the psyche or self (i.e. reason, spirit and appetite) – just as justice in the ideal city is likewise a proportional harmony between the three classes (e.g. *The Republic*, 443b–445b).

Turning to China, Elberfeld (2002) points out that music – specifically, musical harmonies – are centrally important to education, as described in the *Liji* (*Book of Rites*, 3rd century. BCE). In ways closely similar to Plato, harmony (*he*) or resonance (*ganying*) are incorporated in education as a means of perfecting – understood precisely as harmonising – the proper relationships, first of all between human beings. Such harmony, it is hoped, will then further extend between human beings and the larger order, as well as, finally, between earth and *T'ian* (“heaven”; better, “an inhering, emergent order negotiated out of the dispositioning of the particulars that are constitutive of it” (Ames & Rosemont, 1998:47). As is well-known, harmony (*he*) among these multiple spheres are the fundamental features and goals of classical Confucian ethics – what Elberfeld (2002:132–137) calls a “resonance ethics” (*Resonanz-Ethik*).<sup>9</sup> The metaphors of resonance and harmony, moreover, are clearly structures of pluralism. That is, these notions explicitly entail structures of connection alongside, and in the face of, irreducible difference. Specifically, the Chinese term *ying* (resonance) means precisely “a conjunction (*Zugleich*) of unity (*Vereinigung*) and division (*Trennung*)” (Elberfeld, 2002:132).

Finally, Elberfeld (2002:137f) demonstrates that these understandings of harmony, resonance and a correlative ethical pluralism are found not only

in Confucian thought, but also in both ancient and contemporary Daoism and Buddhism. And, as we have seen, the highly influential Japanese comparative philosopher Kitarō Nishida takes up the Japanese version of resonance (*hankyō*) as key to our knowing one another as human beings.

There is good reason to think, then, that theoretically these notions of pluralism and resonance may also be shared cross-culturally but, unlike simple commonalities, these notions further include the ability to articulate and preserve irreducible differences.

### **Examples of ethical pluralism in contemporary theories of information and computing ethics**

Indeed, there are at least two examples of such pluralism operating in contemporary theoretical work, beginning with Terrell Ward Bynum’s synthesis of the work of Norbert Wiener and Luciano Floridi, in what Bynum calls “flourishing ethics”. He has argued that the ethics of both Wiener and Floridi converge towards the central values of contributing to human flourishing; advancing and defending human values (life, health, freedom, knowledge, happiness); and fulfilling “the great principles of justice” drawn from Western philosophical and religious traditions. In fact, Bynum further points out agreement on these central values in the ethics of such computer ethics pioneers as Deborah Johnson, Philip Brey, James Moor, Helen Nissenbaum, as well as in my own emphasis on using CMC technologies in ways that preserve, to use Hongladarom’s distinction (1998; 2000; 2001), “thick” or local cultures (Ess, 2005).<sup>10</sup> In this way,

<sup>9</sup> We can further note here that while Plato’s understanding of harmony in *The Republic* is focused on harmonies within the human being and then within the human community, Plato draws from the still older Pythagorean belief in “the harmony of the spheres”, i.e. a kind of cosmic harmony thought to extend throughout the natural order as mathematically ordered in *musical* proportions. In this way, at least the larger philosophical background of what I have called Plato’s interpretive or “cybernetic” pluralism thereby directly correlates with the Chinese notion of a “cosmic” harmony between humanity, earth and *Tian*.

<sup>10</sup> Soraj Hongladarom (1998; 2000; 2001) takes up Michael Walzer’s (1994) distinction between “thick” and “thin” to suggest a model of global uses of CMC that holds both local or “thick” cultures (including local languages, practices, traditions, etc.) alongside a more global but “thin” culture, including the use of English as a lingua franca that makes global communication and interaction possible while, nonetheless, thereby preserving the irreducible differences that define specific cultures. I have incorporated this model in my own work, so as to highlight additional examples from CMC usage around the globe that complement and reinforce Hongladarom’s original model, as developed initially in the context of his analysis of Thai chatroom behaviour. I am further

these central values serve as contemporary examples of *pros hen* foci – of norms that may be shared across a wide range of thinkers and contexts, thereby issuing in an ethical pluralism that allows for considerable diversity in the interpretation and application of those norms.

Similarly, Luciano Floridi has developed more recently a conception of what he calls a “lite” information ontology, precisely with a view to avoiding cultural imperialism, on the one hand (resulting from unilaterally and homogeneously applying a single ethical framework across all cultures), while also avoiding, on the other hand, a merely relativist insistence on a local framework only, one that would thereby remain fragmented and isolated from other cultures and frameworks, as the effort to preserve their irreducible differences would (mistakenly) insist on avoiding all shared, putatively universal norms and values. So Floridi (2006:113) says:

*First, instead of trying to achieve an impossible “view from nowhere”, the theory seeks to avoid assuming some merely “local” conception of what Western philosophical traditions dictate as “normality” – whether this is understood as post-18th century or not – in favour of a more neutral ontology of entities modelled informationally. By referring to such a “lite” ontological grounding of informational privacy, the theory allows the adaptation of the former to various conceptions of the latter, working as a potential crosscultural platform. This can help to uncover different conceptions and implementations of informational privacy around the world in a more neutral language, without committing the researcher to a culturally laden position.*

A “lite” ontology, that is, can serve as a shared framework that allows precisely for a pluralistic diversity of understandings and applications of a shared notion of informational privacy, as, in effect, the focal, *pros hen* notion referred to by specific understandings and implementations of privacy within specific – and irreducibly different – cultural settings. Indeed, Floridi (2006:113) makes explicit here that his notion of a “lite” ontology is intended precisely to avoid the

cultural imperialism of imposing a single norm, language or culture across the globe. Rather, his vision is of a pluralistic structure of a shared framework – in this case, information ontology as something of a shared language – alongside the diverse languages and practices of diverse cultures:

*No universal language or culture should be expected to arise across all the various information societies around the world. However, in the same way as people will increasingly often speak not only their own idioms and native dialects but also some form of basic English good enough to communicate with each other, likewise, an informational ontology will probably represent the shared koiné among future netizens.*

The suggestion that the pluralism intended by Floridi’s “lite” informational ontology requires our fluency in (at least) two “languages” – i.e. our own native language, along with a globally shared koiné – thereby echoes the similar point made by Brenda Danet and Susan Herring. As the history of cultural hybridisation shows, people are indeed capable of the linguistic *diglossia* required to maintain both a local language (and with it, given the integral role of language in defining and articulating a culture’s worldview, values, practices, etc.) and a more formal lingua franca used for broader communication (Danet & Herring, 2003). Moreover, Floridi further echoes here Soraj Hongladarom’s strategy of applying Michael Walzer’s distinction between “thick” and “thin” to a develop a model of global uses of CMC technologies that, as we have seen, conjoins both local but “thick” cultures (including defining languages, values, practices, etc.) with a global but “thin” culture (including the use, for example, of English as a lingua franca) – so that the global, “thin” culture facilitates global communication and interaction, while allowing local, “thick” cultures to continue to thrive and develop (Hongladarom, 1998; 2000; 2001). More specifically, we will in fact see in praxis the sort of pluralism Floridi outlines here in theoretical terms, precisely with regard to the notion of privacy.

So, while these prominent theorists have thus incorporated strong notions of pluralism into their approaches to ICE, the critical question remains: Can this pluralism work in praxis, i.e. “on the ground” in an emerging ICE? Happily, a number of important examples instantiate such

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very grateful indeed to Terry Bynum for confirming account of his work that I provide here as an example of pluralism (personal email to the author, 27 September 2005).

pluralisms in praxis. I review these in the next section, to illustrate how pluralism works “on the ground” – and that pluralism is not simply a nice theoretical construct, but a realisable component of real-world ethics.

## **Ethical pluralism in a global ICE: Examples from praxis**

### ***Emancipation across culture and gender***

Building on his previous work (Stahl, 2004), Bernd Carsten Stahl has more recently developed an account of what he calls “critical reflexivity” as a procedurally oriented approach to ICE (Stahl, 2006). Here he addresses the wide range of philosophical problems, including the twin problems of ethical relativism and ethical absolutism, which confront any effort to develop ethical norms to be shared across cultures. Stahl thereby seeks to make possible what he calls “critical research in information systems” (CRIS), which is research intended precisely for a world made up of dynamic cultures interconnected with one another through ICTs and the processes of globalisation. As neither relativistic nor naively imperialistic, CRIS rather seeks to become critically aware of potentially ethnocentric assumptions in any efforts towards emancipation and development, precisely in order to avoid imperialism. In so doing, Stahl takes up the central difficulties of defining “emancipation” in a way that would work cross-culturally. This requires, on his showing, a shift from what we might think of as a content-oriented or substantive approach that would attempt to develop a concrete definition of emancipation. Any such effort, he points out, will always run the risk of overlooking – or, worse, overriding – local cultural preferences and values. Instead, Stahl (2006: 105) turns to a formal approach (one rooted in Habermas) that emphasises creating “procedures that allow the individuals or groups in question to develop their own vision of emancipation or empowerment”. Such a procedural approach, Stahl argues, has the advantage that “the critical researcher will not prescribe certain features that she believes to be emancipatory, but that she gives the research subjects the chance to define their version of emancipation”. This means more particularly that critical researchers can endorse democratic participation, freedom of speech, and/or stakeholder inclusion. As Stahl points

out: “These do not constitute emancipation but they are the necessary conditions of determining what emancipation means.”

Critical reflexivity, as Stahl makes clear, thus requires of us constant reflection on our own basic norms, assumptions, practices, etc., precisely as they appear to differ from those norms, assumptions, practices, etc. that define the cultures of “the Other”. Such critical reflexivity is needed, first of all, in order to avoid naive ethnocentrism in the form of a presumed universality of our own norms, assumptions, practices, etc., and thereby avoid the imperialism and colonialism that such ethnocentrism often fuels.

Such critical reflexivity and its allied procedural approach to defining central norms, moreover, directly issues in a pluralism that recognises and respects the irreducible differences defining individual and cultural identities. Stahl (2006: 105) sees such pluralism emerging from the application of this procedural approach to debates regarding government and the democratic uses of ICTs. Even more strikingly, Deborah Wheeler (2006) documents how women in Jordan have been able to take up ICTs in ways that are indeed emancipatory – where “emancipation”, precisely as Stahl describes, emerges from the agency of local actors who seek to determine the meanings and practices of “emancipation” that make sense and work best within their specific cultural frameworks and real-world contexts. In my terms, Stahl’s critical reflexivity and procedural approach to defining central norms such as emancipation here thus issues – not simply theoretically but also practically – in “emancipation” as a pluralistic concept, one that allows for diverse interpretations and implementations across different cultures.

### ***Maja van der Velden: “Encoding pluralism” in Indymedia***

Maja van der Velden has helpfully documented how a robust form of pluralism has emerged in the development of independent media – specifically in the form of software written to support open, Web-based publishing.

Van der Velden (2007:86) first points out how the Confederated Network of Independent Media Centres (CNIMC) developed as a loose conglomerate devoted to supporting its members

around the world in their efforts to develop independent media oriented towards social, environmental and economic justice. The members of the CNIMC agree upon a shared set of “Principles of Unity”, including the principle of open publishing:

*All IMCs, based upon the trust of their contributors and readers, shall utilize open web based publishing, allowing individuals, groups and organizations to express their views, anonymously if desired.*

This principle, however, allows for – in fact, as the diverse contexts and settings in which participants seek to realise this principle require – diverse interpretations, applications or understandings of the principle. Indeed, the very source code written to support their work instantiates a plurality of such interpretations and applications. As Van der Velden (2007:86–87) describes it:

*The first source code, Active, was developed by activists in Australia to run a small activist media center. In the same year, the software was adapted and used for the independent media center in Seattle, Washington, during the activities surrounding the World Trade Organization (WTO) meeting in 1999. The success of the media center in Seattle led to the establishment of many more Independent Media Centers.*

Perhaps not surprisingly, however, as the *Active* source code was taken up in diverse countries, cultures and contexts, it was modified to reflect local conditions, including specific legal contexts:

*For example, Mir [an instantiation of Active] was developed for the German IMC site, reflecting “a legal environment which prohibits racist, hateful, and revisionist speech in ways that necessitates prior restraint story moderation in a way that many IMCs are uncomfortable with” (Hill, 2003, p. 5). Other spinoffs dealt with the authentication process. Active had no authentication process, allowing anonymous postings. This is still possible with IMC software such as DadaIMC. Other IMC softwares now require a name, while some also allow you to post under a nickname.*

The result is an ethical pluralism at the level of source code:

*What the variety of IMC source codes shows is that there are different interpretations of open publish-*

*ing possible within the Principles of Unity. These interpretations are politically motivated and “grant us a meaningful form of freedom, the independence to choose the socio-technical terms on which we communicate” (Hill, 2003, p. 8). The ongoing negotiations in the Indymedia network in order to balance unity, difference, and autonomy show that part of these negotiations need to be expressed on the level of the source code, the software programs on which the individual IMCs run. New participants in the Indymedia network can choose which source code serves their values best or develop a new one.*

Again, the emergence of diverse understandings of what open publishing means nicely fits with the structure of interpretive pluralism and *proshen* equivocal. Open publishing, in particular, and the Principles of Unity, in general, stand as ethical focal points of diverse groups in different cultural and legal environments. These groups, in turn, are able to interpret and instantiate what these norms and values mean within those environments, precisely in order to make these values and norms applicable to, and workable within, those environments.

### ***Pluralism in definitions of privacy – US, Germany, Hong Kong and China***

As I have documented extensively elsewhere (Ess, 2006a), a similar pluralism is emerging – again, on a global scale and across the significant cultural differences defining East and West – with regard to the basic notion of privacy and affiliated codes and laws defining data privacy protection. Briefly (but in ways we will explore more fully in the next example), Western conceptions of privacy and data privacy protection rest on a generally atomistic conception of the individual as a moral autonomy (in Kantian terms, the source of its own law – a foundational conception of Western democratic theory). In the US, as Deborah Johnson (2001) has nicely summarised, we have developed justifications of privacy as both an intrinsic good (i.e. one that requires no further justification) and an extrinsic or instrumental good. First of all, privacy is needed for the autonomous self in order to develop a sense of self and personal autonomy, along with intimate relationships, and then the capacity to engage in debate and the other practices of a democratic society.

In contrast with what Henry Rosemont Jr (2006) helpfully characterises as this “peach-pit” conception of the individual (i.e. as holding a central, core reality-identity that does not change over time, whatever happens to the surface appearances of the person), Buddhist and Confucian (as well as African, as we have seen) conceptions of the self instead stress the person as a relational and/or “processional” being (Ames & Rosemont, 1998:22ff). In particular, in the case of Buddhism, the “peach-pit” or autonomous “self” foundational in the modern West is seen not simply as an illusion but, indeed, as the central delusion that is responsible for human suffering. Hence, in societies deeply shaped by Buddhism, such as Thailand and Japan, individual “privacy” is seen negatively.

So, for example, Japan’s *Jodo-shinsyu* (Pure Land) Buddhism emphasises *Musi*, “no-self”, as one of the goals of the religious practitioner. One way to achieve *Musi* – which means to purify and then eliminate one’s “private mind” – is to voluntarily share one’s most intimate and shameful secrets. That is, what is seen in the West as a core, positive reality, with which are affiliated positive rights to privacy, is seen in the case of Japanese Pure Land Buddhism as a deceptive illusion, whose “privacy” is best – and voluntarily – overturned for the sake of genuine salvation (Nakada & Tamura, 2005).

In the light of these radical differences, we should expect equally radical differences with regard to conceptions of data privacy protection. To be sure, these differences clearly exist. At the same time, at least limited privacy rights and data privacy protections are emerging in Thailand, China and Hong Kong, but justified, as we might imagine, on entirely different grounds than we find in the West. Briefly, at least limited data privacy protection is justified primarily on economic grounds: in ethical terms, such protection is seen as an instrumental good – one that contributes to economic development as online commerce becomes increasingly important in these economies. In this way, we again see a pluralistic, *pros hen* structure emerge.

Privacy and data privacy protection serve as the ethical focal points towards which both Western and Eastern societies orient their laws, but each society understands and interprets the meaning of privacy and data privacy protection in ways that fit its specific context, traditions, values,

norms, practices, and so on (Ess, 2006a).<sup>11</sup>

### ***Hongladarom: Theravadan and Mahayan Buddhist approaches to privacy vis-à-vis modern Western notions of individual privacy***

More recently, Soraj Hongladarom has taken up these apparent conflicts between Western and Eastern conceptions, with particular attention to the Buddhist traditions (Theravadan and Mahayan) that have deeply shaped and defined Thai society. To begin with, he extends our understanding of the contrasts between Western and Eastern views by taking up Nagasena’s refutation of the psyche – the Greek conception of a unifying “soul” or self that synthesises diverse components of sense knowledge (sight, taste, touch, hearing, smell) into a unitary experience (Hongladarom, 2007:116ff). While this appears to radicalise the contrast between Western and Eastern views, Hongladarom goes on to point out that Western traditions also include more relational or communitarian approaches that somewhat offset the “peach-pit” notion with an emphasis on one’s relationships with the larger community. As we have seen, these approaches include Aristotle’s virtue ethics, feminist ethics and ethics of care, environmental ethics and, finally, communitarian traditions since Hegel (cf. Tu, 1999; Froehlich, 2004).

At the same time, Hongladarom shows how Nagarjuna develops a distinction between empirical-conventional reality, on the one hand, and ultimate reality on the other hand. Given this distinction, Buddhism is perfectly capable of endorsing and taking the individual self as real – at the empirical-conventional level. Indeed, the Buddhist striving towards enlightenment (*nirvana*, the “blown-out” self) requires individual effort and responsibility – manifest, for example, in the injunction to cultivate compassion towards others (Hongladarom, 2007:118). For Hongladarom, this means that Buddhist societies such as

<sup>11</sup> Kei Hiruta has developed an extensive analysis and helpful critiques and suggestions to my earlier work on pluralism (Hiruta, 2006). I have attempted to acknowledge the saliency of those critiques in the development of this chapter – primarily by shifting away from the political justifications that he finds problematic.



Thailand have a *prima facie* reason to protect the privacy of such (empirical-conventional) individuals, especially as part of a movement towards establishing a more democratic society. That is, the Buddhist injunction, in which each person is responsible for his or her own liberation, thereby sustains notions of equality and democracy that are at least closely similar to those developed and endorsed in Western societies.

In my terms, there emerges here yet again an interpretive pluralism regarding conceptions of the self and privacy as *pros hen*, ethical focal points, as these are interpreted and understood across the considerable divides between East and West. To say it slightly differently: the irreducible differences marking the contrast between modern Western notions of the self (as an ultimate reality whose privacy is a positive good) and Buddhist conceptions of the self (as an empirical-conventional reality whose privacy requires at least a modest level of governmental protection, especially for the sake of democratic polity) can be seen as diverse interpretations or understandings of notions of self and privacy, and thereby as conceptions that may nonetheless resonate or harmonise with one another. Taken together with the previous examples of privacy East-West, the Thai example again marks out in praxis as well as in theory the possibility of a global ICE – one constituted by shared ethical focal points (i.e. shared norms, values, etc.) that are nonetheless articulated and instantiated in diverse ways as these focal points are interpreted and applied in distinctive cultural contexts.

Indeed, the resonance emerging here complements similar alignments or harmonies across East and West, such as the one pointed out by Theptawee Chokvasin (2007:78f) between Buddhist versions of autonomy and Kantian and Habermasian notions. For our part, Hongladarom and I have suggested that this harmony further extends between the Buddhist notion of *Attasammapanidhi*, of ethical self-direction and self-adjustment, and Plato's model of the *cybernetes*, the pilot or steersman who symbolises a similar capacity for ethical self-correction (Hongladarom & Ess, 2007:xix). Finally, Hongladarom points out that Buddhist ethics closely resemble Western-style virtue ethics and the pragmatic ethics of Richard Rorty. Hongladarom's analysis thus identifies and reinforces a further deep resonance between Western and

Eastern thought, namely between Western virtue ethics (whether in Socratic, Aristotelian and/or contemporary feminist forms) and the ethical systems of Confucian thought and Buddhism.

Finally, these various structures of pluralism – precisely as they require the interpretation or application of a shared focal norm or value within the diverse contexts established by distinctive cultural values, traditions, practices, etc. – distinguish our approach from Rawls' (2005) notion of “overlapping consensus” in a political liberalism. For Rawls, we may arrive at such a consensus by bracketing our diverse metaphysical beliefs – leaving them at home, so to speak – and engaging with our fellow citizens simply on the basis of what is politically expedient. Moreover, Rawls' account focuses on what takes place within a liberal state. By contrast, our conception of ethical pluralism extends globally and includes states and regimes that are clearly not liberal or democratic. Despite these radical cultural and political differences, however, we believe that the sorts of focal, *pros hen* pluralism that we have articulated make possible ethical alignments – indeed, resonances and harmonies – between diverse cultural traditions and ethical systems. In such pluralistic resonances or harmonies, as we (Hongladarom & Ess, 2007:xv) have put it most recently:

*... these diverse systems and traditions do not have to leave their metaphysics at home; on the contrary, they bring their specific backgrounds to the table of philosophical dialogue and debate and search for ways in which their systems could or could not be aligned with the others. In the case of personal privacy, this would mean that the Buddhist tradition and the Western secular tradition compare and contrast their similarities and differences without (echoing Michael Walzer, 1994) each leaving its thick backgrounds and operating with its fellows on thin air.*

### Emerging rights/duties?

In the light of the theoretical foundations and practical expressions of *pros hen* or focal pluralism in an emerging and genuinely global ICE, what conclusions can we draw regarding the rights and obligations that may emerge therein “for the rest of us”, as we take up ICTs more and more into the fabric of our lives? I can see three layers of responses to this question.

### ***Conflict arising from irreducible differences is inevitable and not always resolvable***

The possibility of pluralistic resolutions to ethical conflicts emerging from the irreducible differences defining individual and cultural identities is just that – possibility. While we have now seen multiple instances which realise the possibility of resolving ethical differences within the resonance or harmony articulated by a *pros hen*, interpretive pluralism – manifestly, not all such conflicts will allow for such resolutions. So, for example, Dan Burk (2007) documents the intractable differences between US and European Union approaches to copyright, with the US, property-oriented approach currently dominating over the EU, author-oriented approach. Similarly, Pirongrong Ramasoota Rananand (2007) suggests that however much Buddhist approaches to privacy may resonate with Western ones being imported into Thailand, the tradition and affiliated customs of the “surveillance state” may succeed in keeping “privacy” an interesting idea, but not a right articulated and defended in law.

But, there is, to paraphrase Spivak (1999), no reason to throw up our hands or to acquiesce to ethical relativism and fragmentation (including reinforcement of local identities through violence). Rather, there are at least two ways in which an emerging ICE can respond to the irreducible differences defining distinctive cultural identities.

### ***Minimal requirements – shared commonalities***

As we have seen, it is possible to begin our encounters with one another globally via ICTs with the reasonable and understandable search for commonalities, including a set of minimal rights and obligations towards one another, justified at least by shared economic interests – what Søraker (2007) has helpfully identified as pragmatic arguments. So far as I can tell, what emerges from this approach is what Westerners will recognise as familiar but primarily negative obligations, such as don’t violate another person’s privacy, right to intellectual property, etc.; don’t share passwords and/or hack where you don’t belong; don’t copy illegally, etc. That is – as Henry Rosemont Jr (2006) has made very clear –

like first-generation rights to life, liberty and pursuit of property: I can respect your rights by largely leaving you alone.

To be sure, the terms “minimal” and “negative” may sound unnecessarily derogatory here. Hence, let me stress that arriving at – and following out – global agreements of these sorts would represent an enormous ethical advance forward in the emerging global ICE. Nonetheless, such minimal rights and negative obligations are only part of the story.

### ***Maximal requirements: Meeting “the Other” online***

More broadly, as I tried to suggest by posing the question towards the end of the opening section, our emerging and global ICE depends very much on how far we want/will/need/ought to go in meeting “the Other” online. Presuming that we seek to meet with and engage “the Other” in a more robust way – i.e. one defined by our willingness to acknowledge not only commonalities, but also the irreducible differences that define our individual and cultural identities – we are apparently required to move to a more complex mode of thinking and behaving, one shaped precisely by the structures of pluralism and harmony, as these hold together both similarity and irreducible difference.<sup>12</sup> Given our desire and/or need to move in these more robust directions, we can perhaps draw at least initial guidance from the following considerations.

### ***Crosscultural communication ethics?***

While much is known about crosscultural communication offline – astonishingly little is known

<sup>12</sup> Herdin et al. (2007:65) make this same point in developing their model of cultural connection and difference: “Cultural thinking that reconciles the one and the many is achievable only on the basis of an integration and differentiation way of thinking. It integrates the differences of the manifold cultural identities and differentiates the common as well.” They see such structures of connection and difference at work in Welsch’s (1999) notion of transculturalism, Robertson’s (1992) well-known notion of glocalisation, and in the cultural hybridisation represented in the “new *mestizaje*”, a term coined by Burke (in Wieviorka, 2003).

about crosscultural communication online, including the centrally important task of “building bridges” across cultures.<sup>13</sup> To be sure, we can learn lessons from successful efforts at such bridge-building. As we have seen, Bernd Carsten Stahl (2006), for example, emphasises the importance of *critical reflexivity*, a constant reflection on our own basic beliefs, views, practices, etc., as these differ from those of “the Other”, if we are to avoid naive ethnocentrism. More broadly, two of the most important factors of successful crosscultural communication that sustains the irreducible differences defining individual and cultural identities are trust and the ability to recognise and respond effectively to the linguistic ambiguity that thereby allows for a pluralistic understanding of basic terms and norms as holding different interpretations or applications in diverse cultures (Ess & Thorseth, 2006).

Such pluralism allows precisely for a structure of both shared commonalities and irreducibly different understandings and practices that emerge from our distinctive cultures. Thereby, pluralism and ambiguity are necessary conditions for crosscultural encounters with one another that preserve these irreducible differences as part of the resonance that describes such engagements. Unfortunately, these dimensions of trust, ambiguity and resonance may be hindered rather than fostered by online environments (cf. Søraker, 2006; Grodzinsky & Tavani, 2007).

<sup>13</sup> To my knowledge, the most important effort in this direction is the extensive annotated bibliography developed by Leah Macfadyen and her colleagues (Macfadyen et al., 2004). So far as I am aware, however, no one has developed a comprehensive, systematic and theoretically grounded set of guidelines and best practices for crosscultural communication online that would match the extensive literature on offline crosscultural communication. In Ess (2006b), I attempt to summarise such guidelines on the basis of recent work from the biennial conferences on “Cultural Attitudes towards Technology and Communication” (CATaC), but these guidelines are oriented exclusively towards website design. In the conclusion here, I attempt to offer some general guidelines that would extend to other online venues of crosscultural communication. But while these guidelines and suggestions, I hope, are helpful, much clearly remains to be done to develop a literature for online crosscultural communication that begins to compare with the detail and scope of the literature for offline crosscultural communication.

Moreover, these elements of human communication finally require the now familiar work of *judgment* – beginning with judgments as to how far or close one’s meaning is understood by “the Other” and, in turn, how far one understands the meanings of “the Other”. Even though we may use the same word or term, their differences in our diverse cultural settings require such careful attention and judgment to determine whether or not we are sliding into equivocation and misunderstanding. But, earning and sustaining trust, successfully recognising and comfortably negotiating linguistic ambiguities, and utilising the needed judgment in establishing and sustaining resonant relationships that preserve our irreducible differences – these capacities are not easily captured in analytical frameworks, much less taught in any formal way. They can, of course, be learnt, as humans have always learnt them, through example and experience with *embodied* teachers – but this again means that the most important elements of successful crosscultural communication may not be best learnt in the *disembodied* context of contemporary online venues (cf. Dreyfus, 2001).

### *Social justice and positive duties: Information justice and the cultivation of character?*

A number of observers have argued that the rights-based approaches of the West will not work well in other cultures. Such approaches, as we have now seen in multiple ways, emphasise the autonomous individual, apart from his or her connection with the larger community. Such an approach is deeply out of sync with the basic assumptions regarding the individual as a relational being first and foremost, which shape the more communitarian/collectively oriented cultures and traditions of Africa, indigenous peoples, those countries shaped by Confucian and Buddhist traditions, and so on. In particular, Maja van der Velden (2007:83) concludes her chapter in our anthology precisely by pointing out that “designing so as not to hurt Others” means going beyond rights-based approaches.

For his part, Hongladarom (2007:120f) argues that the more radical Buddhist solution to the problem of protecting privacy is not simply to erect laws and create technological safeguards. Rather, it is to attack the root cause of our

motivations to violate privacy in the first place, namely egoism and its affiliated greed. Similarly, Lynette Kvasny (2007) has argued that if we in the US genuinely seek to overcome the digital divide (as it affects, for example, African American communities), we must come to grips with the evil of systemic racism. Such racism, she argues, is embedded in the very statistics and demographic categories used by otherwise well-meaning academics and policy makers in attempting to document the digital divide for the sake of overcoming it. Indeed, one of the contributors to our volume on East-West information ethics – a Thai computer scientist – has argued that in the face of the social and familial fragmentation effected by ICTs, what is needed to raise a new generation of young people who will use these technologies in ethical rather than harmful ways is a restoration of religion as an environmental framework (Bhattarakosol, 2007).

These prescriptions, no doubt, will sound odd to Western ears – in part, I suggest, because our mainstream ethical traditions have tended to separate ethics from religion first of all (as they must in the modern Western liberal state), and secondly, because our ethical systems tend to emphasise following a minimum of rules that articulate obligations to others, precisely in the name of preserving individual (and largely negative) freedoms. Nonetheless, a global ICE that seeks to move beyond shared commonalities (and comparatively negative) requirements will apparently call upon us to take up a range of positive obligations and duties, if we are to preserve irreducible differences while simultaneously engaging in dialogue with “the Other”.

Happily, these positive obligations and duties are not entirely foreign to the Western traditions. Especially ancient and contemporary feminist virtue ethics and ethics of care move us in these directions, as do the deontological ethics of Kant and others. But let me close by suggesting that, at the risk of violating copyright and trademark – a major US software company has asked the right *ethical* question when it comes to ICTs:

*Where do you want to go today?*

As we work, individually and collectively, and especially cross-culturally to develop a global ICE, part of our response, as I hope I have shown with some clarity, depends on how we respond to a second question:

*How far am I prepared to go today – i.e. how well am I prepared to take up relationships with “the Other” that entail not simply comparatively straightforward commonalities and pragmatic agreements, but further entail the difficult efforts to understand and negotiate ambiguity and irreducible difference, precisely in the name of preserving individual and cultural differences – perhaps, as Paterson argues, even preserving the environment where such negotiations will require the skills – learnt only slowly and over a lifetime – of judgment, and the cultivation of compassion and care?*

Again, the cultivation of such virtues is not entirely alien to Western traditions. On the contrary, I have argued elsewhere, echoing in part the work of Cees Hamelink (2000), for the necessity of an education that fosters Socratic critical thinking and moral autonomy, as key to moving beyond one’s own culture towards a more encompassing understanding of a wide diversity of cultures – a movement captured in Plato’s “Allegory of the Cave”, and further exemplified in our notions of Renaissance women and men who attain multiple cultural, linguistic and communicative fluencies that allow them to comfortably live and work with “Others” around the globe. *Contra* “cultural tourists” and “cultural consumers” whose ethnocentrism may only be reinforced rather than challenged by their online engagements, such a Socratic-Renaissance education would further foster, following Habermas and feminism, an empathic perspective-taking and solidarity with one’s dialogical partners, including our sister and fellow *cosmopolitans* (world citizens).<sup>14</sup> Of course, such education aims towards the development of *phronesis*, the practical wisdom required to negotiate the multiple contexts of ethics and politics, with the goal of achieving *eudaimonia*, human contentment, and harmony in one’s own society and the larger world (Ess, 2004:164).

In terms that have emerged here, such an education would further highlight the importance of moving beyond pragmatic commonalities and shared economic interests to the pluralism of

<sup>14</sup> That Habermas may be salient in an African context is, in fact, argued by conference participant Azelara Lahkim Bennani, in his contribution titled, “The public sphere’s metamorphosis: The triangular relation between the NGO, the state and globalisation”.

the *cybernetes*, the one who is able to discern what ethical course to pursue in a specific context – including the often radically diverse contexts of irreducibly distinct cultures – and who is able to correct errors when they are made. Resonant with Socratic, Aristotelian and feminist virtue ethics, such an education would further seek to foster the virtues of compassion and care. Such compassion and care, after all, are essential to healing the ruptures that follow on the mistakes we will inevitably make, especially in our first efforts to understand, work and live with “the Other” – and, most especially, as we venture out into new linguistic and cultural settings. Such compassion and care, finally, are essential to building and sustaining the trust essential to all human interactions.

While such an education for exemplary persons (to use the Confucian phrase) may be desirable, it is clearly a rare privilege, if not still largely a utopian ideal. Hence, I do *not* want to argue that everyone must take this second step. To echo Judith Jarvis Thomson’s (1971) famous distinction between “minimally decent” and “Good Samaritan” ethics, the latter requirements – at least here and now – strike me as morally admirable (what ethicists like to call *supererogatory*) values and acts, but not morally *necessary* or required. That is, while we can establish such duties and goals as exemplary, we cannot require them of everyone – first of all, because to fulfil these duties may exceed the resources and opportunities of many persons, especially as they depend on an education and experience with “the Other” (such as living for an extended period of time outside one’s own country), which remain luxuries rather than everyday practice for the majority of the world’s peoples.

That said, ICTs continue their apparently inexorable expansion throughout the world – meaning, they are taken up by more and more people in diverse cultural contexts and settings. It seems certain that if we are to avoid a homogeneous world culture – what Benjamin Barber (1995) famously called “McWorld”<sup>15</sup> –

more and more of us will need to take up the moral postures and communication skills of the Good Samaritan *cybernetes*, rather than simply pursuing commonalities, pragmatics and economic self-interest. Perhaps the dramatic scope and speed of crosscultural encounters made possible precisely by ICTs might help more and more people recognise the need for such exemplary ethics and cultivation of character. But such hopes, of course, must recognise the multiple ways in which most of our online engagements rather foster minimal obligations entailed by seeking out simply shared interests and pragmatic commonalities, especially as these engagements are oriented towards easy consumption.

*Where do you want to go today?*

Thus requires us to further ask:

*Whom do you want to meet today –  
“the Other” as s/he is like you,  
and/or  
“the Other” as s/he is both similar to you and  
irreducibly different?*

And, finally, if the last:

*What positive ethical virtues – practices, habits,  
postures, attitudes, etc. – must we cultivate in  
order to become the sort of person who can indeed  
thus meet “the Other” qua Other?*

Or, to recall Nishida:

*What virtues must we practice, what sort of person  
must you become, in order to be capable of knowing  
“the Other” in a resonant meeting and response  
that conjoins commonalities with our acknowl-  
edging, respecting and fostering the irreducible  
differences that distinguish us (as individuals and  
as members of diverse cultures) from one another?*

I close by noting that these sorts of questions – along with the emphasis on judgment, pluralism and harmony in the larger community that they implicate – may well resonate in African contexts. As we have seen, such judgment and pluralism are found in Islam (Eickelman, 2003),

<sup>15</sup> Of course, a central focus during our conference was precisely the ways in which Africa and African cultures, in particular, are profoundly threatened by the homogenising forces of globalisation. This point was made with especial force by our colleagues in Theme Group 8, Ismail Abdullahi (Cultural diver-

sity, globalisation and ethical issues), Anthony Löwstedt (Cultural extinction as an aspect of current globalisation trends) and Chibueze C. Udeani (Cultural diversity and globalisation).

and hence should be no strangers to the African countries and traditions deeply shaped by Islam. Moreover, we have further seen that African thought more broadly stresses that persons are “beings under construction” – in the terms of both Western virtue ethics and Confucian thought, it takes practice to become a more complete human being. By the same token, this practice is oriented towards the harmony of the larger community – again, a foundational understanding in Western virtue ethics and Confucian thought that appears to be perfectly resonant with African thought (Paterson, 2007:157f; cf. Capurro, 2007, on *ubuntu*).

These strong resonances between the ethical pluralism I have traced out in both Western and Asian traditions, on the one hand, and the broad outlines of African traditions and thought on the other hand, suggest – at least as a starting point – that this ethical pluralism may likewise succeed in the African context both to foster the development of shared ethical norms in the domain of information and computing ethics, and to sustain and foster the irreducible differences that define both individuals and cultures in Africa. Happily, I can report that much in our presentations and dialogues during the first African Information Ethics Conference – including the discussions and findings of our Theme Group on “Cultural diversity and development” – provided at least initial confirmation of this hypothesis.

But, of course, such pluralism requires precisely the dialogical participation of those who themselves stand in the cultural contexts and histories of Africa in any development of a pluralistic global ICE that would seek to discern and articulate shared norms that are, at the same time, interpreted, understood and applied in diverse ways by diverse individuals and communities, i.e. in ways that precisely and directly reflect, in this case, African values, traditions, histories, practices, etc. Given the scope of this ethical pluralism across a wide range of global and radically diverse cultures, and given the strong resonances between African traditions and the other traditions in which pluralism is now well documented, it seems very probable that this pluralistic approach will succeed in the African context as well. First of all, such pluralism would forbid both homogenisation and colonisation of the sort that has

devastated Africa (as well as much of the rest of the world) for too much of her history. But as we have learnt in other contexts previously, we will only know if such a global, pluralistic ICE will “work” in Africa as our African colleagues seek to take it up in their own distinctive ways, as one approach among many in their development of an African information ethics.

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## **The public sphere's metamorphosis: The triangular relation between the NGO, the state and globalisation**

Azelarabe Lahkim Bennani

*The issue this chapter will discuss is related to the use of the Internet by non-governmental organisations (NGOs) to improve social development in the African and international context. We will also discuss the philosophical background of the notion of “public sphere” by the German philosopher Jürgen Habermas. Departing from the situation in Morocco, we observe that the lasting democratisation process aims to improve participation of the public sphere in the agency of social life. Taking for granted that society is not homogeneous as expected, we observe that it is divided into the political establishment, including the state, parliament and political institutions; and the social, religious and cultural institutions and civil society. The state aims to enhance the participation of the other social spheres in the programme set by the government. The task is to engage the public sphere in the so-called “partnership” in the realisation of its social programmes.*

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## Introduction

According to some political leaders, the latent task of the state is to substitute political opposition by non-political structures, i.e. non-governmental organisations (NGOs). Despite this objection, there is no doubt that the impact of the public sphere is noticed more and more in the country.

## The purpose of this initiative

A more philosophical and decisive objection, however, comes from the political idea of sovereignty, which contradicts the idea of the public sphere. The main aim of this chapter is to try to save the pertinence of the idea of a public sphere against the traditional idea of the omnipotence of the state.

The official adoption of the ideology of the modern notion of society in Morocco is an adoption of the “discuss-ideology” in civil society. Historically, the discuss-ideology by the German philosopher Jürgen Habermas aims to confront the challenges of absolute sovereignty by Carl Schmitt. This German professor of law (Schmitt, 1985) mentions the Spanish philosopher Juan Donoso Cortés:

*Es liegt [...] im wesen des bürgerlichen Liberalismus, sich in diesem Kampf nicht zu entscheiden, sondern zu versuchen, statt dessen eine Diskussion anzuknüpfen. Die Bourgeoisie definiert er geradezu als eine “diskutierende Klasse”, una clase discuti-dora. Damit ist sie gerichtet, denn darin liegt, dass sie der Entscheidung ausweichen will. Eine Klasse, die alle politische Aktivität ins Reden verlegt, in Presse und Parlament, ist einer Zeit sozialer Kämpfe nicht gewachsen.*

## The history of the concept

Habermas (Calhoun, 1992) questions the notion of “public sphere” as a crucial one for democratic theory:

*What are the social conditions for a rational, critical debate about public issues conducted by private persons, willing to let arguments and not statuses determine decisions? This is inquiry at once into normative ideals and actual history.*

The subject by Habermas (Calhoun, 1992:5) is:

*... the historically specific phenomenon of the*

*bourgeois public sphere created out of the relations between capitalism and the state in the seventeenth and eighteenth centuries. Habermas sets out to establish what the category of public sphere meant in bourgeois society and how its meaning and material operation were transformed in the centuries after its constitution.*

Originally, the political aspect was at random in the emergence of the phenomenon of the public sphere in the course of the 18th century (Calhoun, 1992:7):

*Unlike the Greek conception, individuals are here understood to be formed primarily in the private realm, including the family. Moreover, the private realm is understood as one of freedom that has to be defended against the domination of the state.*

The salons and coffeehouses were the host places of this new phenomenon of private autonomy against the *diktat* of the state. Hence, “civil society could be understood as neutral regarding power and domination” (Calhoun, 1992:16). For example, literature was also the first factor responsible for the birth of the public sphere, thanks to the journals created by the literary public sphere. Habermas (Calhoun, 1992:8) shows also:

*... the intimate involvement of print media in the early extensions of market economies beyond local arenas. Long distance trade, for example, meant traffic in news almost as immediately as traffic in commodities. Merchants needed information about prices and demand, but the newsletters that supplied those needs very quickly began to carry other sorts of information as well. The same processes helped to engender both a more widespread literacy and an approach to the printed word as a source of currently significant “public” information.*

## The Moroccan situation

In contemporary Morocco, the public sphere includes about 35 000 organisations working in the fields of rural development, human rights and cultural matters. These organisations are related to some international institutions like the United Nations, and to those that are dependent on it. Despite the fact that this triangular relation between public sphere, state and international institutions may be successful, the range of organisations present in the mass media remains modest.

Mass media (television, radio, the press, etc.) do not observe the lobbying strategy in favour of the NGOs, which means that they do not have special programmes to present the diverse NGOs in order to foster a large social discussion about the social engagement of these organisations.

It is evident that the number and scope of NGOs are not clearly represented in the mass media, because the main purpose of the latter is first to represent the state's interests; to voice the official opinion of the government; and to manipulate public opinion. The state has acquired the ability to magnify its political figures and ideology through the mass media image. In contrast to this "media fact", there is a lack of a pertinent policy of information ethics in the presentation of NGOs in the traditional mass media. Also, public opinion, the alleged voice of the public sphere, is not really sufficiently present in the traditional mass media. This makes the role of new mass media crucial, because they are perhaps less dependent on the official political line of thinking. Thus, the Internet can play this role.

The monopoly of the state over the traditional mass media urges organisations to use new ways of self-presentation. In regard to the prevailing situation in Morocco, we must find valuable alternatives, taking into account the restrictions on ways of sharing opinions in the public sphere. Therefore, when seeking new alternatives, we may overcome the shortcomings of the mass media when they are anchored and linked to the traditional role of the political regimes.

For this reason, the situation stressed by Habermas (Calhoun, 1992:8) in his work published in 1962 is not true for Morocco. For him, the public sphere:

*... could only be conceptualized in this full sense once the state was constituted as an impersonal locus of authority. Unlike the ancient notion of the public, therefore, the modern notion depended on the possibility of counterposing state and society.*

According to the framework of Carl Schmitt's political theology, authority becomes personal when decisions are seen to be necessary in "an exceptional state" or in regard to territorial problems. To some extent, in Morocco we have an analogous public sphere, as Habermas describes in the bourgeois society. We can only assume that the NGOs represent the heart of the public

sphere in Morocco. Besides, Nancy Fraser (1992: 111-112) contends that:

*... oddly, Habermas stops short of developing a new, postbourgeois model of the public sphere. Moreover, he never explicitly problematizes some dubious assumptions that underlie the bourgeois model. As a result, we are left at the end of Structural Transformations without a conception of the public sphere that is sufficiently distinct from the bourgeois conception to serve the needs of critical theory today.*

Moroccan scholars and politicians have adopted a new liberal conception of modernity in order to find a balance between state and society. This assumption is an equivocal claim. Morocco is a strange mixture of an archaic state and a new liberal ideology, and the situation suffers from the deficits related to this stated mixture. Pauline Johnson (2006) says:

*The fallacy of liberal democracy's metaphysical attachment to the ideals of the public reason rests on the unrecognized incompatibility of the distinctive norms that govern liberalism and democracy. Democracy, Schmitt insisted, refers to the ideal of the self sovereign society while liberalism principled commitment to pluralism renders incoherent any appeal to the "self" needed to make sense of this ideal.*

This strange mixture of sovereignty and liberalism does not enable the traditional mass media to undertake a free policy towards the partners of the public sphere. With the rise of "new" private channels of satellite television and broadcast, we hope that the Internet will enrich the discussion given by traditional mass media in the African and international contexts.

## The task of the global public sphere

A main work on the phenomenon of the public sphere in Germany was indeed written by Jürgen Habermas, but he had given a response to an earlier critique by Nancy Fraser. In it he attempts to deepen the analysis of the post-bourgeois public sphere to cope with the challenges of globalisation. As Pauline Johnson (2006:100) notices, "Habermas has outlined the urgency of the project of building a global public sphere. He does not underestimate the challenge and does not ignore the adverse signs."

In regard to the persistence of common illiteracy, poverty and health problems on the entire continent, we favour Habermas' claim that "a global public sphere offers the only way forward and [are] persuaded that there are reasons to believe that this utopian aspiration is still worth investing in" (Johnson, 2006:100). The utopian project must avoid the ideas of a "national identity" and of a prejudiced "community of fate", which contradicts the "constitutional patriotism" and "collides with the universalist rules of mutual coexistence for human beings" (Johnson, 2006: 103).

The new cosmopolitan policy must work for the aim of a democratised welfare project. The traditional rights, such as human rights and rights of political participation, must be translated "in terms of enjoyment of social and cultural rights" (Johnson, 2006:104). The project of globalising modern democracy requires effort to build "transnationalized welfare projects" and "solidarity between strangers" in our multi-cultural transnational society, in the perspective of a "post-national public sphere" (Johnson, 2006:107):

*Habermas sees the best hope in the pressures that can be exerted by interest groups, NGOs and civilly active citizens [...] The only viable and effective solution is to exert more pressure for the creation of supra-national political institutions that are really responsive to democratic constituencies.*

The Moroccan public sphere, represented by NGOs, is part of the global public sphere. For us, this concept is less controversial than that of "globalisation". The centre of the "global public sphere" is focused on the local problems of democracy, poverty, segregation against women in the workplace, homeless children, sickness, illiteracy, and so on. On the contrary, the centre of "globalisation" is represented by interests of little concern with everyday life when we ask the question: Who talks for humanity from the perspective of people's everyday concerns? The civil NGOs are concerned with the positive or negative effects of the state's measures in the citizens' everyday life. The government itself is unable to translate its strategy into concrete reality because it falls short of the overt commitment by all partners involved in the successful execution of policy.

For this reason, the government has concluded

various forms of partnerships with organisations in civil society. Despite the fact that many observers suspect that these forms of "partnerships" borrow money from international foundations, these partnerships are still very important because governments are in need of a real strategy for working with the actual recipients, and they work in synergy with other regional partners on the continent. For this reason, the Internet is a device from the perspective of ethics of information. The government cannot, on its own, execute the programmes or achieve the tasks at which it is aiming. A main obstacle to its strategy is the lack of a comprehensive understanding of all the factors to be taken into account. Therefore, the intervention of NGOs must compensate for this highly disadvantageous situation of the state.

### **Conclusion: Collegiality and partnerships**

In the analogous manner in which ministers collaborate with colleagues in the world, the privileged partners of NGOs are similarly analogous organisations with analogous prospects. What helps in reaching narrow collaboration in the region, or on the continent, is the existence of structurally similar social challenges. The political regimes may be indifferent or antagonistic to each another from country to country, but the degree and quality of the social problems may be the same. The governments are so structured that for each minister in one state there is a corresponding colleague in another state.

Moreover, the very prospects NGOs engage with are the common factors that link organisations. Thus, in the long run, clashes due to misunderstanding between states can be overcome thanks to the cooperation between similar organisations in these countries. The international foundations in this range can sustain the endeavours of the colleagueship or partnerships between these organisations in many fields, as in disease prevention in the case of SARS, AIDS and avian flu, for example. Efficiency in preventing similar global problems underlines the need for efficient partnerships between similar organisations in order to find international and successful aid.

Thus, the use of highly advanced mass media, especially the Internet, helps NGOs to find organisations with similar goals on the continent, as some organisations cannot achieve their tasks

once they are disconnected from similar organisations on the continent. It also helps them to find similar financial support from international foundations.

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## **Artificial moral agents: An intercultural perspective**

**Michael Nagenborg**

*This chapter argues that artificial moral agents (AMAs) are a fitting subject of intercultural information ethics because of the impact they may have on the relationship between information-rich and information-poor countries. A limiting definition of AMAs is given first, followed by a discussion of two different types of AMAs with different implications from an intercultural perspective. While AMAs following preset rules might raise concerns about digital imperialism, AMAs being able to adjust to their users' behaviour will lead us to the question, what makes an AMA "moral"? I will argue that this question does present a good starting point for an intercultural dialogue that might be helpful to overcome the notion of Africa as a mere victim.*

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## Introduction

At a first glance, the concept of “artificial moral agents” (AMAs) looks quite spectacular from the perspective of Western philosophy. As I will show in the first section, it is less utopian than one might assume. But the concept still raises serious questions from an intercultural perspective, as I will demonstrate in the final section. Since one may ask whether AMAs are a fitting subject for intercultural information ethics, I will point to the relevance of the concept in the context of Africa in the second section.

The purpose of the chapter is to show that we need to look at AMAs from an intercultural perspective. Since AMAs are currently used and developed mostly in information-rich countries, there is little questioning on their intercultural impact. However, since AMAs are designed to follow and enforce moral standards, we should be aware that they may cause concern in non-Western cultures. They may also be perceived as a tool of the information-rich countries, which is likely to widen the digital divide between the South and the North.

## What is an “artificial moral agent”?

Before asking what an artificial moral agent is, I would like to ask what an “artificial agent” (AA) is. Since I will define an artificial agent first, one might correctly assume that I consider AMAs to be a subclass of AAs.

In this chapter I will focus on autonomous software agents, although the concept of AMAs is mostly discussed in the context of machine ethics, and autonomous robots are a prime example of AAs (Allen et al., 2006). This should also help us to avoid the dangers connected to the humanlike appearance of some robots, which might lead us to accept them as “artificial persons” more easily.

So, what is an “artificial software agent”? One might begin by asking, what is an “agent”, but starting with a general definition might again mislead us. Since animals and human beings are considered “agents”, one may think of “artificial agents” as something “like” humans or animals. Therefore, I will define a “software agent” in contrast to a traditional “software programme”.

One major difference between a “programme” and an “agent” is that programmes are designed

as tools to be used by human beings, while agents are designed to interact as partners with human beings. I put a special emphasis on the words “designed as”, because most of the questions (like: “Is it an agent, or just a programme?”; Franklin & Graesser, 1996), arise when looking at an existing product. Thus, I suggest that the categories “programmes” or “agents” are especially helpful as part of a strategy in software development.<sup>1</sup>

The concept of delegation is a characteristic feature of agents: “An agent is a software thing that knows how to do things that you could probably do yourself if you had the time” (Borking et al., 1999:6). Also, agents may delegate tasks to other human or artificial agents, or collaborate with other agents. They are designed to perceive the context in which they operate and react to it. Also, agents are proactive, therefore one does not need to start an agent (in contrast to a programme), but they are designed to decide for themselves when and how to perform a task. Therefore, they may be perceived as autonomous artefacts.

Of course, we have to differentiate between different types of agents according to their capabilities and the degree of autonomy they have. Agents may serve as an interface for human-machine interaction by acting as an artificial personality, or they might be designed to observe and report on computer systems. What makes the idea of agents interesting with regard to information ethics is that they do raise questions about the responsibility of the designers, as well as the users, for the actions carried out by (more or less) autonomous agents. In this chapter, however, I will discuss agents on a more general level, since I only want to show that we should have a look at AMAs from an intercultural perspective.

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<sup>1</sup> This may become more obvious by thinking of complex information and communication technology (ICT) systems that might consist in parts of agents. In the case of Internet search engines, web bots for example might be considered artificial agents, which are part of a more complex system. This system might also include “traditional” programmes. Does this make a search engine an artificial agent? Although we might ask this question when looking at a specific search engine, I assume that such questions do not arise during the design process.

From the perspective of Western philosophy one has to be very careful to avoid misunderstanding the concept of “autonomy” in the context of AAs. Surely, “autonomy” is a central concept, at least for the Kantian tradition,<sup>2</sup> but in the context of AA, “autonomy” first of all means that an agent is capable to fulfil a task without direct interference by a human being. One delegates a task to an agent and gets back the results. Here, we should keep in mind the distinction between a “free chooser” and an “autonomous person”. A person might be regarded as free when doing whatever she or he would like to, but we expect an autonomous person also to be someone who thinks about what she or he is doing and makes choices for some reason.

I do not want to imply that an autonomous software agent is able to make conscious decisions based on reason, but I do suggest that we expect more than the random results that a free chooser might produce as well. Thus, we expect an artificial agent to fulfil a task while being guided by norms or values. For example, we might expect an agent designed to search for scientific literature not to present documents that obviously do not fit scientific standards.

Given the explanation of an AA, it is now easy to provide a definition of an AMA. An AMA is an AA guided by norms, which we as human beings consider to have a moral content. To stay with the example of a web bot: one might think of certain content (pornography, propaganda, etc.) as conflicting with moral norms. Thus, an AMA might respect these norms while searching the Internet and will not present this kind of content as a result, unless explicitly told to do so.

It is important to make a difference between two types of AMAs. Agents may be guided by a set of moral norms that the agent itself may not change, or they are capable of creating and modifying rules by themselves.<sup>3</sup> However, before address-

ing the two types of AMAs and their different implications, I will ask why AMAs should be included in the ongoing discussion on intercultural information ethics.

### The possible impact of artificial agents on Africa

As pointed out by Jackson & Mandé (2007:171):

*We have to notice that the ICTs are part of all the great issues of globalization [...] Unfortunately, we can notice that only a minority take advantage of ICT and thus worsen the inequalities between the rich and the poor, both between the nations and even within the nations. This phenomenon of exclusion and division is particularly visible in the African countries which are the victims of the world economic system.*

There is hope that providing access to ICT and the Internet will provide a link between the information poor and information rich. But, as Johannes Britz (2007:273ff) has demonstrated, there are certain and serious limitations to using the Internet to alleviate information poverty. He points to the importance of physical infrastructures for information societies – the “FedEx Factor”. Another of these limiting factors is that the content available on the Internet is rather useless from the perspective of many non-Western cultures: “... there is indeed more information ‘out there’, but less meaning”.

The last point made is important to our subject, since artificial agents are designed to help users to reduce information overload by filtering and structuring content with regard to the specific needs of the individual users (cf. Kuhlen, 1999). Therefore, agents are more likely to be used by the information rich. This will probably worsen the inequalities between information rich and information poor, since the use of agents may change the nature of the content of the Internet. Content will become be less structured according to the needs of human beings, but become more and more accessible to artificial agents. Thus, not having access to agents as mediators to the Internet may become a new barrier. It is therefore important to keep in mind that changes occurring

<sup>2</sup> The idea of the “autonomy of the practical reason” is a key feature of Kant’s moral theory and is closely linked with the concept of being a person and being able to act according to one’s own free will. Autonomy may also be considered to be at the core of human dignity; therefore we should be very careful when applying the concept in the narrow Kantian meaning to artificial agents.

<sup>3</sup> Since “autonomous” might be translated as “one who gives oneself its own law”, we might assume

that not all of these norms are built into the software from the beginning, but the agent is capable of creating new rules for itself.

in information-rich countries may indeed have a strong impact on information-poor countries.

AAs may also become part of surveillance infrastructures. Here one has to be aware – and this is rather unpleasant to me as a European author – that critics are already speaking of the panoptical fortress of Europe (Davis, 2005). As the report on the surveillance society published by the Surveillance Studies Network (2006:1) points out:

*It is pointless to talk about surveillance society in the future tense. In all the rich countries of the world everyday life is suffused with surveillance encounters, not merely from dawn to dusk but 24/7.*

Again, the increasing significance of surveillance in rich countries is not restricted to the citizens of these countries, but also concerns those intending to immigrate (regularly or irregularly) into these countries (cf. Broeders, 2007). Thus, robotic AAs, such as the SGR-A1 security system,<sup>4</sup> are considered to be only the tip of the iceberg (Rötzer, 2006). This should not mislead us to underestimate the importance of AAs with regard to the digital borders limiting the free movement of people, as well as information.

AAs might also, however, provide a better interface for illiterate people, since the idea of speech-based computer-human interaction comes along with the concept of agents as partners.<sup>5</sup> Speech-based AAs serving as interfaces for accessing and creating information might have a great impact on Africa, when considering the already widespread use of mobile phones.<sup>6</sup> As Butler (2005) points out:

*Since computers are rare in much of the region due to poor wire-line infrastructure [...] and unreliable electrical grids, a technology that offers Internet access without a costly PC promises to pay dividends for Africans.*

<sup>4</sup> [http://www.samsungtechwin.com/product/features/dep/SSsystem\\_e/SSsystem.html](http://www.samsungtechwin.com/product/features/dep/SSsystem_e/SSsystem.html). Accessed 8 July 2007.

<sup>5</sup> One might think of the “digital butler” described by Negroponte (1995) as a good example of this type of AA.

<sup>6</sup> When thinking about speech-based human-computer interaction one should keep in mind that – to use the wording of the WSIS – the right to communicate does include the right to read and the right to write.

Still, one has to recognise the results of a case study carried out by Vodafone (2007), showing that the “use of text messaging in rural communities is much lower due to illiteracy and the many indigenous languages. This has implications for other technologies that use the written word, such as the Internet”. Thus, providing speech-based access to the Internet through mobile phones might at least provide an opportunity to make more information on Africa by Africans available and accessible to others. Of course, we should not be overoptimistic, given what Britz (2007:274) calls the “Tower of Babel Factor”.

As AAs are designed to lift the weight of dealing with information overload from the users, they might also help to overcome the “House on Sand Factor” (Britz 2007:277), by enabling users to find relevant information more quickly under the condition that AAs do not need expensive hardware to be used. When AAs are becoming part of online services and may be used in an inexpensive way (or free of charge), there is also hope that it would become more and more easy to have access to information needed in a certain context.

I will stop pointing to different issues that may be raised about AAs for now, as the purpose of this section was to demonstrate that AAs are a fitting subject for intercultural information ethics. It is important not to mistake them for being too “high tech”, even when most of the current research carried out in rich countries, considering the possible positive or negative impact they might have on information-poor countries.

### What makes an AMA “moral”?

The first section of this chapter defined AMAs as a subclass of artificial agents that include what Allen et al. (2006:14) have called an “ethical subroutine”. Further, I have suggested that one should differentiate between AMAs that are guided by moral norms, which they cannot change, and AMAs that may produce moral norms by themselves.

AMAs that are not able to change their “ethical subroutine” are autonomous in the action they take, but they are not able to do “bad things”. A good example of such an AMA is the main character of the US movie “RoboCop” (1987),

who is incapable of overriding the prime directives that he has been programmed to follow. Search engines like Google might be considered to be AMAs of this type as well, if we agree that they are AAs, too. At least, such search engines may be regarded as autonomous systems, as the results they produce may not be foreseen either by the software developers or the users.

In particular, services such as "Google Alerts"<sup>7</sup> may be considered AAs because they act without direct control of their human users. One could argue that these are very simple services, but we are not concerned with the level of autonomy here. What is more important is that they are autonomous and – at least in Germany – limited by norms that are considered moral norms. As stated above, it might be considered a moral norm that no documents that may be harmful (like pornography, excessive depictions of violence, and hate speech) are presented to children. Thus, German law does not allow making these kinds of documents available to persons under the age of 18, and also bans the distribution of certain documents. There has been some concern that these kinds of online services undermine such legal standards (cf. Neuberger, 2005), which has led to a voluntary agreement being signed by all major search engines to not provide links to German users that point to documents banned in any other kind of media. Therefore, at least the German versions of these search engines might be regarded as AMAs, since they include services to be considered AAs and are limited by "ethical subroutines".

The question whether such a kind of censorship may be considered ethical is less important from an intercultural perspective than the question of the impact such AMAs may have on other cultures. Even without AAs on the Internet, there have been questions about the values embedded unconsciously in computer-mediated communication by their Western designers (Ess, 2007: 153). Thus, thought must be given to what kind of "morality" will be fostered by AMAs, especially since norms and values are now to be embedded consciously into the "ethical subroutines". Will these be guided by "universal values", or by specific Western or African concepts? Maybe, the kind of filtering done in

accordance with German law might be acceptable and even desirable from an African perspective. But what about AMAs designed to protect privacy? Already, first steps have been taken in developing such AMAs, which are also presented as an example in the context of machine ethics (Allen et al., 2006:13). What would the impact of such AMAs be on cultures that are characterised by a more community-based thinking, and therefore do not value privacy in the same way as Western cultures do? (Cf. Olinger et al., 2005.)

The second type of AMAs that are able to create rules of behaviour by themselves for themselves in accordance with their users' preferences might be seen as an alternative in this perspective, for they should be able to adjust to the specific cultural background of their users. Such an agent could learn, for example, what kinds of norms are followed by a European or an African user. Besides the question of how to deal with "bad users" training the AMAs to behave unethically, there should be discussion on what the distinctive features of a moral norm are and what makes such norms different from, for example, legal norms. Moreover, what should an agent do when it is given a task that a user deems legitimate and even necessary from a moral point of view, but is conflicting with legal norms?

The challenges arising from such questions are not only to be considered pragmatically, but are also a good starting point for an intercultural dialogue on AMAs that goes beyond the notion of "digital imperialism", an issue that might be raised with regard to the first type of AMAs presented above. That is not to say that digital imperialism is not to be seen as an ethical issue, but thinking of the requirements that an AMA has to fulfil to be regarded as "moral" (in the limited sense introduced in the first section) does offer an opportunity to go beyond the idea of Africa being a mere victim of Western technology. Rather, it will enable us to discuss the rich offers in African thinking on what it means to be an autonomous moral agent (cf. Sogolo, 1993: 129ff), by asking what we are going to expect from AMAs and which are truly moral agents and not just learning agents.

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## **Assembling an African information ethics**

**Bernd Frohmann**

*The Tshwane Conference on African Information Ethics of 5–7 February 2007 forces the question, What is an African information ethics? This question is addressed with reference to the complexities of a distinctly African information ethics, taking into account the distinction between ethics and morality, and the assumptions of the language of the Tshwane Declaration on Information Ethics in Africa. Gilles Deleuze’s concept of “assemblage”, analysed from the perspectives of Bruno Latour’s concept of “reassembling the social” and recent anthropological approaches to global assemblages are put to work to investigate possibilities of an African information ethics, with special attention to the concepts of universality and African identity. The task of assembling an African information ethics is then analysed in terms of Latour’s call for building “liveable collectives”.*

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## An African information ethics?

The first African Information Ethics Conference was held in Pretoria, South Africa, on 5–7 February 2007. The conference's full name was "African Information Ethics Conference: Ethical challenges in the information age". But what is an African information ethics? Is there a distinctly "African" characteristic that distinguishes it from "Asian", "European", "North American", "South American" or "Australian" information ethics? Does "African" in this context denote a specific flavour of information ethics, analogous perhaps to distinctly African styles of music, fashion or cuisine?

The Tshwane conference meets an obligation of the new field of international information ethics, which was inaugurated at the ICIE Symposium 2004 in Karlsruhe, Germany, to think globally about information ethics. The Karlsruhe conference questioned locality in its problematic tension with "the horizon of a global digital environment" (ICIE, 2004). To distinguish kinds of information ethics according to national and pan-national (e.g. continental) criteria is a state-centred interpretation of Karlsruhe's problem of local culture. But how effective are state boundaries as criteria of locality? And, can the continental boundaries of African nations map onto a distinct field of philosophical work in information ethics? If the locality in question when attempting to determine a uniquely African information ethics is the whole continent, then in terms of Karlsruhe's main theme, the problem becomes simultaneously large – Africa is an immense "locality" – yet at the same time small, because it is reduced to ethical issues arising only within the continental boundaries of Africa. The question then becomes one of how global digital information networks ought to be installed in Africa in the light of a global, digital information environment.

That such a question avoids much of ethics can be seen by considering where it fits in a common and popular division – at least in Northern/Western thinking about ethics – of ethical theories into three main areas: meta-ethics, normative ethics and applied ethics. Deployments in particular nations or continents of specific technological instrumentalities, such as global, digital information networks, pose problems in applied information ethics. Whatever might be particu-

larly African about such problems derives from characteristics distinguishing the continent of Africa from – what? Other continents? Or specific African countries from countries in the rest of the world? There is no need to deny that the specificity of the problems many African countries face, such as violence, poverty, armed conflict, disease, genocide, poverty, and the economic injustices of global, Northern/Western market domination, raises questions about how information technologies and systems *ought* to be deployed according to specific moral codes. But does the moral imperative of urgency that applies to such African-specific problems justify directing less attention to the problems Africa shares with other continents, or specific African nations share with nations in other parts of the world? The use, power and value of the concept of the nation state in pursuing an international information ethics pose problems rather than provide stable resources for ethical thinking.

Most of the work of the Tshwane conference was formal and documentary, creating moral codes governing the development of information systems and technologies in Africa. But ethical work is different: it questions the nature of ethical and moral reasoning, the reality of moral values, the meaning and truth value of moral judgments, the compatibility of differing values and moral judgments, the forms of philosophical justifications of consequentialist, deontological or virtue-ethical conceptions of norms and values, the nature and practice of the virtues and the good.

Roughly speaking, the distinction between ethics and morality maps onto the distinction between, on the one hand, meta-ethics and normative ethics, and on the other hand, applied ethics. Ethics questions the philosophical foundations of the good and of morality, whereas morality questions what is right and wrong according to specific moral codes. Ethics conceived as reasoning about the practice of virtue and the pursuit of the good can dispense with moral codes, whereas morality conceived in the modern sense cannot.

In spite of what actually occurred at the said conference, the references in its Declaration on Information Ethics in Africa to information ethics as "the field of critical reflection on moral values and practices" and "ethical reflection on norms and values" (African Information Ethics Conference, 2007) suggest a recognition of a

distinction between ethics and morality. Armed with such a distinction, we can pose the question "What is an African information ethics?" as one about whether and how African intellectual, cultural and philosophical resources might broaden and deepen the field of ethics, where the adjective "African" does more than simply denote nations of the African continent.

The question of specifically African resources for developing an African information ethics quickly confronts boundary problems and problems of scale. Africa is a vast territory, teeming with multiplicities of intellectual, cultural and philosophical resources, and multiplicities of connections to the rest of the world. Consider, for example, the complexities of "African philosophy". Because Africa also includes Muslim nations and peoples, its philosophical resources include Islamic philosophy, which itself traces influences from Chinese, Hindu, Persian, Greek, Roman, Ancient Egyptian and Phoenician philosophies, as well as influences of Jewish and early-to-modern European philosophies. As of April 2007, the Association of African Universities boasts 119 member universities from 31 countries. Many of the academic philosophers in those universities were trained in Northern/Western philosophical traditions and are as familiar with, and interested in, their canonical texts and issues in logic, epistemology, metaphysics, ethics or history of philosophy as their Northern/Western counterparts. Moreover, controversy about what constitutes African philosophy is itself a philosophical topic in both Africa and the African Diaspora, as just a small sample of book titles makes clear: *African philosophy: Myth or reality?* (Apostel, 1981); *African philosophy: Myth and reality* (Hountondji, 1996); *African philosophy in search of identity* (Masolo, 1994); and *African philosophy: A historico-hermeneutical investigation of the conditions of its possibility* (Okere, 1983). About a third of an early introductory reader in African philosophy is devoted to the question of whether there is a specifically African philosophy (Wright, 1979).

Any hopes that might be raised for a manageable corpus of sources in African philosophy by the Library of Congress's list of only 188 items bearing the subject heading "Philosophy, African" is dashed upon comparisons to its lists of 111 items under "Philosophy, European", 174 under "Philosophy, French", and 295 under "Philosophy, German". The more comprehensive keyword

search joining "African" and "philosophy" exceeds the display limit of 10 000 of the Library of Congress Online Catalogue – and this from a library whose holdings are biased by distortions of the South-North information transfer! Library searches do not clinch an argument that there is something wrong with supposing the adjective "African" has a unified and coherent meaning when modifying the intellectual, cultural and philosophical resources we might hope to find useful in developing a specifically *African* information ethics. But they do turn our minds not only to the multiplicities crisscrossing that vast continent, but to asking similar questions about the concepts of European philosophy, Asian philosophy or American philosophy, to name just a few. Is there any reason to suppose that enlisting "African philosophy" in the service of developing an African information ethics is an imperative more urgent than enlisting "European philosophy" in the service of developing a "European information ethics"? Does "international information ethics" refer only to information ethics *other than* "European" or "Northern/Western" information ethics, or does it mean information ethics practised deliberately *without regard* to nationality?

The very idea of an African information ethics is therefore bedevilled by suspicions about the coherence of grand, noble totalities conjured up by adjectives such as "African", "European", "Asian", "American", etc. in any meaningful sense beyond simply referring to national or pan-national political boundaries. If we mean by "African information ethics" the information ethics pursued only in Africa, the meaning is clear but philosophically uninteresting. But if we hope to discover a uniquely African information ethics in a meaningful conceptual sense that can perform useful work, we are likely to find neither a stable finished product in some hitherto neglected locality, nor parts ready to hand for use in building it, such as specifically African thought styles, ethos, philosophies or ethical cultural traditions. What we are more likely to find are controversies, debates and disputes in each of these areas, just as we find elsewhere on the terrain of ethical thought.

The problem is exacerbated by the way in which information ethics is framed in existing documents. The recently formulated Tshwane Declaration is a good example. Repeating the



language of universal human rights inscribed in a long line of international agreements such as the Charter of the United Nations, its Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights, and the International Covenant on Civil and Political Rights, the Tshwane Declaration's statement of principles for information ethics in Africa asserts: "Utilization of information in and about Africa should be grounded in an Ethics based on universal human values, human rights and social justice". African information ethics is treated as a plug-in to a system of stable phenomena already assembled together in a fixed totality by these three absolute and already stabilised virtues.

The Declaration also refers to a number of "social objects" imagined as already given and sutured together into what we know to be among the most unstable of conceptions, should the controversies surrounding it be taken seriously, namely "the global information society". The most prominent of these objects – sustainable development, freedom and democracy, global Millennium Development Goals, the "development-oriented information society", "information and knowledge societies" – populate the document stripped of all their fierce controversies, fragile contingencies, and historical, political, economic and cultural singularities. The role envisioned for African information ethics is presented in terms of an imperative to plug into this set of taken-for-granted global arrangements, demonstrably to the profit of identifiable "players". We are told that Africa should connect its special strand of information ethics into an international ethical machinery ethics already busily servicing a presumed global information society. Thus, "the distinctive contribution to be made by African thinkers and intellectual traditions to the global information ethics community" is part of a wider "mobilization of academic research", presented as *what we already know* to be "crucial for sustainable social, economic, technical, cultural and political development". Africa, we read, "should be a key player in [the] movement [...] towards Information and Knowledge Societies", and to this end should strive to "make the global Millennium Development Goals a reality". Insofar as Africa has something unique to contribute, there should be no doubt about the beneficiaries of its gift: "Indigenous knowledge and cultural diversity is

a valuable contribution Africa can make to the global Information Society. It should be preserved, fostered and enabled to enrich the world body of knowledge" (there is no mention of how such preservation might enrich the *producers* of indigenous knowledge and cultural diversity).

In issuing definitions of jobs serving invisible actors assumed to have already constructed the global information society to the "academics from the international community [who are] experts in the field of Information Ethics", and the "African scholars in the field of information ethics within the international scholarly community", the Declaration reflects the political reality of the Tshwane conference. Instead of pursuing scholarly discussions of *ethics* in any philosophical sense, the academic delegates were set the task of crafting a document – the Tshwane Declaration – only to find that none of their recommendations survived the final draft.

The combination of the instrumentalisation of scholarly intelligence such as that on display at the Tshwane conference,<sup>1</sup> easy references to taken-for-granted, large structural totalities such as those itemised above, and uncritical assumptions about indissoluble links between information access and democracy, peace and social justice, bureaucratises African information ethics by reducing ethical thinking about information to the production of moral codes governing the installation on the African continent of information technologies for e-government, e-education, e-health, e-culture (e.g. digital heritage projects) and many other "e-projects".

Language that envisions African service to a taken-for-granted reality – the global information

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<sup>1</sup> The political in contrast to the academic nature of the conference was highlighted by the conflict between two imperatives: the first to produce a document on information ethics for UNESCO, as stipulated by its representative, Boyan Radoykov (Information Society Division), and the second to produce the Tshwane Declaration for the South African government. The latter imperative prevailed. The delegates were divided into working groups, each with a mandate to produce two sentences on topics previously specified in the Declaration draft. Because, to no-one's surprise, groups of academics cannot easily condense their thoughts into just two sentences, especially when working collaboratively, their more fulsome work was ignored in the final draft – the product of a small group of conference organisers.

society – recalls for even moderately critical readers the analyses of critical global political economists who have laboured to show that the primary advantages of such bureaucratisation and service accrue to the owners and developers of those information systems, who along with other corporate giants, have long recognised the public relations value of installing ethical modules in their organisational structures.

How can we get a grip on the problems raised here? How can African information ethics, even international information ethics, engage a deeper, more fundamental ethical thinking that problematises the very idea of information ethics? An important task for such thinking is to ask how and why, at particular historical instances, ideas such as information ethics, international information ethics and African information ethics become problems that collect in specific constellations a wide variety of things, persons, institutions, ideas, documents, and many more heterogeneous elements. In my Karlsruhe paper (Frohmann, 2007), I argued for the value to information ethics of the ethical thought of Michel Foucault and Gilles Deleuze. The present chapter develops Deleuze's idea of *assemblages* to address some of the issues raised so far.

## Assemblages

*Agencement* is a central concept of Deleuze's philosophy. Usually translated as "assemblage" or "arrangement", the concept has done important work in a variety of fields, from Deleuzian social theory (De Landa, 2006), to Bruno Latour's actor-network theory (2005) and his studies of science and technology (1987; 1988; 1993; 1996; 1999), to recent anthropological approaches to globalisation (Ong & Collier, 2005).

In Deleuze's philosophy (especially Deleuze & Guattari, 1987), *agencement* is closely connected to the concept of *affect*, according to which the power of a body to act is analysed in terms of its assemblage or arrangement with another body or bodies. His ethics proposes an ethos of becoming, analysed in terms of a body's affective power to generate intensities in assemblages with another body or bodies, aimed at both resistance to the ways in which we are formed by what he calls "lines of rigid segmentarity", and at freedom from the dominating effects of those lines through the practice of the three virtues of

imperceptibility, indiscernibility and impersonality (see Frohmann, 2007). Assemblages are always individuated and singular. To study what they do by tracing the diagrams of their affective powers is to practise a mode of analysis called "transcendental empiricism". Ethics is therefore connected to singular, individuated assemblages through the concept of a body's affective power to escape rigid segmentarity made possible by the intensities generated in assemblages with another body or bodies. Deleuze's ethical thought leads us to the concept of *ethical assemblages*, which enact an ethos of freedom from domination.

Latour puts the concept of assemblages at the centre of his actor-network theory, as elaborated in his 2005 work. He contrasts a *sociology of the social* to a *sociology of associations*. The former conflates two different meanings of "social", referring first to stabilised states of affairs, and second to a specific kind of matter or substance that distinguishes social worlds from natural worlds. When these two meanings are conflated, the "social" stands for stabilised states of affairs made of "social" stuff. This kind of sociology, Latour (2005:3–4) argues, is no longer capable of providing the understanding promised by sociology in its original sense of a "science of living together". He lists its main assumptions:

... there exists a social "context" in which non-social activities take place; it is a specific domain of reality; it can be used as a specific type of causality to account for the residual aspects that other domains (psychology, law, economics, etc.) cannot completely deal with; it is studied by specialized scholars called sociologists.

The sociology of associations, by contrast, makes neither mistake. It studies the composition of the social in terms of assemblages of heterogeneous elements, none of which are "social" in the sense of being made of social stuff – because there is no such thing. And rather than begin with stabilised concepts or states of affairs, it recognises that the social is revealed most clearly by processes of assembly, whether in building associations between disparate kinds of elements, or when such associations break down, are interrupted or transformed from one assemblage to another.

Once we see that the strength of these fragile assemblages extends no further than the contingent associations currently holding them in

place, stability becomes a problem: How do specific assemblages get stabilised and how is their stability maintained? The main tasks of a sociology of associations are:

- To follow controversies in order to identify the elements at stake in any future assemblage
- To follow actors in their work of stabilising connections or associations holding assemblages together
- To compose assemblages for living together collectively in the face of contemporary crises – a political and ethical task of “assembling a common world” (Latour, 2005:260)

Acknowledging the work of Deleuze and Latour, recent anthropological perspectives on globalisation shared by a growing number of social scientists also make powerful use of the concept of assemblages (see Ong & Collier, 2005). Rather than analyse globalisation as a broad, structural phenomenon of planetary scale that enters social analysis as a stabilised, global state of affairs – for example, Manuel Castells’ (2000) “network society” – the anthropological approach stays much closer to Deleuze and Latour in analysing globalisation through investigations of specific kinds of ongoing processes of assembly and reassembly. In such a view, globalisation is analysed as a set of spaces where specific kinds of *anthropological problems* arise – problem spaces “in which the forms and values of individual and collective existence are problematized or at stake, in the sense that they are subject to technological, political, and ethical reflection and intervention” (Collier & Ong, 2005:4).

This mode of analysis pays special attention to a broad range of “global forms”, which assemble a wide variety of people, institutions, technologies, things, discourses, values, disciplined routines, standards, documents, and many more disparate sorts of elements. According to Collier & Ong (2005:11), global forms:

*... have a distinctive capacity for decontextualization and recontextualization, abstractability and movement, across diverse social and cultural situations and spheres of life. Global forms are able to assimilate themselves to new environments, to code heterogeneous contexts and objects in terms that are amenable to control and valuation.*

Global forms are not ideal types whose operations can be reduced to effects of stable causes, such as the “logic of capital” or the “invisible

hand of the market”. Instead, they are “delimited by specific technical infrastructures, administrative apparatuses, or value regimes” (Collier & Ong, 2005:11). In other words, they are “articulated in specific situations – or territorialized in *assemblages*” (Collier & Ong, 2005:4). This use of “assemblages” to emphasise that global forms are always singular and individuated reflects the influence of Deleuze and Latour. Stem cell research is an example, as Stephen J. Collier and Aihwa Ong (2005:4–5) explain with reference to Sara Franklin’s paper in their collection:

*Potentially, [stem cell research] bears on biological life – every human (and, presumably, nonhuman) being on the planet – and can transform how we understand, intervene in, and indeed, live human life qua biological life.*

But what the authors call “the actual global” takes different forms in different assemblages:

*The actual scope of stem cell research is determined by a specific distribution of scientific expertise and global capital [...] Also crucial are regimes of “ethical” regulation instituted through the political system in various countries.*

The United Kingdom, for example, has become a centre of stem cell research through a “relatively lenient regulatory regime”, but in the US research has been restricted by the success of connections to an “ethical regime” with a global character, invoking “a form of humanism that claims to be concerned not with a culture or a particular group but with human life as such” (Collier & Ong, 2005:5).

Global forms are therefore more like what Latour calls *mediators* rather than *intermediaries*. An intermediary “transports meaning or force without transformation [...] defining its inputs is enough to define its outputs”. But mediators “transform, translate, distort, and modify the meaning or the elements they are supposed to carry”; “[t]heir input is never a good predictor of their output” and “their specificity has to be taken into account every time” (Latour, 2005:39). From this perspective, the “ethical regimes” cited by Ong & Collier are not seen as stabilised states of affairs, but as dynamic assemblages of human and non-human actors whose connections and associations are revealed by studying their traces. Writing in a Latourian and Deleuzian spirit,

Collier & Ong (2005:12) note that an assemblage:

*... is the product of multiple determinations that are not reducible to a single logic. The temporality of an assemblage is emergent. It does not always involve new forms, but forms that are shifting, in formation, or at stake. As a composite concept, the term "global assemblage" suggests tensions: global implies broadly encompassing, seamless, and mobile; assemblage implies heterogeneous, contingent, unstable, partial, and situated.*

Thinking about globalisation through the concept of assemblages leads to the conclusion that "local" and "global" do not refer to two different properties distinguishing different kinds of stabilised states of affairs. They do not, for example, designate differences in spatial magnitudes or scale. Localising and globalising are what actors *do*. The actor-network approach investigates how, where and through what connections or associations context, structure, macrolevels and global levels are constantly being assembled. Latour (2005:183) puts it this way:

*... whenever anyone speaks of a "system", a "global feature", a "structure", a "society", an "empire", a "world economy", an "organization", the first [...] reflex should be to ask: "In which building? In which bureau? Through which corridor is it accessible? Which colleagues has it been read to? How has it been compiled?"*

The global is therefore made in sites as local as any. Relative scale is *assembled*: "the small is unconnected, the big one is to be attached" (Latour, 2005:180, 184). We need to "ferret out the places where 'up', 'down', 'total', and 'global' are so convincingly staged". The work of putting something into a frame, of contextualising and identifying a phenomenon as "global" is constantly being performed. But rather than take these frames, contexts and the "global" as stabilised concepts readily available for deployment in social theory and analysis, Latour (2005:186) argues that "it is this very framing activity, this very activity of contextualizing, that should be brought into the foreground [...] 'Ups' and 'downs', 'local' and 'global' have to be made, they are never given".

## An African information ethics

How can the concept of assemblages be put to

work in thinking about the possibilities of an African information ethics? We might begin by following some implications of treating an African information ethics as an *ethical assemblage*. The strength of assemblages consists in their connections and associations: How many are there? How widely distributed are their elements? What degree of heterogeneity do they exhibit? Following Latour's (2005) rules of method, we would look for controversies that evidence actual or potential intensities for mobilising the work of assembly and its stabilisation.

Following controversies is radically different from deploying cherished certainties as stabilised resources. No matter how many people march in step to the beat of concepts such as universal human values, human rights and social justice, if their only connections are to each other, the power of their small homogeneous assemblage will be feeble. There is little to be gained by restricting membership from the outset in the assemblages we want to create to those who share our convictions. Multiplicity and heterogeneity, not uniformity and universality, generate the intensities needed for building such assemblages.

## Universality

Dani Wadada Nabudere, a scholar of imperialism in Africa, presents an example of how some revered beliefs, even those enshrined in decades of United Nations charters, declarations and statements, are put to the test, problematised, or become the subject of controversy. His study (Nabudere, 2005) looks at how universalist conceptions of human rights actually interact in specific cases with cultural diversity and identity in Africa – an antagonism found on an abstract level in UN documents espousing both universal human rights and ethical imperatives to defend cultural diversity. It demonstrates the value of approaching human rights, not as stabilised states of affairs applied in the manner of universal standards, but as assemblages territorialised and reterritorialised in particular sites.

For example, donor aid to women's communities in north-east Ugandan villages in the early 1990s was provided under the umbrella of universal human rights to gender equality, a principle well established in UN documents. The female aid

recipients soon discovered that their new “empowerment” undermined family cohesion by disempowering the men in their community. The women complained of increased drinking among the men and withdrawal of their participation in family activities. The men expressed frustration about what they saw as a reconfiguration of community life around aid projects directed at just the women. Nabudere (2005:7–8) reports that only through a series of dialogues between husbands and wives – “generated by [women’s] own experiences to maintain family cohesion by bringing their men into their organizations” – were relations between them realigned, “without any external pressure and lectures being given about ‘human rights’ or ‘gender equality’ in the villages”. Nabudere observes that “the critical phase” was when “the women became concerned not so much about their ‘rights’ as women, but more importantly, their concern about their men being marginalized and being left out of the donor funding”. The “universal” human right to gender equality, which was forged through a long and conflicted history in Northern/Western nations, did not work as a universal standard, but was reconfigured in assemblage with elements of the specific community situation. Collier & Lakoff (2005: 31) explain “regimes of living” as:

*... situated configurations of normative, technical, and political elements that are brought into alignment in problematic or uncertain situations [...] they may be conceived as abstract categories of ethical reasoning and practice that are incited by or reworked in problematic situations, taking diverse actual forms.*

In Nabudere’s example, abstract categories of ethical reasoning about gender equality were reworked in Ugandan villages by the female recipients’ appropriation of the universal right to gender equality attached to donor aid. The actual rather than the abstract relationship between these elements were assembled in this singular and specific situation. The case shows that to see what “universal human rights” actually look like, one’s attention has to turn from abstract ideas to the world; one has to investigate the configurations of specific assemblages.

### **What does it mean to be African?**

Thinking about assemblages also helps with the

question of what might be meant by a specifically *African* information ethics. It was suggested earlier that a continental meaning of “African” is problematic. Following Latour’s (2005) advice to “feed off controversies”, we can trace the fortunes of a particularly *African* information ethics by first seeking claims and controversies in a variety of sites about what it means to be “African”: philosophy, art, religion, ethics, architecture, values, music, customs, fashion, cuisine, etc. Understanding what it means to be African in the actual rather than the theorised world requires investigation of *where* controversies take place (eligible locations should not be restricted to African nations); *who* speaks (eligible speakers should not be restricted to those holding passports from African nations); *how* and *with what means* controversies get stabilised (the agents busily at work settling controversies should not be restricted to humans; see especially the chapter, “Third source of uncertainty: Objects too have agency”, in Latour, 2005); and the *number, kinds* and *extensions* of the connections and associations made through the work of stabilisation. An African information ethics can gain strength through connections and associations with *diverse* problematisations of what it means to be African.

### **African ethical assemblages**

Ethical assemblages are constructed from the work of stabilising controversies about values, norms, and ways of living together. Collier & Lakoff’s (2005:23) “regimes of living” are ethical assemblages. They remark that:

*... to say that such regimes relate to questions of living means: first, that they concern reasoning about and acting with respect to an understanding of the good; and second, that they are involved in processes of ethical formation – that is, in the constitution of subjects, both individual and collective.*

Many regimes of living, the authors note:

*... illustrate the centrality of biopolitics and technology to contemporary ethical problems. In diverse sites, one finds forms of moral reasoning that are not linked by a common culture but whose shared characteristics can be analyzed in terms of intersections of technology, politics, and values.*

The information technologies that produce many of the problems and controversies of information ethics also raise issues connected to globalisation, because, as Collier & Ong (2005:11) note: "Technoscience – whether material technology or specialized social expertise – may be exemplary of global forms." Thus the *regime of living* at stake in the development of an African information ethics is implicated in the ongoing work of globalisation through connections and associations already forged by the highly concentrated ownership and control of information technologies.

The problem of developing an African information ethics can be approached by following Latour's (2005) rules of method: first, identify sites of existing controversies, tracing the associations and connections between all the actors, human and non-human; second, trace the means by which controversies are settled and assemblages are stabilised; third – and this is the stage of the politics of *assembling* an African information ethics – guide intervention in the processes of assembly by the knowledge gained in the first two steps.

Identifying sites of controversies can be guided by Foucault's ethical "recentering", thinking about information as he thought about sexuality: instead of looking for the forms of morality imposed on us by such phenomena, locate the areas of experience and behaviour regarding information that become problematised; that is, how they become "an object of concern, an element for reflection [...] a matter for debate [...] a domain of moral experience" (Foucault, 1990:23–24). Such an approach to African information ethics implies genealogical work rather than generating declarations that limit debate from the outset by assumptions that the many problems and controversies about concepts like social justice, democracy, universal human rights, the global information society, and the value of access to information and communicative rights either do not exist or have already been settled. It might be worth asking about such concepts: Who is speaking? From which position? To whom? In which institutions? To what effect? Whose problem is it, and which problems are championed as the most salient? Latour insists that the three steps of his method should remain distinct and be carried out in the strict order indicated above. The first and last step are,

however, connected, because the politics of "reassembling the social" by constructing *livable collectives*, as he puts it, involves identifying sites that bear upon the ethical matters considered to be most urgently at stake. This is not to suggest that his first step should not be rigorously followed, but it is to acknowledge that his last step involves participating in controversies.

At the present time, sites where at least some controversies relevant to an African information ethics flourish are not hard to find. Arguments about the role of civil society arising at the World Summit on the Information Society (WSIS) provide an example that illustrates the problem of selecting the most useful sites for assembling an African information ethics. Although the inclusion of civil society actors was acknowledged as a significant step forward, a recent study (Raboy & Landry, 2005) of the first phase of WSIS in Geneva in 2003 documents controversies arising from the perspective of civil society. Limitations of space permit only a short list here of the most salient areas of contention:

- The structure of WSIS "innovated little compared to previous UN events" (upholding "the pre-eminence of governments in decisions on the major aspects of the Summit", relegating civil society to the status of "actors who set directions for reflection and orientation that may or may not be addressed" and limiting debate (pp. 25, 26, 63).
- "Controversial positions from civil society or positions that risk affecting a powerful State have very little chance of being adopted in this political and diplomatic arena. Certain governments did not see the WSIS as an event tackling broader questions of communication, and preferred to concentrate on specifically targeted issues. The US, for example, was only interested in three items on the WSIS agenda: network security, infrastructure development, and human capacity building" (p. 63).
- The Summit ignored rules of the UN Economic and Social Council that prohibit accreditation of members of the private sector, thus changing "the relationship established between the United Nations and civil society over the past fifty years", weakening civil society, "whose influence was diluted amid private sector interests", and raising "many questions about the legality of this practice within the UN framework" (p. 30).

- The role of civil society was politicised through the use of its presence to legitimate governmental protection of commercial interests under the guise of “an equitable and development-centred information society” (p. 31).
- A technological reductionism framed the Summit’s responses to civil society’s concerns about “universality of access to the information society”: “the universality of the ICTs will be achieved through the development of infrastructures and a climate conducive to investment”, a view “very strongly held in the pri-vate sector, and by some governments, led by the United States” (p. 34).
- Privileging among civil society representatives of an elite group with funding and organisational resources: “Many organizations and NGOs based in the South were excluded from the Summit because there were almost no financial and organizational structures to enable their meaningful integration” (p. 65).
- Weakening of a unified civil society position through ideological divisions, notably conflicts among proponents of a *right to communicate* and opponents who saw such a right as imposing restrictions on the freedom of expression, the latter supported by powerful media lobby groups (pp. 83–84).

The fortunes of civil society were not much improved in the second phase of WSIS in Tunis. The title of the Civil Society Declaration of 2005 is *Much more could have been achieved*; although acknowledging progress in some important areas, the Declaration observes that “WSIS documents [...] mostly focus on market-based solutions and commercial use” (WSIS, 2005:13). Moreover, the language of the Declaration repeats much of the language of UN documents, suggesting that the Declaration shares with them assumptions about universal human rights, the information society, sustainable development, etc. as already stabilised states of affairs.

The controversies about the role of civil society in the WSIS process raise questions about the value of particular kinds of assemblages in building an African information ethics. Latour observes that the political and ethical task of building *livable collectives* arises only as the work of *reassembling* the social. Once controversies get settled, consensus closes debates and ideas are black-boxed, the work of assembly is finished: there is nothing

more to do. If the connections between the human and non-human actors in UN and government-dominated assemblages are no longer open to reassemblage, then there are no more ethical *problematisations* to drive ethical work. If, for example, the UN and government-dominated assemblages primarily become documentary machines for producing documents whose stabilised language is repeated time and again, and for processing tolerable perturbations generated by marginalised actors such as civil society groups for their value as legitimations of commercial interests, perhaps it is time to seek out *smaller* and radically *singular* ethical problems.

Are there ethical problems regarding communication, information access and dissemination, and processes of identity formation or “subjectivation” through the use of information technologies (see Elichirigoity, 2007) on a scale analogous to the problems of donor aid to Ugandan women, as investigated by Nabudere? Can the project of assembling a viable African information ethics learn from trying to build *small ethical assemblages* from *small problems*, which arise even at the level of the village, on a scale analogous to the small microlending assemblages of the Grameen Bank of Muhammad Yunus? Is it worth investigating controversies, difficulties, debates and conflicts occurring in sites of interest to African information ethics that are impersonal, imperceptible and indiscernible to the powerfully stabilising assemblages of governments and commercial interest? What do such problems, which appear “small” to international, governmental assemblies, but not to the actors involved in those problems, have to offer an African information ethics? If Latour is right, we can expect to find in these “small” problems all the philosophies, moralities, norms, values, ideas about African identity, relations to technologies, connections to various kinds of practices, routines, institutions, organisations, and things (including documents, communications devices, libraries, the trading of information) we need to start thinking about how to assemble an African information ethics.

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## **On the ambivalence of information and communication technologies**

Peter Fleissner

*The diffusion of digital information and communication technology (DICT) is strongly supported by many countries of the world. Today, as well as in the past, new technologies are charged with high expectations, but at a closer look, one can see that the expectations then are very different from now. Today, they depend on the various interests of different groups of people. Globally acting enterprises see DICT as essential strategic instruments in gaining competitive power; some governments hope to reach military hegemony with them, others to control terrorism and crime, while grassroots movements expect to become more influential on some aspects of society. This chapter identifies and analyses basic tendencies that promote the various hopes: the effects of DICT on reducing production and transaction costs, and the possibility of transforming information goods into marketable services or commodities. The final part of the chapter is devoted to a few examples of how the potential of DICT can be used for social improvements.*

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## Introduction

The emerging information society, politically supported by the United States, the European Union and many other countries, is charged with high expectations. Such optimism is far from being a new phenomenon in history. Chappe's optical telegraph in the French Revolution (Flichy, 1994:21ff), Henry Ford's assembly lines (Gramsci, 2004:303) and Lenin's statement in 1920: "Communism – that is Soviet power and electrification of the whole country" (Lenin, 1962:483–515), are prominent examples of technologies related to social improvements of one or another kind. Upon looking closer, however, one can see that the content of expectations is very different, depending on the various groups involved.

To exploit the full social potential of digital information and communication technology (DICT), it seems useful to analyse the basic economic tendencies that accompany them, particularly within the context of the African continent. The reason for this is that most relevant ethical decisions that could improve the socioeconomic situation of disadvantaged groups will not go very far without a sound techno-economic base. Even though this condition is a necessity, in and of itself it is not sufficient for success, as favourable political and institutional conditions have to support the momentum. Therefore, the research method chosen here as appropriate is a combination of political economics and political philosophy.

## Basic techno-economic and legal trends of the information society

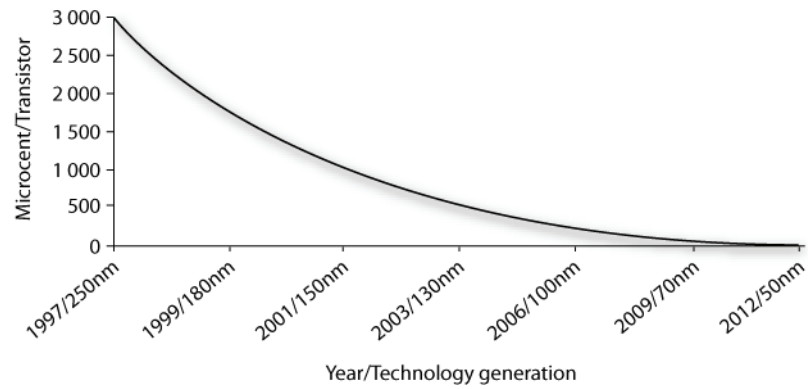
Technically speaking, the development of the information society is deeply rooted in two basic technologies: the Internet and wireless communication. While the basic intention of the Internet was to survive a nuclear attack by the decentralisation of nodes and to avoid combat damage by compromising the entire network, research institutions embraced the concept during its second stage. In the 1990s, it gained new momentum and popularity after Tim Berners-Lee's creation of HTML, HTTP and the first webpages at CERN, Geneva. In 2007, Internet usage statistics indicate approximately 1.1 billion users worldwide (i.e. 16.9% of the world's population), with around 33 million users in

Africa. The latter corresponds to a penetration rate of 3% and represents the highest growth of usage worldwide, namely 30.3% per year between 2000 and 2007 (Internet World Stats, n.d.). The annual growth of 23.7% between 2000 and 2004 of mobile communication subscribers in South Africa is also remarkably high (UN, n.d.). The increased diffusion of these two kinds of DICT amplifies certain essential economic effects: falling transaction costs, increased commodification of information goods, and commercialisation of communication.

## Falling transaction costs

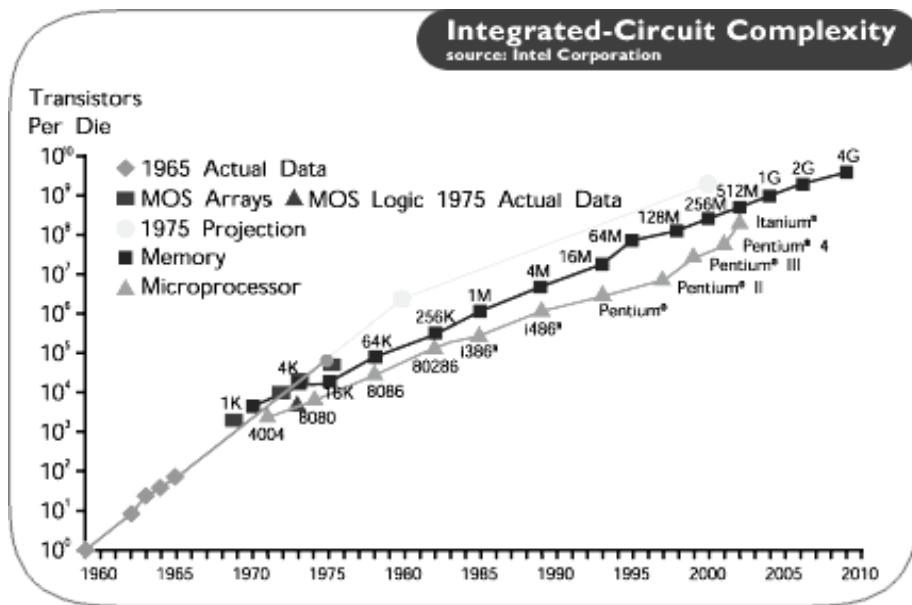
Although there are various definitions of transaction costs, their common denominator can be understood as the costs of making an economic transaction and/or the indirect production expenses, not including the direct production costs of material, energy and labour. In a broader interpretation, one can see them as all costs of information, communication, organisation, administration, coordination, negotiation and motivation. They are related not only to financial costs, but also to labour time or other efforts needed for improving the quality of a product or service. Although critics state that DICT could contribute to information overload and create other negative phenomena, it is evident that the use of DICT has great potential to reduce transaction costs. The trend of falling transaction costs is closely linked to decreasing production costs of the basic active element of electronic technology: the transistor. Within two years (or even less) the costs to produce a transistor has been reduced by a factor of two. At the same time, the size of transistors has shrunk considerably (see Figures 1 and 2).

From the point of view of an enterprise this means that the application of DICT will increase profits or the profitability of an investment. However, there is more than just cost reduction. Economists of the institutional schools have proven that the potential set of players to perform productive activities can change. Williamson (1985) gives a classic example, namely the end of the "putting-out-Systems" and the birth of the "factory-Systems" in Great Britain in early capitalism. Small or medium-sized enterprises (SMEs) formerly bound to local markets can now become global actors because of DICT.



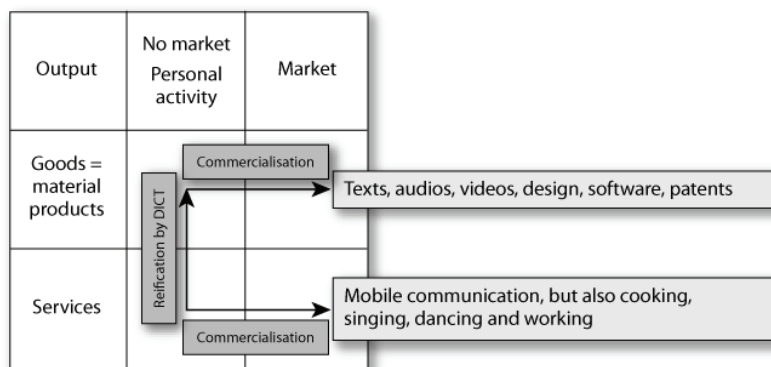
**Figure 1:** Falling costs per transistor

Source: [www.micromagazine.com/archive/98/03/9803m\\_51b.gif](http://www.micromagazine.com/archive/98/03/9803m_51b.gif)



**Figure 2:** Increasing number of transistors per die

Source: [http://www.research.philips.com/password/archive/16/images/PW16\\_moore-1.gif](http://www.research.philips.com/password/archive/16/images/PW16_moore-1.gif)



**Figure 3:** Commercialisation and commodification in the information society

Technology can empower new individuals, groups or organisations to perform new activities, but can also bring traditional players under pressure.

### **Commercialisation and commodification**

There is a growing tendency of the market to cover new fields of human activity (information, communication, knowledge, and other cultural acts) and to transform them into commodities. Let us take a closer look at the mechanism behind this socio-technological process. To understand the notion “commodity” which is used here, a small excursion into the basics of political economics is needed.

Since Aristotle – Adam Smith (1776) and Karl Marx (1962) continued this tradition – we know that a commodity shows two essential properties: it has *value in use* (a thing is useful for somebody for any reason) and it has *value in exchange* (a thing has a value for other people than the producer, who pay for it in the market).

*The one is peculiar to the object as such, the other is not, as a sandal which may be worn, and is also exchangeable. Both are uses of the sandal, for even he who exchanges the sandal for the money or food he is in want of, makes use of the sandal as a sandal. But not in its natural way. For it has not been made for the sake of being exchanged.*<sup>1</sup>

But what about human activities that will not result in a physical product? Can they be called commodities? In the language of economists, these human activities function under the term “services”. They disappear after production and are at the same moment consumed. There is a problem with live human activities if they should be sold on the market. They can be sold only once, they are volatile and can neither be stored nor accumulated. A large part of human activities consists in live acts – speaking, singing, dancing, writing, creating poetry, researching, programming, etc. They represent “pure” use values. Many acts of human culture are of this kind.

### **Contribution of DICT to commercialisation**

DICT can have two major effects on volatile human activities. The first one is related to space. By means of electronic devices all kinds of information can be transferred from one place to another. It is the essence of a well-known quote describing the effects of the information society: “The world has become smaller”. We all are confronted with a changed topology of physical space because of the possibilities of electronic transfer of information. Of course, we have experienced a predecessor of this effect in fixed-line telephony. Now, however, the possibilities of cellular phones and the Internet have “extended” the range of shrinking space much more and have transformed personal communication and private talk into a commercialised service one has to pay for. New markets have been opened up, which have become very profitable beyond the borders of Europe.

### **Contribution of DICT to commodification**

The second effect is related to time. Like in a time machine, DICT enables live cultural activities to be *frozen* and to be *reified* in a physical object (data carrier) on a large scale. Information is stored either by permanent structural changes of the carrier, or by providing different levels of energy to it for a certain period of time. By that DICT transforms use values from a volatile form into a stable material form (DVD, CD-ROM, hard disk, memory chip, USB stick, etc.).

Digital technology also allows the production of cheap copies of frozen activities and their distribution worldwide via the Internet. Because anybody can do the copying at nearly no cost, no market can be established and it is not possible to make profits. To allow for profits, another innovative step is needed.

### **The role of the law**

To enable the establishment of a market and to create full-fledged commodities out of volatile services, capitalist countries developed specific legal instruments combined with appropriate technologies to restrict the possibility of copying. The EU and the US established legal means to deter the violation of copy-protection mechanisms. Back in the 17th century in

<sup>1</sup> Aristoteles, *De Republic*, I. i. c. 9. See also <http://www.econlib.org/library/YPDBooks/Marx/mrxCpANotes.html>, footnote 47.

England,<sup>2</sup> experts of law invented an obstacle to the limitless use of, and universal access to, information goods that are now possible by means of DICT – intellectual property rights were put in place.

Enterprises seek to control the former identical copies at the technical level by adding unique identity codes, licences, keys, etc. Each copy is individualised and can be distributed like traditional material commodities. If the copies are not individualised, the information content is generally protected against so-called “unfair use” by intellectual property rights.

By this interaction of technology and law, firstly, use values are reified in digital carriers; secondly, they are transformed by copy protection into commodities that can also have exchange value. By this combination of measures, a large-scale global market for digital carriers is enabled, as well as a secondary market for freezing and unfreezing technologies (such as digital cameras, camcorders, DVD players, iPod, etc.) and for the creation of corresponding infrastructures.

### **Contradictory effects of commercialisation and commodification**

Above we have seen that DICT adds a necessary condition to human activities to transform pure use values into marketable products or services. Although at a first glance there is no difference between commercialisation and commodification, a closer look allows a more differentiated understanding. While commodification is always connected to commercialisation, the latter does not necessarily lead to commodification. The difference can be seen in the analogy of the difference between goods and services. In economic terms (physical) goods can increase and add to the accumulatable part of output created in the economy, while services cannot do that. Services cannot be stored, resold or accumulated. They do not have the potential for

existing longer than in the moment of their production, which is also the moment of their consumption.

Under capitalist relations of production the difference cannot be seen at the surface, because goods and services can be sold with a profit. If one abstracts from this disguise, it becomes immediately clear that an economy based on services only cannot exist in the long run. All available resources would be depleted. Goods (commodities) can refill depleted stocks, whereas services (commercialised use values) cannot. To keep the story short, goods can contribute to long-term economic growth; services as such are not able to do so.

Through commercialisation and commodification many areas of human activities, culture, knowledge, arts, research and entertainment become subject to the market. As a consequence, their price excludes people with limited financial means from using them (see Figure 3).

Many people see the exclusive effect of pricing only in a negative way. People cannot participate in certain forms of consumption and are therefore excluded from, or restricted in, social and cultural participation. Consequently, the argument is extended to the thesis that in such a framework people cannot improve their own social condition; they cannot escape poverty and ignorance. While this is true without any doubt, one should also take into account the positive effects of commercialisation and commodification. It is an argument similar to the one on the extraordinary scientific and cultural achievements at the courts of the Renaissance princes in the north of Italy. These cultural achievements of feudalism have created new ways of understanding the world and looking at it, which has become a common heritage of humankind we would not like to miss today.

Mobile telephony has overcome many restrictions of direct communication. Neither distance nor the location of the communication partners matters any more. It is advantageous to large transnational and global enterprises. It also gives rise to patterns changing for the better in such diverse areas as family life, youth culture, SMEs, emergency services, activities of non-governmental organisations, development policies, etc. (Castells, 2007:1–6).

Although commercialisation and commodifica-

<sup>2</sup> After the advent of the printing press and with wider public literacy, the Licensing Act of 1662 was established by the King's prerogative. He was concerned about the unfair copying of books and established a register of licensed books. It required a copy to be deposited with the Stationers Company (<http://en.wikipedia.org/wiki/Copyright>).

tion processes have already changed the character of the Internet compared with the 1980s, research scholars would not be able to live without it. Now they have access to information and knowledge worldwide and are able to carry out global research projects. Even if education and training activities will become commodified, in some fields this change could result in better-quality products.

This development can be compared by extension and importance with the commercialisation of work that took place during the first half of the 19th century in England, as described by Karl Polanyi in his book *The Great Transformation* (1944). There he located the transformation of capitalist *economy* into capitalist *society*.

### Growing resistance

As in the 1800s, now too these contradictory and ambivalent processes give rise to resistance. In contrast to traditional class struggles related to the fight between capitalists and the working class, however, contemporary struggles focus on the cultural heritage in a very broad meaning of the term. It is the question of availability and universal access to cultural products, which is related not only to manual workers, but also to middle classes, intellectuals and artists, and to parts of the capitalist class itself.

Accordingly one can see growing resistance in many areas at the same time. Even the European parliament was reluctant to subscribe a directive of patents on software or on the human genome. Free software, open source,<sup>3</sup> intellectual property rights, creative commons (Lessig, 2004), GNU licences, etc. have become new battlefields for the appropriation of their own culture by the people. But there could be more ...

### DICT-assisted “joy of sharing knowledge”?

If the above-mentioned trends are correctly reflected, one has to think about the role and conditions under which DICT can be usefully

implemented to fight poverty and illiteracy, and how one could improve the quality of life of poorer and excluded people, as declared in the South African Constitution (as adapted in May 1996), the Bill of Rights included in the Constitution, and the 1994 Reconstruction and Development Programme (RDP). This is not an easy task at all. Although during the last decades huge amounts of money have been spent on investments in large corporations, including in South Africa, to increase the number of jobs and create employment and income, the effects were disappointing.

A rather extreme example in South Africa (Damoens & Simon, 2004:251–269) showed that for the refurbishing of a mine R320 million (€40 million) was spent for a net gain of 13 jobs. In fairness, it also changed the productivity of existing jobs. Another example is the case of the South African Motor Industry Development Programme (MIDP), which did not have any positive net effect on employment. On the contrary, from 1988 to 2000, the car assembly industry shrank from 35 000 to 32 300 jobs, and the component industry from 60 000 to 38 500.

The UN (UNDP, 2003) has submitted a report that this strategy has produced an increase of unemployment, poverty and violence:

*As a result, the Human Development Index has worsened (from 0.73 in 1994 to 0.67 in 2003), poverty still engulfs 48.5% of the population (21.9 million in 2002), income inequality has increased (from 0.60 in 1995 to 0.63 in 2001), the majority of households have limited access to basic services, and the official unemployment rate has sharply increased to more than 30% in 2003 [...] The economy provided only 11.56 million jobs for 16.81 million economically active South Africans in March 2003, resulting in 5.25 million unemployed, or an official unemployment rate of 31.2%, which is substantially higher than the 19.3% unemployment rate in 1996.*

Indeed, the poverty level of the population varies according to different sources, ranging between 40 and 50% (South Africa, 2003:iii).

For this reason, this chapter invites a discussion about how to contribute alternatively to the fight against poverty and ignorance. This is based on experiences in other countries, such as Bergmann & Mauersberger's (2007) “New Work” commu-

<sup>3</sup> Cf. the Open Source Yearbooks – annual since 2004, <http://www.opensourcejahrbuch.de/>; also see Fuchs (2007:57–86).

nities in the US, targeted intelligence networks,<sup>4</sup> and the institution of *misiones* in Venezuela.<sup>5</sup> These initiatives are described below.

The presented examples are not thought to be applied as they are, but should be modified and rethought to take on board the new opportunities of DICT (Fleissner, 1995:127–135). Their ambivalences should also be taken into account. Enabling and empowering techniques and basic infrastructure have to be provided to create the necessary skills and the possibility of universal access, even if the falling transaction costs allow information and communication activities to be provided cheaply. The commercialisation and commodification of information goods can be challenged by legal support of open source/free software and by fostering copyleft licences. Linked to these examples, I propose an integrated effort to combine grassroots movements, transportation, DICT and other infrastructures, and financial, institutional and legal support by the state to improve the socioeconomic and cultural situation in Africa.

### **Frithjof Bergmann's "New Work" paradigm**

Stanford Professor Frithjof Bergmann developed the "New Work" paradigm during the US car industry crisis in the early 1980s. He gained a great deal of experience in the implementation of Communities of New Work in many countries all over the world. The network formed stretches from the Ukraine, to India, to countries in Europe (in particular, Germany and Austria), but also to Japan and South Africa, where it found support by the Department of Social Development.

In sharp contrast to the paradigm of economic development based on job creation, which dominated during the last decade, at the core of the "New Work" communities is the idea of development through building up high-tech platforms that enable communities to produce for themselves the requisites for a fulfilling life. DICT should be one of the high-level technologies used. By promoting DICT infrastructure to the entire country, and guaranteeing universal

access to it, one could also improve the general level of computer literacy and thus create new opportunities for small-scale businesses. On the other hand, it is evident that technical Internet access alone without measures to increase computer literacy will not bring the desired results.

Prof. Bergmann's Communities of New Work could mean an alternative to the traditional approach of development by using advanced technologies in service of the poor. A workplace in such a community promises to be much cheaper than the capital investment needed for a new workplace in manufacturing industries.

The implementation of "New Work" is a stepwise procedure. This community-oriented approach firstly offers people opportunities to produce their own foodstuffs and water supply within a social network they are used to live in. The competitiveness of these enterprises is of secondary importance at this stage. As a next step, they could produce surplus to be sold to their community or even exported. The basic steps will lay the groundwork for further developments, such as the production of washing machines whose filters allow reusing the water up to ten times. Besides the economic effects of the production of water filters, the product could improve the general social and physical wellbeing of countless South African communities where water is scarce.

### **Targeted intelligence networks**

Targeted intelligence networks (TINs)<sup>6</sup> were identified in the context of the crisis of the welfare state in Central Europe. The following existing examples of alternative institutions were found:

- *Peer group care* is a complementary small group, personal support structure for the elderly, poor, disabled and other outsiders, established in Germany and Austria, and supported by faith-based communities.
- *Study circles* complement traditional schools, and are established in Scandinavian countries as secularised forms of Bible-reading groups.

<sup>4</sup> [http://igw.tuwien.ac.at/peterf/Fleissner\\_e.pdf](http://igw.tuwien.ac.at/peterf/Fleissner_e.pdf);  
<http://www.rosalux.de/cms/index.php?id=10268>.

<sup>5</sup> <http://www.misionesbolivarianas.gob.ve/>.

<sup>6</sup> For more details see <http://members.chello.at/gre/fleissner/documents/work/work.pdf>. 8.

Karlsson & Fleissner (2000)<sup>7</sup> describe how they are already linked to DICT.

- *Workers' health assurance groups* improve the occupational ill-health status. In the 1970s they were operational in Italian enterprises, initiated by trade unions.
- *Intrapreneurial groups* act against alienation in the workplace and provide a training ground for taking over responsibility and practising the ability of decision making. They are not yet realised fully, and are approximated by autonomous groups of workers at the car maker Volvo in Sweden.

As examples to illustrate how self-empowerment and self-determination can be trained, they share the following common features:

- There should be voluntary cooperation in small groups towards a shared goal and an integrated effort to combine grassroots movements, technical infrastructure (especially DICT), and financial and legal support by the state to create a better quality of life, in particular for more vulnerable groups of society.
- An institutional framework has to be created within which these new forms can emerge. Financial, infrastructural, material and educational resources are needed to empower people to take up their new tasks voluntarily.
- This also implies certain ways of compensation and remuneration for their efforts and contribution to society.
- Other existing social activities and features of the welfare state should be complemented and not replaced by TINs.
- A very important issue is how TINs should be monitored and controlled to create a process of self-improvement.

The establishment of TINs will depend, among other things, on the existing level of income, the amount of leisure time left over after the necessities of work, the psychological status of the majority of people, increased experience of crisis symptoms, increased feelings of anxiety and stress, and the availability of political support. The involvement of people in social affairs could afford them more direct experience with the destructive tendencies of societal

changes. This will probably sharpen their awareness of, and motivation to fight against, negative tendencies of social change.

### **Bolivarian Missions**

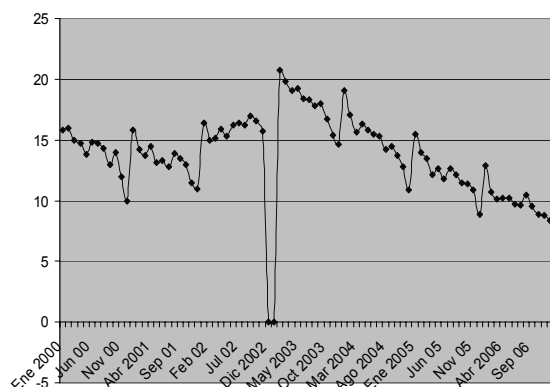
As a final example, new institutions are presented that have already been established successfully, perhaps because of particularly favourable conditions brought about by political leaders. Still, there is much work to do on how to combine these institutions with DICT.

Oil profits of about US\$25 billion in 2004 have allowed the Chávez administration in Venezuela to establish special social programmes called the "Bolivarian Missions". They include a remarkable increase in spending on social programmes. The Chávez administration has built free healthcare clinics, subsidised food and created small manufacturing cooperatives. The programmes have constructed and modernised thousands of public medical and dental clinics; launched massive literacy and education initiatives (it is said that these initiatives have made more than one million adult Venezuelans literate); subsidised food, gasoline and other consumer goods; and established numerous worker-managed manufacturing and industrial cooperatives. Critics allege that these programmes are corrupt and inefficient, while a number of international organisations – including the UN, UNICEF and the World Health Organisation – have praised the programmes as positive models for bringing about social development. There have also been marked improvements in infant mortality rates between 1998 and 2005.

The Missions have overseen widespread experimentation in what Hugo Chávez's supporters term *citizen- and worker-managed governance*, as well as the granting of thousands of free land titles, reportedly to formerly landless poor and indigenous communities. In contrast, several large land estates and factories have been, or are in the process of being transferred to the hands of the workers. I have had the opportunity to experience the mood of the people at the occasion of the presidential elections in December 2006. I am all the more convinced of the success of the Missions since I found data on the rate of unemployment for the last six years (Figure 4).

<sup>7</sup> Note that [www.jrc.es](http://www.jrc.es) will be changed to [ipts.jrc.ec.europa.eu](http://ipts.jrc.ec.europa.eu).





**Figure 4:** Unemployment rate (%) in Venezuela, 2000–6  
Source: <http://www.ine.gov.ve/hogares/Seleccion Hogares.asp>

The examples given here provide some food for thought about the directions the new initiatives in South Africa could take by embracing the positive side of DICT. Most certainly this is not the end of the debate.

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**Part II:**

**Information Ethics Issues**

## **The nature and accessibility of e-government in sub-Saharan Africa**

**Patrick Ngulube**

*Electronic government (e-government) is a phenomenon that is linked to the information society and the advantages associated with it. E-government allows government departments to network and integrate their services using information and communication technologies (ICTs) in order to improve service delivery and enhance the relationship between the government and the public. The major ingredients of e-government are infrastructure, human resources and information. The reality in sub-Saharan Africa (SSA) is that all these ingredients are insufficient. The ICT infrastructure is not widely available to rural populations. In most cases, both government officials and the people who may want to use government services online lack basic skills. Moreover, government information is not properly organised, as records management systems in many countries are collapsing.*

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## Background and introduction

Information and communication technologies (ICTs) have changed the process of governing in the world. Power relations between governments and the governed have been transformed from being mainly vertical and hierarchical, and structured along rigid and well-defined departmental boundaries to being horizontal, networked and participatory. According to Manuel Castells (1996:29):

*We are living through one of those rare intervals in history. An interval characterized by the transformation of our "material" culture by the works of a new technological paradigm organised around information technologies.*

Information technologies have brought about an epoch in history that has been described using labels such as the "network age" (Castells, 2001), "information society" and "knowledge economy" (Heiskanen & Hearn, 2004). Governments in the developed world have responded to the opportunities offered by the information society to offer value-added services to their citizens through electronic government (e-government).

Countries in sub-Saharan Africa (SSA), however, have not adequately restructured public bureaucracies in response to the demands of the information society. Many governments are still hierarchical, lacking accountability and transparency. Public bureaucracies still enjoy the monopoly of power and authority. Elected officials rarely relate closely with the electorate, and only consult them when they need their votes every four or five years. In addition, government information systems are still mainly manually operated and paper based.

The situation in SSA is compounded by the fact that some bureaucrats and politicians view the ICT revolution as a "highly political affair and not a technical challenge" (Wilson III, 2004:6). There is a need for change management and for change in the mindsets of many governments in SSA if e-government initiatives are to succeed. Governments in many developed countries have shifted from being public bureaucratic oriented and unrepresentative, to being citizen oriented as a result of the challenges and opportunities posed to government processes by the information revolution. They have taken advantage of this "revolution" to make government processes,

services and information available online in an interactive and open manner. That response has been characterised as "e-government".

E-government promotes a better life that is characterised by representative and participative democracy; transparent, open and collaborative decision making; close relationships between government, business and citizens; enhanced service delivery; new infrastructure and information structure; integrated and seamless government services that cut across departmental boundaries and provide a convenient and timely one-stop service to citizens; and equity in the provision of government services (Lenihan, 2002; Zakareya et al., 2004). Put differently, e-government offers the possibility of increasing honesty, efficiency and effectiveness, accountability and participatory democracy in the interaction between the government and the citizens.

Many governments in SSA recognise the potential benefits they can get from the information society and knowledge economy that are driven by ICTs. However, there are factors linked to the infrastructure and information structure that inhibit their full participation in the information-intensive society that exploits new archetypes of knowledge creation and distribution.

## Defining e-government

Definitions of e-government abound (Curtin et al., 2003; Oliver & Sanders, 2004:2, 5; Yong & Hiap Koon, 2005:11). Table 1 depicts a variety of definitions that have been proposed. The 12 definitions converge around the use of technology and the provision of service delivery in the conducting of government business. Although e-government is often defined as "online government" or "Internet-based government", many non-Internet "electronic government" technologies such as the telephone, fax, short message service (SMS), multimedia messaging service (MMS), wireless networks, Bluetooth, television and radio-based delivery of government services can be used in the context of e-government (Anttiroiko & Malkia, 2006; Heeks, 2004).

From the definitions given in Table 1, we may characterise e-government as an innovative attempt to take advantage of ICTs to facilitate citizens' access to government information and

Source	Definition
1	The use of any and all forms of ICT by governments and their agents to enhance operations, the delivery of public information and services, citizen engagement and public participation, and the very process of governance (Curtin et al., 2003).
2	A way to strengthen the flow of information to citizens, and to improve citizen access to government programmes and services. There is also an assumption that the resulting transformation will make government more efficient, more responsive, more accountable, and perhaps even more democratic (Gibbons, 2004).
3	The use of information and information technologies in government settings (Gil-Garcia & Martinez-Moyano, 2007:266).
4	The use of ICTs to improve the activities of public sector organisations (Heeks, 2004).
5	It is about facilitating the life of citizens and businesses by increasing the efficiency, quality and user-friendliness of government, as well as improving governance (Liikanen, 2003:84).
6	It refers to government's use of technology, particularly Web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and government entities (McClure, 2001).
7	The response by government to the economic and social demands of an information society and a knowledge-based economy (Milner, 2002).
8	The use of ICTs to transform government by making it more accessible, effective and accountable (Sakowicz, 2003).
9	Utilising the Internet and the World Wide Web for delivering government information and services to citizens (UN, 2002).
10	A government that applies ICTs to transform its internal and external relationships (UN, 2003).
11	The use by government agencies of information technologies (such as wide area networks, the Internet and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government (World Bank, 2007a).
12	The use of technology by government to enhance access to, and delivery of, public services to benefit business partners and employees (Yong & Hiap Koon, 2005:11).

**Table 1:** Selected definitions of e-government found in the literature

services in order to support social, economic and political development, improve the quality of public services, and provide an avenue for citizens to interact with government institutions and processes in a democratic, transparent and equitable way.

### Drivers of e-governance

The major drivers of e-government have been sketched as technological (Culbertson, 2004:59; Hai Suan, 2005:450; OECD, 2000), organisational and environmental (Zakareya, 2004). Technology should not be emphasised to the detriment of other factors such as politics, legal frameworks and the environment. Technological determinism does not fully explain the evolution of e-

government. While technological progress in government, ITC infrastructure and available ICT expertise may influence the implementation of e-government, the support and active commitment of influential politicians may play a significant role in promoting e-governance "buy in" (Zakareya, 2004). According to Ernest Wilson III (2004: 13), if politics is wrong, then the other major drivers of e-government will not work. Leadership should be committed to "press changes in the face of institutional rigidity, technological backwardness and political resistance".

SSA leaders have not shown full commitment towards improving ICT infrastructure in order to transform government processes. The adoption of the African Information Society Initiative in 1996 held hope for Africa. The initiative aimed at

Source	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
1	One-way communication	Two-way communication	Complex transactions	Integration across government processes (Elmagarmid & McIver, 2001)			
2	Initial presence (individual webpages with static information)	Extended presence (dynamic information with links to other government pages)	Interactive presence (portal with secure access)	Transactional presence (detailed portal providing secure electronic payments of fines and taxes)	Vertical integration (government processes and structures integrated)	Horizontal integration (government services cut across boundaries)	Totally integrated presence – vertical and horizontal integration (Gil-Garcia & Martinez-Moyano, 2007)
3	Publish (using ICT to expand access to government information)	Interact (broadening civic participation in government)	Transaction (making government services available online) (infoDev, 2002)				
4	Catalogue (downloadable forms)	Transaction	Vertical integration (systems hierarchically connected with limited functionalities)	Horizontal integration (systems integrated) (Layne & Lee, 2001)			
5	Information in brochure-like form	Citizens use technology to interact with government (one-way interaction with government)	Online transactions and sending of tender information	Integrated portal for all government services and information (Symonds, 2000)			
6	Emerging presence (static organisational information)	Enhanced presence (dynamic information and publications)	Interactive presence (access to government institutions and services)	Transactional presence (complete and secure transactions)	Seamless or fully integrated (services fully available) (UN, 2002)		
7	Initiation	Infusion	Customisation (Watson & Mundy, 2001)				

**Table 2:** Models of the development of e-government found in the literature

providing an action framework to build Africa's information and communication infrastructure, but little progress was witnessed due to a lack of resources and political will. Perhaps SSA should pin its hopes on the New Partnership for Africa's Development (NEPAD), which partly aims at championing ICT development in Africa.

E-government can be implemented successfully if it is regulated by a legal framework (Hai Suan, 2005:450). Legal issues revolve around cyber-security, digital signatures, and personal data protection and confidentiality. Digital signatures should be recognised by law so that they have the same integrity as paper-based ones. Laws limiting the government's power vis-à-vis the individual in terms of the control of personal information should be passed. SSA has been very slow in enacting privacy laws and access to information legislation. Principles of fair information practices and data protection laws are not prevalent in the region. Citizens may not be confident to participate in e-government programmes and trust the system if their privacy is not guaranteed.

### Models of e-government

Studies on electronic government have been definitional, evolutionary and stakeholder oriented (Gil-Garcia & Martinez-Moyano, 2007). Evolutionary studies focus on what Layne & Lee (2001) refer to as "stages of growth" models for fully functional e-government. The model-based paradigm has dominated the theoretical framework used in e-government research (Heeks & Bailur, 2007). Although these models appear to be mechanistic in their approach, they provide a useful tool for evaluating the development of e-government in a given context. A summary of some of the stage models is presented in Table 2 on the previous page.

Models used to depict e-government suggest that there are a number of distinct phases in its development (Elmagarmid & McIver, 2001; Gil-Garcia & Martinez-Moyano, 2007; Layne & Lee, 2001; Sahraoui, 2007; Symonds, 2000; UN, 2002; Watson & Mundy, 2001). There is limited Internet presence in the first phase of the development of e-government, and information is static and basic with a one-way interface between citizens and the government. Angola, Botswana, Burundi, Cape Verde, Central African Republic, Ethiopia,

Gabon, Gambia, Guinea, Lesotho, Madagascar, Malawi, Mali, Niger, Seychelles and Togo are becoming e-government players and they are estimated to be at this stage (UN, 2003).

Dynamic and enhanced online information is made available to the citizens during the second stage, but the communication is still mainly one-way (UN, 2002). Internet portals are designed to integrate government activities and processes in order to facilitate online interaction between the citizens, business and other stakeholders. Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Kenya, Mauritania, Mozambique, Namibia, Nigeria, Rwanda, Senegal, Sierra Leone, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe appear to be at this stage (Gil-Garcia & Martinez-Moyano, 2007).

The third phase provides more interactive interfaces between all stakeholders. At this stage, e-government integrates "the complete range of government services, provides a path to them that is based on need and function, not on department or agency" (Symonds, 2000). For instance, citizens may be able to register a birth or death, apply for a social welfare grant, pay taxes, access government legislation and find information on activities of their representatives in parliament and local government without having to leave their homes or offices. Mauritius and South Africa are believed to be reaching this stage. For instance, citizens can file income tax returns on interactive online systems. However, Internet access is still beyond the reach of many citizens in these countries.

Although the fourth phase is an improvement on the third one, it offers more customised and secure services, as there is provision for passwords and other security features. All the stakeholders begin to realise the benefits of e-government, such as fostering democratic processes, promoting accountability, increasing citizen participation and engagement, and delivering efficient and effective government services. Some models go further than these four phases – see, for example, Gil-Garcia & Martinez-Moyano (2007) and UN (2002) in Table 2. However, the first four stages seem to provide the fundamental features of the evolution of e-government in varying details and complexity. Other models that go further than four phases offer some variant of the four-phase "Web development stage model". No country in SSA

has achieved the fourth stage of e-government development.

Using the framework given above and the 2001 UN e-government index, which classified countries having high e-government capacity with a score of 2.00–3.25, medium e-government capacity (1.60–1.99), minimal e-government capacity (1.00–1.59) and deficient e-government capacity (below 1.00), it is apparent that more than 60% of the countries in SSA have a score below 1.00 (UN, 2002). Some countries might have moved closer to e-government in the interim, but the conclusion that e-government is still in its infancy in SSA is inescapable.

Many government websites are not fully functional and they are populated with information that does not enhance service delivery or participatory democracy. A fully functional e-government website should have an e-participation framework that provides information on policies and programmes, budgets, laws and regulations, e-consultation mechanisms and tools, and e-decision making (UN, 2003). Governments with an e-participation framework are participatory and inclusive. In many instances citizens are still obliged to visit government offices even if they may download certain documents from government portals, as they may not be processed online. The possibility of coming face to face with bureaucratic red-tape practices and an inefficient or corrupt government official still exists in many countries in SSA.

### **E-government is attainable: Lessons from elsewhere**

Canada, New Zealand and Singapore are among the top 20 leading countries in relation to e-government (Curtin et al., 2003; UN, 2002, 2003). In Singapore, for example, citizens can pay their parking tickets, job seekers can search for employment, people can change their postal addresses, debtors can petition for bankruptcy, and public trustees can file an application for estate administration using opportunities provided by e-government (Henderson, 2002). Singapore's e-government project was built on a strong ICT foundation and a dynamic e-Government Action Plan (Lim & Low, 2003). Canada's e-government project tapped into the high level of connectivity and high ICT literacy or e-literacy levels of Canadians (D'Auray, 2003:33). In New

Zealand, it was driven by a central coordinating organisation, the E-Government Unit (EGU) which, according to Boyle & Nicholson (2003:90–91):

- Developed an e-government strategy
- Formulated standards and guidelines
- Provided leadership to facilitate achievement of the e-government vision and strategy
- Identified and coordinated opportunities for collaboration across government departments
- Monitored progress made towards achieving e-government

It is evident from these examples that e-government is attainable. The implementation of such programmes mainly hinges on sound ICT infrastructure, clearly defined e-government strategy and vision, strong government commitment, information literacy and e-literacy, as well as connectivity.

Unfortunately for SSA, many countries lack an e-government strategy and vision. Many citizens are IT-illiterate and the quality of government information is poor. Standards to ensure interoperability and portability of government information systems are inadequate. Human resources are scarce due to brain drain and a lack of capacity-building programmes. Many governments do not have laws, policies and standards for privacy protection and information access. Many government websites do not have a privacy policy. Concerns about privacy and confidentiality impede the development of e-government. Government departments for coordinating and overseeing the implementation of e-government projects are absent in many countries in SSA, and are grossly underresourced in instances where they do exist.

### **Challenges facing sub-Saharan Africa on the road to e-government**

Some 17 challenges and opportunities of e-government implementation have been outlined in the literature (*infoDev*, 2002). They include infrastructure development, law and public policy, the digital divide, e-literacy, accessibility, trust, privacy, security, transparency, interoperability, records management, permanent availability and preservation, education and marketing, public sector and private sector partnerships, workforce issues, cost structures and benchmarking (*infoDev*, 2002). The next sections



collectively deal with some of these overlapping challenges.

### **Access to ICTs in Africa**

ICTs provide information and services to people cheaply, efficiently and effectively (Elmagarmid & McIver, 2001; Henderson, 2002; McClure, 2001). The use of ICTs can “systematize the transparency of governance” by “providing relevant and timely information in large quantities” (Kim et al., 2005). Although the implementation of e-government programmes involves the use of many ICT applications, it is the Internet that is the most widely recognised and identifiable component driving e-government (UN, 2002).

The lack of telecommunication infrastructure in Africa has seriously restricted use of the Internet and the adoption of e-government in SSA. Furthermore, Internet connection charges are beyond the reach of the average person in many countries in SSA. In 2002, one in 40 people in SSA had a fixed telephone line, one in 130 had a personal computer and one in 160 used the Internet (APC, 2002) – and the situation has not changed dramatically since then.

Most of the existing telecommunications infrastructure does not reach the bulk of the population. In fact, Tokyo “has more telephone lines than sub-Saharan Africa put together” (Mbeki, 2000). Some 50% of the available lines are concentrated in the cities, where only about 10% of the population lives. The ICT foundation is weak and there is no universal access to the Internet. Irregular or non-existent electricity supply is a major barrier to the use of ICT, especially outside major towns. Power outages are experienced. For instance, a cyber café in Kenya had to close shop as result of the unreliable power supply (Kathuri & Nyasato, 2007).

Bandwidth is also a problem in some countries in SSA. For instance, the World Bank report on the African region communications infrastructure programme of 2007 pointed out that the eastern and southern African region suffers bandwidth deficiency, as it accounts for less than 1% of the world’s international bandwidth capacity (World Bank, 2007b). Limited connectivity and costly access hinder the potential of SSA to utilise ICTs to promote social participation and improve government efficiency and transparency.

Inequitable access to ICTs (such as personal computers, Internet, telephones, cable and other Internet-related technologies) by individuals or groups of people in their countries in order for them to benefit from the government processes driven by ICTs is another challenge facing governments in SSA. The disparities related to accessing ICTs have been characterised as the “digital divide”.

The level of e-government readiness in a country is partly measured by its access to ICTs. The UN E-government Readiness Index of 2003 showed that South Africa was the only country in SSA that was among the top 100 countries in relation to e-readiness (UN, 2003). The index of the US, the country leading in this regard in the world, was 0.927, whereas South Africa was pegged at 0.515. The country in SSA ranked fifth was Namibia, at 0.34. South Africa remained among the top 100 countries in the Economist Intelligence Unit’s e-readiness ranking of 2006 and it was joined by Nigeria (EIU, 2006).

### **Information literacy and e-literacy**

Information literacy is fundamental to the use of information resources in the knowledge age (Braaksma, 2004:151). Information literacy refers to a person’s ability to “recognise when information is needed and have the ability to locate, evaluate and use effectively the needed information” (ALA, 1989). Literacy today also means ICT literacy and skills (UN, 2003). ICT literacy among the citizens has a significant role to play in implementing e-government, as it is fundamental to the ability of citizens to access and use the electronic information. However, information literacy policies are deficient and literacy levels are extremely low in SSA.

### **Information management: The Achilles’ heel of e-government in sub-Saharan Africa**

Government’s provision of access to information is the foundation of a democratic society. Information partly facilitates decision making, citizen oversight of government departments and their decisions, and citizen debate on policy issues and policy formulation (Eschenfelder & Miller, 2007: 83). Information management in general, and

records management in particular, is a cornerstone of government information systems and effective access to information.

The advent of ICTs has brought about a paradigm shift in the production of government information. Government processes are mainly generating electronic records as evidence of the government's conduct of business. This is all happening at time when many records managers in SSA do not have the necessary professional capability to deal with electronic records. Weak institutional capacity and the absence of comprehensive records management policies, guidelines and practical standards have aggravated the situation (Ngulube & Tafor, 2006:58; Wamukoya & Mutula, 2005:72).

The management of e-records will continue to pose the greatest challenge to the implementation of e-government until the capacity of SSA to handle e-records is enhanced. Building an e-government environment that provides authentic and reliable information for decision making and holding the government accountable would remain elusive if SSA does not have the following (Lipchack & McDonald, 2003:2):

*... the capacity to create, manage, share and use electronic information (and related technology) to improve governance, as well as to sustain international trade and innovation; improve global security and support other activities in our increasingly inter-connected and inter-dependent world.*

## Conclusion and recommendations

It is evident that e-government has the possibility of making government processes transparent and accountable. However, SSA has to overcome obstacles such as the lack of infrastructure and infostructure before it can have fully functional e-government programmes. According to the UN (2003), e-government:

*... readiness strategies and programmes will be able to be effective [...] only if people at the very minimum, [had] functional literacy and education, which includes knowledge of computer and Internet use; all are connected to a computer; and all have access to the Internet.*

The education system should be sensitive to the challenges ushered in by e-government and come

up with strategies to equip students with skills required in the e-government environment. Governments in SSA should utilise the existing information infrastructure based on libraries and telecentres rather than starting from scratch when implementing e-government programmes. These facilities are accessible to many people and some of them are close to rural populations. For instance, public libraries have become de facto e-government access points in states such as Florida in the US (Bertot et al., 2006). What is required of governments in SSA is just to increase funding to these institutions so that they will be able to provide access to computing and Internet services to support e-government.

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## **Information rights: Trust and human dignity in e-government**

Toni Carbo

*The words “rights”, “trust”, “human dignity” and even “government” have widely varying meanings and connotations, differing across time, languages and cultures. Concepts of rights, trust and human dignity have been examined for centuries in great depth by ethicists and other philosophers and by religious thinkers, and more recently by social scientists and, especially as related to information, by information scientists. Similarly, discussions of government are well documented in writings back to Plato and Aristotle, with investigations of electronic government (often referred to as e-government) dating back only to the early 1990s, with the advent of the Internet and the World Wide Web. At first, e-government was described in glowing, positive terms. Little, if any, attention was paid to two critical questions: Will people trust e-government? and, How will cultural differences affect individuals’ trust in government and their perceptions of the government’s effect on their human dignity? Examinations of trust and distrust by individuals within organisations have addressed questions of motives and intentions, expectations of behaviour, protection of interests, confidence in the accuracy and reliability of information, vulnerability, and reciprocity, among other complex topics. This chapter provides a very brief overview of some of the notions of trust and distrust, concentrating on those concerning trust as it relates to notions of power, trust in organisations, and trust in information and information systems as one part of a framework to address the question of trust in e-government. It also makes a few recommendations on how to build citizen-centric e-government to ensure information rights through a focus on human dignity, fundamental human rights, and earning trust.*

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## Rights, trust and human dignity

The words, “rights”, “trust”, “human dignity”, “e-government” (electronic or digital government) and even “government” have widely varying meanings and connotations, differing across time, languages and cultures. Notions of rights, trust and human dignity have been examined for centuries in great depth by ethicists and other philosophers, religious thinkers, more recently by social scientists and, as related to information, by information scientists. Similarly, discussions of government are well documented in writings dating back to Plato and Aristotle, with investigations of e-government dating back only to the early 1990s, with the advent of the Internet and later of the World Wide Web (WWW). Much of the work on e-government has been undertaken by political scientists, economists, lawyers and information scientists.

This chapter will not provide an extensive review of previous studies, but instead one individual perspective (one from an individual from a limited Northern and Western background). It will draw upon some writings on trust and human dignity, and relate them to information rights and the development of e-government.

### *Rights and human dignity*

Although the concept is certainly well known to certain groups of readers, it bears repeating that the Fundamental Moral Experience integrates basic respect for human beings and incorporates compassion, hope and affectivity. This is the foundation for many philosophical concepts and religious beliefs, and for information ethics, it affirms the notion that each individual has basic rights and is deserving of respect and the preservation of human dignity.

Early examples range from Aristotle to Tibetan Buddhism and, in 1948, were articulated in the United Nations Declaration of Human Rights. For example, the Dalai Lama refers to the concept of *nying je*, generally translated as compassion, but connoting “love, affection, kindness, gentleness, generosity of spirit, and warm-heartedness”. In its Article 1, the UN Universal Declaration of Human Rights also states:

*All human beings are born free and equal in dignity and rights. They are endowed with reason*

*and conscience and should act towards one another in a spirit of brotherhood.*

These oft-repeated principles must always provide the foundation for discussions of trust, information rights and governance at all levels. The World Summit on the Information Society (WSIS) used this foundation in its international discussions to shape the common vision of the information society:

*... to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life.*

The Declaration also states:

*... reaffirm the universality, indivisibility, interdependence and interrelation of all human rights and fundamental freedoms [...] also reaffirm that democracy, sustainable development, and respect for human rights and fundamental freedoms as well as good governance at all levels are interdependent and mutually reinforcing.*

In reviewing these statements, several points of focus emerge:

- The emphasis on the Fundamental Moral Experience and the concepts of freedom, equality, dignity and rights
- The critical need for compassion (or, more broadly, *nying je*) and the spirit of brotherhood
- The importance of a people-centred society, with the key role throughout the entire life-cycle of information being to empower individuals to achieve their full potential and improve the quality of their lives

With this basic set of principles in mind, we can address the notions of trust and its role in effective e-government.

### *Trust*

Views of trust as a foundation for social order span many disciplines, including psychology, philosophy, several social sciences, and business and management (see, for example, Lewicki et al., 1998; Baier, 1986; Doney et al., 1998). Examinations of trust and distrust by individuals within organisations have addressed questions,

motives and intentions, expectations of behaviour, protection of interests, confidence in accuracy and reliability of information, vulnerability, and reciprocity, among many complex topics. As Sissela Bok (1978:31) has so eloquently stated: "Whatever matters to human beings, trust is the atmosphere in which it thrives." However, Baier (1986:231–232) reminds us that:

*... not all the things that thrive when there is trust between people, and which matter, are things that should be encouraged to thrive. Exploitation and conspiracy, as much as justice and fellowship, thrive better in an atmosphere of trust. There are immoral as well as moral trust relationships, and trust-busting can be a morally proper goal.*

Of course, there are many levels and types of trust, and these often change over time based on changes in relationships, personal experiences and other factors. For example, building on the work of Fiske and others, Sheppard & Sherman (1998:423–425) propose four fundamental grammars, or relational forms based on human relationships (communal sharing, authority ranking, equality matching and market pricing) and depth of relationship (shallow dependence, shallow interdependence, deep dependence and deep independence). They define trust as "the acceptance of the risks associated with the type and depth of the interdependence inherent in a given relationship". Sheppard & Sherman (1998: 426) also note that:

*In all relational forms, however, trust involves the belief that features of the other, the relationship, or the context in which the relationship is embedded will mitigate the risks associated with that relational form.*

While noting that trust can be used in connection with relying on natural phenomena, as well as with relying on people, Pettit (1995:204) indicates that the most general use of trust:

*... would equate trust with confidence that other people will treat you reasonably well, confidence that they will not waylay or cheat you, for example. We speak in this sense of trusting our fellow citizens or trusting the institutions under which we live.*

Pettit's focus is on "active reliance". These are cases in which:

*... you rely on others to the extent of making*

*yourself vulnerable to them, voluntarily or under the force of circumstances [...] you rely in your own individual right on another person [...] in other cases you may rely [...] on a corporate or collective agent that itself involves a number of people.*

Understanding trust within the complex series of relationships in which an individual lives and works is key to understanding the interaction of an individual with a government and its representatives. The different types of relationships, levels of government, individuals within the governments and interactions among people all raise a series of issues directly relevant to ethical reflection and moral actions in developing and implementing e-government systems and services. Equally important is the need to address the notions of risk, reliability and vulnerability as essential components of trust. What level of risk is an individual taking by placing trust in an institution and/or information? What are the consequences if that trust is violated? How does one measure the reliability of information? How vulnerable is one willing to be to trade off access to services or information? These and other questions should be addressed at the beginning of planning and well before implementation.

Related to the issues of risk, reliability and vulnerability is the question of power. For this chapter, particular emphasis is placed on those concepts of trust and distrust related to notions of the power of individuals, information content and institutions. For example, as Baier (1986:240) notes:

*Trust alters power positions, and both the position one is in without a given form of trust and the position one has within a relation of trust need to be considered before one can judge whether that form of trust is sensible and morally decent.*

Related to trust, of course, is the topic of privacy, especially the different understandings of the concept of privacy by people from different cultural backgrounds. Because this topic is being discussed in depth by others in this publication, it will not be included in this chapter.

With human rights, dignity and trust as the foundation – all within a rapidly changing global society – we can begin to address the role of government and the use of technology to provide government information and services. Technology has been a fundamental component of

governments from the earliest days of using the technology of the human voice (such as in Greek and Roman forums and town meetings, or through town criers or travelling storytellers and historiographers); to the use of film, teletype and radio during the first half of the 20th century; and to early presidential debates on television, 24/7 news networks, satellites and other technologies beginning in the 1970s. The introduction and widespread use of information and communication technology (ICT), especially the Internet and the Web, have provided opportunities for improved governance and for governments that are more focused on their citizens.

## Government and e-government

### Governments

In considering the interaction between individuals and their governments, it is important to consider the level of government (e.g. local or groupings of local such as county, provincial or state, national, regional and international, and others); the types of interaction (e.g. gathering information, making a transaction, providing information) and the sociocultural aspects (e.g. the language or cultural background of the individual). Of course, individuals may interact with different levels of government and for different purposes over time. Individuals also have perceptions of their own power, risks and vulnerability, which may differ from their actual power, risks and vulnerabilities.

The nature of the government, the government's stated mission, its actual practices (which very often differ from stated missions) and – most importantly – the nature and practices of the individuals themselves, are all critical factors in the effectiveness of the government and its services. All of these are enhanced and expanded by the use of ICT, which adds many other dimensions including, but not limited to:

- Wide variations in access as a result of the digital divide, differing information literacy skills, disabilities, restrictions placed by governments, differing laws for intellectual property protection, numerous policies on transparency, etc.
- Language and cultural factors
- Variations and limitations in content resulting in the omission of indigenous knowledge or of

material in appropriate formats (such as those for oral cultures)

- Differing norms for moral conduct (e.g. payments to government employees are seen by some as appropriate gratuities and by others as corruption)
- Variations in perceptions of credibility of information in digital form (see, for example, the extensive study by Metzger et al., 2003)
- Lack of understanding of how to manage the lifecycle of digital information, especially the need for policies and practices for its preservation and removal

Early attempts to use ICT in providing government information and services did not consider all of these factors as fully as needed, but the progression to electronic or digital government (usually referred to as e-government) moved ahead rapidly, beginning in North America and Europe and spreading quickly to most other continents.

### E-government

E-government is “the use of information and communication technologies (ICT) to transform government by making it more accessible, effective and accountable” (*infoDev*, 2002:1). Establishing the highest-quality e-government services usually requires going through several phases:

- Publish (using ICT to improve access to government information)
- Interact (broadening participation in government through two-way communications)
- Transact (making actual services available online)

In their e-government handbook for developing countries, *infoDev* and the Centre for Democracy and Technology (CDT) argue that successful transformation of a government, not yet fully achieved, requires process reform, leadership, strategic investment, collaboration and civic engagement. Among the key challenges for success is building “trust within agencies, between agencies, across governments, and with businesses, NGOs and citizens” (*infoDev*, 2002: 15). This handbook, while somewhat dated now, is still a very valuable resource for those interested in developing citizen-centric e-government. Building and maintaining the trust referred



to in the handbook requires developing an understanding both of the many levels of interactions where trust must be earned, and of the uniqueness – including important cultural differences, vulnerabilities, potential risks, and power – of the individual citizen.

These interactions are complicated and multi-layered. Individuals interact with others within their local communities (whether geographic or virtual), with their governments at all levels, with other governments, non-governmental organisations (NGOs) and corporations. They also interact with information content, interfaces (such as webpages), and information and telecommunication systems. An individual may trust information content, but not the system, thinking it is not secure; a webpage may offend an individual's sense of dignity causing him or her to distrust the government that created it; or an individual or a government may distrust another government's information because that government exercises tight control over its information and monitors citizens' searches.

A conceptual model is therefore needed for use in framing questions of trust and e-government. Attempts at cultural taxonomies, such as Doney's framework linking Clark's conceptual domains and related cultural taxonomies with Hofstede's cultural dimensions, associated societal norms and values, and his own categories of influence on the trust-building process (Doney et al., 1998:609), are useful building blocks but have not been used extensively to address issues such as attitudes towards government.

Another challenge in developing and using such a framework or taxonomy is that e-government itself is very dynamic, changing rapidly over time. Trust in content or a system available one day may not carry over when the content and/or system changes dramatically. Components of a framework must include conceptual domains, cultural dimensions, information content dimensions and system dimensions. Of course, these dimensions must be considered in the context of rapidly changing governments, ICT services, the digital divide and other factors. Pertinent to the need to link these dimensions and e-government is the Seventh Global Forum on Reinventing Government, held in June 2007, with the theme of "Building trust in government" (UN, 2007). This forum may well result in new perspectives to help shape this framework.

## Recommendations

Frameworks and taxonomies, as described above, should be developed and tested in real-world situations in different communities, and this must be done in the context of the fundamental background of human dignity, basic human rights and earning trust. It would be useful for collaborations among representatives (e.g. senior officials and individuals at the frontline of service provision) of governments at all levels, academics (including ethicists, political scientists, librarians, information scientists and others) and citizens from differing ethnic, cultural and age groups to be formed to apply these frameworks and taxonomies in developing and assessing different e-government services as they are redesigned to be truly citizen-centric. Building on what has been learnt at the first African Information Ethics Conference, earlier conferences and the work of the International Centre for Information Ethics community, collaborations at all levels can be built to address these critical issues. It is only through such collaborative efforts and transformation of government to meet citizens' needs that true information rights can be preserved.

Coetzee Bester (2007) kindly wrote the following addition to provide a perspective, as suggested by reviewers of my original paper, from an African leader to help others use this chapter as part of their mental blueprint to guide in shaping the e-government of the future in Africa. I am very grateful to him for this very thoughtful addition:

*It is furthermore important to bear in mind that the position in many traditional African communities towards trust in e-governance is based on the description and significance of the concept of trust and human dignity within the framework of the social infrastructure of these communities. Trust, for example, is sometimes more related to knowledge of the person him/herself or personal interaction with these role-players than a declaration on paper. This trust-in-person mindset should direct the information practitioner in Africa towards a relationship with the authority rather than to the position of the authority when trust in e-governance is developed. The grammar and meaning of trust are therefore rather to be found in the cultural relationship with an individual and are not necessarily based on researched and scientific proof of an experience.*

Information practitioners and policy makers in Africa should be aware of the influences of traditions and cultural dynamics that will impact on the processes of creating trust in e-governance. Practical guidelines to manage the impact will have to be developed, but guiding principles towards trust in e-governance would include a service and development orientation, person-to-person support during the implementation phases of e-governance, language and terminology assistance for users, and technical back-up to ensure continuous service. These services would include electricity, well-managed service providers and well-trained staff to assist users of e-governance. The growth towards trust in e-governance is a process and not an event or an announcement. In addition to the challenges in creating trust in e-governance, the path towards this technology in Africa is filled with thorny issues of new technology and terminology, cultural orientations and traditions, as well as a completely different social interaction based on a method of humanity and not yet exclusive use of technology.

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## **The spirit of open access to information as a key pillar in the African Renaissance**

Jacques C. du Plessis

*This chapter explores the future impact of an African Renaissance, with specific emphasis on information ethics to address the needs of the emerging virtual realm. The first of four main focus areas are the technological challenges to deploy information and communication technology (ICT) infrastructure to enable the delivery of information to the people, and to allow for new means of communication. The second focus considers the economic obstacles in the quest to empower average citizens to exercise their right to access information. The third focus addresses the linguistic and cultural realities that hinder the adoption of some ICTs. The final focus considers the legal framework that has to be developed and strengthened to establish citizens' rights of access and privacy in cyberspace.*

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## Introduction

This chapter explores the role of ethics, and in this case, information ethics as a key factor to sustain and expand the momentum of the pan-African ideal of an African Renaissance.

Africa has had periods in its history when regions on the continent flourished intellectually, economically and culturally. Today, despite many profound challenges, there is a spirit of hope, a deep-felt sense that we have an opportunity to seize in order to bring about a rebirth of the intellectual, economic and cultural potential of Africa. To bring the ideal of the African Renaissance to fruition, the vision has to be propagated in the hearts and minds of Africans, as well as to many others beyond the continent's borders. As we consider the potential ways in which this Renaissance can be expressed and sustained, we have to consider the role of one of the most profound technological changes in human history – the emergence of a new layer of existence, namely the virtual world.

## The African Renaissance

If we look at Asia first, we readily recognise how the term “the Chinese century” was a faint whispering in selected circles some decades past. In the 21st century, the emergence of the Chinese economic might has undoubtedly impressed the international community (Fishman, 2004). The awakening in China fuels the growing belief that its economy will become the biggest in the 21st century (Shenkar, 2005; Sing, 1988). The Chinese are demonstrating the ability to nurture this dream. They are demonstrating zeal to infect their people with hope and faith to become powerful and great.

How about Africa? Is there a similar awakening in Africa? Is there a similar sense of greatness and a zeal for the continent to achieve its own greatness?

## The soil is everything

To answer the question whether a Renaissance like that of the Chinese can happen in Africa as well, the wisdom of an old French saying offers the following: *Le germe n'est rien, c'est le terrain qui est tout*; which is translated as, “The germ (seed) is nothing, the soil is everything”. In short, to

grow fruit, one needs the right temperatures, fertile soil, humidity, light and time that would constitute an ideal environment. Can the collective faith in the future of Africa be harnessed and orchestrated to germinate this vision and commitment for Africa? Bertrand Russell, British mathematician and philosopher (1872–1970), remarked: “Without civic morality communities perish; without personal morality their survival has no value.”

It can be said that any environment is fertile ground for something, even if for an undesirable element. The magnitude of the challenges Africa is facing imposes a reality check on the current environment in Africa and whether it can be favourable to an emerging Renaissance.

On the one side, there is hope for a Renaissance. Africa is seen to be free from colonial oppression at last. There is zeal to acquire as much education as possible and to fulfil the dreams and aspirations of previous generations whose ambitions were stunted by powers from abroad. Those with hope see Africa for its potential, emerging as an ideal environment that fosters strong socio-economic, cultural and intellectual growth.

On the other side are the sceptics who point to the vexing challenges in Africa – the grave issues of usurped political power, economic instability, infrastructure reversals, a continent-wide brain drain, chronic underfunded education, military overspending, endemic corruption, large deficits, serious health issues, tribalism, and the corrosive impact of high levels of crime (Diallo, 2004; Herbert, 2002).

## The digital era

In the midst of this ambivalence about the future of Africa, the emerging digital revolution has introduced variables of great importance, with the promise of profoundly changing every country on the globe. To understand the long-term impact of the digital revolution, there is merit in stepping back for a moment to consider first the global impact of the industrial revolution.

Back then, the surge of new technology changed the way products were designed, created and delivered. Many new products were introduced (e.g. the automobile), which changed habits and cultures, and wants into needs. Some of the new products were also new tools that introduced

new ways of doing, or speeded up or in other ways improved the way things were done. Today, a similar and expanded ripple effect is part of the digital revolution. Improvements in hardware, network technology, throughput, software capabilities, workflow processes and the like happen so fast, that the question is not only how society can transition itself to the use of a new product, but also how to adapt to change as a constant. How to cope and flourish in an environment in which change happens at a seemingly exponential pace is a vital consideration.

Change is no longer a celebrated event only; it is almost routine, a constant process. To make this transition to the required mindset in order to flourish in the digital era requires a break from the past in some respects. The previous (and much of the current) ways of commerce, the ways of learning and instruction, and the means of communication have become dated. The new generation has to blaze the trail in order to develop and engineer new social networking behaviours and a mindset in which average citizens become empowered with previously unimaginable means of information access, communication and social networking. This transformation of the current mindset requires attention to the following two issues:

- An established framework of information ethics to formalise and protect the rights of digital access and privacy of all citizens
- An adaptation in cultural behaviour to harness the affordances of the digital era

This chapter centres on the first issue, namely the establishment of a framework to protect the digital rights of access and privacy of all citizens.

### **Information ethics: Establishing, securing and opening up the flow of information**

Referring back to the French saying, access is like the soil, not the seed – it is everything. As the Americans would say, lacking access is a “show stopper”. If access to information is a right, then the imperative is to empower citizens to exercise this right. The obstacles to exercising this right include technological challenges, economic impediments, cultural and linguistic exclusion, and a legal environment that needs to protect the openness of information.

### **Technological challenges**

There is progress in addressing some of the technological hurdles to access. Keniston & Dumar (2003) point out that:

*At one extreme are the United States and the “Nordic” countries like Sweden, Germany, Finland and Iceland, where household telephone connectivity is well over 90%, computer saturation is over 50%, and home-based Internet connectivity averages over 50%. At the other extreme lies most of Africa, most of South America, South Asia, China, Indonesia, and so on – the 80% of the world where telephone connectivity is 3% or less (less than 30 million/1 billion in India), home computer ownership is 1–2% and Internet connectivity less than half of that.*

In southern and eastern Africa, several governmental and non-governmental groups are collaborating to address what is called the “missing link”, which is the lack of connectivity of these regions of Africa to the world’s fibre networks. “The ‘missing link’ explains why the region accounts for less than one percent of the world’s international bandwidth capacity” (World Bank, 2007). The East African submarine cable system (EASSy) is one such project to provide a cable network along Africa’s eastern coast line (WBGS, (n.d.). This document further says:

*The proposed Regional Communications Infrastructure Program (RCIP) was developed at the request of the NEPAD Heads of State. It will finance a submarine fiber cable along the East Coast of Africa and connect countries in the region to the global telecommunications network, either directly or through terrestrial links.*

The World Bank (2007) states that this expansion will bring relief to the region, which has:

*... the highest communications costs in the world. International wholesale bandwidth prices are 20 to 40 times higher than in the United States, and international calls are on average 10 to 20 times more than in other developing countries.*

These plans will greatly contribute to an infrastructure that will enable the region to have world-class access to the Internet, and will help diminish Africa’s vulnerability to exploitation due to its information and communication deficit. The development of infrastructure has to remain a

top priority. If African governments are not able to overcome inertia due to challenges such as the persistent brain drain, poverty and corruption, the economy will suffer and the region will remain vulnerable to economic, intellectual and cultural exploitation.

The Afrikaans saying *kennis is mag* means “knowledge is power”. In the digital age, if data does not flow, neither does information flow; and if information does not flow, how can knowledge be developed? If knowledge is not generated, where is the power? The grand idea of, and attempts at, an African Renaissance will remain limited in potential unless the African virtual space becomes a reality for Africa to take its rightful place as the materialised and the dematerialised worlds interface in today’s knowledge economy.

### **Economic impediments**

The role of governments to champion the cause of establishing infrastructure cannot be ignored. African governments struggle with internal issues that discourage investment and economic growth, such as nepotism, exclusive contracts, nationalisation, and business under the table. Asia has overcome many of these human frailties and flourishes economically. There is a growing voice within Africa to find solutions to nepotism and corruption. On 2 April 2007, the then President of South Africa, Thabo Mbeki, said:

*[Corruption] emasculates development and democracy and undermines the fight against poverty by diverting key resources away from programmes designed to improve the quality of life, especially of the poor, globally [...] As we engage in the global fight against corruption, let us also be fully conscious of the need to work on all the varied tracks and affirm a clear role for the responsive democratic state in the fight to eradicate poverty, unemployment and underdevelopment. As an affirmation of our resolve to defeat corruption and its outcomes, we must work together to deal with market-related and market-induced inequalities. We must provide equality of opportunity to all our citizens. We must work to develop social cohesion. We must promote peace and stability in our countries, as well as regionally and globally.*

This kind of resolve in the highest circles needs to trickle down in a new consciousness and resolve

for a better future, where the spirit of *ubuntu* strengthens the commitment of Africans to each other, rather than individuals exploiting a situation for their personal gain.

### **Cultural and linguistic exclusion**

The ability of the majority of citizens in a country to access information depends not only on the availability of such information. The linguistic and cultural factors that promote or impede access greatly impact the success of participation in virtual space. Keniston & Dumar (2003) point out that non-English cultures are at a great disadvantage, as there is so little of relevance on the Internet in their own languages:

*To linguistic inaccessibility in India is added the absence of culturally relevant content. The number of web sites in 2000 in India is small in any case, but the number of sites in Indian languages is miniscule.*

Governments have to prioritise for the development of content and services in underserved languages. Yet, in much of Africa where literacy is inadequate, that demand is tied to the success of enabling those people to exercise their right of access to information in virtual space.

The second priority of African governments is the instruction of English as a second or foreign language. It is an internationally recognised fact that English has become the lingua franca of the digital era. Learning English does not imply submission to the values and trends emanating from the US and the UK. According to O’Neill et al. (2003), more than 70% of the content on the Web is in English, with no other language having a presence of more than 10%. This indicates the significant loss of access to information if the user is unable to read English. Preparing the new generation to function in English is vital to accessing information and communicating in the international arena more effectively.

Selwyn (2002) states that “access to a technology is useless without the requisite skills, knowledge and support to use it effectively”. As we can already see, the digital divide is not solely about purchasing power and physical access”. Preparing the citizenry at large to migrate into the digital era and integrate ICTs into their daily living is so essential that information literacy has to be a priority in every school. Providing

information that considers the cultural and linguistic realities of ordinary citizens, and facilitates their ability to interact with digital technologies, will promote a faster adoption rate to the point that the migration will drive itself as robust communities of practice take root and grow. Then “locals” will take ownership of their participation and destiny in the virtual infosphere.

### **Legal barriers – open access, a basic human right**

More than a century ago, British historian Lord Acton warned that “power corrupts, and absolute power corrupts absolutely” (Acton, 1887). If certain categories of information are not treated as a public good, and if information is an exclusive commodity, it disempowers the public from knowing. It is the right to information that either confirms good governance or exposes an environment that does not promote the vision of an African Renaissance.

As citizens we will only have this right to access information if our governments and multinational corporations are held accountable to embrace ethics that offer us the lifeline and the countermeasures to that spirit of raw politics and power. Upholding ethics requires a magnanimous collective commitment of society from the top down. It is this commitment by the powerful to accept bounds to the use of their power, and to exercise self-restraint so as not to exploit the power with which they have been entrusted.

Ethical behaviour is the fruit of hope in all sectors of society to act in the best interests of the whole. Ethics offers hope to the poor and is a commitment by the rich and powerful not to exploit the poor. With ethics our main charge is a moral obligation to fairness. It builds trust between those with (especially economic and political) power and the disadvantaged and marginalised. It provides common ground for embracing principles of honesty, respect for others, honour and integrity in our commitments and obligations, compassion, and respect for laws and humanity.

However, there has to be a palpable spirit of valuing open access that underlies any legal framework in order to maintain openness. If not, no law will be able to protect those people who are not vigilant in protecting their rights. This

spirit was well illustrated with the race to complete the Human Genome Project when two former colleagues parted ways. Craig Venter set up a private corporation to map the human genome; Francis Collins stayed on as head of the government-sponsored project. The fear that a private company might withhold this valuable information from the public domain sparked great interest in the publicly funded project. In the end, the race was a duel and today the information is in the public domain (Shreeve, 2004:15). This example reflects the importance of public support not losing unfettered access to information that is vital to society.

### **Conclusion**

The African Renaissance is a most noble pursuit. An observer of Africa will quickly notice the energy of the upcoming generation to learn English, to gain a good education, and to achieve their potential and dreams. For problems of this magnitude, the solutions are complex. This chapter has highlighted the technological challenges, economic impediments, and cultural and linguistic exclusion that have to be overcome as Africa is engaging in the establishment of a legal framework to sustain the needed improvement in education, commercial competitiveness and knowledge building as some of virtual space's achievable blessings – promises that play a key role in sustaining the already unfolding reality of an African Renaissance.

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## **Intellectual property, traditional resources rights and natural law: A clash of cultures**

John N. Gathegi

*Western nations, through international treaties and bodies such as the World Trade Organisation, the World Intellectual Property Organisation, and economic and political pressures on many governments, are to a large degree succeeding in strengthening protection of intellectual property rights as they are understood mainly within the Western context. Framing the debate within Locke's theory of natural law, this chapter discusses the extent to which this strengthening of intellectual property rights is appropriate for developing countries, especially in the African context.*

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## Introduction

The legal history of the US in intellectual property (IP) demonstrates considerable effort in detaching IP from natural law and the notion of labour, especially in the idea/expression dichotomy, which basically expresses the legal doctrine that ideas are not protected but the expression of those ideas is, and that the “sweat of the brow” is not translated to IP. However, recent trends in Europe, and even the US itself, demonstrate a return to the Lockean natural law theory of property as labour attached to resources.

In this chapter, we will address the conflict arising from the labourer’s claims (whether an individual or a multinational company) and the fundamental entitlements of the public, both indigenous and as mainstream economic players, within the context of Locke’s “no harm” principle.

We will also explore the nature and scope of traditional resources rights and the extent to which they are affected by notions of Western IP, and how natural law, from both a universalist and an African perspective, would help untangle the mess. We will especially address the question of “individual” versus collective ownership of resources and how IP plays into that debate, examining how the Lockean proviso of “enough and as good” plays in the theatre of the extraction and propertisation of indigenous knowledge and resources from developing countries by multinational countries, especially by the pharmaceutical industry. In effect, we will discuss the question whether there is a net harm to other persons in the acquisition of IP through labour, and whether this acquisition is “legitimate” in more than the legalistic sense as, for example, from an ethics perspective.

## Natural law and the Lockean genesis of Western IP law

In his *Two Treatises of Government*, John Locke (1690) essentially viewed natural resources as available for all to partake in, and that what one was able to retrieve from its natural state by one’s labour belonged to the labourer. Gordon (1993: 1544–1545) summarises the logic:

*Labor is mine and when I appropriate objects from*

*the common I join my labor to them. If you take the objects I have gathered you have also taken my labor, since I have attached my labor to the objects in question. This harms me, and you should not harm me. You therefore have a duty to leave these objects alone. Therefore I have property in the objects.*

Locke thus viewed labour as the foundation for property. A person has the same duties that others owe to him. If one has laboured to acquire property, therefore, one would be obliged to respect others’ rights to their property. But these rights come with a modifier: persons have a duty not to cause harm to others, absent extreme need. There is also the moral claim: in times of extreme need and provided it does not threaten one’s own survival, one “has a duty to let others share in her resources (other than her body)” (Gordon, 1993:1541–1543).

The genesis of the Western concept of IP has its origin in this Lockean view of labour-based property. Although not tangible, the resulting product was a result of one’s intellectual labours. Because of its special characteristics, however, it was difficult for the creator to retain ownership of the IP once he or she had shared it with society, which had an interest in the creation. To ensure that the “creator” would keep creating, therefore, society made a pact that would give the creator certain privileges in exchange for the creation, thus hopefully providing an incentive for continued creation.

The view of the Western IP system, which covers such disparate areas as patents, copyrights, trademarks, trade secrets and related rights, is therefore bifurcated into two schools: one that views IP as an element of public policy making and one that views it as a system of economic rights (WIPO, 2005:2). According to the World Intellectual Property Organisation (WIPO, 2005: 3), IP should not be seen as a monolithic entity, but rather as a “complex composite network of international treaties and national laws, together with the business and social practices that have developed around each distinct area of IP”.

## IP law within the US context

IP is territorial, and generally IP legislation is effective only within the legislating country’s borders. The IP system in the US traces its origin

to at least as far back as the US Constitution which, in Article I Section 8, gives Congress the power to encourage creativity and innovation by providing limited incentives to authors and inventors. It is thus clear that the US Congress was trying to create that elusive balance between the incentive to create and the public's right to access the creations.

Recent developments in US IP law, such as the extension of the term of copyright protection and the enlarging of the scope of patentability, have brought the following into focus (Gordon, 1993: 1544):

*... the basic question at the heart of Lockean natural law: what happens when a conflict arises between fundamental entitlements of the public, and the moral claims that a creative laborer possesses by virtue of having created an intellectual product?*

This has been complicated further by the fact that individual creators have been supplanted by corporate interests (e.g. the individual author versus Walt Disney Corporation), to the extent that it is no longer clear for whose benefit the current IP system is. In the words of WIPO (2005:7), there seems to be "a separation between genuine creativity and the business models that have developed to produce, publish and distribute creative products". Notwithstanding these concerns, the US, in concert with much of the Western world, has lately been engaged in aggressive marketing of strong IP protection regimes around the world, shoring up the IP expansion that has already occurred in many countries over the years.

### IP law projected to the African context

For the majority of African countries, IP systems are generally a legacy from the colonial era, and used as legislative bases of the laws of the former colonising powers. With independence, these countries incorporated the existing IP legislation into post-colonial legislation, initially with few changes, but eventually with significant revisions.

As well as being members of the African Union, most African countries are also members of the United Nations (UN). As such, they were in accord with the 1974 Agreement between the UN and WIPO that recognised WIPO's role as:

*... the promotion of creative intellectual activity*

*and the facilitation of the transfer of technology related to intellectual property to the developing countries in order to accelerate economic, social and cultural development.*

Though still steeped in the Western concept of IP, private rights nevertheless seemed favourable to these countries.

The IP landscape was considerably altered by the negotiations coming out of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), which created the World Trade Organisation (WTO) and resulted in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). According to Gathii (2001:753), TRIPS was the result of a successful effort by:

*... a coalition of private, American high-technology firms in linking intellectual property protection to trade and to the GATT/WTO framework. This coalition, known as the Intellectual Property Committee (IPC), was formed in the early 1990s with two major aims. The first was to make IPR protection a central part of United States foreign trade policy. The second was to use this new prominence of IPR protection in the domestic foreign trade policy context to improve international IPR protection, primarily through new internationally binding minimum standards that would be adopted in the course of the Uruguay Round and enforced by the WTO.*

This agreement at once moved IP issues into world trade negotiations and seemed to supplant much of WIPO's authority in this area. TRIPS essentially obliged countries to have strong patent protection schemes and specifically provided for the protection of plant variety rights, with a proviso in Article 27.3(b) that allows countries to elect patent protection or develop *sui generis* legislation for such protection. For the majority of the African countries (with Kenya and South Africa being examples of a few exceptions), plant variety protection was a deviation from the then prevailing paradigm of widespread knowledge sharing (Cullet, 2001: 122). The situation was exacerbated by the time pressure African countries were put in by TRIPS implementation deadlines.

The requirement for plant variety protection should not be confused with the protection of biological diversity. A 1992 instrument, the

Convention on Biological Diversity (CBD), was already evidence of concern about the depletion of biological diversity as a result of human activity. The preamble of the CBD takes the view that the conservation of biological diversity is a common concern of humankind, but that states have sovereign rights over their own biological resources (UN, 1992) and that there should be (CBD, Article 1):

*... fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies.*

Concern with biodiversity is of special significance here within the context of IP rights, as pharmaceuticals from developed countries have been accused of engaging in bio-piracy – essentially removing large amounts of unique plant material from developing countries for use in drug research. In this regard, it is significant that the forests in the developing countries hold the vast majority of the world's biodiversity (AgBioWorld, n.d.), most of it in Africa (UNFPA, n.d.).

### **Traditional resources rights and Western IP law**

Over the years, indigenous peoples – including those in Africa – have developed and built detailed information and knowledge bases on various aspects of their cultures and their natural environment, including detailed knowledge of plant and animal species, soils, seasons and weather patterns. This knowledge is the result of an accumulation of experimentation and experiences over a long period of time to determine, for instance, whether a certain plant has curative or preventive properties over certain diseases. As Bastida-Muñoz & Patrick (2006:281) describe it: “The universe of knowledge held by indigenous peoples is a result of a diachronic, intergenerational, communal and holistic collection of ‘incorporated’ information about their local environment.” Traditional resources rights, therefore, refer to systems for the conservation and protection of, and compensation to, communities holding this knowledge.

That indigenous knowledge is valuable can be illustrated by the fact that “indigenous knowledge of medicinal plants and food decreases

research and production costs by 40% or by \$200 million a year” (Bastida-Muñoz & Patrick, 2006: 260). This value attracts Western economic sectors, such as the pharmaceutical industry. A clash of cultures is immediately apparent, however, when the industry seeks to appropriate this knowledge as property.

In the Anglo-American system, property is characterised by the ability of the owner to use the property, to alienate (or transfer) the property to someone else, and the right to exclude others from using the property (Gordon, 1993:1550). Two problems emerge in the attempts of the Western pharmaceutical industry (and other industries) to appropriate traditional knowledge. The first is that the indigenous notion of property is different from the Western notion of property. For the former, property, especially in traditional resources, is collective while for the latter, property rights are private. The other problem is corollary and comes from the convenient appeal by the pharmaceutical industry to Lockean philosophy that, since there are no private rights in traditional knowledge, then this knowledge must be treated as a commons, and the pharmaceutical company having mixed its research labour into the resources identified by this knowledge is now entitled to the labourer's reward of property of the product. This, of course, runs smack against the notion of national sovereignty.

### **Enmeshing public policy within international trade**

As we have noted above, one of the major results of the TRIPS Agreement was to introduce IP into the ambit of world trade negotiations. TRIPS itself was predated by the International Convention for the Protection of New Varieties of Plants, which established the International Union for the Protection of New Varieties of Plants (UPOV) and provided for private property rights in plant varieties. These rights were not patents, but under the 1991 UPOV version, plant breeders have rights analogous to weakened patents, with only a nebulous distinction between the two concepts (Cullet, 2001:100).

Given that the TRIPS Agreement provides for plant variety protection, and Article 27.3(b) of the Agreement allows members who do not want to give this protection by way of patents, to

formulate substitute property rights systems through *sui generis* laws to effect their obligations under the Agreement, developing countries have recently been under tremendous pressure to adopt the Convention as a compliance tool for such a protection scheme (Cullet, 2001:100). TRIPS is in marked contrast to the Model Law of the Organisation of African Unity (now the African Union) dealing with access to biological resources and rejecting patents of life or exclusive appropriation of life forms. The OAU Model Law recognises:

*... the rights of local communities over their biological resources, knowledge and technologies that represent the very nature of their livelihood systems and that have evolved over generations of human history, are of a collective nature and, therefore, are a priori rights which take precedence over rights based on private interests.*

More specifically, it refers to these rights as “inalienable”. The problem is that, unlike other international law treaties, TRIPS is non-derogable, such that without the consent of all parties, countries cannot make reservations. Furthermore, under the Generalised System of Preferences, preferential access to the US market for developing country imports was made subject to signing on to TRIPS (Gathii, 2001:762–763). This makes efforts by African countries to buck the private property system, such as in the OAU Model Law, effectively toothless. Gathii puts it succinctly:

*The sovereignty that countries had in the pre-TRIPS era to determine how far to extend IPR protection was lost. (For example, in the pre-TRIPS era, a variety of developing countries had decided not to extend patent protection to pharmaceuticals. The reason was to ensure the availability of medicines to their citizens at affordable prices.) In other words, some countries had chosen not to extend monopoly protection to certain products in the public interest. The post-TRIPS international environment narrowed the sovereignty of countries bound by TRIPS to determine appropriate levels of IPR protection.*

This narrowing of sovereignty is especially evidenced by the fact that the US singled out for unilateral punitive sanction countries that were opposed to TRIPS, prompting many to sign on both under this threat and the promise of access to the US market (Gathii, 2001:755–756).

TRIPS and its strong IP protection regime bring into sharp focus such ethical issues as the balance between the needs of low-income pharmaceutical consumers facing a life-threatening disease like AIDS, and the pharmaceutical producers’ interests. Both Gathii (2001:735) and Gellman (2000) report, for example, that:

*... the pharmaceutical industry has quietly argued that selling AIDS drugs at discounts in sub-Saharan Africa portends doom with respect to the ability to finance further research and development. In effect, it argues that the AIDS crisis in Africa is intractable because providing AIDS drugs, which still enjoy patent protection in Western markets, conflicts with its commercial objectives.*

This attitude has even been projected to actions occurring pre-TRIPS. Brazil, for example, has long had a policy of free access to AIDS drugs, which has resulted in a tremendous reduction in deaths from opportunistic infections, by as much as 60–80% between 1996 and 1999 (Gathii, 2001: 734–735). The country has done this by investing heavily in generic drug production projects. The initial response of the US was to ask the WTO to investigate the legality of Brazil’s compulsory licensing legislation. Subsequently, however, in another similar dispute, former US President Bill Clinton would sign an Executive Order for Sub-Saharan African countries, as well as an understanding with South Africa on the relationship between public health and pharmaceuticals, following that country’s efforts at fighting AIDS (Myers, 1999).

Relying on the concept of Boyle’s “romantic author”, the insistence of TRIPS on strong IP protection tools such as patents devalues sources like the traditional knowledge and plant specimens that go into developing drugs (Boyle, 1992). This leads to no compensation, as only the scientific research is deemed worthy of compensation (Gathii, 2001:758) – a decidedly Western orientation of IP. It does, however, attempt to balance public policy concerns against private interests, as in TRIPS’ recognition in Article 8 of members’ rights to adopt measures for public health and for prevention of IP rights abuse.

### **Back to Locke: Dealing with the “no harm” principle**

We have seen that the Western notion of IP rights

is antithetical to the African philosophy of common ownership and sharing, especially in the area of traditional resources and knowledge, and certainly in agriculture which, even in modern African governments, was kept out of the patent zone based on elements of public morality (Cullet, 2001:109; Gathii, 2001:761).

Western IP, instead, turns to Locke for inspiration, even though, especially in the case of the US, some aspects of IP law such as copyright have made an express effort in divorcing IP protection from results of labour. The case of *Feist v. Rural Telephone* in the US drew the line between “originality” and mere labour, with the Supreme Court ruling that the white pages of a telephone directory could not be protected by copyright, as it did not have the requisite originality (US, 1991). Since then, however, legislation protecting databases in Europe (the EU Directive) and legislation outlawing the circumvention of electronic fences in information content (the Digital Millennium Copyright Act) have brought IP full circle back to Locke. However, even while appealing to Lockean notions in IP protection, there are significant departures from some of the central tenets of the natural law philosophy. Laying aside for the moment the argument that natural resources found in a country belong to that country and cannot be considered by other countries as their “commons” (CBD, Article 15), and assuming that it is possible, for example, for pharmaceutical companies to claim property interests in the parts of the commons to which they have attached their labour, there is still the conundrum that one’s liberties in the use of one’s property have limitations under natural law.

One such limitation is the duty to refrain from harm. Also, “even if a laborer is ordinarily at liberty to keep the benefits she can draw from her product, the natural law imposes on her an obligation to share her plenty with those in extreme need” (Gordon, 1993:1550–1551). Such extreme needs would presumably include the prevention of deaths from AIDS, as not sharing a beneficial product would harm those in need.

### **The ethics of strengthening IP law in the African context**

For Locke, the labourer was justified in property rights from the results of his labour in

appropriating from the commons of nature, provided that after such appropriation, there was “enough, and as good left in common for others” (Gordon, 1993:1562). When a pharmaceutical company leverages traditional knowledge and traditional resources to patent a drug, however, it is unclear whether there is enough and as good left in common for others. The resource country, for example, cannot produce the same drug from the same resources.

A cynic might say that as long as the extraction does not deplete the particular plant resource, there is still enough and as good left for the community members and they can continue utilising the plant for medicinal purposes as they always have. A glaring problem, however, is that should the community later find itself with scientific sophistication, it will have to contend with issued patents. As Gordon (1993:1563–1564) notes:

*Creators should have property in their original works, only provided that such grant of property does no harm to other persons’ equal abilities to create or to draw upon the preexisting cultural matrix and scientific heritage.*

What is left after extraction may be enough, but not as good, a result based on a reliance argument. Once a new drug has been developed, those who used the plant for medicinal purposes cannot be confined to their original resource. Gordon (1993:1570) points out that they should be equally entitled to the new invention:

*Intellectual products, once they are made public in an interdependent world, change that world. To deal with those changes, users may have need of a freedom inconsistent with the first creators’ property rights. If they are forbidden to use the creation that was the agent of the change, all they will have to work from will be the now devalued common.*

Developed countries’ patenting of drugs derived from traditional knowledge and plant sources imposes a duty on community members in their use of the common, especially if these communities should want to develop the drug themselves. This, then, begs the question of the moral validity of bestowing exclusive property rights in the labourer (the pharmaceutical company) at the expense of devaluing the common. As Gordon (1993:1560–1561) argues, where there is a conflict

between bequeathing property rights to the labourer and causing harm to the commons, Locke dictates that the common should prevail.

The global pharmaceutical industry is estimated to have made billions of dollars in annual revenues partly due to “the illegal seizure of traditionally used medicinal plants and the uncompensated taking of the associated knowledge regarding their preparation for specific ailments” in what has come to be known as “the green gold” of multinational business (Bastida-Muñoz & Patrick, 2006:260, 273–274). These authors point out that IP rights resulting from this green gold come at a cost, including:

- Destruction of biodiversity, communal rights, innovations, and traditional ways of life
- Usurpation of indigenous knowledge
- A new technological protectionism logic
- Denied access to indigenous medical knowledge

This cost appears high enough to warrant a re-examination of the underlying ethics.

## Conclusion

The Convention on Biological Diversity was formulated to facilitate the fair and equitable sharing of research results arising from the utilisation of genetic resources. This sharing is supposed to be on “mutually agreed terms” (CBD, Article 15). Developing countries, however, and African countries in particular, are hardly in a position to negotiate on such sharing, and the mutual agreement is for the most part an illusion, especially since the concept of informed consent is equally empty. With respect to obligations imposed by TRIPS, for example, these countries have neither the fiscal nor the institutional assets to take any advantage of TRIPS there may be (Gathii, 2001:765), especially its Article 27.3(b) *sui generis* provision.

It is interesting, however, to see flashes of conscience from some of the pharmaceutical companies, with some giving drugs free or at reduced cost to some developing countries, or allowing the production of generics while the patent is still in force. This social conscience, however, invariably runs against the companies’ fiscal obligations to their investors. The question starkly becomes: What is the optimal point between maximum profit and unnecessary deaths?

Strengthening IP protection in Africa will, while arguably benefiting some sectors in the modern economy, nevertheless result in net harm for the majority of the communities in those countries. It is imperative that this realisation should be factored into any IP regime’s adjusting discussions, including TRIPS-like negotiations.

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## **International advocacy for information ethics: The role of IFLA\***

Peter Johan Lor

*This chapter focuses on the international advocacy role of the International Federation of Library Associations and Institutions (IFLA). It explores the relationship between library advocacy and information ethics, before outlining the ethical thrusts of IFLA's advocacy and describing IFLA's international advocacy work, with special emphasis on Africa.*

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## Introduction

When we look back on the last decades of the twentieth century, one of the features that strikes us is the number of world summits held in an attempt to deal with deep-seated human problems at an international level. Well-known examples are the Earth Summit – the United Nations Conference on the Human Environment held in Rio de Janeiro in 1992, the Fourth World Conference on Women – the World Women Summit held in Beijing in 1995, the Millennium Assembly in New York in 2000, and the World Summit on Sustainable Development held in Johannesburg in 2002.

This trend was accompanied by a significant increase in the international advocacy role of non-governmental organisations (NGOs) or, more generally, of “civil society”. Initially at least, NGOs were not particularly welcome at the conference table, which was seen as the preserve of government delegations. But while these delegations continued with their complex, formalised, and often cynical diplomatic rituals, civil society was busy at the fringes, observing, learning, adopting the Internet to communicate and organise its supporters, and “working the system” to insert its concerns into the discussions and influence the outcomes. This was very evident at the World Summit on the Information Society (WSIS), held in Geneva and Tunis in 2003 and 2005 respectively. WSIS may not have yielded much of concrete significance, but arguably it represented a breakthrough for civil society, which there achieved a degree of recognition and influence not seen before.<sup>1</sup> One of the organisations active at the two WSIS summits was IFLA, the International Federation of Library Associations and Institutions. This chapter focuses on IFLA’s international advocacy role. It explores the relationship between library advocacy and information ethics, before outlining the ethical thrusts of IFLA’s advocacy and describing IFLA’s international advocacy work, with special emphasis on Africa.

## Library advocacy

Library advocacy can have both political and

ethical motivations. In the political sphere, library advocacy is primarily concerned with resource allocation. The emphasis is on putting the library on the political agenda of the governmental or institutional decision makers in order to ensure that adequate resources are allocated to enable the library to serve its clientele. This can involve such issues as the distribution and location of library service points, their accessibility and service hours, and the matching of facilities, collections, staff and services to the anticipated needs of clients, including clients from disadvantaged and marginalised groups.

A typical example is the Campaign for America’s Libraries, a five-year project of the American Library Association launched in 2001. It had five goals (ALA, 2004):

- Increase awareness and support for libraries
- Increase library usage
- Promote recruitment to the profession
- Bring libraries to the table on public policy issues
- Impact funding for libraries

In the context of this campaign, advocacy was defined as follows: “Advocacy is turning passive support into educated action by stakeholders” (Schuman, cited in ALA, 2004:32).

In the context of the information or knowledge society, the survival and continued centrality of the library and its place in relation to other, competing or complementary agencies are prominent concerns. Such concerns can be linked to self-preservation or survival needs of institutions and professional groups, as much as to ethical motivations.

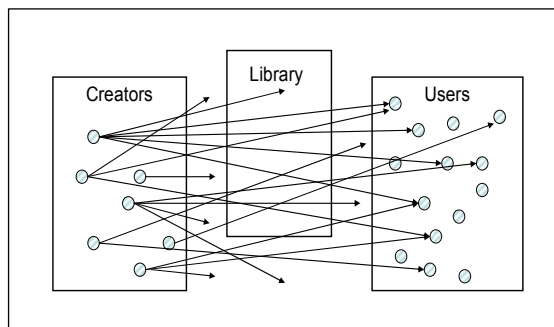
## Ethical basis of library advocacy

More distinctly, ethical motivations for library advocacy can be related to three key ethical principles that are referred to in this chapter as *freedom*, *equity* and *inclusion*. All three are related to the essential mediating role of the librarian. As stated in Ranganathan’s (1931) Five Laws of Library Science, librarians bring together information (“books”) and users (“readers”):

- Books are for use.
- Every person has his or her book.
- Every book has its reader.
- Save the time of the reader.
- The library is a growing organism.

<sup>1</sup> This view is contested. See, for example, Gurstein (2005) and Currie (2005).

The role of the library as an information intermediary is depicted in Figure 1, which shows two major kinds of failure that can occur: (a) information that is disseminated fails to reach users; and (b) users fail to receive information that is disseminated. In addition, delays and obstacles occur as a result of (c) a failure of effectiveness or efficiency on the part of the library, as implied in Ranganathan's fourth law.



**Figure 1:** The library as information intermediary between creators and users

In this chapter, failure of type (c) is not considered. Therefore, various aspects of library deontology are not discussed here, for example professional relations between colleagues, the custodial responsibilities of the librarian, and the tension between preservation and use.

The other two forms of failure can be caused by various societal filters or barriers that form obstacles to the creation, transmission and reception of information:

- Barriers of a political and cultural nature often take the form of censorship and pose threats to freedom of expression and freedom of access to information.
- Barriers of a legal and economic nature often take the form of intellectual property restrictions that pose threats to equitable access to information by users in less affluent communities and countries.
- Barriers of a socioeconomic nature often take the form of social disadvantages in terms of educational, occupational and economic opportunities, and pose threats to social inclusion.

The mediating task of the librarian implies that he or she is concerned with three ethical issues in respect of societal barriers: those of freedom, equity and inclusion.

*Freedom* is concerned with freedom of access to information and freedom of expression. Article 19 of the Universal Declaration of Human Rights provides a widely accepted basis for this principle:

*Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.*

It is comprehensive, because it deals with the rights of both the creators and the users of information. Creators need to be free to think independently, to create and to disseminate their work, whether they convey factual or fictional information ("information and ideas"). Users need to be free to seek and receive information. No distinctions may be made between categories of creators and users, for example in terms of gender, ethnic background, politics or religion (cf. Article 2). Various forms of censorship deny these freedoms and form political obstacles to creation, transmission and reception. In the library context, there is particular emphasis on collections and services, as stated, for example in the IFLA/UNESCO manifesto on public libraries (IFLA, 1994):

*Collections and services should not be subject to any form of ideological, political or religious censorship, nor commercial pressures.*

*Equity* refers to equitable or fair legal and economic relationships between the various role players in the dissemination and delivery of information: creators (such as authors and artists), intermediaries (including publishers, booksellers, content aggregators and librarians), and consumers (users, readers, audiences, etc.), who themselves may also be creators. These parties depend on one another. All have rights (cf. Article 27 of the Universal Declaration of Human Rights), but they have various degrees of power to exercise their rights. In an ideal world, the rights and powers of the parties will be in balance. Imbalances in respect of power give rise to economic obstacles to creation, transmission and reception. In the conflicts that arise here, the limitations of an approach based only on human rights become evident, and concepts of social justice (e.g. Britz, 2008) are needed to establish an ethical basis for discussion.

Social justice also forms the basis for the principle of *inclusion*. It is mainly (but not exclusively) concerned with the users of information. There are economic and social factors that hold down or marginalise individuals and groups in society, depriving them of the benefits of information that is disseminated. It is not only that they lack access to information for enhancing their quality of life. More fundamentally, they may lack the awareness that information can make a difference, and they may lack the skills that are needed to seek and utilise it. Repression, discrimination and marginalisation create social obstacles to creation, transmission and reception. This situation is unacceptable in terms of human rights and social justice.

### IFLA and international advocacy

IFLA, founded in 1927, is an international NGO with members in some 150 countries. Its core values emphasise a number of essentially ethical principles (IFLA, 2005b):

- The endorsement of the principles of freedom of access to information, ideas and works of imagination and freedom of expression embodied in Article 19 of the Universal Declaration of Human Rights
- The belief that people, communities and organisations need universal and equitable access to information, ideas and works of imagination for their social, educational, cultural, democratic and economic wellbeing
- The conviction that delivery of high-quality library and information services helps guarantee that access
- The commitment to enable all members of the Federation to engage in, and benefit from, its activities without regard to citizenship, disability, ethnic origin, gender, geographical location, language, political philosophy, race or religion

IFLA consequently has a long history of advocacy in the field of library and information services. A strong focus has long been on promoting the development of librarianship and library services worldwide, through interlinked activities relating to the following:

- International library cooperation, for example, through the former core programmes of Universal Availability of Publications (UAP) and Universal Bibliographic Control (UBC)

- The development and dissemination of best professional practice, for example through the Preservation and Conservation (PAC) core activity
- Stimulating and assisting library development in developing countries, through the Action for Development through Libraries Programme (ALP)

The late 1990s saw the emergence of new IFLA core activities: the Committee on Copyright and Other Legal Matters (CLM) and the Committee on Free Access to Information and Freedom of Expression (FAIFE). Both of these have a stronger advocacy focus on the themes of equity and freedom issues respectively. The third advocacy theme, inclusion, came to prominence as part of IFLA's advocacy activities during the WSIS process (2003–2005). An overview is now given of these three areas of advocacy activity.

### Freedom of information: FAIFE

Free Access to Information and Freedom of Expression (FAIFE) is the IFLA core activity promoting the freedoms that its name implies insofar as they impinge, directly or indirectly, on libraries and librarianship. The FAIFE initiative was started at the IFLA Conference in Istanbul in 1995, with the Council of IFLA's confirmation of the commitment to Article 19 of the Universal Declaration of Human Rights and the creation of the Committee on Access to Information and Freedom of Expression (CAIFE) to investigate the role of IFLA in addressing the constraints on the right to information.

In 1997, IFLA formalised the work of CAIFE by establishing the Committee on Freedom of Access to Information and Freedom of Expression as a core activity within the organisation. According to the 1997 resolution, FAIFE's task is as follows (cited in Sørensen, 1998):

*[To] advise IFLA on matters of international significance to libraries and librarianship in this area, including, but not limited to: censorship of library materials; ideological, economic, political or religious pressures resulting in limitations on access to information in libraries; restrictions on librarians and other information specialists who provide reference and other information services.*

The establishment of the FAIFE Office in

Copenhagen followed in 1998. In its first years, FAIFE was financially supported by the City of Copenhagen, the Nordic library community, and the Danish International Development Agency (Danida). For the period 2005–2009, FAIFE has received substantial support from the Swedish International Development Cooperation Agency (Sida) and will focus its work on the relationship between freedom of information and the struggle against corruption, poverty and disease.

FAIFE operates independently and does not support any specific political, economic or other special interests, except the promotion and defence of intellectual freedom through unrestricted access to information regardless of media.

FAIFE continuously attempts to monitor the state of intellectual freedom within the library community worldwide. In doing so, it depends on networking and partnerships. The FAIFE Committee of some 27 members nominated by the library association and institutional IFLA members in their countries is a basic component of the network.

In addition, FAIFE is a member of various international intellectual freedom bodies, such as the International Freedom of Expression eXchange (IFEX). Freedom of information, like all freedom, is indivisible. Restrictions and abuses affecting journalists, authors and publishers, even if they do not involve libraries, restrict the range of information that librarians can offer their users. Although IFLA's limited resources impose limitations on the scope and emphasis of FAIFE, freedom of the media is critical, and cooperation between libraries and the media is important in the fight against censorship.

Thus FAIFE participates in the Tunisia Monitoring Group (TMG), a coalition of 15 IFEX member organisations. The TMG monitors free expression violations in Tunisia to focus attention on the country's need to improve its human rights record as the host of the November 2005 WSIS (IFEX, 2006). In response to violations of freedom of expression, and only once these have been confirmed from independent sources, IFLA may issue press statements, which can be found at <http://www.ifla.org/faife/faife/faife.htm>.

Research and publications form an important part of FAIFE's advocacy work. Since 2001, it has annually published a report based on inter-

national data collection that provides an overview of how libraries around the world are tackling barriers to freedom of access to information and freedom of expression. This provides invaluable baseline data against which progress, or lack thereof, in the intellectual freedom situation of libraries in many countries can be measured. The World Report Series comprises two sub-series. The IFLA/FAIFE World Report, based on questionnaire returns from over 100 countries, is published every second year, while the IFLA/FAIFE Theme Report, based on invited contributions from experts, is published in alternate years. Six reports have appeared to date.<sup>2</sup> The most recent report, the 2006 IFLA/FAIFE Theme Report, *Libraries and the fight against HIV/AIDS, poverty and corruption*, contains contributions on the role of libraries in serving marginalised communities in Africa (Ocholla, 2006) and in combating HIV/AIDS (Albright, 2006). A contract for compiling the 2007 World Report was awarded to the University of Pretoria in South Africa.

FAIFE supports IFLA policy development by conducting research and drafting policy statements and guidelines on various aspects of intellectual freedom in libraries. A good example is the Internet Manifesto. This Manifesto was prepared by FAIFE and adopted unanimously on 23 August 2002 at the 68th IFLA General Conference and Council, held in Glasgow, Scotland. It consists of four sections dealing with IFLA's position on access to information, the relationship between libraries and the Internet, principles of freedom of access to information via the Internet, and the implementation of the Manifesto. Following the adoption of the Internet Manifesto, it has thus far been translated into 19

<sup>2</sup> 2001: *The IFLA/FAIFE World Report on Libraries and Intellectual Freedom*

2002: *The IFLA/FAIFE Summary Report: Libraries, Conflicts and the Internet*

2003: *Intellectual freedom in the information society, libraries and the Internet* (IFLA/FAIFE World Report)

2004: *Libraries for lifelong literacy: Unrestricted access to information as a basis for lifelong learning and empowerment* (IFLA/FAIFE Theme Report)

2005: *Libraries, national security, freedom of information laws and social responsibilities* (IFLA/FAIFE World Report)

2006: *Libraries and the fight against HIV/AIDS, poverty and corruption* (IFLA/FAIFE Theme Report)

languages. IFLA has encouraged national library associations to adopt it in their countries, and the IFLA/FAIFE World Report, referred to earlier, annually reports on this. At present, national library associations in about 30 countries have formally adopted the Manifesto, with many others planning to do so.

FAIFE's work on this topic did not end with the adoption of the Manifesto. A notable example of FAIFE's research work is Stuart Hamilton's PhD project in the Department of Library and Information Management at the Royal School of Library and Information Science in Copenhagen, Denmark. His thesis, entitled "To what extent can libraries ensure free, equal and unhampered access to Internet-accessible resources from a global perspective?" was completed and accepted in 2005.

Following on from its work on the Internet Manifesto, FAIFE was awarded a grant by UNESCO's Information For All Programme (IFAP) to develop the IFLA/UNESCO Internet Manifesto Guidelines (IFLA, 2006b), designed to help librarians all over the world to implement the Manifesto in practice, taking into account the needs of developing countries. Development of the guidelines was a participative and interactive process involving workshops in various parts of the world, and will be followed by a series of practical seminars to be held in the developing regions of Africa, Asia and Oceania, and Latin America and the Caribbean.

This illustrates the educational role played by FAIFE through seminars, workshops and professional programmes at IFLA's annual congresses. An example of the latter was the "FAIFE debate" held at the 2006 IFLA World Library and Information Congress in Seoul, South Korea, on the controversy over the publication in the Danish newspaper *Jyllandsposten* of cartoons depicting the prophet Mohammed. The cartoons offended many Muslims, raised important questions about limits to freedom of expression and exposed the limitations of blind adherence to one particular article of a human rights statement (Sturges, 2006).

FAIFE seminars and workshops on intellectual freedom issues are held in developing regions of the world, including Africa. The most recent was a FAIFE workshop on Intellectual Freedom and the Information and Knowledge Society held at

SCECSAL<sup>3</sup> XVII in Dar es Salaam, Tanzania in July 2006 (IFLA, 2006a). Mention should also be made here of the GIOPS-FAIFE<sup>4</sup> African Seminar and post-WSIS Conference, held in Addis Ababa, Ethiopia, in March 2006, which dealt with the role of libraries in strengthening democratic progress and economic development through free access to information, especially government information (Kirkwood, 2006b; 2006c). For the August 2007 IFLA Congress in South Africa, a FAIFE satellite meeting was planned on the role of libraries in fighting corruption, censorship and poverty.

### Information equity: CLM

The Committee on Copyright and Other Legal Matters (CLM) is the IFLA core activity that promotes fairness in intellectual property rights and measures affecting access to information through libraries. It was set up in 1997 to advise IFLA on:

*... Copyright and Intellectual Property, Economic and trade barriers to the acquisition of library material, Disputed claims of ownership of library materials, Authenticity of electronic texts, Subscription and licence agreements, Other legal matters of international significance to libraries and librarianship.*

Since then, its scope has extended to such issues as access to digital resources, digital rights management and anticircumvention technology, public lending right, protection of indigenous knowledge, and treaties on cultural diversity and access to knowledge (Scott, 2003; Tabb, 2005).

What do all these topics have in common? All have to do with legal and economic barriers to free and equitable access to information. In principle, information should flow from creators to users through intermediaries, to the benefit of all parties. Content creators (e.g. authors) should receive recognition and appropriate recompense. This can be a direct monetary reward, as in the case of authors of novels, children's books or

<sup>3</sup> SCECSAL is the acronym for Standing Conference of Eastern, Central and Southern African Library and Information Professionals.

<sup>4</sup> GIOPS is the acronym for IFLA's Government Information and Official Publications Section.

textbooks, composers or performers. But the reward may also take the form of prestige and career advancement, as in the case of authors of articles published in scientific and scholarly journals. Users (e.g. readers) should benefit from access to information and works of the imagination that contribute to education, economic development, and both material and spiritual quality of life. Intermediaries (unless in the public sector) should derive a return on their investment in packaging and disseminating content.

In the Gutenberg era, a system of intellectual property evolved that sought to balance the interests of authors and their readers. In the information society, however, information has become a commodity. Modern information and communication technologies, globalisation, and the commodification of information have upset the balance, giving excessive power to intermediaries such as publishers who, rather than authors, tend to be the rights holders (Britz & Lor, 2003; Lor & Britz, 2005). Inappropriate use of the power held by information intermediaries can present serious obstacles to the transmission of content to users, particularly users in developing countries. For example:

- Steeply rising, unaffordable prices (cf. ARL, 2004; Dewatripont et al., 2006)
- Unfair licensing schemes
- Double dipping (in the case of scholarly publishing, the client or the client's institution is made to pay twice, first for content creation, then for access to it)
- Excessive profits
- Predatory intellectual property tactics, including unreasonable extensions of the term of copyright, extension of copyright to content in the public domain, and anticircumvention technology that, while protecting copyright, also locks up content that should be freely accessible.

Libraries and users in developing countries are most severely affected by these conditions (Britz et al., 2006), but even the wealthiest research libraries in developed countries are affected. As the international body representing libraries and their users, IFLA regards this issue as one of major concern, and has formulated as one of its priorities "balancing the intellectual property rights of authors with the needs of users" (IFLA, 2001a).

In pursuit of this priority, CLM engages in a range of advocacy activities, including research and policy development leading to the release of IFLA statements on important issues, awareness raising, networking and coalition building, and representation and intervention at meetings of international bodies. Like the FAIFE Committee, the CLM consists of members nominated by the library association and institutional IFLA members in their countries, who represent their own country or wider region, together with a small number of expert resource persons. Unlike FAIFE, CLM does not have a dedicated office or staff. In spite of this, it has an impressive record of achievement.

An important CLM activity has been to raise awareness in the library community and provide guidance to the profession on issues that have implications for library collections and services, for example, in respect of electronic or digital resources. The growing importance of digital resources has proved to be a mixed blessing for libraries and their users. On the one hand, the digital environment opens up new possibilities to provide faster and more convenient access to resources. This enables librarians not only to enhance their services, but also to reach out to new or underserved library users, for example users in developing countries with very limited library resources. On the other hand, the digital environment offers the holders of content rights new means of controlling access to content and whittling away the amount of content which, in conventional printed formats, would have been freely accessible under fair use exemptions.

Claiming that "digital is different", content owners have argued that such exemptions and limitations to copyright are not appropriate to digital content. However, as stated in its position statement, *IFLA Position on Copyright in the Digital Environment*, developed by CLM, IFLA contends that "digital is *not* different" (IFLA, 2000).

The CLM followed up the position paper by preparing guidelines for the use of librarians having to negotiate licensed access to electronic resources. The Licensing Principles cover such aspects as sound legal practice, fairness in contracts, conditions of access and use, the position of end users, long-term access and archiving, pricing, provisions for interlibrary loan and document delivery, and access for distance education students (IFLA, 2001b).

In 2004, IFLA issued a significant and comprehensive statement on limitations and exceptions to copyright and neighbouring rights in the digital environment (IFLA, 2004). It makes a case for preserving the balance originally established in copyright laws between creators and users of content:

*The original purpose of copyright was to protect the author or creator in the wider public interest. We now live in a digital age and there is a danger of copyright becoming a legal protection mechanism for commercial conglomerates. There is a growing threat to the public interest aspect of copyright, with certain copyright owners wielding an enormous power to set their own rules and build a "private legislation" that does not necessarily take into account the balance created in copyright laws [...] Although no one denies rights owners the right to obtain a return on their investment, limitations in the form of exceptions must be part of the equation to ensure that society may also obtain a similar return on its investment in education and research. Only in this way will a balance be achieved.*

On behalf of IFLA and the international library community, CLM has taken this battle to the international intellectual property arena, lobbying for example at the World Intellectual Property Organisation (WIPO) and the World Trade Organisation (WTO). In doing so, CLM has also been concerned with raising general awareness of the issues, which may seem remote to librarians at the local level. An example is the publication *Tips for TRIPS* (IFLA, 2002), intended to help the library community to understand what is at stake in the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). TRIPS brings intellectual property under the WTO's international trade regime and sets common standards for intellectual property for all WTO members.

This has negative consequences for developing countries, which are coerced into enacting restrictive copyright legislation that is arguably inappropriate to countries at that development stage, and certainly were not applicable to countries such as the US when it was at a comparable developmental stage (cf. Khan, 2007). It is well known that in the 19th century the works of the British author Charles Dickens were pirated on a large scale in America (Ward, 2002; Wikipedia, 2007).

CLM's international advocacy work covers a wide range of issues. It has been active at WIPO in debates on the Access to Knowledge ("A2K") Treaty, and works with the World Blind Union on access to library materials for print-disabled readers. CLM was also active in recent meetings at UNESCO, including meetings during 2001–2005, at which the UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Contents and Artistic Expressions (popularly known as the Convention on Cultural Diversity) was hammered out. At the WTO, CLM has taken a keen interest in the General Agreement on Trade in Services (GATS) which, in opening up national markets for service industries and public services to international competition, may have unintended negative consequences for free public libraries.

In its advocacy work CLM does not work in isolation, but rather in close partnership with other organisations such as the European Bureau of Library, Information and Documentation Associations (EBLIDA) and Electronic Information for Libraries (eIFL). CLM also works closely with national associations and coalitions such as the Library Copyright Alliance<sup>5</sup> in the US. CLM is represented in the IFLA/IPA Steering Group, a joint forum of IFLA and the International Publishers Association (IPA), where matters of common concern and issues on which librarians and publishers disagree are discussed (Tabb, 2005).

The issues with which CLM is concerned are highly relevant to developing countries. In this context it is worth noting that an Africa Copyright and Access to Information Alliance was launched in November 2005 at the Africa Copyright Forum Conference, co-sponsored by IFLA, which was held in Kampala, Uganda. This is a potentially important development in the struggle for equitable access to information in Africa, where governments are being pressurised into adopting extremely restrictive copyright legislation in order to qualify for so-called free trade agreements with developed countries (Nicholson, 2006). Such restrictive legislation

<sup>5</sup> The Library Copyright Alliance is an alliance of the American Association of Law Libraries, the American Library Association, the Association of Research Libraries, the Medical Library Association, and the Special Libraries Association.

tends to eliminate fair use exemptions for libraries and academic use in spite of their being widely available to users in developed countries. It is also worth noting that, in Africa, there is an externally driven movement to set up reproduction rights organisations to collect royalties for rights holders when copies are made. While authors and other creators are fully entitled to their royalties, in some African countries this is like setting up toll plazas before the toll roads have been constructed.

### **Inclusion: Information society advocacy**

IFLA's advocacy on the ethical theme of inclusion is an activity that crystallised around IFLA's participation in WSIS. Here there is some overlap between the political and the ethical concerns outlined in the introduction to this chapter, since in IFLA's advocacy work inclusion has a twofold meaning. It refers to the library as an agency of social inclusion, as well as to the inclusion of the library as a key agency in the information/knowledge society.

A World Summit on the Information Society was first proposed by the International Telecommunication Union (ITU) in 1998 and the proposal was endorsed by the United Nations General Assembly in December 2001. Unusually, WSIS took place in two phases. The first phase was held in Geneva on 10–12 December 2003 and the second in Tunis on 16–18 November 2005 (Berry, 2006), preceded by further PrepCom and related meetings. In the course of this long process, the focus shifted from the somewhat technological emphasis of the ITU to a more balanced approach encompassing social, cultural, economic and political factors. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) came to play a more prominent role in the summits, along with a large number of NGOs, referred to broadly as “civil society”. One could say that there was a shift from the “digital divide”, with its technological emphasis, to the “information society”, a more multidimensional concept.

During the Geneva phase, the broad themes concerning the information society were discussed and two documents, a *Declaration of Principles* and a *Plan of Action*, were prepared and adopted (WSIS, 2003). This gave rise to questions as to what remained to be done in Tunis, where

the focus was to be on implementation. The main outstanding issues that had not been resolved in Geneva concerned the following:

- Internet governance
- How to finance the bridging of the digital divide
- Modalities of follow-up (whether a new UN structure should be set up to monitor and evaluate progress following the Tunis summit)

At Tunis, all three of these issues were hotly debated. Internet governance proved a sticking point until almost the last minute, when a compromise was reached according to which the Secretary-General of the UN would set up a multistakeholder Internet Governance Forum with some moral authority, but little else. The governments of most developed countries proved unwilling to make a firm financial commitment to bridging the digital divide. Neither were they keen to see yet another agency added to the UN family to oversee the implementation of the WSIS action plans. Hence WSIS follow-up responsibilities are being distributed among a number of international agencies, with the ITU and UNESCO playing lead roles in respect of many of the action lines that had been defined in the Geneva action plan.<sup>6</sup>

Among civil society groups there was some anxiety that some of the commitments of principle made in Geneva might be watered down under pressure from certain governments. In particular, given the very poor human rights situation in the host country, Tunisia, it was anticipated that attempts might be made to water down the firm commitment to freedom of information that had been made in the Geneva document. In the event, a number of governments attempted to do this in Tunis, but they were unsuccessful.

Thanks to intensive and sustained advocacy work by IFLA and its allies (Byrne et al., 2004; Haavisto & Lor, 2006; Kirkwood, 2006a; Mahnke, 2006), the principles and action plan document adopted in Geneva contained some very favourable language concerning the role of libraries in

<sup>6</sup> Since the Tunis summit, the UN-wide follow-up of the WSIS summits is the responsibility of the Commission on Science and Technology for Development (CSTD) of the UN Economic and Social Council (ECOSOC).



the information society. In the library community there were fears that some of these gains might be eroded during the second phase of the summit.

In the period between the two phases, IFLA continued to stress the value of libraries as agencies promoting national progress in the information society. IFLA's argument was that it is not necessary to invent new agencies to provide the peoples of the world with access to networked knowledge resources. Such agencies already exist – they are called libraries. In some countries libraries are doing a great job in providing their people with access to networked information. In other countries, only a modest additional investment would be needed to enable them to do this effectively. In November 2005, just before the Tunis summit, IFLA, together with the Biblioteca Alexandrina, organised a pre-summit conference in Alexandria, Egypt, on the theme “Libraries: The information society in action”, in which success stories illustrating the role of libraries in the information society were showcased. At the end of the pre-summit, IFLA launched its *Alexandria Manifesto on Libraries: The information society in action* (IFLA, 2005a).

In the event, the Tunis summit also provided IFLA with an excellent platform for promoting the role of libraries in the information society. IFLA's efforts did not go unrewarded and the gains that had been achieved during the Geneva 2003 phase were successfully carried forward to the final document. In paragraph 90(k) of the *Tunis Agenda for the Information Society* (WSIS, 2005), the key concluding document of the Tunis summit, the role of libraries in providing equitable access to information and knowledge for all, is emphasised. The document reaffirms a commitment to “providing equitable access to information and knowledge for all” and to use ICTs as development tools by:

*... supporting educational, scientific, and cultural institutions, including libraries, archives and museums, in their role of developing, providing equitable, open and affordable access to, and preserving diverse and varied content, including in digital form, to support informal and formal education, research and innovation; and in particular supporting libraries in their public service role of providing free and equitable access to information and of improving ICT literacy and community connectivity, particularly in under-served communities.*

From IFLA's perspective, there are currently two main lines of follow-up of the WSIS summits. One concerns the Internet governance issue and the setting up of the Internet Governance Forum. The other concerns the 11 “action lines” described in the Geneva plan of action (WSIS, 2003). For each action line, a UN organisation (e.g. ITU or UNESCO) has been appointed rather quaintly as “facilitator” or “moderator”, with an individual being designated as the “focal point”. Various facilitation and consultation meetings are taking place to set the follow-up activities in motion.

IFLA has allocated priorities to each of the action lines, and is concentrating on the action lines of highest priority, namely:

*Highest priority:*

C3 Access to information and knowledge

*High priority:*

C1 Promotion of ICTs for development

C4 Capacity building

C8 Cultural diversity and identity, linguistic diversity and local content

C10 Ethical dimensions of the information society

*Medium priority:*

C7 ICT applications (some of these are allocated a high priority)<sup>7</sup>

IFLA has set up a working group, designated as the President-Elect's Information Society Working Group, to keep abreast of progress in respect of the action lines and other important issues (such as Internet governance) arising from WSIS, but not limited to it.

An important objective of IFLA's post-WSIS advocacy has been the empowerment of the library profession at the national level to advocate for the inclusion of libraries in national information society strategies, information policies, and budgets. This is pursued by means of workshops and presentations at conferences such as the WSIS Follow-up Conference on “Access to information and knowledge for

<sup>7</sup> The short titles of the action lines can sometimes be misleading. The selected priorities make more sense when the full text of each action line is studied.

development", held in Addis Ababa in March 2006, where a workshop was held on building African capacity to implement the outcomes of WSIS in respect of libraries and access to knowledge. An analysis of the WSIS action lines and how they can be used in advocacy for libraries is available on IFLA's website (IFLA, 2006c).

## Conclusion

Although they have been discussed separately here, the three advocacy themes are clearly interlinked. Freedom of information without equitable access regimes is a hollow promise. An equitable intellectual property regime is of little use to communities and groups that are excluded from the information society. Hence advocacy work should not be conducted within silos.

Responding to the clearly expressed need of its constituency for IFLA to take the lead in international advocacy for libraries and access to information, IFLA is consolidating its advocacy efforts by setting up a small, professionally staffed advocacy unit at its headquarters in The Hague. The unit will focus on the three themes outlined here, but they will not be separated into three "silos". Instead, the unit will seek to achieve synergy. Advocacy staff, supported by other headquarters staff, will be involved in the generic advocacy processes of research and monitoring, horizon scanning, policy development, networking, representation, education and awareness raising.

Of course, one or two professionals cannot possibly cover all bases and be present in every forum where issues affecting libraries and access to information are decided. FAIFE, CLM and the WSIS team have achieved significant impact through the efforts of volunteers. IFLA will continue to rely heavily on the expertise and dedication of its members. In the advocacy unit, the emphasis will be on mobilising the skills and expertise of the worldwide profession, networking, facilitating and coordinating. Such an approach is appropriate to a profession that values freedom, equity and inclusion, and has a long tradition of expressing this through cooperation and sharing.

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## **Rights versus diversity? The accelerated extinction of languages and cultures as an aspect of globalisation trends**

Anthony Löwstedt

*This chapter starts from the assumption that linguistic diversity and, more generally, cultural diversity, are intrinsically good. It looks at their opposites – linguistic and cultural poverty – and the current tendencies towards the latter within the globalisation process. The chapter also briefly explores the relationship between human rights and cultural diversity, which may be viewed as somewhat problematic, but the emphasis will be on what is considered the essential aspect of that relationship, namely the mutually reinforcing relationship between rights and diversity, and between their opposites, human rights violations and cultural uniformity (cultural poverty). In this context, the issue of legislative protection and promotion of cultural diversity will be investigated from a global perspective. Finally, the author wishes to assess the roles of Africa and of Africanity with regard to these issues.*

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## The impending disaster

The forms in which information comes and goes are crucial, but they are sometimes overlooked or underestimated in information ethics, as elsewhere. Language is still the most conspicuous form of information and we tend to rush to use English although there might be other possibilities. Even philosophers and information theorists are usually more concerned with the subject matter of the language used, i.e. the meanings of the words and sentences, than with their linguistic forms. We therefore tend to see language as a means more than as an end. Yet, linguistic diversity is central to cultural diversity, as well as to information ethics, and it is suffering appalling defeats today.

Because we think so much in words, the loss of languages limits the possibilities of human thought, knowledge and communication. Indigenous knowledge is being lost as a result of the death of languages. More than half of the world's languages, perhaps even as much as 95%, are threatened with extinction by the end of this century (UN, 2001). This high rate is perhaps unprecedented in human history. We and our children will therefore almost certainly live through the era during which most languages will die. And Africa is the continent that is hardest hit (FEL, n.d.).

Analysts mainly blame the spread of commercialism and consumerism, and also the rapid global spread of English, as the main factors behind this. It is perhaps the greatest threat ever, not just to linguistic diversity, but also to cultural diversity. There are many additional factors, however, such as United States and United Kingdom-driven cultural imperialism; discriminatory short-sighted policies aimed at supporting members of linguistic minorities;<sup>1</sup> urbanisation;

and monopolistic, oligopolistic and expansionist developments in communications business and technology. Other factors include sharp population increases and territorial expansions of already large human populations, and the spread of French, Arabic and Chinese (Hamelink, 2001).

## The international system

The concept of "linguistic genocide" was defined separately from physical genocide and roundly condemned by the United Nations (UN) in the final draft of the 1948 Convention on the Prevention and Punishment of the Crime of Genocide. But then the article on linguistic genocide was voted down by only 16 members, most of them powerful North Atlantic states (Capotorti, 1979; Skutnabb-Kangas, 2000).

Beyond outright genocide, it is likely that some other sort of oppression, whether classicism or racism, is at work when linguistic diversity suffers. These may be the kinds of situations in which an indigenous language is not targeted, but it ends up as "collateral damage". Today, in so-called post-colonial Africa, around 90% of Africa's intellectual output is produced in European languages. Not even a single treaty between Europe and Africa exists in any African language. In more than half of Africa's countries, the official language is different from the language most used by the citizens, and only 13% of African children are receiving primary education in their mother tongue (Wa Thiong'o, 2003; Skutnabb-Kangas, 1998).

The answer of Africa and much of the rest of the developing world's countries so far has been to put the West to shame. India has 16 official languages. South Africa, a country with some 40 million inhabitants, embraced a total of 11 official languages after liberation from apartheid in 1994. In contrast, the European Union, an association of 27 economically well-off countries (most of whom joined after 1994), has only 26 official languages, less than one per country on average. The US, home to 300 million people, also has only one

<sup>1</sup> One example would be offering schooling in English to indigenous Canadian non-English-speaking Inuit children, officially so that they can compete in the wider labour market. Another example would be all-Bulgarian schooling for Roma children in Bulgaria. If anything, this policy is evidence of the decision makers' failure to see the forest due to the overabundance of trees! These children will be behind their native English-speaking peers from the very start and will often never catch up. Most likely, they will be put in classes for students with learning disabilities and fall behind further. The solution is, of

course, to offer schooling in both languages, but the moral dilemma, between the individual human right to choose education (for oneself or for one's child) and the duty to preserve and promote cultural diversity, will remain, at least on the individual and familial levels.

de facto official language. Canada, the second largest country in the world, has only two. All of these North Americans only use European languages officially. On the other hand, an estimated 50% of Native American languages, spoken on the continent before the invasion by Europeans, have died out or been killed off. Due to long-lasting centralised states and brutal histories of war and conquests, within their own continents as well as outside them, Western Europe and North America today have the lowest rates of linguistic diversity in the world. Europe is by far the poorest continent with regard to linguistic diversity. Only 3% of the world's languages are spoken there. The percentage of languages spoken on other continents is as follows: 15% in the Americas, 30% in Africa, 32% in Asia and 20% in the Pacific region (Cru & Ponce, n.d.). Yet, nobody seems surprised today when someone says that "Europe is rich" or "Africa is poor".

The concept of globalisation is often taken to involve progress beyond the nation state, since transnational corporations now act regardless of state borders, but in fact the division of the world into a worldwide system of sovereign nation states is a prerequisite for globalisation. The essential characteristics of this system is that the world is divided into around 200 sovereign nation states typically covering huge tracts of territory and containing millions of people. A global market incorporates (or is superimposed upon) all these states, but there is no global state to regulate the global market. As there are 5 000 to 7 000 languages in the world today and up to 95% of them are threatened by extinction within this century, we can see where we are rapidly heading if current trends prevail: towards a maximum of around 200 languages worldwide.

In order to save cultural diversity, we must realise that the global system of nation states, both before and during globalisation, is a huge disaster leading us towards unprecedented global cultural impoverishment, and probably also to massive and otherwise avoidable human rights violations. The bankruptcy of the nation state is not, however, a complete cultural bankruptcy. Obviously, nationality is part of cultural identity for billions of people. It is the sovereignty that is the problem. Africa should not consist of 54 countries, but rather of 2 500. That is the number of languages spoken on the continent at

present. But the Africans were not always allowed to draw their own borders. Not even the people of Europe were asked to draw their own borders. The European elites did it, all over the world. It is a political, democratic and moral bankruptcy. And it is a cultural disaster.

There are precedents, though rather in the realm of religion than language. For example, the introduction of Christianity as the state religion of the late Roman Empire meant the near demise of the ancient Egyptian, Greek, Roman and other religions. Perhaps it also brought a fresh sense of identity to many people who had found less and less meaning in the old religions. Nevertheless, from the points of view of cultural diversity and human rights, tolerance instead of institutionalising religion would have been far better.

### **Mainly a North Atlantic responsibility**

The North Atlantic elites do not seem to like to be told or reminded of these events, or of their responsibility for it, but this is exactly what they must be told and reminded of if cultural and linguistic diversity is going to have any chance of escaping the most pessimistic prognoses. The abysmal record of the North Atlantic with regard to cultural and linguistic diversity, at home and abroad, must become a prioritised message of ambassadors from South Africa and the rest of the world to the Western countries and powerful globalised North Atlantic institutions, such as the UN, the World Trade Organisation (WTO), the International Monetary Fund (IMF) and the World Bank. Here, for once, South Africa is able to argue from a position of strength, and, more importantly, from a moral high ground.

Not only knowledge is lost with the extinction of a language. Literature (oral as well as written) is also irreversibly lost, so too wisdom and sometimes individual human lives. As Native Americans, Swedish Sami and Australian Aborigines lose their languages, knowledge, religions and myths; they lose their "bearings" and place in the world as well. Alcohol and drug abuse, and high suicide and crime rates are often the consequences. Some try to fight back against the immediate threat, against the culture that is replacing theirs, for instance the militant Basques in Spain, and therefore lives are being lost outside the threatened ethnic groups as well.

Cultural and linguistic diversity should, in my opinion, not have to be justified. Although they can be a means of survival (e.g. the use of Amazon herbal medicines to prevent cancer) or a means of wellbeing (e.g. Hoodia, the plant used by the San to lose sensations of hunger, which can also be used by obese people to lose weight), they should also be seen as *intrinsically* good. Cultural diversity is not just good as a means; it is also an end in itself. It does not merely make the world a more interesting, more beautiful and more fun place; it is good in and by itself.

Does this mean that, say, 6 billion different languages would be better than 3 billion languages for today's world? Not at all. Long-term viability and effects, such as the inevitable, constant mergers and fragmentations of languages must be taken into consideration. I am not extending an invitation to another Tower of Babel. People can learn additional languages more easily if they know their own well.

The current world language status of English enables communication between more people than ever before. (Unfortunately, so far it seems mainly to consist of one-way communication *to* more people than ever before.) Yet the Jamaican and West African varieties of English are beginning to manifest characteristics of becoming more than just dialects, namely new languages. I believe Africans, at home and in diaspora, can teach many Westerners that it is normal for one person to be able to speak many languages. Cultural diversity does not end even with the individual human being, because each single one of us is a carrier of many cultures as well as a potential of new cultures.

The average number of native speakers of a language today is 5 000 to 6 000. The largest number is 850 million – Mandarin Chinese. Only 80 languages are spoken by more than 10 million people. Such a high number is only achieved by means of imperialist expansion (Cru & Ponce, n.d.). A better distribution would be fewer mega-languages, fewer native speakers of the 80 mega-languages, and more substantial numbers of native speakers of threatened languages. Moreover, special efforts should be made to save language groups and isolates, such as the entire Khoisan language phylum of southern Africa, or the indigenous Japanese Ainu language, which has no known relatives and is spoken by only around 150 people today.

## UNESCO initiatives

Along with biodiversity, cultural diversity should perhaps take on and challenge “human rights” as a rallying point for the 21st century. On the occasion of adopting UNESCO's 2001 Declaration on Cultural Diversity, the organisation's Director-General expressed the hope that it would “one day acquire as much force as the Universal Declaration of Human Rights” (UNESCO, 2001). Yet, most of the time, diversity does not contradict human rights. Rather, they reinforce each other, but so do their opposites.

Of all countries in the world, only the US and Israel voted against UNESCO's legally more binding Convention on the Protection and Promotion of the Diversity of Cultural Expressions in 2005. The US routinely vetoes international condemnation of Israel's violations of human rights. The US's vetoes in favour of Israel in the UN Security Council since 1982 actually outnumber all other vetoes by all other permanent Security Council members combined. And so, perhaps, Israel feels obliged to assist the US when the US wants backing for less cultural diversity and more homogenised cultural products and markets at home and abroad. But the proliferation of overwhelmingly pro-Israeli cultural products of Hollywood and other US media products (especially news products) dealing, if ever so slightly, with the Middle East, is of course also in Israel's interest (Unescopress, 2005; Mearsheimer & Walt, 2006; Löwstedt, 2007).

Even if cultural diversity has a somewhat tense relationship with individual rights, under certain circumstances they are in my opinion not antithetical concepts. I believe this is best seen by looking at the powers that regularly violate human rights and counteract cultural diversity. The fate of global cultural diversity has ended up hostage to power politics and insatiably profit-hungry media corporations and their advertiser clients. This is not acceptable. The opposite of cultural diversity is not unity, but cultural poverty. But not only linguistic diversity and cultural diversity are held hostage, human rights are, too.

In official comments on the devastating vote against the US and Israel (148-2, with four countries abstaining), the US said the UNESCO treaty is “deeply flawed”, protectionist, and a threat to freedom of expression (Pauwelyn, 2005). Freedom of expression is a basic human right



(UN Universal Declaration of Human Rights, §19), and it appears far-fetched indeed that US cultural products could help to further freedom of expression more when the world is already full of them. It is, in my view, a much graver threat to freedom of expression that so many cultural products need an unofficial go-ahead from the West nowadays in order to reach any mass audiences at all.

One rather covert apologist for the Americans, Joost Pauwelyn (2005), suggests there are two ways of “how best to sustain minority cultures – through public institutions, subsidies and screen quotas, as the [UNESCO] convention implies, or rather by vigorous antitrust rules and the free flow of ideas, as its critics retort”. But he does not mention the obvious facts that vigorous antitrust rules for the global market (which is the mass media market of today) can only work through a global authority, i.e. a world state, and that the US is doing everything it can to prevent the appearance of an authoritative regulator of the global market, i.e. a world state (Monbiot, 2003). The refusal of the US to recognise the International Criminal Court; international conventions against torture, biological weapons, landmines and child labour; the Kyoto Protocol against climate change; and the UN Human Rights Council, is evidence of its opposition to any kind of global democracy or even pluralist global regulation.

### **The most daunting threat to cultural diversity?**

I agree with Pauwelyn that vigorous antitrust rules and the free flow of ideas could do much to sustain minority cultures, but the US is too formidable an obstacle to even entertain the idea of implementing such rules, let alone executive powers that are not controlled by the US itself.

Anthony Giddens and Will Hutton (2000) wrote that a global antitrust regime (an “international competition authority”) is necessary to save democracy, and that the single-most important business to regulate in this regard is the mass media, because the increasingly oligopolistic transnational mass media giants, whether they are Murdoch’s News Corporation, Berlusconi’s Fininvest, or the American-Japanese Time Warner Sony network, are hollowing out democracy worldwide. But this call for sanity has never been

formally echoed by any US or European official. Herein lies possibly the most daunting threat to cultural diversity.

The US’s charge of protectionism against the UNESCO treaty is also suspect. Granted that WTO rules aim to overthrow protectionism, and that the EU member countries all voted for the UNESCO convention for mainly selfish reasons, such as saving their own film industries, it should be remembered that the WTO is an American invention and an arm of US power, and that cultural products cannot be treated like washing powder (Monbiot, 2003). Unfortunately, the economies of scale that now govern the global cultural market can currently only be limited by state protection. State protection in the UNESCO context is not “protectionism”; it is a desperate, last resort to enable the possibility of survival.

Therefore, UNESCO’s cultural diversity convention is the next best thing. Only a fully democratic world state with the authority and enforcement mechanisms necessary to implement vigorous global antitrust policies would be better. And the official US objections to the UNESCO treaty are nowhere near constructive criticism. From the point of view of cultural diversity, they are in fact destructive and otherwise little more than self-serving hypocrisy.

### **Africa’s central role in the future**

In my view, one of the most important things that Africa can teach the rest of the world today is that cultural and biodiversity must prevail. This can be done by practice as well as teaching.

Another important, related thing that Africa can teach us is the unity of humankind: ethically, historically, socially, culturally and even genetically. In my opinion, Africa has suffered, and is still suffering, greater ethical wrongs than any other continent. I am referring to the racist Transatlantic and Arab systems of slavery, as well as to colonialism, apartheid, neocolonialism and more. Yet, still, there is astoundingly little vengefulness or even bitterness in African behaviour towards Europeans, Westerners or Arabs.

Historically, Africa is the source of civilisation and through the ancient Egyptian civilisation it is one of the most important roots (next to Sumer) of ancient Mediterranean and Levantine

civilisations, including the three great monotheistic religions and the ancient Greek as well as the Roman civilisations, whose latter-day offshoots today dominate the world. In terms of human genetic variation, the rest of us humans all fit inside a mere parenthesis within the great spectrum of African genes. Africanicity is a necessary complement to cultural diversity. As opposed to the uniformities and cultural poverty resulting from, or imposed by, global anarchic capitalism and by North Atlantic political, military and economic power, Africanicity has always been, and still is, a unity that enables and promotes cultural diversity. I am not saying it is the only one. Humanity or, what I think is a better concept, *ubuntu*, is another.

If democracy is to progress at all, then there must be at least a vision of the global democracy to which I have referred above, in which the humble African peasant woman has a vote equal to that of the president of the US, or to the president of the European Commission, or to the chairman of the board of News Corporation International.

Finally, it appears to me that information ethics, whether African or not, must not merely be viewed with individual rights (or duties) in mind. Yes, human rights are good and crucial to human welfare, but *only* if they are understood as the rights of individuals, they will not be conducive to cultural diversity or biodiversity and, therefore, not to humanity or *ubuntu*. Solidarity, tolerance and social rights are lacking in today's world, and at least this may be shown to the impoverished parts of the world by Africa, not least with regard to its still wonderful cultural diversity.

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## **Security thought in Africa in the context of global ethics**

**Jacob Emmanuel Mabe**

*There are few themes today that bear as much political significance as that of security. As a philosophical concept, security is an ancient human ideal to which individuals as well as communities have constantly aspired. This chapter focuses not only on thought about security issues in Africa in the context of global ethics, but also on the role of the new “drums and bells”, namely the modern informational media, for the diffusion of knowledge in Africa. The Internet, mobile phones, etc. are to be seen and accepted by Africans as an essential part of modern world culture.*

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## Introduction

Security is a political principle, the primary function of which is to guarantee national and international peace. Thus, this concept cannot be viewed exclusively through its political or economic aspects, because it is a problem that encompasses all areas of life. Security is also an ancient human ideal to which individuals as well as communities have constantly aspired.

The politicisation of the question of security is indeed not new. In the time following the apocalyptic attack of 11 September 2001 on New York, the metropolis of modern capitalism, debates about security have taken on an unforgettable global dimension.

As the immediate victim, the US not only inspired worldwide compassion, but also experienced an indescribable solidarity. Indeed, the US exploited this sympathy to gain the commitment of all Western countries under its aegis, as well as many other governments, in the fight against terrorism. Meanwhile, most countries treated defence against terror as an urgent duty for their own stability and security, as well as for that of the international community.

Although terrorism is a global concern, African governments cannot grant it such a high priority, as the international fight against terrorism works to their disadvantage.<sup>1</sup> Apart from the fact that Africa has concerns of its own, security can only be an issue if people have serious worries and fears about their lives. In this light, security only becomes a truly global issue if there should arise a situation threatening the existence of humanity at large.

Whoever considers, for example, war, terrorism, AIDS, witchcraft, climate change, poverty, religious extremism, etc. as global concerns should at the same time search for universal concepts towards their solution. What is meant by “universalism” is nothing other than a mode of thinking that is only realisable through a fusion of the awarenesses of multiple cultures. In the context of a universal awareness, the question arises whether approaches to security in Africa up to now can offer theoretical foundations for a

world or global ethic for such intercultural debates as those over security.

This chapter focuses on thought about security concerns in Africa by reviewing the perspectives of modern thinkers in written records, without ignoring the oral tradition, which is still highly respected in African philosophy (cf. Mabe, 2001, 2005; Hountondji, 1995).

## Security in oral traditions

Especially in oral traditions, there are peoples who believe that security can be satisfied less by material goods than by a spiritual energy that counters negative intrusions on human life. This energy, also called “vital force”, embodies all constantly active immaterial forces in human beings, providing not only good health, a balanced nature, satisfaction and thus security, but also transmitting the inner confidence that one does not have to be afraid of anything.

There are people in Africa who believe in the existence of such forces, which can protect them from unnatural death and incurable diseases, as well as from witchcraft and magical attacks that can cause mental and physical suffering (Oluwole, 1992; Hebga, 1982). They believe that these forces make them immune. Along with faith in the positive effect of vital force, there is an almost boundless dominance of the spiritual self over the possession of material goods (money, wealth, food, accommodation, clothes, etc.).

This view of security, which relies primarily on oral traditions, has a large influence both on ethno-philosophy as well as on other scientific disciplines dealing with traditional myths and rules of life. As far as vitality is concerned, its effect is interpreted in the oral-traditional metaphysics as a transcendent moment, whereby the soul moves between the sensory and extra-sensory sphere and between this world and the next. Although this association of vital force and security may appear mystical, it must not be attributed to superstition; rather it has a rational basis.

Beyond its rationality, the concept of security proves that the feeling of need in traditional Africa was no simple projection of emotions on social and cultural life, but was rather connected with intellectual life. The ensuing ideas have an

<sup>1</sup> Njoh-Mouelle (2006:19) remarks: “Il faut distinguer entre les intérêts en Afrique et les intérêts de l’Afrique.”

integrating function, merging the concept of security with the concept of one's own life process, ultimately creating the idea that the protection of the individual is synonymous with the protection of the community.

The rationality of the oral-traditional consciousness is self-explanatory in its differentiation between security as a need based solely on sensations such as fear, isolation, mourning, powerlessness, desperation, etc., and security as the necessity of thinking reasonably in order to preserve one's life. It is precisely the confrontation with the circumstances of a mundane existence that forces human beings with a talent for common sense to use their vital force (and not magic powers), as well as their extrasensory or transcendent ability. Reason thereby has the function of increasing the sensitivity of a human being in such a way that he senses his vital force and can use it accordingly.

The belief also exists, however, that if a person has low vital force, his intrinsic sensitivity may not be sufficient for either recognising his vital force or finding compensatory forces to strengthen his mental and physical efficiency. It may be that one can attain security autarchy by rescinding or compensating for one's insufficiency in spiritual energy. There is unfortunately not a single oral-traditional teaching that rationally explains what vital force is and how one obtains it.

It would be correct to say that one can make the connection to the other world by exact knowledge of the laws of nature, which one acquires by the methods of initiation, inspiration and mediation. In the oral tradition one speaks of contact with immaterial essences (i.e. the ancestors), who allegedly determine the interrelation between the other world and this one. In doing so, the ancestors are regarded as intermediaries between the visible and the invisible worlds, between the living and the dead. In all likelihood, memorial celebrations for the ancestors probably developed from the need to call for the assistance of the deceased.

Other peoples in Africa practise no ancestral cult but nevertheless regard their deceased relatives as companions of fate who are always present despite their invisibility, not only with them, but also protecting them against curses. Some who often visit fortune-tellers, oracles, clairvoyants

and visionaries wish through them to re-establish an interrupted link with their ancestors. Carrying talismans, amulets, pieces of bark and other jewellery made of gold, silver or diamonds is linked, however, to the intention of preventing the entrance of evil and thus achieving a life absent of suffering without the direct effect of vital force.

During ancestral memorial celebrations, which symbolise the meeting between the deceased and living persons and which are still practised in many parts of Africa, the dead are called upon to be constantly present among their living descendants and to provide for their security. The ancestral faith in Africa has been able to last mostly because of the general attitude of malaise towards all cultural and social areas having to do with modern trends.

Through modernisation, egoism, power, greed for money, individualism, fame, luxury, personal prestige, etc. have caused the decay of traditional customs and morals. From this moral erosion, two almost irreconcilable and antagonistic developments have resulted: on the one hand, a return to superstition at an explosive rate, and on the other hand, a rapid return of the struggle towards the spiritual. It is precisely this dominance of the spiritual that proves that not all Africans are victims of moral perversion, but rather that many have remained faithful to their ethical and metaphysical traditions. Indeed, their spirituality may indicate a nostalgic striving both for proximity to the ancestors and for harmony. Security for most Africans is reached only if people live in harmony with themselves, their environment and their fellow men.

Among the spiritual inheritances of the oral tradition lie the rituals, the customs as well as the living norms documented in the various languages, which for generations have been the basis for the metaphysical, ethical, cosmological, logical aesthetic thinking and behaviour of the African peoples. They are the most important indications of African spirituality, and of the fact that previous generations did not understand life as a random process but as a decision – a conscious act of free will. The oral traditional inheritance may be based on unwritten theories; it nonetheless represents a substantial source without which a complete or adequate development of security consciousness is not possible in Africa.

Although the following security concepts have been passed on verbally from generation to generation, they still influence the thinking and behaviour of most African peoples:

- *Old-age security* by one's own childbearing or by a close family bond and family loyalty
- *Protection of the home* (mystical safety of one's house and property)
- *Physical and personal protection* (use of vitality for protection from unnatural death, voodoo, illnesses and suffering caused by witchcraft, accidents and other handicaps)
- *Protection of the soil* (spiritual safety of the soil or fields from infertility and possible harvest failures, which could be caused by others through envy, disfavour or jealousy)
- Food security or security of food resources

If these concepts are reminiscent of the intellectual achievements of generations that are now outdated, they nevertheless make it clear how people dealt with their existential fears in the past (fear of hunger, death, suffering, loneliness, etc.). This is because they could thereby also cultivate positive emotions (joy, peace, wellbeing, solidarity, love, compassion, etc.), in order to overwhelm negative emotions (mourning, rage, aggression, hate, egoism, envy, jealousy, etc.), which usually created uncertainty or insecurity.

In Africa's present societies, most scholars no longer think only in terms of oral traditions. Rather, they rely almost exclusively on philosophical methods and theories. Thus, they understand security as a term that can be interpreted as metaphysical, ethical, hermeneutical, and so on. For the overwhelming majority of African sociologists, however, security is above all about protection from the following:

- Political or religious persecution
- Social inequality
- Racial and sexual discrimination
- Hunger and poverty
- Hatred, envy and war

### Security and the modern state in Africa

The development of the contemporary security thought goes hand in hand with developments in the natural sciences – from medicine, biotechnology and ecology to energy technology – which, with ever new findings, claim to help people to lead a more contented life. African

intellectual culture did achieve new weight as a result of scientific innovations, but did not gain moral and cognitive quality.

For most political philosophers of Africa, the term “security” represents a principle underlying all national actions, which pursues the goal of promoting economic and political development. This has led to African states always associating their familial, social and economic policy with the protection of families and human rights, the safeguarding of the right to work, the protection of the rights of mothers, women and children by acknowledging their dignity, with consolidation of peace outwardly by the military and inwardly by the police, with social safeguards, with the guarantee of good healthcare, and so on. If one translates the traditional behaviour and rules of thought into the current reality, then one can observe that the attitudes of Africans in matters of security have changed somewhat less socially and culturally than economically and politically.

The fact that the postcolonial states have so far not succeeded in fulfilling the desires of their citizens for security can be explained by the following line of argument. It is undeniable that those in the West, with the use of economic, developmental and security policies, have for decades restricted the freedom of action of the elite African leadership. However, since the independence of their countries, the latter have also made the error of exercising their authority for power instead of developing it through the acceptance of the population. Unfortunately, even some young rulers have continued this wrong strategy by continuing to rely on measures of intimidation of the population by the judicial authorities, police and military. They thereby hope to promote the adjustment of their fellow citizens to the requirements of modern democracy and development. Thus, they are in a dilemma. On the one hand, they want to take care of everything themselves, including the citizens' individual security. On the other hand, they demand more self-initiative from their people, although they do not grant them rights of liberty. In this way, no durable positive effect has resulted from more than 40 years of synergy of state and development in the fight against the substantial number of infant deaths, malnutrition, insufficient medical treatment, low life expectancy, and the like.

Moreover, the failure of the old idea of authority

with the associated expansion of the national power monopolies led to a troubling depoliticising of the citizens. The displacement of the inhabitants has had many consequences, including the fact that the traditional authorities (sages, healers, fortune-tellers, etc.), which in the past embodied the familial and ethnical heritage and with whom people once sought protection, have almost lost their importance. But for some Africans the real problem of their countries lies primarily in their confidence in the state and the modernism of its political and university leadership elites, which for years have been destroying the oral tradition along with all other cultural traditions in favour of modernisation. An actual danger thereby exists in the neglect of verbal forms of predictions, foretelling, prophecy and sapience, which in the past served the organisation and cooperation of the community.

For Africa's contemporary state theoreticians, security has a direct relationship with dignity, liberty and wellbeing. Until 1960, colonial violence, oppression and exploitation stood at the centre of state-theoretical considerations. Aimé Césaire (\*1913), Léopold Sédar Senghor (1906–2002), Kwame Nkrumah (1909–1972), Frantz Fanon (1925–1961) and others, as well as the pan-African civil rights activists from America, were unanimous in their opinion that the Africans' uncertainty was to be attributed to the degrading of cultures, as well as destabilisation of African societies caused by colonisation. In their opinion, because Africa had been condemned to liberty, one had to undertake everything possible to end the colonial subjugation and thus help Africans to restore their lost dignity.

From this assumption, Senghor and Césaire used poetry to try to communicate to Africans a new sense of self-value and security. Thereby they hoped to overcome the sense of shame and inferiority that had developed from racist discrimination which, in their opinion, made Africans feel insecure in their thoughts and acts. Fanon, for his part, recommended the use of force in order to counteract colonial oppression. It remains unclear, however, whether or not in so doing he preferred military operations exclusively. In contrast to this, Amílcar Cabral (1924–1973) postulated the use of magic (witchcraft, gris-gris, voodoo, amulets, etc.) in the fight for independence, in order to blind and weaken the attacking enemies.

Apart from his untiring commitment to African unity, Nkrumah with his *Consciencism* tried to develop a society of equality on the basis of socialism. With his Ujamaa doctrine, Julius Nyerere (1922–1984) strived towards a socialism based on a fair distribution of goods. Being firmly convinced of the fact that only labour could ensure individual and collective security and liberty, Nyerere pursued the goal of not only removing the gap between rich and poor but, using Tanzania as an example, he also showed how one could assure the right to work for each citizen of the state. Up until the present, Samir Amin (\*1931) is still struggling for the substitution of the existing metropolitan world market order, which promotes the pauperisation of African and South American countries and some parts of Asia, to a capitalism-free and safe world.

All states that have become independent since 1960 have let themselves be influenced directly or indirectly by totalitarian ideologies, which declare the solution of all security questions including "humanitarian security" (the protection of children, civilians, the disabled, the elderly, land, property, etc.) to be the exclusive task of the state. According to Fabien Eboussi Boulaga (1977), the fact that all political strategies have so far failed can only be attributed to the ethical retardation of Africa. Without founded ethical bases, neither politics nor its different ideologies can meet the challenges of modern society.

## Security and wellbeing

This chapter limits itself to Ebenezer Njoh-Mouelle, probably the only modern professional philosopher who has dealt intensively with the term "security". The point of departure from which he develops his concept of security lies beyond philosophical considerations that treat security as a biological instinct of self-preservation. In his book, *De la médiocrité à l'excellence*, Njoh-Mouelle (1988) draws a close correlation between security and wellbeing.

He differentiates between two forms of security: security as life preservation and security as an accomplishment for the preservation of humanity. In the first case, security concerns the preservation and safe-guarding of earned life. In the second case, it aims at the realisation of humanity in humankind, i.e. in wellbeing for all.

What then is wellbeing exactly? Njoh-Mouelle defines it as a condition of a healthy, balanced body and spirit, which mindfully excludes desires for individual security based on luxury and abundance – desires which people worldwide may generally strive for.

Moreover, according to Njoh-Mouelle, wellbeing is synonymous with qualitative and objective security. Thus, one should not confuse it with non-qualitative conditions such as greed or other quantifiable (but non-objective) insatiable material security needs. Objective security, which is at the same time wellbeing, goes beyond the material fortune of human beings to include physical, emotional and spiritual contentment through healthy living, healthy food and a healthy way of life. According to Njoh-Mouelle, the realisation of wellbeing presupposes above all the use of intellectual means (by education and instruction), which helps people to become creative beings who can secure their biological and spiritual existence through their own strength. This means that the striving for wellbeing accompanies the spiritual emancipation of human beings towards liberty and bliss.

If security needs are an instinct of self-preservation, then people who follow the law of nature create artificial means that can serve their preservation and the perpetuation of humankind. In opposition to this, Njoh-Mouelle believes that human beings, due to their ability to reason, are condemned to invent technical and other artificial means, yet are unable to use them in such a way as to stand in contradiction to nature or to run contrary to their existence.

In this regard, security makes a demand for objectivity only if the human lifestyle corresponds to a large extent to the natural order as well as to social harmony. Self-preservation thus includes not only life preservation and self-realisation, but also the preservation of the species and the achievement of the goals of humankind. Njoh-Mouelle therefore pleads that wellbeing, both as an ideal condition in life and as the goal of security, should be attained in dignity.

### **Security, philosophy and modern information media**

This chapter concerns itself entirely with dis-

cerning the meaning of modern information media for the diffusion of knowledge in Africa. Since the dawn of humankind, humanity has constantly created instruments for communication or the mutual exchange of information, knowledge, ideas and experiences. For this reason, *homo communicans* (the communicative being) is much older than the classical drums of Africa and the bells of Europe, whose use was limited to closed communities and circumscribed areas.

The Internet, the mobile phone, and the like are these drums and bells, but with an infinitely higher audibility that can reach people scattered around the world. According to the body of critical literature, these new media are not extraneous, but are to be seen as an essential part of modern world culture, in that they shape thought and behaviour – in short, the life of humanity.

As technologies, modern media are on the rise worldwide. Africa does not, however, need a kind of media that is oriented primarily towards economic profit, but one that is built on open communication among all strata of the population. They must provide for the construction of democratic and civil-societal structures in which they make political decision making and development processes public, especially those that have large significance for the security of the citizens. Despite the increasing drive for commercialisation, it is important to prevent new media from completely destroying spiritual life in Africa, the value of which has already suffered in the modern global community.

Indeed, the modernisation of communication is indispensable for contributing to the body of literate and highly educated Africans. The latter have security needs (such as money, paid work, pension, education, etc.) that cannot be satisfied by orally passed-down thought. Furthermore, the speed of globalisation is creating a radical transformation of the African community, as well as a significant reorientation of the institution of education towards communication systems. Whether this development is associated with the destruction of native languages and ethnic cultures cannot be predicted at this stage.

Many ways of living and thinking that have been passed down can, however, only be salvaged if philosophers especially stop treating new media,



as they have in the past, as a contrivance that damages culture, but understand it instead as a useful art that can and should facilitate debates, even between scattered thinkers over great distances, about metaphysical, ontological, ethical, moral, logical, epistemological, hermeneutical and historical questions. For the first time in the history of humanity, Africans, Europeans, Asians, Americans, etc. are in a position to discuss commonly and discourse about political and religious misjudgments, as well as economic and social misdirections.

The new drums and bells should therefore be used sensibly and consequentially for inter-African debates in which philosophers can use all available speed in broadening their concepts and discussing them among one another before they offer their ideas to universal criticism. In this light, among the deliberations about global considerations, can also be counted the readiness of philosophers to contribute serious thinking about their association with modern media. Philosophy is now required to formulate a new ethics that can see to it that the media technology generated by humanity itself does not conflict with human security needs.

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## **Implications of social justice for the pricing of information goods**

Shana R. Ponelis

*During the past few years information has increasingly become a commodity. As a commodity, the atypical cost structure of information goods in competitive markets results in the price of reproduction of information goods tending to zero, implying that market failure is highly likely. Intellectual property rights prevent such market failure by protecting the ability of creators and/or distributors to charge for information goods and as such serve to stimulate and support the creation of information. But information also plays a vital role in enabling people's human rights in their everyday lives and it is therefore of paramount importance that such information be accessible. Pricing of information is one of the main factors determining accessibility, and pricing strategies should aim to maximise access and not just profit, thereby contributing to a socially just world. This chapter examines the nature and pricing of information goods, and suggests differential pricing of information goods based on Rawls' principles of social justice.*

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## The nature of information goods in the marketplace

Information goods, used here to denote information products, have certain characteristics that distinguish them from other economic goods:

- First, an information good is an *experience* good; that is, it must be used or consumed in order to demonstrate the good and to determine the associated value.
- Second, information goods are typically *non-rival*; that is, one person's consumption does not diminish another's ability to consume the same information good.
- Third, information goods can also be *non-excludable*; that is, one person's consumption cannot exclude another person from consuming the information (Varian, 1998), or as Barlow (1993) put it: "Information can be transferred without leaving the possession of the original owner", particularly when in electronic format.

In economic theory goods that are both non-rival and non-excludable are called public goods.<sup>1</sup> Individual gain-seeking in the market unfortunately does not lead to efficient results with respect to public goods:

- Consumers can take advantage of public goods without contributing sufficiently to their creation (the so-called "free rider" problem).
- The production of public goods results in positive externalities that are not remunerated. Since private organisations cannot reap all the benefits of a public good that they have produced, there may not be sufficient incentives to produce it.

Thus problems in the production of public goods may occur which, in turn, may lead to market failure. Market failure<sup>2</sup> is a term used to describe a situation in which markets do not efficiently allocate goods and services, or where markets are

unable to provide goods in the desired quantities, or where market forces do not serve the perceived public interest.

One solution to prevent such market failure is to create intellectual property laws, such as copyright or patents. The aims of these laws are to provide a legal mechanism for removing the natural non-excludability of information goods by prohibiting reproduction thereof for a limited period of time and, at the same time, to encourage the creation and sharing of non-rival goods. In this manner public goods are turned into private goods. Although intellectual property laws can solve the free rider problem (assuming the enforcement thereof), the limitation of these laws is that they, together with the unique characteristics of information, result in a propensity for monopolies or dominant players in the market to be created.

In addition to judicial means, technological developments can also provide the means to make information goods excludable. For example, encryption allows broadcasters to sell individual access to their broadcasts, or digital rights management (DRM) allows control of the information goods' use by consumers according to the preferences of the creators and/or distributors.

## Pricing of information products and services

One of the main mechanisms through which resources are allocated in society is price (Du Toit, 1994:162; Rowley, 1997:179). Price is the quantity of payment or compensation for an economic good. Competitive markets drive prices of all economic goods towards the marginal cost. Information goods, however, tend to have high fixed costs but low marginal costs; that is, creating the first copy is expensive but making a copy is relatively inexpensive. This implies that the price of information goods tends to zero. From an organisation's perspective, an efficient price is one that is very close to the maximum that consumers are prepared to pay in order to maximise profitability, and it must therefore be based on the value it offers the consumer. The rule of thumb is that the more something is worth to an individual, the more that individual would be willing to pay in order to acquire it.

<sup>1</sup> Note that goods termed "public goods" may be produced by the public sector but also by private individuals and organisations, civil society, NGOs or other collective action. They may be available naturally, like air, or may even not be produced at all.

<sup>2</sup> Note that market failure is a somewhat subjective term. What one considers to be market failure may not be considered as such by another, as efficient distribution of resources depends on the prior conceptions of what the distribution ought to be.

Price is therefore also a measurement or function of the value that a consumer (buyer) places on the good exchanged (Du Toit, 1994:162; Rowley, 1997:180). Value is intrinsically related to the worth derived by the consumer. Put differently, value is a measure of the worth that is based on the utility derived from the consumption of the good. Utility-derived value allows goods to be measured on outcome instead of demand and supply. The value that information can have varies, and the same information can have more than one type of value, as determined by the use towards which it is put.

According to economists, price discrimination<sup>3</sup> is a pricing strategy that is particularly appropriate in monopolistic markets, as the seller can charge higher prices than would be possible in a competitive market. According to Shapiro & Varian (1998:109), information goods can generate more revenue for sellers if they are offered in multiple versions catering to potentially different values consumers can place on a particular information good, and thus result in different prices. Price discrimination entails the sales of identical goods or services at different prices from the same provider to different groups of consumers.

Shapiro & Varian (1998:109–110) are of the opinion that a particular type of price discrimination is the only pricing strategy for information goods that can succeed in the marketplace, namely second-degree price discrimination, or what is popularly called “versioning”. The perceived quality and its value or utility to the customer determine the customer’s willingness to pay a particular price and in this way customers segment themselves:

*The version they choose reveals the value they place on information and the price they are willing to pay for it.*

Such versioning can be performed on the basis of features offered, levels of performance, or timeliness.

Because the same information can have multiple uses and is non-rival, creating effective rate

fences<sup>4</sup> between the uses in terms of access is a particularly difficult undertaking. Price discrimination is thus more common in services, where resale is not possible. Although consumers can jump the rate fence with respect to information goods (Britz & Ponelis, 2005:29), this does not seem to present a major problem as it is still widely used with respect to information goods, for example, by book sellers like Amazon and publishers like Elsevier.

Next, Rawls’ principles of social justice are examined before considering their implication for the pricing of information goods.

## Social justice

According to the social contract tradition, justice is derived from the mutual agreement of everyone concerned, or from what they would agree to under hypothetical conditions including equality and absence of bias. John Rawls (1973) argued from a hypothetical “original position” where everyone concerned would be behind a so-called “veil of ignorance” in order to arrive at principles of justice that would be fair to all. He argues for the fair distribution of social goods in a society. In the context of this chapter, society is seen to be the global society as a whole, as globalisation has essentially rendered the world a single market where organisations operate across borders.

Approaching justice as fairness is necessary to ensure that the basic rights and liberties of all are protected, and if social and economic inequalities exist, these should still be to the benefit of all. Rawls (1973:60–61) formulated two principles of justice to ensure fair distribution of social goods in a society. These principles state that:

- Each person is to have an equal right to the most extensive total system of basic liberties compatible with a similar system of liberty for all.
- Social and economic inequalities that do exist are to be arranged so that they can be

<sup>3</sup> “Price discrimination” is a technical term meaning differentiation in price. It does not imply unfair or biased behaviour.

<sup>4</sup> Rate fences prevent individuals in a higher price segment from purchasing goods at the prices available to members of a lower price segment. This is possible either by purchasing the product directly from the seller at the lower price, or indirectly by purchasing from an individual who bought from the seller at a lower price.

reasonably expected to be to everyone's advantage and be attached to positions and office that are open to all.

These principles accord with the basic economic problem (Du Toit, 1994:162):

*... to allocate resources among members of the society to maximize the welfare of the society as a whole. To achieve this welfare objective, each resource should be utilized to perform a function in order that it contributes most efficiently to society.*

The author proposes that these two principles of Rawls be used as a moral guideline to ensure that the pricing of information goods is socially just.

### **Socially just pricing of information products and services**

Information can be used for many different purposes, for example, education, entertainment, and marketing, but some purposes are more fundamental than others. This leads to the concept of essential information, which is defined as follows (Zielinski, 2001):

*... information related to the basic minimum needs of humanity, information tools for trade and economic development, information essential to the development of backbone industries, basic science and survival services in health, education, welfare, agriculture and labour.*

Thus, information can be essential to human survival. In this context, information goods are very valuable and therefore should translate into a high price. However, such prices will most likely exclude people with limited financial means from deriving any utility from them. Affordability plays a central role in the availability of, and access to, information goods. It is therefore central to the concept in an information society and as such should be just.

According to Rawls' first principle, all people are fundamentally equal, have equal intrinsic human rights, together with the freedom to exercise these rights without infringing on similar rights of others. These basic rights ought to form the foundation of the fair distribution of social goods in society. The right to access essential information can be seen as such a basic right because of its essential nature in satisfying all basic rights, and should be taken into account in the pricing of

information products and services. The second principle implies that information goods can be treated as commodities and be distributed and used unequally in a society. Fair compensation for authors is accommodated through intellectual property rights, and inequalities arising from the competitive value of information are justified. There are certain provisos, however:

- First, such information ownership rights are allowed only when they are to the benefit of all (Rawls, 1973:64). Should this not be the case, it is unjust.
- Second, there should at least be equal opportunities for everyone to access essential information and to contribute as creators of information goods.
- Third, the permissible inequalities are always secondary to the first principle (Rawls, 1973: 65). The author is therefore arguing that the right to access essential information can, and must, take precedence over the right to ownership of, and profit from, information.

Since price discrimination as a pricing strategy for information goods does comply with the implications of the second principle, it is important that organisations understand and take into account the implications of the first principle to ensure that social justice is done. When second-degree price discrimination is very efficient, production can be expanded. Output, however, can also decline when discrimination is more effective at extracting surplus from high-valued users (paying a premium price) rather than expanding sales to lower-valued users (paying a relatively lower price). Thus, the problem arises that those who are unable to pay the price that maximises profit do not get access to the good.

Another form of price discrimination, third-degree price discrimination or group pricing, is therefore more appropriate. With third-degree price discrimination selected groups with a lower willingness to pay (e.g. senior citizens, students, veterans and others) are offered special discounts. Similarly, groups in both developed and developing countries can be offered such discounts, particularly on essential information.

This approach is arguably more profitable for the society as a whole, but it might be difficult to prove that it will maximise profits or efficiency for organisations that implement it. Although it is

often implemented as a voluntary gesture, this approach to pricing can more easily be motivated to shareholders, given the emphasis on ethics in business and corporate social responsibility, as this approach is more socially just than the status quo. However, this does imply that rate-fencing mechanisms must be effective to ensure the economic survival of the organisations involved.

## Conclusion

Rawls' second principle justifies inequalities in a society, but these cannot be to the disadvantage of the less privileged. Thus, different goods with different prices are acceptable, and the pricing of essential information goods should be such that the less privileged, price-sensitive consumers are also accommodated. Third-degree price discrimination, rather than the more popular second-degree price discrimination, results in pricing of information goods being more socially just.

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## What is this absence called transparency?

Paul Sturges

*Campaigners against corruption advocate transparency as a fundamental condition for its prevention. Transparency in itself is not the most important thing; it is the accountability that it makes possible. Transparency itself is, in fact, a metaphor based on the ability of light to pass through a solid, but transparent, medium and reveal what is on the other side. In practice, it allows the revelation of what otherwise might have been concealed, and it is applied in a social context to the revelation of human activity in which there is a valid public interest. It can be applied to all of those who hold power and responsibility, whether political or economic. A more accurate definition of the term, including distinctions between open governance, procedural transparency, radical transparency, and systemic or total transparency, is important. Various ways in which an observer can make use of transparency to scrutinise the activity of others, including freedom of information laws, accounting and audit systems, and the protection of public interest disclosure (whistleblowing) also need to be distinguished from each other.*

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## Introduction

*A man that looks on glass  
On it may stay his eye,  
Or if he pleaseth, through it pass  
And then the heavens espy.  
George Herbert (1593–1633)*

Transparency is a slightly curious concept, in that it is concerned with an absence – the absence of concealment. In that concealment permits corruption, transparency as the absence of concealment is a positive and important concept. A word or two on the significance of corruption provides a suitable introduction to the discussion of transparency. Corruption is universal, and the misgovernment that it brings with it is almost as widespread. Wherever there are transactions that offer the opportunity for personal advantage or profit, someone somewhere will take advantage of that opportunity. Corruption can be such a part of life that citizens of a badly corrupt country may scarcely imagine that it can be reduced or eliminated. Nevertheless, condemnation of corruption is a universal theme of conversation and political debate worldwide. People long for an honest, predictable, corruption-free world. They also tend to despair that it can ever be achieved. The example of one country, Kenya, chosen almost at random, can illustrate this.

For reasons that may not seem wholly obvious, British politicians and diplomats have spoken out unusually sharply about corruption in Kenya in recent years. On an official visit in 2006, the UK Minister of State for Foreign Affairs, Kim Howells, said the following (Rice, 2006):

*Kenyans can be bought. From the person who works at the docks in Mombasa up to the government. [...] You can buy off politicians; you can buy off policemen. The weakness has been recognised by drug traffickers and probably by terrorists too.*

Two years earlier, the UK High Commissioner in Nairobi, Edward Clay, had accused the Kenyan government of wholesale corruption (Clay, 2004):

*Evidently the practitioners now in government have the arrogance, greed and perhaps a sense of panic to lead them to eat like gluttons. They may expect that we shall not see, or will forgive them, a bit of gluttony. But they can hardly expect us not*

*to care when their gluttony causes them to vomit all over our shoes.*

Britain, though not free of high-level corruption itself, clearly fears the corrosive effects on trade and international stability of an excessively corrupt regime in Kenya. It had hopes that the problem in Kenya would be reduced with the election of the new government of President Mwai Kibaki in 2003 with an anticorruption manifesto. However, the notorious corruption that pervaded every aspect of the country's life under his predecessor, Daniel arap Moi, was certainly not eliminated, and probably little reduced. It continues not only to affect the nation's international standing, but also to make the lives of individual Kenyans even more painfully difficult than they need to be. This raises the question: if even politicians who are pledged to cleanse the system cannot resist temptation themselves and leave the problem unsolved, can anything be done at all? Are we condemned to accept corruption, however much we hate it?

This is where the concept of transparency comes into the equation. The introduction of transparency into governance is almost universally offered as a key to eliminating corruption, usually along with enforcement measures and relevant practical changes in modes of governance. In fact, it can be suggested that it is more than that. Transparency is one of the key components of 21st century governance, business and social organisation, but the use of the word threatens to become clichéd. Transparency has strong positive connotations, but do those who use it always have a clear and full idea of what they mean by it? Anyone who picks up a copy of a good newspaper is almost certain to find at least one reference to transparency somewhere in its pages. The frequency with which the presence or absence of transparency is commented upon, or with which some activity or transaction is described as transparent, is too great for us to feel sure that it is always being used consistently. This is not a trivial matter. Transparency is important and concerns us all in a multitude of ways.

## Accountability

However, it is not actually transparency itself that is the most important thing. Transparency



concerns us because it has a purpose, and this purpose is accountability. Accountability is the reason why transparency is introduced into systems of public and corporate governance. Transparency allows examination of the stewardship that is expected of those who own, or have the care of, resources that are matters of public concern. Transparency is also introduced into what might at first seem to be purely private matters because of the need for public accountability of individuals for certain kinds of actions.

Crime is the most obvious example. Nations have systems of criminal law because some conduct (theft, fraud, assault, murder and a host of other offences) by individuals who have no particular public office or status is regarded as damaging, not only to other members of society but also to the fabric of society itself (the “peace” that the Crown offers to guarantee in Britain, for example). The individual’s conduct is open to investigation and revelation in the courts of law for the ultimate purpose of preventing crime. For individuals to be accountable, there must be some kind of transparency regarding what they have done.

For accountability to be effective and fair to those whose conduct it reveals, a well-worked-out concept of the public interest is required. The existence of a genuine need to know, generally spoken of as the “public interest”, is central to the rationale for all aspects of transparency. In a transparent system, the emphasis switches from a presumption that the holders of information can decide whether there is a genuine public interest in the disclosure of information, to a presumption that it can be revealed. The exception to this principle applies when it can be shown that it is not actually in the public interest to do so.

Decisions on what constitutes the public interest are often a matter that is left to the law courts to decide because of the delicate considerations that need to be balanced in some cases. The courts are presumed to rule on the basis of a balancing of the public’s need to know against the need of the state, business or even an individual to keep something concealed from public knowledge. The effectiveness of transparency in particular cases depends on how such questions are resolved. However, when we consider transparency generally, it is vital that there is a widely accepted consensus on which forms of transparency are in the public interest and which are

not. Furthermore, anyone who uses information, works professionally with information, or is concerned about the role of information in society needs to understand transparency better (Cox, 2006). In the 21st century society – the information society – this is effectively becoming everyone.

### **From the sublime to the ridiculous**

At one extreme, transparency can be used as a means to great objectives. The South African Truth and Reconciliation Commission (TRC), set up under an Act of Parliament of 1995, was a national transparency exercise aimed at healing the wounds of an exceptionally divided society. Its hearings were to allow the revelation of the truth about what actually happened in the enormous number of cases of human rights violations that had taken place under the apartheid system. The aims were to:

- Allow victims an opportunity to tell of the violations they suffered
- Grant reparation to victims and provide for their rehabilitation and the restoration of their human and civil dignity
- Grant amnesty to those who made full disclosure of the politically motivated acts they had committed against others

This national exercise in catharsis brought a humane end to a period of institutionalised repression. For the oppressed to be able to tell of what they had suffered, and to find out from the evidence of the oppressors what had actually happened to friends and family, was an enormous release. For white South Africans, it was often the first time they had been obliged to contemplate the depths that those who had acted on their behalf had plumbed. South Africa is still a society with problems to solve, but after the work of the TRC it is better armed to solve them.

At the same time, what might seem to be another type of exercise in transparency pervades 21st-century life. This is the response of the media to people’s interest in details of the lives of others, for what seems to be the sake of the details themselves. The lives of those who have some form of celebrity have come to be of consuming interest to large numbers of members of the public. This begins because performers of all kinds in the arts and sports offer a kind of pseudo-transparency of selected aspects of their

lives as part of the process of promoting their careers. The media then take this as licence to reveal as much as they can in addition, using journalists who specialise in celebrity stories, paparazzi photographers, and plots to entrap the subjects of curiosity into revealing more than they might wish. This idle and even prurient interest in the lives of celebrities sells newspapers and magazines, and attracts viewers to television programmes, but it tells us nothing that is actually useful to us. The public response to these types of revelation cannot be regarded as the same thing as a genuine public interest, in the sense of “a need to know for a purpose”.

What is comparatively new is that some members of the public, most of whom have no solid prospect of financial or other gain from it, are prepared to offer up a similar kind of exposure. In the past it might have been possible to assume that the desire for privacy would guide people’s attitudes towards possible public revelations concerning themselves. Quite to the contrary, the taste for this type of exposure has proved infectious. Otherwise ordinary people queue to offer insights into their lives on television programmes of the Jerry Springer kind. “Coat me in chocolate and feed me to the lesbians” sings a character in “Jerry Springer: The Opera”, a satire on this type of television. In other words, “I’ll offer almost any kind of public exposure if it gets me the moment of ‘fame’ that such programmes offer”. Candidates for programmes of the Big Brother kind compete desperately to be allowed to subject themselves, their empty minds and sometimes their bodies, to the scrutiny of television audiences while they are in some kind of voluntary confinement. None of this is transparency in any valid sense of the word, because it has no serious purpose. It offers no element of accountability because the subjects have nothing of substance that is in the public interest to reveal.

## Definitions

So, what precisely does the word “transparency” mean? As with many words, it has several distinct meanings. In scientific terminology, transparency means the transmission of electromagnetic rays without distortion, but this is not the way in which the word is used in everyday speech. The ordinary, everyday meaning, and the

way that dictionaries still usually define the word, is simply the condition of allowing light to pass through a medium, such as glass, so that clear vision of something on the other side is possible. It is a stronger term than the companion word “translucency”, which refers to allowing light to pass through diffusely in a way that does not enable things on the other side to be seen distinctly.

The relevant meaning for our purposes is a metaphor stemming from the word’s original meaning of allowing clear vision. This metaphorical transparency is a comparatively new usage that has emerged very strongly during the 1990s. Transparency used in this metaphorical way can be defined as:

*... the condition in which knowledge of activities that are of public interest is revealed so as to provide the potential for accountability.*

This definition is broad enough to accommodate the wide range of ways in which the label of transparency is currently applied. It tells us that transparency is about making knowledge available. It answers the question, “What knowledge?”, with the answer that it is knowledge about human activity. It tells us why – because the information is of public interest. It further qualifies that by saying that the intention is to make it possible to hold those concerned to account on the basis of what is revealed. For example, transparency allows voters knowledge of the actions of politicians so they can choose whom they wish to elect. It provides details of the workings of business corporations so that investors can make sound decisions on what to do with their money. It allows illegal conduct to be identified and brought before the public tribunals. It even allows listeners, readers and viewers to work out for themselves how far to trust what they told in print and through the media.

As generally used, the word most usually indicates the way in which the conduct of those who have power – be it political, commercial or some other form – is exposed to the gaze of the rest of the world. The non-governmental organisation Transparency International (2006) expresses this meaning in a direct and practical way, calling transparency:

*... a principle that allows those affected by*

*administrative decisions, business transactions or charitable work to know not only the basic facts and figures but also the mechanisms and processes. It is the duty of civil servants, managers and trustees to act visibly, predictably and understandably.*

Defined as above, transparency allows light to fall on matters about which people need to know, but which those directly concerned might wish to remain in darkness. Not everyone who uses the term does so with quite this implication. The current definition is beginning to accommodate the idea that, in practice, transparency is about voluntary disclosure. A current text aimed at the business community (Oliver, 2004:3) suggests that:

*Transparency, as currently defined, is letting the truth be available for others to see if they so choose, or perhaps to look, or have the time, means, and skills to look. This implies a passive posture or motivation on the part of the individual or organisation under consideration. In today's broader public context, however, transparency is taking on a whole new meaning: active disclosure.*

The word clearly relates to a shifting and developing concept. However, that is not the only difficulty in pinning down what people mean when they use the word "transparency".

### Difficulties with the definition

The capacity of the word "transparency" to provide helpful metaphors threatens to become overstretched and not all usages even have quite the significance we are discussing here. Sometimes the word is used in ways that are closer to the scientific usage, namely transmission without distortion. Thus transparency can be used to describe the way light passes through something (like glass or Perspex) as if there were nothing there. In other words, transparency can actually suggest concealment of an intervening medium. This is the case in information technology, where transparency usually refers to the operation of programmes and applications that are not apparent to the user, as when the domain names system resolves authorised domain names into Internet protocol addresses. In this case, transparency shields the user from the complexity of the system, rather than reveals it. References to network transparency are common in the literature of computing and they too carry this sense

that the user works in an environment where there seem to be no barriers or intervening changes of system.

It is important to be aware that this usage contrasts directly with the common tendency to refer to open source applications in computing as transparent. Open source is transparent because one is permitted to see through the surface and examine what is inside (the source code). It is the type of transparency represented by open source that concerns us here, rather than network transparency and other instances of transparency that contrive to make the user unaware, rather than aware, of the functioning of systems.

Some definitions of transparency describe it negatively: they tell us what it is not. This type of definition calls it the opposite condition to concealment and secrecy. Florini (2000:13), for instance, expresses it precisely thus:

*Put simply, transparency is the opposite of secrecy. Secrecy means deliberately hiding your actions; transparency means deliberately revealing them.*

This is a pretty effective definition, except for the suggestion that transparency is always deliberately offered. Types of involuntary or imposed transparency undoubtedly exist and will be discussed at several points in the text to follow.

Some definitions go further than merely contrasting transparency with secrecy and refer to it as the opposite of privacy. A crudely administered regime of transparency can indeed damage privacy, but this is not usually the ostensible intent behind its introduction. The overwhelming weight of use of the word is not to indicate that it throws light onto legitimate privacy, but that it exposes the kind of secrecy that is detrimental to society. In fact, the particular value of transparency is its ability to reveal corrupt practices and show citizens how they can limit the damaging effects of corruption in their own lives. Brin (1998:334) sums up the relationship between transparency and privacy by saying:

*Transparency is not about eliminating privacy. It is about giving us the power to hold accountable those who would violate it.*

Bosshard (2005:22) memorably adds a further layer to the basic metaphor so as to indicate the

ability of accountability through transparency to bring about change for the good. His claim that “sunshine is the best disinfectant” elegantly captures the cleansing potential of a regime of transparency, without yet explaining quite how that might work.

### Types of transparency

Transparency is a concept that is applied at all possible levels to international organisations, states, private corporations, civil society organisations, individuals and groups of individuals. Regulations for transparency abound at all these levels and the technology by which transparency can be enforced is hard to avoid. States can no longer easily conceal the movements of their armed forces or offer misleading estimates of their agricultural output when remote sensing from satellites records and passes on revealing data, whether they like it or not. Likewise, individuals have their movements observed by closed-circuit television and their messages technologically monitored with greatly increasing frequency. In fact, some accounts of transparency merely equate it with the density and speed of transmission of sensing devices.

It is possible to distinguish a number of levels at which the word is generally used in this broad sense. The main levels or types of transparency are as follows:

- The adoption of *openness in public and private sector governance*. This encompasses a broad view of what transparency means, including both a mentality and a system, or set of systems. A state’s own disclosure structures are sometimes referred to as “domestic transparency”. They are essentially directed towards permitting broad public knowledge of the actions of those who hold power, but also for the purposes of crime detection and law enforcement.
- A more limited *procedural transparency* can be identified in some usage of the word. In this sense, the simple existence of a set of provisions for making public, or allowing access to, details of the functioning of some or all of the activities of an organisation, is referred to as transparency.
- *Radical transparency* is a management method by which almost all decision making in an organisation is carried out publicly. Exceptions

to transparency in such a system are matters such as personal privacy or the security of systems. It is regarded as more appropriate in working environments based on the Internet or intranets that do not suffer from the potential for the transmission of errors inherent in oral communication. It connects directly with the open source movement, which embodies the spirit of radical transparency.

- There is also potential for a kind of *systemic or total transparency* in which the actions of absolutely everyone are exposed to the eyes of interested parties. This idea is based on the existing capacity for deep surveillance that can provide detail about the life of anyone, in the interests of effective administration and policing. It applies also to the private sector, for purposes of more accurately targeted business activity, and to the state itself, so that its policy can be monitored internationally. It is sometimes referred to as “imposed transparency”. It is the nightmare transparency of George Orwell’s book, *Nineteen Eighty Four*.

Although these meanings of transparency undoubtedly have some negative connotations, the term is chiefly used in a strongly positive way.

### Related terms

There are a number of words that are regularly associated with transparency, or are used in ways that share some of the meaning of the term. It is worth identifying the main ones here. They can be grouped according to what Oliver (2004) identifies as the three elements in transparency: the observed, the observer, and the means or method of observation. Broadly speaking, the observed include the government, the corporate sector, and also those responsible for the dissemination of knowledge, who might be referred to as the knowledge sector.

A driving principle behind transparency in the public sphere is *open government* – a concept that sets the context for transparency in the sphere of governance. Systems of open government will usually include facilities for members of the public to observe official meetings, public consultation processes for planning and decision making, and statutory rights of access by the public to official information, usually expressed in freedom of information laws. Open govern-

ment is also furthered by *regulatory systems* – the state’s favoured method of intervening in both the business and public service provision environments in the latter part of the 20th century.

These form part of what is sometimes termed a *national integrity system*: a set of institutions and procedures that offers to check corruption in its various forms. A national integrity system includes at the most basic level the institutions of a democratically elected legislature, an executive answerable both to the legislative body and to an independent judiciary. More than this, however, it should also include a supreme audit institution, regulatory bodies, ombudsmen and independent anticorruption agencies.

The private sector is observed because of the need for business integrity and *corporate social responsibility*, which represents an ethical and accountable approach to corporate governance. Corporations that embrace the concept monitor and offer up for audit their social performance, environmental impacts, employee relations and a range of other ethically sensitive aspects of business. Formal reporting of non-financial matters complements the financial accounting already required by national laws and international agreements. This reporting is usually on an annual basis, and is often verified by independent and external third parties. It represents a considerable contribution to corporate transparency.

The knowledge sector includes the press and media, the ethical standards of which are crucial to effective transparency. Scholarly integrity and publishing and broadcasting standards are also highly important. There is also, however, the *open access* movement to take into account. Open access, open archives and open source are ways of referring to aspects of a movement that challenges the dominant modes of defining intellectual property, with their associated financial and other restrictions on the use of information. Open access encourages the creators of intellectual property, particularly that which is based on publicly funded work, to make the documentation freely available to readers, for example through electronic open archives, rather than distribute it through the conventionally published books and journals. Open source counters the control of software as intellectual property, arguing that it should be seen as a

common resource with its code available to all for them to customise, modify and improve as best they can. Open access can be seen as a substantial contribution to a transparent research and development environment.

We can think of the observer or observers, as members of *civil society* – unfortunately, as yet, an imprecisely defined term. Although it may seem to refer to society as a whole, it is generally used to refer to NGOs and networks, and the social movements that they represent. Civil society is a distinct third element alongside the long-accepted public sector-private sector duality. Unfortunately, the clarity of this is muddled in some countries by the lumping together of the non-governmental sector and the private sector as “civil society”. Civil society organisations are the chief source of pressure for openness and accountability in both public and private sectors throughout the world. The observers are also all those who work with information, whether they regard themselves as socially involved and aware, or not. As for the methods of observation, terms that apply include the following:

- *Audit* describes, in the first place, the sets of legal requirements by which a society monitors the honesty and efficiency of financial dealing by those who handle money and other resources on behalf of others. The requirement to submit publicly available and independently audited accounts is one side of the bargain by which the state offers various forms of legal protection for business activity in exchange for openness on the part of the company or other organisation. The association of the term with financial matters is not an accident, as probably the longest established systems of accountability are the sets of procedures to monitor the legality of public and private financial transactions. However, the term “audit” is now not solely attached to financial matters, and there are various other forms of audit that allow the examination of many aspects of public and corporate life.
- *Scrutiny* is often used as yet another general term for the citizen’s use of transparency to know more about the workings of the government. It has more recently become used in a more specific sense, referring to systems by which government and local government representatives can be subject to public questioning.

- *Disclosure* is both a general term for opening up to transparency, and also a specific process in legal practice (sometimes referred to as “full disclosure”), where the evidence for each party in a case before the courts is made open to the other. *Freedom of information* laws provide formal disclosure procedures in the public sector. Disclosure is particularly significant when carried out in the public interest against the will of those whose concealment is broken. This public interest disclosure is also known as *whistleblowing*.

## Conclusion

A better understanding of the concept of transparency, and recognition that part, at least, of the work of any information professional can be identified as contributing to transparency, is a major step forward in the creation of a well-governed and corruption-free world. Those who work with information, whether they be journalists, writers, editors, publishers, booksellers, Internet service and content providers, Web designers, database managers, records managers, archivists or librarians, are not merely observers, but also agents of transparency. Some of these professions consciously see themselves in this way, whereas others regard their work in terms of the neutral provision of facilities and content.

A better understanding of transparency brings with it the recognition that whether we intended it or not, and whether we like it or not, we take

on responsibilities to society when we remove any of the layers of concealment in which corruption and misgovernment thrive. Transparency is not merely an absence. It is an indispensable requirement for good governance that needs capable professionals to ensure its presence, continuance and effective use.

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## **Information integrity in Africa: Exploring information corruption issues**

Marsha Woodbury

*This chapter examines information integrity, with the premise that sound, dependable information enhances the values of the entire society. Several issues about information integrity of great concern to Africa are access to information; the right of individuals to correct records that are erroneous; accurate and culturally appropriate translations; and the standard of freedom of the press. The basis for this chapter is human rights doctrine largely embodied in the ethical principles of the international informatics community.*

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## Introduction

As our world becomes more interconnected, especially through computers and cellphones, we theoretically should have more accurate information spread to a larger population. A person selling goats in remote farming country needs to know the market price of her animals, or she will be swindled by a local go-between. The remote vendor needs the facts, and modern technology can help her get them (Friedman, 2007). However, a miscommunication could cost her money. In the same spirit, a person suffering from HIV/AIDS could be saved or killed, depending on the integrity of the information received.

The price of a goat or the best treatment for HIV/AIDS is part of the information lifecycle, the functions through which information is handled. The stages are acquiring, processing, storing, disseminating, and using information (Mason et al., 1995:7). What is crystal clear is that we cannot talk about any of the later parts of the lifecycle without the “acquiring” step, and we focus here on that aspect, examining the potholes in the road of progress – the nefarious developments that could corrupt peaceful progress as the Internet spreads across Africa, a continent of over a thousand languages that will be further transformed by an information revolution.

What is information integrity without first having access? The problem is neatly summarised in the story of a motion picture, the 2004 film *Moolaadé*, by the Senegalese director Ousmane Sembène. Its theme is female circumcision. In the film, the husbands confiscate their wives’ radios, real radios still turned on and emitting songs and commentary, and burn them in front of the mosque. What the director says about his film is at the heart of information integrity issues in Africa (College Street Journal, 2005):

*As far as I am concerned, politically speaking, cinema allows me to show my people their predicaments so they take responsibility [...] They hold their destiny in their hands. Nobody other than ourselves can solve our problems. We are in 2004; out of 54 states of the African Union, more than 38 still practise female circumcision. Why? I don’t know! Origins? I don’t know! [...] But Moolaadé is not just about female circumcision, it’s about the liberation of our societies, the freedom of our people.*

*Moolaadé* has made an impact outside of Africa and can be found in festivals such as Cannes and Los Angeles, winning the National Film Critics Award for Best Foreign Film, in the syllabi of university courses, and in art theatres around the world. However, despite being directed and written by a prestigious African director and being filmed in Africa, the film’s exposure to an African audience is miniscule, and will only penetrate the African continent with the help of free DVDs and public grants, such as the one from the Sigrid Rausing Trust to use the film as an advocacy tool (FORWARD, 2006). Change will come from public awareness, and perhaps the availability of films like *Moolaadé* in libraries and schools.

The artistic merit of the film is widely acknowledged, and the question is clear: Why is it so difficult to view *Moolaadé* in Africa? In the film, the director uses the metaphor of burning radios, implying that the spread of information is not open but rather controlled by those who are threatened by it. Can the Internet help spread uncomfortable artworks and information to areas where such an introduction surely will bring change? Will it help Africans fulfil the minimum standard of information access for all members of society (Mason et al., 1995)?

## Information integrity

One of the oddities in Africa’s history involved the Mountains of Kong in Western Africa. This non-existent mountain range graced 19th century maps of Africa until geographers finally convinced map makers that the Mountains of Kong never were there at all (Bassett & Porter, 1991). However, for nearly 100 years the well-documented myth lived, demonstrating the power of incorrect, unchallenged information issued on the culturally powerful medium of a map.

We all are affected by information integrity, whether it is the history of repairs on an aeroplane we are about to board or the financial records of our government. Information integrity is a general term that Prabhaker (2003) summed up as:

*... the dependability or trustworthiness of information. More specifically, it is the accuracy, consistency, and reliability of information content, processes, and systems.*



These values are embodied in the objectives of the Nigerian National Policy for Information Technology (UNECA, n.d.):

*(iii) To guarantee the privacy, integrity, accuracy, confidentiality, security, availability and quality of personal information.*

The availability of information is an essential part of the process. We cannot have any checks on the accuracy of information if we cannot access it. Suppression or loss of material can have enormous consequences, and huge factors in the integrity of information are inspection, audit, review and correction.

### Access to public information

In the preamble to its Constitution, the Library and Information Association of South Africa (LIASA, n.d.) wrote that it:

*... affirm[s] that equitable and unrestricted access to basic information, including government information, is a fundamental right in a democratic society; recognize[s] the power of information and information technology in establishing a society based on democratic values, social justice and fundamental human rights.*

A Google search for the words “information access” turns up thousands of references because this issue is so pivotal for ensuring accountability, education and oversight, to name only three benefits.

In South Africa, during the apartheid era, people had difficulty checking the validity of information that the government held about them. After apartheid ended, the Truth and Reconciliation Commission found that there was a systematic destruction of classified documents starting in 1990–1994, sanctioned by the Cabinet. South Africa has enacted a Freedom of Information Act, but its use and effectiveness have been uneven (Banisar, n.d.). The key ingredient of ensuring the accuracy of information is the right to review documents and an ease in exercising that right.

As far as government records are concerned, the US has attempted to have government officials preserve electronic information via the Freedom of Information Act, the 1978 Presidential Records Act, and the Electronic Freedom of Information Act. Yet, as recently as April 2007, perhaps

thousands of government email messages have “disappeared” (Hamburger, 2007). Laws can only help to a certain degree, and a basic common valuing of the integrity of information has to be actively pursued by people in power.

### Accuracy of translation

Africa is a continent of over 1 000 languages. South Africa has 11 official languages and seven unofficial ones. Morocco uses Arabic officially, with people also speaking French and eight other tongues, and Ethiopia has at least seven official languages. Thus, the issue of correct translation applies much more critically to African countries than to countries less endowed with lingual variety. In order to ensure that a document has the same meaning across many translations is a huge task, with issues too vast to cover here. Suffice it to say that translation mechanics open up areas where the facts and sentiments of the original artifact can be vastly altered. For example, translating the Bible into many African languages demonstrates the inherent problems of translation (Omanson, 1988).

In the last 20 years, the translation of HIV/AIDS materials has shown how difficult it can be to communicate accurately across the continent. Researchers know that the most appropriate language for disbursing sensitive material about this virus is a person’s mother tongue, but the appropriate words used may be taboo in many languages. To be effective, information has to be socially acceptable, yet it must be accurate and get the critical information across (OSISA, n.d.). The Open Society Initiative for Southern Africa (OSISA) is tackling these translation issues and encouraging translation into the various indigenous languages, so that people will not only have access to accurate information, but also be able to read and understand it in their own language.

In addition, educational materials should be culturally relevant, taking into account the differences between Europe, the US and Africa, where the *ubuntu* spirit of community comes first (Allen & Heald, 2004). For example, in many parts of Africa polygamy is the norm, and urging people to be monogamous goes against the culture (Heald, 2002). Thus translation is not simply an issue of one language to another, but of one culture to another. The social taboos that

prevent the spread of helpful practices and medicines will lead to the deaths of many more thousands of people unless education can be done in a culturally practical way.

## Preservation

We cannot adequately address the issues of the permanency, accuracy and integrity of stored traditional and digital knowledge resources here because the topic is simply too vast. The library associations, governments and businesses of Africa are tackling these problems as information moves increasingly into digital form.

One issue worth noting is that Africa's scholars are working to preserve its oral culture, traditional dances and other important parts of its heritage. Capturing the spirit of a living culture is more complicated than keeping written records. The integrity of these records is critical as issues abound, such as who is doing the recording, what media is being used, have people given their consent to be recorded, and how will the archive be stored? Many issues arise in maintaining these records, and UNESCO has put forth the Convention on the Protection and Promotion of the Diversity of Cultural Expressions, adopted by its General Conference in 2005. At the time of writing, 52 nations have signed onto the Convention, and African countries with their amazing diversity of language and culture should be at the forefront of this effort.

## Corruption and pollution of information

The goal with information integrity is to ensure that information is available and accurate, and therefore the opposite would be information that has been altered in some way during its journey. Of course, shoddy or deceitful recordkeeping leads to information corruption. To give an idea of the issue, take these three US headlines on the Internet and the chilling problems they reveal:

*Massive state contracts database riddled with errors, omissions – Problem-plagued system grew out of effort at transparency in state spending (The Associated Press, 2007)*

*Census errors shortchange counties from federal grants – York County could lose up to \$1M a year until 2010 (MacInnes, 2007)*

*Schools budget full of errors – In city document, funds for salaries don't match number of people being paid (Neufeld, 2007)*

As we can see, excellence in bookkeeping and statistics would help in the above situations, but only when the records see the light of day and we can audit them. The Internet offers the promise of oversight, but what can we do about the millions of websites containing all sorts of inaccurate and biased information?

The analogy to drinking water best describes the problem. Of course, first we need access to water. Once that is established, the entire community has to combine efforts to preserve the purity and healthiness of the water, because disease and filth so easily contaminate this precious resource. Although water composes most of our planet, only 3% of it is fit for humans to drink (Lawson & Lazarus, 1998). In a similar way, we need controls to prevent the dumping of waste and impurities into our information stream. The "impure" information can be an accidental error in copying or translating, or it could be intentional, for example through the release of misleading or completely false artifacts.

The spreading of connectivity means that some people will suffer from misinformation and "information pollution". What we need are well-defined and acceptable standards for the accuracy, consistency and reliability of information (Madhavan et al., n.d.). For example, people will see pictures that have been "doctored", but they may not have the education to understand that pictures can lie. They may read that they can send their money to a remote person and reap vast rewards, but it will be a scam. Worse, leaders might base decisions on false premises, and the people will be starved of accurate information on which to base public opinion.

No policy on information corruption can treat it as something separate from the main society. Economics, law, culture, psychology, sociology, ethics and philosophy are interrelated in these information integrity issues (Madhavan et al., n.d.). For example, take this quote by Packer (2006):

*Nigerians have become notorious for their Internet scams, such as e-mails with a bogus request to move funds to an offshore bank, which ask for the recipient's account number in exchange for*

*lucrative profit. The con, which originated in Lagos, represents the perversion of talent and initiative in a society where normal paths of opportunity are closed to all but the well connected. Corruption is intrinsic to getting anything done in Lagos.*

The promise of the Internet could be challenged by the ingenuity that some people have poured into computer crime, information corruption, and mischief. Also, Internet access and use are so unevenly distributed that some problems will emerge earlier in the more populated areas without having a significant impact in the more rural and remote areas.

### **Freedom of the press and information integrity**

A recent scandalous event in the US underlines the need for a free press. The incident involved the death of Corporal Pat Tillman, a former football player who was killed by an American soldier in a friendly-fire incident in Afghanistan. The US military fabricated a tale in which Tillman was shot dead in battle by enemy fire. Only the determined efforts of Tillman's family and the probing of journalists revealed the falsehood to the nation. As a *New York Times* columnist wrote, a government that will lie about the tragic fate of an honourable young American like Pat Tillman will lie to the public about anything (Herbert, 2007).

Lying is not unique to the US. In Africa it is also essential that the press keeps an eye on the government, challenges false information, checks sources, and is the eyes and ears of the people. Even with examples of courageous reporting, the US is ranked only 53rd on a list of countries and freedom of the press. On the African continent, the highest-ranked countries are Benin (23rd), Namibia (26th) and Mauritius (32nd), while the lowest ranked is Eritrea (166), where a number of journalists have been imprisoned in secret for more than five years (Reporters Without Borders, 2006). Dadg (2006) summed it up like this:

*The year 2006 saw an increase in the number of assaults and attacks on journalists throughout the African sub-Saharan region. Many of these assaults were carried out by the authorities or their proxies, and the violence was often a precursor to arrests and detentions [...] The attitude of these*

*governments displays a distinct dislike of criticism, and is also the sign of a lack of political maturity.*

Another author wrote (Crawford, 2006):

*There can be no democratic progress without a free media, and repression of the media is a first sign of democracy going off the rails.*

Countries like Senegal have state-owned media that can be used to advance the aims of the government and not necessarily the people. In Zimbabwe, a journalist died as recently as April 2007, after smuggling television pictures of the badly injured opposition leader Morgan Tsvangirai after he was beaten up by police on 11 March (Howden, 2007). Four independent newspapers have been shut down, bombed and suppressed, and reporters from other countries are routinely barred entry to Zimbabwe (Sapa-AP, 2007). Reporters Without Borders publishes updates on press freedom for many African countries, and these reports are often depressing.

### **The future**

The goal is to have information that is reliable, accurate, helpful, public and correctable. As Africa had to erase the Mountains of Kong, it also has to correct errors in public health information and court and government records, and adapt its digital infrastructure to storing and maintaining records. At the same time, all countries should support their public libraries for the dissemination of uncensored information, art and literature.

Newspapers, blogs and other media in African countries can contribute to information integrity through reporting government and public activities as accurately as possible. In the US, the media has long been called the "fourth branch of government". But as US journalism slips down to 53rd place in the world, the Internet helps keep journalists honest. When more people are connected in Africa, perhaps their voices, too, will counter state-owned and state-intimated media outlets.

We need to be proactive in providing access to, and provision of, public information in order to empower people to redress inequities. In other words, governments and businesses must provide accessible and understandable information, with formal processes of audit and

accountability, made available free of charge. Of course, good recordkeeping and accounting are essential. People should have access to records about themselves in order to correct and update their personal information, and to ensure that this information is used only for the purposes that they have authorised.

Conserving and maintaining integrity is the responsibility of those who store information. We urge stringent data protection laws and standards for information security. All those who have power, including businesses and governments, must be held accountable when deliberately releasing incorrect information.

Maintaining a plurality of independent media is absolutely necessary in countering misinformation. Thus, state ownership of media ought to be discouraged and the independent media nurtured and encouraged.

By taking those steps, the metaphor for Africa will not be a pile of burning radios. Rather, communications will abound, and we will hear more voices and experience more art and literature through the myriad digital media that will increasingly be at our fingertips. In that rosy future, the quality and integrity of the information we produce and receive will be vital to nurturing Africa's future.

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## **Marginalised knowledge: An agenda for indigenous knowledge development and integration with other forms of knowledge**

Dennis N. Ocholla

*The purpose of this chapter is to re-examine indigenous knowledge (IK) in order to suggest an agenda for its development and integration with other forms of knowledge. The chapter discusses what marginalisation of IK means, examines the challenges of integrating IK into the mainstream of other forms of knowledge, and suggests an agenda for IK development. The agenda focuses on mapping and auditing IK capacity in Africa, legal and ethical issues, IK management, IK education and training, integration of IK and KM, and IK brain drain. The chapter concludes by recommending that information on IK be widely shared for evaluation, use and further development.*

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## Introduction

Present-day literature proffers several definitions of indigenous knowledge (IK). The broadest of these (see, for example, NRF, 2003), which we intend to use, defines IK as:

*... a complex set of knowledge and technologies existing and developed around specific conditions of populations and communities indigenous to a particular geographic area, [with an emphasis on how] these forms of knowledge have hitherto been suppressed [...] therefore, IKS should be brought into the mainstream of knowledge in order to establish its place within the larger body of knowledge.*

Essentially, indigenous knowledge (i.e. local/traditional/folk knowledge/ethnoscience) is a dynamic archive of the sum total of knowledge, skills and attitudes belonging to, and practised by, a community over generations, and is expressed in the form of action, objects and sign language for sharing. Numerous examples (e.g. Kaniki & Mphahlele, 2002:4–6) exist as to how IK thrives in the following areas (World Bank, n.d.):

- Beliefs
- Medicine (traditional medicine using herbs)
- Community development (e.g. communality or the *ubuntu* support system)
- Art and craft (e.g. pottery)
- Sealing
- Energy production (through charcoal burning)
- Education (knowledge transfer over generations)
- Communication and entertainment (festivals, drama, songs, dances, storytelling – what we today could call “reading clubs”)
- Farming practices (soil conservation, inter-cropping, farm rotation)
- Food technology (fermentation, preservation)
- Arts and crafts (e.g. painting, carving, decoration, weaving,)

These skills, knowledge and attitudes, when shared, adapted and refined, sustain communities and bring development in areas such as:

- Healing (e.g. alternative/traditional/herbal medicine; physical and mental fitness; the Maasai’s treatment of foot-and-mouth disease; the Fulani’s treatment of cattle ticks with *Euphorbia* plants)
- Nutrition (e.g. vegetarian cuisine; the *Hoodia* stem/cactus used by San people to stave off hunger and control thirst on hunting trips)

- Wealth, income and business (e.g. intellectual property, tourism, the informal sector or small, medium and micro-enterprises)
- Education (e.g. customs, traditions, culture, language)
- Entertainment (e.g. traditional music and dance)
- Politics (conflict resolution through an *indaba*, *baraza*, *imbizo*, *kgotla*, etc.)
- Architecture and design (some wonderful African architecture exists in Egypt and South Africa; clothes/attire), and countless more.

One of the focus areas in knowledge management (KM) is the conversion of intangible knowledge (i.e. indigenous knowledge) into tangible knowledge. Nonaka & Takeuchi (1995:62) define intangible knowledge as personal knowledge that is created through individual experiences. It is largely embedded within the culture and traditions of individuals or communities. Tangible knowledge, on the other hand, is recorded, documented or codified knowledge, widely conveyed through formal language – textual, electronic or digital. The manner in which this kind of knowledge is presented has made its storage, conveyance and sharing extremely easy and its popularisation overwhelming.

However, Nonaka & Takeuchi (1995:8) caution that tangible knowledge and intangible knowledge are not two entirely separate entities – they supplement each other. This is an area in which the integration of IK into mainstream knowledge and, more particularly, into knowledge management, is inadequate. Knowledge, according to these authors, is created and extended through the social interaction between tangible and intangible knowledge, and may follow four basic patterns:

- Intangible to intangible (socialisation), where individuals share intangible knowledge through personal contact
- Intangible to tangible (externalisation), where the knowledge base is extended by the codification of experience, insight and judgment so that it may be utilised by others
- Tangible to tangible (combination), where individuals combine the tangible knowledge of others to create a new whole
- Tangible to intangible (internalisation), where individuals use others’ codified knowledge to broaden their own intangible knowledge

This chapter re-examines IK in order to suggest an agenda for its development and its integration with other forms of knowledge.

### What does marginalisation of IK mean?

Marginalisation refers to exclusion – a state of being left out or insufficient attention being given to something, for example IK. Although IK (which is still largely tacit or intangible) is inseparable from any realistic knowledge and KM or classification paradigm, marginalisation of IK has occurred over the years and has retarded its development and integration. While IK has existed within our communities since time immemorial – indeed, there is no community that does not have elements of IK – the degree of such possession varies, and seemingly the more a community possesses or practises it, the more the individual or community is marginalised or stigmatised.

There are many speculative causes or reasons as to why this occurs. Of these, some stem from the characteristics of IK, namely:

- Tacit knowledge is not codified or systematically recorded, and is therefore difficult to transfer or share.
- It lives solely in the memory of the beholder and is mostly oral, meaning that unless transferred, it dies with the beholder.
- It is embedded in the culture/traditions/ideology/language and religion of a particular community and is therefore not universal and difficult to globalise.
- It is mostly rural, commonly practised among poor communities, and is therefore not suitable in multicultural, urban and economically provided communities.

The marginalisation of IK can also be seen in the light of how some global organisations, such as the World Bank and the Netherlands Organisation for International Cooperation in Higher Education (NUFFIC), associate IK with the poor. For example, World Bank Group (n.d.) states:

*Indigenous knowledge is also the social capital of the poor, their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives.*

Marginalisation has also occurred because families and communities are becoming increasingly

disintegrated and globalised, a trend that may have stemmed from the push and pull of technologies and the overextensive supply of mass products, services, mass media gadgets and content to private spaces where IK once thrived.

During periods of domination, which have been variously described with terms such as “forced occupation”, “invasion”, “colonialism”, “servitude”, “apartheid”, “ethnic cleansing” and “imperialism”, IK was subject to yet another level of marginalisation. It was often referred to in a negative or derisive manner, with phrases such as “primitive”, “backward”, “archaic”, “outdated”, “pagan” and “barbaric”. This demeaning reference did not create space for IK’s integration with other forms of knowledge, commonly referred to as “scientific”, “Western” or “modern knowledge” (largely products of explicit knowledge). Thus, if a community or a person recognised and utilised IK more, then that community or person was supposedly inferior to those that did not. Put simply, a person or community practising or using IK was stigmatised.

Therefore, in order for an individual or community to be admitted into a “civilised” or modern society, that individual or community had to abandon practising and using IK. IK was vindicated, illegitimated, illegalised, suppressed and abandoned by some communities, and the countries and peoples practising it were associated with outdatedness, a characteristic most people find demeaning. This form of marginalisation produced a generation which, for the most part, does not understand, recognise, appreciate, value or use IK. Arguably, this situation has produced an intellectually “colonised” mindset. These are communities that the celebrated world novelist, Ngugi wa Thiongo, in his essay “Decolonizing the mind: The politics of language in African literature”, considers intellectually colonised. The question is how much they have gained through losing. Or, put another way, how much have they lost through gaining?

Marginalisation has also been fuelled by stereotypes. There has been a tendency to associate IK with traditional communities. Studies on IK tend to focus on the poor, the developing countries, the Aborigines of Australia, the Maoris of New Zealand, the Saskatchewan of Canada, the American Indians of the US, the Maasai of Kenya, and so on. The nature of these studies raises problematic questions, such as:



- Are the studies done to improve the welfare of the communities, or are they done to demean such communities?
- Would such studies be done in order to gain and share knowledge on how well the communities can solve their problems by using IK systems and methods?
- Are studies done to unravel or demystify the stereotype paradigm? Alternatively, are such studies merely adventurous outlets justifying where research money has been spent?
- Would it not perhaps also be interesting to study the IK of Western or industrialised communities? Whereas much can be gained from IK studies conducted on any community in the world (since each community contains elements of IK), the demeaning tendency to focus IK studies on traditional and poor communities has been an added cause of marginalisation.
- Ultimately, has marginalisation occurred in the way we define IK in relation to broader knowledge or in the context of KM?

A definition of knowledge worth challenging in this context is that of Bell (1973:176):

*Knowledge is that which is objectively known, an intellectual property, attached to a name or a group of names and certified by copyright or some other form of social recognition (e.g. publication).*

Bell's definition of knowledge is a good example of modern or Eurocentric definitions of knowledge that can easily be used to marginalise or exclude IK, particularly if knowledge must be attached to a name or a group of names and certified by copyright or some form of social recognition. This could be a biased approach that favours modern knowledge, recognises explicit knowledge at the expense of tacit knowledge, and emphasises codification and the ownership of knowledge that IK does not necessarily comply with.

### Challenges of integrating IK with other forms of knowledge

Fundamentally, integrating IK with other forms of knowledge first begins with knowledge creation and development processes that can be viewed in six steps, all of which are recognised by the World Bank (1998):

- The first step or process includes recognition

and identification, in that IK has to be recognised, identified and selected from a multitude of other knowledges.

- The second step involves IK's validation or affirmation by identifying its significance, relevance, reliability, functionality, effectiveness and transferability. This signifies an ability to support problem solving. For example, the HIV/AIDS scourge, particularly in Africa, has invited a number of IK experimentations, most of which have not been validated (i.e. tested over time and used for problem solving), culminating in disaster in many cases. There are also interesting IK developments and practical achievements that are worth considering (World Bank, n.d.).
- The third step involves codification, recording or documentation. Explicit knowledge thrives because of its tangibility, shareability, transferability and storability, etc., all of which originate from knowledge recording systems. Although there are some contestations to the recording of IK – the argument being that IK owners easily lose moral and material ownership of their intellectual property or capital, which is relegated to third parties – explicit knowledge thrives because of its visibility, access and use.
- The fourth step consists of the storage of IK for retrieval. This requires the creation and development of IK repositories requiring taxonomies, databases, recording, indexing and preservation for easy access and use. The IK database developed by the World Bank (n.d.) and those listed by Le Roux (2003) are essential examples. However, although IK databases are a brilliant idea, reliable content in the databases would be of greater value. (An example of a World Bank database for Kenya is given in Table 1.)
- Evidently, creating meta-data capturing capabilities and multiple-storage approaches is becoming increasingly essential. The fifth step borders on IK transfer. Such transfers go beyond focusing on human recipients.
- Following this, the sixth step would be the dissemination and use of IK. The knowledge is put to the test for acceptance and further validation with a view to development. Therefore, in essence, the six steps or processes are essential if the gap between IK and other forms of knowledge is to be closed.

The second consideration for integration borders

No.	Country	Domain	Technology	Title
10	Kenya	Agriculture	Agriculture	Botanical knowledge of the Maasai
41	Kenya	Health, nutrition and population	Traditional medicine	Medicinal use of plants to alleviate health problems of both humans and livestock
42	Kenya	Environment	Biodiversity, conservation	Taboos restricting felling of trees in the Maasai steppe
43	Kenya	Agriculture, environment	Agricultural meteorology	Weather forecasting on the basis of astronomy and ecology
44	Kenya	Agriculture, environment	Biodiversity, taxonomy	Use of plants and animals determines their taxonomy
46	Kenya	Agriculture	Taxonomy	Classification of livestock disease names assists the Maasai in sharing knowledge, diagnosing diseases and preventing their impact
47	Kenya	Health, nutrition and population	Knowledge management	Sharing of medicinal knowledge among the Maasai
51	Eastern Africa region, Kenya	Agriculture, health, nutrition and population	Biodiversity	Traditional societies in East Africa use wild plants for different purposes and means to survive
58	Eastern Africa region, Kenya, Tanzania	Education	Informal education	Storytelling is the traditional means to bridge past and present and to transfer ethical values through the generations
63	Kenya	Health, nutrition and population	Traditional medicine	Use of plants for their antibiotic effects

**Table 1:** Indigenous knowledge records – search results in the World Bank database on Kenya

on pragmatism; thus, what can we reap from IK. Other forms of knowledge have thrived because of their functions, importance or benefits. The recognition and development of IK are picking up momentum, largely due to the benefits being derived from it. For example, as mentioned, IK is increasingly being used for health services and agriculture, among other things. IK activities and practices are reported by the World Bank (n.d.) in its *IK Notes on Indigenous Knowledge and Practices*, which covers 93 documents from 1998 and largely focuses on Africa and Eastern and Southern Asia (e.g. India and Sri Lanka). These notes show ongoing activities and practices of tremendous achievement in the field of traditional medicine and health, agriculture, biodiversity, education, natural resource management, conflict management, energy generation, preservation, etc. that are of great benefit to those communities.

Additionally, business and trade through tourism have created significant interest in

indigenous food, arts and craft (weaving, painting, sculpture, pottery, etc.). Significant growth has also been driven by pharmaceuticals. Unfortunately, most IK practices are currently being held in the informal sector or unregulated economy, and are therefore subject to abuse. It is acknowledged that IK provides skills, experiences and insights into individuals and communities which may, in turn, be used to improve the livelihoods of those mostly situated in the informal sector of the economy (World Bank, n.d.). Furthermore:

- IK provides local communities, especially the poor, with problem-solving strategies.
- IK is an important contribution to global development knowledge.
- IK systems risk extinction.
- IK is relevant for the development process.
- IK is an underutilised resource in the development process.

Thus, learning from IK by investigating first what local communities know and have, can

assist with understanding local conditions and provide a productive context for activities designed to help communities (World Bank, n.d.).

However, the said document strongly views IK to be a survivalist instrument of development, meaning that its use is likely to occur less in areas where the lives of communities are better, or beyond the norm of survival. Will this be the case with pharmaceuticals, IK practitioners or even IK users, some of whom are not poor, and do not belong to the rural community? Put another way, how many people are employed in the IK industry who are not poor or do not come from poor communities? Despite the rather sad denigration of IK, the World Bank recognises that IK could be relevant in at least three levels of development, the first being its importance to the local community in which the IK knowledge owners live and practise.

Secondly, development agents such as non-governmental organisations, civil society and governments need to recognise, value and appreciate IK while integrating with local communities. Essentially, before incorporating IK into their approaches, they need to understand and critically validate it against the usefulness of their intended objectives. There are unique examples, such as South Africa's recent policy document, "Indigenous knowledge systems", produced by the Department of Science and Technology (South Africa, n.d.), where the government has integrated IK health workers, such as traditional healers, into mainstream national healthcare services through traditional health practitioners legislation. This mandates the establishment of a "Traditional Health Practitioners Council to preside over the activities of approximately 200 000 South African traditional healers". According to the said policy document (South Africa, n.d.):

*The Traditional Medicine Strategy of World Health has noted that the use of traditional medicine is widely growing within Africa alone, as up to 80% of its population uses traditional medicine for their health needs, largely due to accessibility and affordability.*

Thirdly, IK forms part of the global knowledge system. In this context, it has a value and relevance in and of itself. Thus, IK can be preserved, transferred, or adopted and adapted anywhere in the world. Of great significance are

some of the World Bank's achievements as at 2005, in areas such as integrating IK in Bank projects (18 cases), mainstreaming IK in development (14 cases), building capacity to facilitate IK exchanges (22 cases), collecting and disseminating IK (12 cases) and building partnerships (10 cases) (World Bank, n.d.). The third consideration is epistemological. The nature, origin, foundation, limitations and validity of IK require further exploration and interrogation. For example, Agrawal (2004), among others, identifies the key issues in a manner that poses the following questions:

- How does IK differ from scientific, modern or Western knowledge?
- How do the two differ in dealing with immediate or concrete necessities as opposed to distant and abstract issues?
- What are the methodological and epistemological differences?
- What are the contextual differences?

It is therefore necessary to provide more epistemological content, concept and context to IK in order to broaden its understanding and application to research and education in Africa and wherever else there is such a need.

## Agenda for IK development

The following issues apply:

- *Mapping and auditing IK capacity in Africa (e.g. health, agriculture and food, trade and tourism).* This may involve creating an awareness of IK policies, legislations and strategies; management structures, programmes and activities; research output and recordable activities; centres and systems; support and funding; and knowledge holders and practitioners. This agenda appears to have been echoed also by Kaniki & Mphahlele (2002:14), as well as being given attention by the South African Department of Science and Technology (South Africa, n.d.) but not necessarily in other countries of Africa.
- *Legal and ethical issues (e.g. policy, legislation, intellectual property rights).* The issue of the San people alluded to earlier is an example of why legal issues are important.
- *IK management issues.* Matters bordering on management structures in a country or institution, research, visibility publication (see

Ocholla & Onyancha, 2006), IK databases, creation of an IK website for its publicity and promotion (see Le Roux, 2003) are equally valid issues.

- *Education and training.* For example, workshops, seminars, conferences, short courses, IK knowledge, fair sharing of best practices, IK marketplace, popularisation of IK (e.g. in schools and in the curriculum of education institutions), which extends to the teaching of African history and literature to students (see the African Writers Series – works written by Ngugi wa Thiongo, Chinua Achebe, Wole Soyinka, etc.), thus bringing them closer to indigenous context.
- *Integration of IK with KM.* This should feature in KM research and teaching, curriculum development, publications, funding, etc.
- *IK brain drain.* This first occurs in instances when an IK holder dies with knowledge that has not been widely shared through knowledge codification. Thus, when an IK holder dies, a whole “community library” disappears without a trace. This type of brain drain is frequently ignored, yet quite important. Brain drain also occurs in the form of migrated archives, where the IK of a community is displaced or transferred from its original location to a foreign location, thereby rendering access and use difficult or impossible. The third instance is when a community’s IK disappears due to the displacement or relocation of community members as a result of natural or artificial causes or disasters such as war, flooding or urbanisation.

## Conclusions

The achievements made thus far in the revival of indigenous knowledge, such as in South Africa and by the World Bank and other organisations, should be encouraged, supported and interrogated for further development in South Africa and other parts of the world.

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## **The *ourobouros* of intellectual property: Ethics, law, and policy in Africa**

Sandra Braman

*Because law, policy and ethics are multiply intertwined, developments in any one of these areas can affect what happens in each of the others. Thus, those interested in African information ethics will find it valuable to examine trends in law and policy – and those concerned about legal trends should acknowledge effective leadership when it comes from the direction of ethical practices. Though African societies are almost always pictured as receivers of social, informational and technological innovations that come from other sources, today many Africans are providing global leadership by developing innovative techniques for approaching the problem of information access. This chapter describes the context in which this is taking place, including a brief introduction to innovations in a number of areas, before looking in particular at innovations involving intellectual property rights that blend law, policy and ethics.*

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## Introduction

From the perspective of the formal law-making and implementation practices of governments, ethics, law and policy are interrelated in a manner best described by the *ourobouros*, the ancient Greek symbol for the snake that eats its own tail. If by “policy” we mean the fundamental principles and values underlying laws and regulations, then policy is the means by which ethics is translated into law. It is a goal of the law, of course, to set up social conditions that encourage and support ethical practice; and ethics should drive policy. Thus ethics leads to policy, which leads to law, which leads to ethics, and so on.

Today, however, ethics can play additional, even more direct, roles in the development of law and policy because the relationships between law and society, law and government, and the very nature of governance itself are all undergoing change. This is particularly so in areas of the law in which the subject matter itself is undergoing continuous and rapid change, and the issues themselves are therefore often emergent – as is the case with law and policy for information technology.

As a consequence, we must look beyond formal laws, institutions and practices of governments in order to understand policy for information technology and the processes by which it is made. Recent theoretical developments support such an effort. Structural and post-structural theories of society lead rather naturally to conceptions of a broad policy field. Complex adaptive systems theory provides a way of understanding the transformations of specific policies and policy-making processes within any given policy field. Together, these theories identify three types of policy-making processes (Braman, 2006:9–38):

- Those of *government* involve the formal laws, institutions and practices of geopolitically recognised entities such as states, regional groups such as the European Union that are beyond states, and provinces and municipalities that are within states.
- Those of *governance* involve the formal and informal decisions with structural effect of both public sector entities (governments) and private sector entities (whether corporations, communities or civil society as a whole).
- *Governmentality* involves the cultural norms, habits and social practices that sustain and enable governance and government.

The *ourobouros* of ethics, law and policy remains important for all three of these, but the rise in relative importance of governance and governmentality means that ethics activities have multiple additional paths through which they can influence the law. Indeed, one of the most interesting features of the contemporary policy environment, at both the national and international levels, is that many key battles now take place not at the level of solutions for specific policy problems but, rather, of conflicts among policy-making processes themselves.

The African role in policy making for intellectual property rights (IPR) provides numerous vivid examples of this development. This chapter examines African participation in international IPR policy making, with an emphasis on ways in which African ethical leadership is affecting the nature of resulting laws and regulations. Because almost all national governments around the world are signatories to international IPR treaties, this international ethical leadership in turn influences developments in other nation states on continents outside of Africa as well. IPR law is, of course, key to the development, diffusion and use of information technology – and, in turn, innovations in information technology have stimulated a great deal of revision to, and extension of, IPR laws, as well as changes in practice. Thus, developments in this area are also central to the nature of the information society and the information economy themselves.

Following a brief review of just why intellectual property rights are so important for information access, the ethics of information in Africa and the range of ways in which Africans are innovating in order to increase information access, African innovations in IPR is addressed in this chapter.

## The issues

While there are those who argue that Africa is not yet fully part of the information society (Britz et al., 2006:25–40), it can alternatively be claimed that every culture today is a part of the information society in the sense that everyone everywhere is at minimum *affected* by the decisions of those who are most influential in the information society (Braman, 1998:74–75).

Many of the problems that Africans face also confront those in the most deeply informatised

societies, such as the cost of network breakdowns or “down time” (Kennedy et al., 2006:88–89), but it is incontrovertible that Africa lags in many indicators of “informatisation”. Because knowledge transfer rarely accompanies technology transfer, digital inequalities remain not only between Africa and the rest of the world, but also within Africa (Oyelaran-Oyeyinka & Lal, 2005: 507). There are barriers to information access in Africa, not only when information available on the Internet is sought, but also with every channel (Wresch, 1998:295–300). Many of the challenges facing those concerned about information rights in Africa today are the same as those identified a decade ago (Thapisa & Birabwa, 1998:49–58). While many of the same types of problem are faced in every African society, it is still necessary to be very specific about local conditions when country-specific policies are designed and implemented (Adomi, 2005:257). Opportunities for e-government, for example, can differ significantly from country to country (Netchaeva, 2002:467–477).

Many of the factors affecting information rights are the same as factors impeding the achievement of other development goals (Coeur De Roy, 1997:883–898). Perhaps ironically, however, is that some fear that G8 attention to using information technology to address the digital divide in Africa may draw attention away from problems such as debt and poverty by implicitly or explicitly suggesting that there are digital solutions to every concern (Alden, 2003:457–476). Critics argue that developments that accompany access to information, such as “techno-dependency” (Sonaike, 2004:41), are not desirable because they can bring unwelcome cultural changes, an emphasis on consumption (Robins, 2002:235–249; Ngwainmbi, 2000:534–552), as well as the possibility that the use of ICTs will only enhance the power of existing elites to the detriment of others in the population (Hall, 1998; Ott, 1998). Some effects of use of the Internet, such as the extent to which it has increased the effectiveness of environmental activists working on African problems, may be viewed either positively or negatively, depending on the stakeholders’ interests (Zelwietro, 1998:45).

There is a need to develop capacity in regulatory skills in order to achieve information technology and telecommunications goals (Makhaya & Roberts, 2003:41–42). In addition to training

indigenous telecommunications policy analysts – a process Nelson Mandela wisely launched for South Africa immediately upon his election in 1994 – developing such capacity requires research and conceptualisation regarding the gap between regulatory ideals and the actualities of what is achieved once policies are implemented (Smith, 2000; Mercer, 2005:262–264).

To achieve information access goals, regulatory change regarding competition is insufficient, for a wide range of policies is necessary to ensure affordability and access along all of the pertinent dimensions (Mureithi, 2003:11). Since language is so important, for example, cultural policy is relevant (Roycroft & Anantho, 2003:61–74). There must be a comprehensive e-commerce framework that aligns with other telecommunications policies and practices (Rhodes, 2002:269–293). In many places, governments must also address issues affecting the printing and publishing industries, both because print materials are often a gateway to effective information access via the Internet and because print still remains an important source of information in itself (Lor & Van As, 2002:101–110). Even the regulation of electricity rates can affect access to the Internet (Zachary, 2004).

Geography is a key variable for regulators concerned about African information rights. Even with the newest technologies, it is necessary to ensure that there are policies in place specifically tailored to the needs of rural environments (Chetty et al., 2006:332–333). Collaboration at the regional level can make a big difference to the ability to achieve success within a country, whether a region is defined geographically (McCormick, 2003:95) or linguistically (Eko, 2001:365–379). The establishment of the free trade zone in southern Africa affects information access, for example, by reducing the cost of moving goods and services among countries in that region. The climate is another key geographic factor affecting the extent to which technologies developed for other environments can be maintained in the African context (BoulaHYa et al., 2005:299–310).

### **Innovation as a strategy**

Leapfrogging and/or reversing the sequence of technological development, organisational innovations, manipulations of the diffusion process,

and experimentation with the technologies themselves are all ways in which African societies are innovating to address information access issues.

### ***Leapfrogging***

The notion that developing countries can “leapfrog” in their use of information and communication technology (ICT), skipping steps in what has appeared to be a necessary linear progression of movement from one technological system to another in the developed world, has long been familiar (see, for example, Jussawalla et al., 1991:31–54). Indeed, irrespective of such beliefs among those in deeply informatised societies, leapfrogging has also been key at times even to those countries – radio, for instance, received a tremendous burst of developmental attention in the World War I period as a means of working around British control over the global telegraph system (Headrick, 1990).

This is still a powerful technique in today’s environment, filled as it is with numerous complementary communication systems, many or all of which are simultaneously in use. Thus, while in Europe and North America experience showed that wireless developed after wired communication and complemented its functions, in Africa wireless often comes first, paving the way for the later development of wired networks (Hamilton, 2003:109–133). Though factors other than the nature of the technological infrastructure affect e-readiness and the ability to use information effectively and meaningfully once acquired, the level of development of the infrastructure itself is still the primary variable determining the extent of use of the Internet (Oyelaran-Oyeyinka & Lal, 2005:525–527).

### ***Organisational innovations***

Organisational as well as environmental factors are critical in determining e-readiness for African societies (Molla & Licker, 2005:83). Collaborations with academic institutions (Keats et al., 2003) and institutions in the private sector (Walker, 2005: 12–21) are one means of achieving this, both through development of new organisational forms and as a means of diffusion of experience, knowledge and capability. Certainly collaborations involving ICTs have enhanced governmental capacity with regard to information

access. Both sides are critical to this, for however wealthy private sector parties are, they cannot be effective on their own or without sufficient public infrastructure (Killen, 2002:141–148).

The creation of new organisations has also facilitated better access to information, African Journals OnLine, for example, launched in 1998, has significantly expanded access to scholarly information published in Africa, and published about Africa elsewhere in the world (Smart, 2005: 261–265). This again is a story about collaboration, for African Journals OnLine was launched in the UK and only moved its headquarters to the African continent in 2005.<sup>1</sup> The Alliance for Progressive Communication (APC) ICT Policy Monitor (see [www.apc.org](http://www.apc.org)), which provides a means of sharing experience of and approaches to information rights policies, is another such organisational innovation.

Some African approaches to policy making for the information infrastructure can themselves be considered innovations of this type. In the South African example, appreciation of the need to approach access to the Internet using diverse policy tools simultaneously, and development of a “converged” regulatory agency to deal with both broadcasting and telecommunications, are ways in which it might be said that the government has “reinvented policy technologies” (Braman, 2001:2–10).

### ***Experimentation with the diffusion process***

It should not be surprising that those who combined high education levels with a very strong “need to know” motivation for working with the Internet, were the first in Africa to make extensive use of information resources once they were made available. For example, physicians took enormous advantage of scholarly resources made available to them (Burton et al., 2005). The trajectory of the Rockefeller Foundation (see [www.rockfound.org](http://www.rockfound.org)) here is instructive – in the

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<sup>1</sup> It is worth noting that at the time of the literature review for the original article on which this chapter is based, the single-best peer reviewed scholarly journal source for research on ICTs in Africa – as measured by number of publications, diversity of research questions and approaches, and richness of material – was *First Monday*, itself one of the earliest and most successful of freely available e-journals.



early 1980s the foundation supported the distribution of indices to medical journals throughout the developing world, along with delivery of the full text of any items then requested by physicians, even before the Internet made such access so much easier.

The several decades of research into the nature of the diffusion process (Rogers, 1995) has stimulated experimentation with that process itself as a means of improving access to information. Efforts to increase the Internet training of librarians as a means of accelerating diffusion of knowledge about the Internet (Muslazi, 2004) can be understood as a deliberate engagement with early innovators and maximising opportunities for the trialability that is a characteristic of technologies and technological systems that diffuse quickly. Trialability and the support and encouragement to experiment with the use of new technologies that come from visibility in the community and awareness that others are using a technology, are significantly enhanced through use of community-based telecentres rather than a focus on penetration at the individual household level (Falch & Anyimadu, 2003:21).

Support for the education process is, of course, a primary motivation behind the desire to increase access to information in Africa (Ahmed & Nwagwu, 2006:86; Darkwa & Mazibuko, 2000), but in this area there is a “chicken and egg” problem: while access to information increases the quality of education, it is necessary to have at least some education in order to be e-ready (Mutula & Van Brakel, 2006:212).

Another type of innovation in efforts to diffuse access to the Internet, therefore, has been to incorporate information literacy training in higher education (Jager & Nassimbeni, 2002:167–185).

### ***Technological innovations***

Although Africa is most often portrayed as a receiver of technologies developed elsewhere, with growing theoretical and practice-based appreciation of the role of users in the innovation process it has become clear that there are many ways in which those in African societies are also developing quite useful technological innovations of their own.

Those with few resources have always, of course, been adept at using materials and objects in ways

that may not have been intended by the designers and vendors of such things, whether that is use of paper advertising to adorn a home or reworking cans into tools. In highly informatised societies, such as those of Europe and North America, what is being referred to as the “make” movement, after a magazine by that name, has quite popularly now extended hacking practices from the world of software into the material world, but in Africa such efforts have long been the practice. An example of a contemporary innovation in support of information access that can be accomplished at the individual level now in use in Uganda involves soldering together two tin cans and a receiver to make an inexpensive Internet antenna (McConnell, 2005: 42–43).

The particularities of the climate and other geographic conditions are themselves stimuli for technological innovation. African companies have led the way in such matters as developing solar-powered telecommunications installations and infrastructural elements that can withstand conditions like intense heat and blowing sand (Braman, 1998).

### **Innovation and intellectual property rights**

There are many senses in which information can be said to be “owned,” not all of which are economic. Developing Wikipedia content in African languages (Cohen, 2006), for example, is an important move towards ensuring that Africans have ownership in this community-built open-source encyclopaedia of global interest. There are four types of IPR: copyright, patents, trademarks, and trade secrets.

#### ***Copyright***

Copyright has been important to African development because software piracy, in particular, is so rampant that it is discouraging companies from trying to bring their own tools to African society legitimately. Indeed, in some countries it is essentially impossible to find legitimate copies of widely used, basic software. This not only has economic ramifications (including loss of tax revenue for governments), but can also contribute to a continuance of the digital divide, as stolen software does not receive support and may not include features widely used by others.

A second copyright issue involves efforts by many African governments that are still playing catch-up in terms of adhering to international law and adapting domestic law and practice in order to conform to international standards.

A third set of issues arises from African participation in efforts to develop forms of copyright appropriate for indigenous and traditional forms of knowledge, and for ownership of property held by communities rather than individuals.

### **Patents**

While most discussion about patents in Africa has focused on efforts to ensure that these countries participate in the Trade Related Intellectual Property Rights (TRIPS) agreements administered by the World Trade Organisation (WTO), there are at least two types of patent issues in which African involvement has affected international policy making.

African governments have been very active in efforts to ensure that patented and otherwise quite expensive pharmaceuticals are affordably available to those who need them (CPT, 2001). A variety of techniques is being used for this purpose, including adaptations to (Kapczynski, 2002; Wheeldon & Burt, n.d.), new interpretations of (see, for example, South Africa, 1998), or new practices involving patent law (Pouris, 2006:221–226; Rimmer, 2005), and the development of specific contractual arrangements with producers of pharmaceuticals (*The Economist*, 2004). When those pharmaceuticals have been developed using genetic information from Africa, the ethical issues are particularly noticeable (WHO, 2006: 345). Central American countries have modelled the successful use of contracts that require payment to societies from whom materials are taken by pharmaceutical companies.

A wrinkle developed on efforts in this area when the Togo government announced it was banning media advertising for traditional medicines and healers (Godwin, 2006). Because the media in Togo were previously so highly dependent on advertising from these sources, this ban makes it likely that the amount of advertising from companies selling patented – and expensive – pharmaceuticals will grow.

It is also important for African governments to develop a culture in which adaptations of tech-

nologies for the specific climactic, social and geographic circumstances in which they will be used are patented in order to maximise resources garnered for African societies.

### **Trademarks**

Trademarks are a form of intellectual property that is based on competition, or antitrust, law. Here, too, many African governments have lagged in conforming to international law and practice in ways that are economically and socially detrimental because it discourages corporations based elsewhere from trying to operate in Africa. Still, there has been ethical innovation in this realm of particular creativity. In one example, a South African tourism entity – the Fair Trade in Tourism South Africa (see [www.fairtourismsa.org.za](http://www.fairtourismsa.org.za)) – has trademarked its name as a way of encouraging tour operators to conform to a set of ethical principles in order to be allowed to use the trademark for particular tour packages. This was the first time the concept of fair trade had been applied to the tourism industry, and it is likely to be widely imitated around the world.

In a second example, the South African government pursued an entity that staked out ownership in a key South African Internet domain name ([southafrica.com](http://southafrica.com)) in the hopes of selling it for millions to the government in a US court. This, too, is a practice that is now being widely imitated by other governments around the world that have been abused by such cybersquatters.

### **Trade secrets**

Trade secrets protect intellectual property by not staking out any other form of officially recognised property right but, rather, by defining certain practices, knowledge or technologies as trade secrets not to be shared with anyone at all. This is a particularly difficult area in which to do research (for obvious reasons), but a secondary analysis of the literature on corporate activities and trends in Africa could yield useful insights.

### **Conclusions**

Though African countries are often portrayed as recipients of innovations developed elsewhere, there are many ways in which African inno-

ventions that promote access to information and other information rights are worthy of diffusion to the rest of the world. In the area of IT-related intellectual property rights, however, Africa offers two faces. In a number of areas, ethically driven activities are providing international leadership for the making of law and the practices used in its implementation. In other areas, insufficient or inappropriate activity results in an ethical deficit on the part of governments vis-à-vis their own societies.

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## **The discourse of identity in the Maghreb between difference and universality**

Jameleddine Ben Abdeljelil

*The discourse of identity in the Arab context in general, and in the Maghrebi context in particular, is a modern phenomenon and of central importance. In the Maghreb, this discourse is related to modernisation efforts, with the decolonisation struggle and its ideology, and with the nation state-building genesis, process and legitimisation after independence. A fundamental part of the developmental process of this discourse, therefore, is the difference from, as well as the non-negotiable and hegemonic presence of, the “Other”. The evolution of a Maghrebi discourse of identity in this instance is a peculiar formation of consciousness or awareness with regard to a self-evident constancy, namely the own identity, which had not been in doubt up to that point. From the challenging encounter with the Western European hegemonic “Other” comes the necessity to bring forth such a discourse. The “Difference” is thus a fundamental aspect in the beginnings of the Maghrebi discourse of identity.*

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## Introduction

The discourse of identity in the Arab context in general, and in the Maghrebi context<sup>1</sup> in particular, is a modern phenomenon and of central importance. In the Maghreb, this discourse is related to modernisation efforts, with the decolonisation struggle and its ideology, and with the nation state-building genesis, process and legitimisation after independence. A fundamental part of the developmental process of this discourse, therefore, is the difference from, as well as the non-negotiable and hegemonic presence of, the “Other”. The evolution of a Maghrebi discourse of identity in this instance is a peculiar formation of consciousness or awareness with regard to a self-evident constancy, namely the own identity, which had not been in doubt up to that point. From the challenging encounter with the Western European hegemonic “Other” comes the necessity to bring forth such a discourse. The “Difference” is thus a fundamental aspect in the beginnings of the Maghrebi discourse of identity. This Difference relates to the various levels and realms of the construed identity, to language, culture and politics.<sup>2</sup>

## Language

A further explanation is necessary with regard to language, which manifests a triadic situation: mother language, classical Arabic, and French. Here, language is a constant of identity, with which the various groups surround themselves according to their linguistic identities. Language is a central reference for the cultural and political identities that derive themselves from it. The statement that language not only has a communicative function but also renders existence, as it were, finds ample use and legitimacy in our context.

The mother languages or spoken languages in the Maghreb are the various local Arabic dialects and/or the Berber languages, which also vary locally and manifest a strongly oral character. In

all cases, this language is oral, everyday and practically oriented. It must be noted, however, that the reluctance to fixate the dialect in writing was relatively weaker before colonialisation than during or after decolonisation. Thus, classical Arabic and French remained the only languages of writing, and consequently also the languages of education and officialdom.

As oral languages, the dialects – both Arabic and Berber – remained characteristic of an uncultivated state of nature, whereby a direct connotation was made with the Bedouin tribal tradition, which manifests originality, but also vulgarity. The sociocultural level of these languages is the small, regional or tribal community (Grandguillaume, 1979:3–28).

Classical Arabic is really a language of education and officialdom, but also the language of the media and of a certain class of intellectuals. The status of classical Arabic gains importance particularly after independence. It is brought into a strong relationship with the written Arabic tradition in general, and with the Qur’an in particular, which renders the language of revelation a sacral character. The cultural and linguistic elimination and marginalisation wrought by French colonial policy, however, also make classical Arabic a vehicle of resistance as a symbolism of the threatened identity, since French occupied the official public space, both during colonial times and afterwards. The Arabising process in the various Maghrebi countries began in the 1960s and 1970s and is still under way. The dominant practice in these countries is still bilingual, French and Arabic.

The relationship with the French language here is essentially ambivalent. French is sometimes labelled a foreign language, which can mean a kind of discredit, and sometimes a language of progress. The Maghrebi Francophone intellectuals and the Francophile class do not hide their arrogance or dislike of classical Arabic. The Arabophone intellectuals also show their mistrust of the Francophone aspect and often emphasise the structural status of the Arabic language and its culture for their own identity. The concept, *al-umma al-arabiya*, the Arab community, is not only a political statement with an ideological, pan-Arab background, but also a carrier of definitions and an indispensable reference of collective identity. Here, the French language, as a carrier of symbols of Western culture and

<sup>1</sup> With “Maghreb” I am referring to Tunisia, Algeria and Morocco, in contrast to the Union Maghreb Arabe as regional political constellation, which also includes Mauretania and Libya.

<sup>2</sup> By “politics” I understand the official and ideological discourse.

modernity, plays a contradictory role – on the one hand, a certain attraction for modernisation efforts; on the other hand, it provokes a dislike and fear of Western hegemonic political, economic and cultural expansion efforts.

The Difference as a strategy of definitions inevitably leads to discomfort, namely over the fact that the Difference emphasises one's own cultural "specificity", and thus the universal ambition of certain humanistic cultural and ethical values is rejected, among them human rights and democratic values.

In practice, some structures have been presented and some developments ascertained that would speak in favour of a certain modernisation in the Maghreb countries, and which could be helpful to bridge and overcome this chasm between Difference and Universality. This also means a possible conception of Maghrebi identity as a differential process, which cannot be allowed fixation in a culturalistic or ideological way. However, it also enables a differentiated self-perception, which may legitimise universal humanist values in one's own culture. An integration of humanistic values and worldviews in one's own culture becomes a possibility with this approach, without the necessity of an allergic phobia over keeping one's own integrity intact.

## Religion

An additional aspect of a differentiating view of Maghrebi identity is the religious factor. The Maghrebi societies are overwhelmingly, homogeneously, Malikite Sunni Muslim. The religious homogeneity served an additional role for the emergence of a collective national identity. The contradictory exclusivist juxtaposition of national Muslim identity on the one hand, and French colonial identity on the other hand, is manifested most dramatically in the French colonial policy in Algeria. Here the concept of "Muslims" was synonymous with those who were not assimilated or, better, for those who refused to be assimilated and succumb to the colonial hegemony of power.

The establishment of the Association of Muslim Scholars (*jam'iyyat al-ulama al-muslimin*) in May 1931, under the leadership of Abdelhamid ibn Badis, had the strategic purpose of safeguarding Islamic and Algerian identity in the face of the

threat of assimilation as a result of colonial French cultural and educational policies. On 8 May 1945, some 45 000 civilians were killed by French colonial forces in Sétif, Melgua and Kherrata in eastern Algeria because they had demonstrated for their equality as "Algerian" citizens and for freedom. The massacre of Sétif remained a deeply influential symbol of Algerian history and of collective Algerian identity, and is still conspicuously present in the political discourse.

Less dramatic than the genocide of Sétif, but all the clearer, are events surrounding the French naturalisation of Muslim Tunisians during the 1930s. To the discourse of resistance, the Muslim and national identity was endangered by the French colonial power and its citizenship policy. Although Tunisians naturalised by France have remained Muslim in faith, they were disowned and rejected by their Muslim environment and were not allowed burial in Muslim cemeteries (Al-Ghurab, 1990:21–23; Djait, 1990:42). The demonstrators killed on 9 April 1934 remained martyrs in the national consciousness, and this day is celebrated annually as a national holiday in Tunisia.

These are examples of historical events in which the fusion of religious and national elements is concretely obvious. In this context, it must be added that the religious or Islamic factor in the formation of identity in the Maghreb is often equivalent with the Arab cultural identity. Islamic identity and Arab identity constituted the national consciousness and not least due to the confessional homogeneity synonyms. The formation of a national identity in Maghreb countries presented as a process closely linked, on the one hand, to the struggle for decolonisation and for liberation from French colonial power and, on the other hand, to strategies and programmes for the creation of an independent, sovereign nation state.

The concept of a nation state is characterised by an ambiguity and uneasiness, because the relationship to the concept of nation in the modern sense is an ambivalent relationship. The concept of nation has remained alien, novel and insufficiently rooted in the Arab political tradition. The word nation sometimes means "home" or "fatherland" (*Watan*) and sometimes the Arab nation, *al-umma al-arabiya*. Nation in the first sense (*Watan*) has politically become the failed

result of a Western Balkanisation policy to the disadvantage of the unity of the Arab nation, *Umma* (Djait, 1990: Chapters I and II).

### Arabisation policy and modernisation

In this context, the Arabic language serves, particularly in the Maghreb, as reference for the pan-Arab ideological discourse. The French language served especially in the early phase of the Maghrebi nation states as reference for the political discourse. This reflects the ambiguity and the uneasiness of this situation, at least in its initial phase, because in all constitutions of the Maghreb countries Islam was unmistakably, and even in the first paragraphs, announced as state religion and Arabic as the national language. The Arabisation process in the realms of education, administration and public official discourse mirrors this constitutional role.

As a programmatic task (and, simultaneously a goal) of the new state after independence, the construction of an authentic national identity on the one hand took place in contradistinction to the uprooting experience and the extinguished collective identity during the colonial era. On the other hand, the development of the country and the socioeconomic modernisation were a central purpose, rendering legitimacy to the new state on the international stage. In practice, the attempted modernisation is often understood as a synonym of Western-oriented strategy, as none of the Maghrebi states was able to develop an authentic original model of development that differs from the Western model. The newly acquired national Arab identity thus becomes a Trojan agent of the Western model (Grandguillaume, 1979:3–28).

This becomes apparent in the application of sometimes socialist, sometimes liberal economic policy in Algeria and Tunisia during the 1960s and 1970s. These policies, which were perceived as Westernisation and alienation by the political opposition, were easily argued with the aid of analogous experiences and associations with French colonialism. The emergence of the phenomena of religious fundamentalism and political Islamism during the 1970s can be brought back to these contexts by means of sociocultural argumentation.

The reference to the paradox between Arabisation policy and modernisation and develop-

ment policy in the Maghrebi countries is justified, but limited. The Arabisation policy served in the discourse of power against mounting accusations by the political opposition as an alibi of diversion from the crisis of development policy. The constructed paradox between Arabisation and modernisation, however, often has a background in an attitude that sees this representation as a juxtaposition of incompatible opposites. Thus the Arabic language, as a perceived constant of identity, is an obstacle to modernisation efforts.

This argument is based on two mistaken ideas, the first of which is that the Arabic language is understood as something static and almost meta-historical. Here, the various social and intercultural processes that the Maghrebi societies have experienced, and which possessed their own dynamics, are rejected and ignored. This culturalist perception leads to the confirmation of the prejudiced constructions that refer to rival hegemones and power relationships. The second mistake is the premise that modernity is something meta-historical and that it is exclusively – and can only be – European/Western per se. This leads to a latent and automatic identification of occident and modernity. It cannot be denied that modernity emerged as a process in the European context. An essentialist perception suggests that this European context in its cultural historical features is ultimately a substantially homogeneous unit and consciously suppresses the various intercultural processes of exchange, especially with the Arab-Islamic culture, which particularly often took place with an impetus from the Mediterranean and the Maghreb. This culture-centric paradigm, which raises a monopolistic claim to modernity, as well as a universal patent, really manifests crisis on the flip side of modernity, with its colonialist and fascist aspects, aspects that suffered annihilating criticism through postmodernism.

### Conclusion

In this context a differentiated view and an intercultural analysis of modernity are helpful for a better understanding and for overcoming the problems to which I have referred. On this level and with this method of approach, a legitimisation and foundation of modern values with their universal claim beyond culturalist hegemones could be made. In the argumentation for,



and the conception of, human rights and basic liberties as the achievement and important aspect of modernity no culture should be excluded. Culture as defining space for identity must be understood as a process and in no way as statically transcendental. Identity can also be seen and constructed as an open, dynamic process and in a relational rather than an essential manner.

In conclusion, this intercultural approach offers, firstly, a wider perspective for a conception of the Maghrebi discourse of identity, which may be useful for an escape from the eternal, nihilistic clash of the dogmatic identity trap. Secondly, it might offer an opportunity for the establishment or adaption of modernity in the Arab-Islamic context in general, and in the Maghrebi context in particular.

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## **African women and the Internet**

**Netiva Caftori**

*As the future of the Internet in Africa seems promising from an infrastructure point of view, the issue of the women of Africa should not be forgotten, in particular women who are already in academia and who continue to struggle for equality despite their relative achievements. Women all over the world face similar hurdles and conflicts related to their gender, such as tenure vs “biological clock”. However, the glass ceiling in the West is made of iron in Africa and one cannot yet aspire to reach the top. Luckily thanks to the Internet, women communicate with each other and African women as well are being heard. The Internet is serving them as a sounding board and a support in their struggles.*

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## The Internet in Africa

### *The situation now*

As the Internet continues to gain momentum throughout Africa, people in many countries are becoming more knowledgeable about connectivity, content development, training, and public policy issues.

Yet the numbers of users are still relatively small. For example, as of September 2006, there were 425 000 Internet users in Benin, which is 5.7% of the population, and less than a million in all of Africa, which represents 3.6% of the total population according to the International Telecommunications Union (ITU). (More world statistics can be seen at <http://www.internetworldstats.com/stats.htm>.)

The Internet Society (ISOC) continued its long-standing effort to promote the development of the Internet in Africa through its INET Africa Conference, held on 4 May 2007 in Abuja, Nigeria. INET Africa is held in conjunction with the AfriNIC 6 and AfNOG 8 meetings.

### *The near future*

Efforts spent on the connectivity level are aimed at getting 50 African countries online with various speeds, ranging from 64k or lower up to hundreds of Mb/sec. in some cases. The next phase includes the local training and human resource development of support staff in many communities in Africa. This represents much progress achieved in the direction of access.

Africa is now facing new challenges, such as a shift from the development of infrastructure *only* to the development of infostructure *as well*. Several “hot” issues are being explored, such as local languages, content update, intellectual property, and security. Regarding Internet governance and policy issues, Africa is shaping its efforts as well. The establishment of an African Network Information Centre for managing IP addresses is under development.

Two other major topics of concern to Africa addressed in the 2007 ISOC conference are Internet security, and detecting and deterring unwanted Internet traffic. Much work is to be done in this domain, just as it is all over the world. Security may just be an elusive goal.

## The women of Africa

As the future seems promising from an infrastructure point of view, we should not forget the issue of the women of Africa, and in particular those already in academia and who continue to struggle for equality despite their achievements. Women all over the world face similar hurdles and conflicts related to their gender, such as tenure vs “biological clock”. The glass ceiling in the West, however, is made of iron in Africa. One often cannot even aspire to reach the top.

The number of women in computing, and in academia in general, is higher in the West than in Africa, although it is steadily declining. In the West, the problem is recognised and efforts are made to remedy it. In Africa, however, the issue is not yet dealt with openly. The culture is such that a woman’s place is with her family and her work should be within the family. In the West, many women have broken this stereotype some time ago and are working outside the house to develop themselves and not just to provide for their families.

Luckily, thanks to the Internet, many women are communicating with each other and African women are also being heard. The Internet is serving them as a sounding board and a support in their struggles. This social tool may prove to be more revolutionary in Africa than in the West. It serves as an information highway straight from someone’s home, even if there is only a dirt road outside of the physical house. An African woman may have to take a leap to use this highway, which is a more difficult task than for her sister in the West, but by doing so she can reach much farther than her neighbours who do not try.

From my experience living a year in Benin, West Africa, in 2003–2004, I know women there are proud and self-confident. They have achieved relative equality when it comes to economic and financial independence. In many rural areas of the South, they are partners with the men, yet they still have a long way to go from a social standpoint. In academia, also, their numbers are few and need to increase so that they can serve as role models for future generations.

Poverty in many African countries, bound with old beliefs, keep women at home and at work, far from school benches and lacking books and other educational resources.

Let me expand on the current situation of university women in particular, and how informatics can help stabilise their role in the African society.

## **The joy of sharing knowledge**

### ***The title***

The title of the 2007 African Conference on Information Ethics reminds me of a recurring theme between my husband and I which, I may argue, could be generalised to a theme between men and women. Women, who may value socialisation more readily than men, generally like to share information more willingly as well. Men, whose motive in life is most likely to climb up the ladder of success, may tend to retain information so that their rivals will not use it to advance themselves. Sound familiar? This, of course, may be a Western way of life. However, gender inequality in Africa should be an issue of concern.

The Western world, instead of sharing of its knowledge (which it does to some degree), inadvertently steals brain power from Africa. The rich and powerful in Africa send their children to study abroad. The talented get stipends and leave their native countries, sometimes to never return. Of course, many do return and bring a wealth of knowledge to help their countries out of poverty, but many do not. Therefore, it is a comforting idea to have participated in a conference that has as its title the sharing of knowledge to advance the good of all.

Sharing of knowledge implies trust; trust that the receiving party will acknowledge and appreciate the source and will in turn reciprocate so that all parties involved will benefit in the long run; hence comes the joy. Many of us believe that this is the only way to advance science and culture throughout the world. A rich country confident in its resources can begin by sharing and giving to the less fortunate. When Africa recognises its full potential, its brain resource, among other things, it can start by keeping it there and using it with proper compensation to benefit all involved. For example, industries can be developed producing microchips and the like (using their hardworking potential), data centres including programming, and system-developing centres. India, for example, has achieved such a status. Why not Africa with its French-speaking potential, for example?

## ***The global community and the case of women and girls***

We live in a global community. Neglecting one part of the community will hurt us all in the long run. In Africa, universities remain male-dominated and male-structured. That can be particularly true in sub-Saharan Africa where 20 million girls are denied any education due to discrimination, poverty and conflict, according to a 2005 Save the Children report.

In Benin, West Africa, I witnessed gender discrimination. In the graduate institute where I taught (IMSP), very few women (less than 10%) came from rich families or foreign countries. They themselves were not aware of any direct discrimination, except sometimes from their own families who wanted them to marry instead of study. However, I realised later on by teaching a Women-in-Computing course in the US (where women in computer science represent 20-30% of the general student population) that no one was aware of discrimination until their eyes were opened to it. In a survey I conducted this past semester in my class, none of my students felt there was any such discrimination in our department or anywhere. Only in mid-term, or at the end of the semester, after much reading and discussions on the topic did the students start seeing the truth.

It seems the same will happen in Africa. Right now many women deny there is discrimination, but their eyes are just not open to see it yet. It will not take long, I believe, as the proliferation of the Internet and Western influence will bring with them greater awareness and a desire for more.

## ***South Africa, in particular***

Post-apartheid South Africa is widely agreed to be a mecca, but even there, senior women faculty are scarce. At Johannesburg's University of the Witwatersrand, for instance, women account for only 19% of associate professors and 17% of full professors in recent years, according to Dr Hilary Geber, a professor there.

In South Africa, female faculty of colour are particularly rare. At the University of Cape Town, women account for 35% of the overall academic staff of 779. However, only 59 (or 8%) are women of colour, according to Nazeema Mohammed,

who oversees the institution's transformation from the apartheid system. Representation at universities is just part of the problem, as "the insufficient support for the production, dissemination and use of African feminist knowledge and theory, in all fields, is surprising". Groups such as the African Gender Institute (AGI) are using technology as a major tool for overcoming those hurdles.

Online connections to other female thinkers and advocates help make up for the camaraderie that is often lacking for women at African universities; it is a loneliness that may lead many to leave the continent to pursue graduate-level studies. "The Internet and technology play a big role in breaking the isolation," says Dr Elaine Salo, senior lecturer at the AGI. "We are doing work here that will result in a generation of scholars who will say: 'We can do work here that is relevant to our society.'" The institute was founded in 1996, two years after South Africa's transition from apartheid to democracy, to expose African researchers and intellectuals to the importance of gender equity and to support those engaged in that process.

Housed in offices at the University of Cape Town, AGI offers undergraduate and graduate academic programmes in gender and women's studies. Three core teaching faculty also raise up to US\$1 million a year from international foundations to offer programmes for African scholars committed to gender equity. Female academics in Africa also exchange ideas and information through a number of bodies, such as:

- African Women's Development and Communication Network (FEMNET) in Kenya (<http://www.feministafrica.org/index.php/femnet>)
- Zimbabwe Women's Resource Centre Network (<http://www.zwrcn.org.zw/>)
- Cameroon's association for support to women entrepreneurs, Les Femmes Chefs d'Enterprises Mondiales (FCEM)
- Uganda's African Women's Economic Policy Network
- To ensure as many readers as possible, Feminist Africa is published both as a traditional 150-page academic journal and on a free website (<http://www.feministafrica.org/>).
- GWS Africa is a project of AGI, sponsored by the Ford Foundation (<http://www.gwsafrica.org/>).

Professor Sylvia Tamale has become the first female dean of Makerere University's Faculty of Law in 2004. She has launched a research project on gender, law and sexuality, which she hopes will become a fully fledged research centre.

In addition, the origin of the newly established Institute for Women's and Gender Studies of the University of Pretoria (the fourth of its kind in South Africa), is not dissimilar to the origin of women's and gender studies elsewhere in Africa.

Whereas the women's movement had played a fundamental role in establishing women's and gender studies in the West, women's movements in Africa have not played a similar role in institutionalising women's and gender studies in Africa. On the contrary, the main forces behind the institutionalising of women's and gender studies in Africa have been Western financial support, conceptual apparatuses and theoretical models. Even Oprah Winfrey has opened a school for girls in the small town of Henley-on-Klip, south of Johannesburg, South Africa. This is another example of a Western concept that may impact the local culture.

## Ethical overview

We need to realise that cyber ethics are different from the ethics we have had since the earliest of times. What makes "ethics online" a unique moral issue, according to Deborah Johnson (1997), can be summarised in these three points:

- The scope of the Internet is global and interactive.
- The Internet enables users to interact with anonymity.
- Internet technology makes the reproducibility of information possible in ways not possible before.

These features make behaviour online morally different than offline. In a country where not too many people use the Internet, or one gender uses it substantially more, these differences create a wider digital gap that should be avoided.

## In conclusion

In the industrialised world, the use of computers is changing everything: from education to health, from voting to making friends or making war.

Many countries fully participate in cyberspace and make use of opportunities offered by global networks. We are indeed experiencing a technological and informational revolution.

It is important for policy makers, leaders, teachers, computer professionals and all social thinkers to become involved in the social and ethical impacts of communication technology. Women, in particular, can be invaluable in this regard, as they are more naturally communicative.

Not involving women in this new technological world is immoral (Johnson & Miller, 2002). A society that does not use its entire citizenry is losing on attaining its full potential. It is only through diversity that a society can reach the full rainbow of its colours.

## Appendix A: Telecentres

There has been a proliferation of telecentres that provide access to information and communication technologies (ICTs), initiated by governments, the private sector, international donors and community organisations. Telecentres address the lack of ICTs throughout Africa and assist in providing universal access, to both telephony and other forms of communication.

Senegal is the African country with the largest number of telecentres: more than 9 000.

Other major centres were established in Mali, Mozambique, South Africa and Uganda by foreign organisations but had a hard time once they had to operate on their own. Nakaseke Multipurpose Community Telecentre (MCT) in Uganda is a more realistic and successful centre of this kind.

Purely market-driven initiatives are likely to increase the digital divide in Africa. There does not yet exist a model for sustaining community access centres that can provide access for the majority. Rarely should foreign funding be 100% (all the economic lessons of entrepreneurship should be used).

The greatest potential for bringing access to ICTs throughout Africa is to support the smaller businesses and community organisations that develop new services themselves. Through telephony, they can offer fax, secretarial, computer or even Internet services. International Telecommunication Union (ITU) Secretary-General Pekka Tarjanne stated:

*The individual who sublets his or her phone line or sets up a phone shop or telecenter does more to close the development gap than the great corporations and businesses of the world.*

## Appendix B: Statistics

	Population (2006 est.)	Population (% in world)	Internet users (latest data)	Penetration (% population)	Users in the world (%)	Use growth (2000–2006)
Total for Africa	915 210 928	14.1%	32 765 700	3.6%	3.0%	625.8%
Rest of world	5 584 486 132	85.9%	1 053 485 203	18.9%	97.0%	195.5%
World total	6 499 697 060	100.0%	1 086 250 903	16.7%	100.0%	200.9%

Source: <http://www.internetworldstats.com/stats1.htm>

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*See also:*

<http://news.bbc.co.uk/2/hi/africa/2989567.stm>

[http://www.africa.upenn.edu/Home\\_Page/mcgee.html](http://www.africa.upenn.edu/Home_Page/mcgee.html)

<http://www.afrinic.net/>

<http://www.brad.ac.uk/research/ijas/links.htm>

<http://www.computers4africa.org/>

<http://www.isoc.org/isoc/conferences/inet/06/mauritus.shtml>

**Part III:**

**Action Items**



## **AIDS and culture: The case for an African information identity**

Kendra S. Albright

*The library and information profession in Africa is not well recognised. It does not carry an identifiable set of core activities that share a common understanding across societies in Africa. The number of libraries in Africa is limited for a variety of reasons, including lack of resources, populations that are not based in print literacy, and having its roots in the British model of librarianship. HIV/AIDS continues to pose severe problems for sub-Saharan Africa. Some countries in the region have successfully reduced the number of HIV/AIDS cases, citing information as the main source of prevention, presenting library and information professionals a unique opportunity to collectively organise and establish their role in the fight against the disease. This chapter discusses the opportunity for how library and information science professionals engaged in HIV/AIDS information activities can develop and strengthen a positive status for the library and information discipline in sub-Saharan Africa.*

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## Introduction

Libraries in most industrialised countries provide services that are recognised by the public as contributing to the overall good of society. Public monies are made available to fund, either in whole or in part, the development and maintenance of public libraries. Librarianship is a well-established, recognised profession that carries a common perception of its related services. More recently, librarianship, when joined with information and communication technology (ICT), is transformed into information work and those who participate in this profession are often referred to as information professionals, or a related title. Together, library and information science (LIS) professionals constitute a profession and conduct activities that are widely recognised.

LIS professionals also have an important role to play in sub-Saharan Africa (SSA). They provide access to valuable information and knowledge that can contribute to the solution of social problems. According to UNECA (2006), they help to:

*... advance knowledge sharing, preservation of local knowledge and content, indigenous languages, content management and development, access to the Internet, and many other information concerns which are indispensable to ensuring the acquisition of knowledge by Africans.*

Libraries also provide information to people through the “collection, acquisition and dissemination of books, journals and other materials” (Rosenberg, 2002). The LIS profession in Africa, however, faces challenges to the provision of effective services that are specific to their own sub-Saharan cultures. Barriers from external sources (e.g. a legacy of LIS education that is rooted in the British tradition) and internal limitations (e.g. limited resources, weak management) have restricted the growth and recognised value of the LIS profession in SSA.

There are many fewer libraries per capita in SSA compared with those in industrialised nations. Because societies in SSA are steeped in oral culture, libraries are not perceived as necessary. Librarianship is deemed a low status profession with a poor image (Tsigemelak, 2006; Batambuze, 2005), and remains loosely defined and not clearly recognised (Mchombu, 1991). Tsigemelak (2006:3) adds that because of the apathetic perspective towards libraries in Africa, “African

governments have lost enthusiasm for library service”.

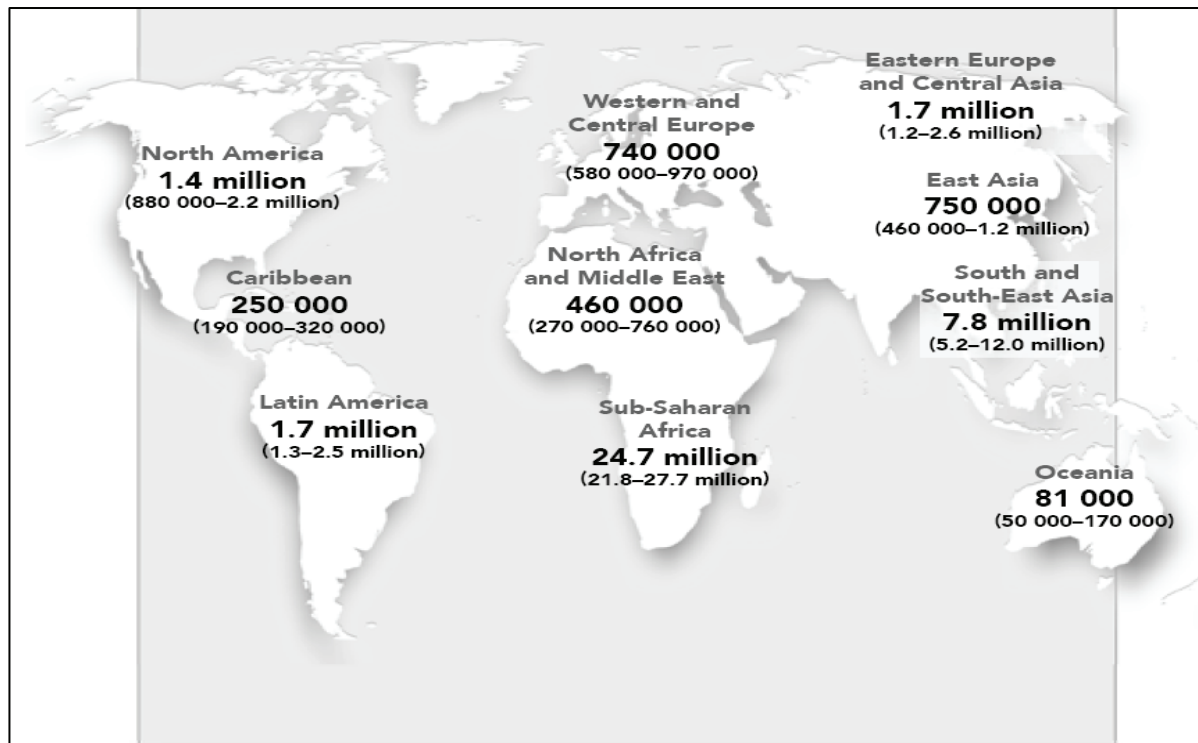
Librarianship evolved from its colonial roots, which became the basis for LIS training and practice in Africa. With additional influence from the US, these Western roots have yielded a profession trained for an elitist print (and now digital/electronic) culture, but operating in one predominantly based in oral tradition. Amadi (1981) asserts that while American libraries exist to meet the needs of Americans, and British libraries exist for the British, African libraries do not offer services that meet the needs of Africans.

Despite these problems, the demand for LIS graduates is increasing (Mambo, 2000). LIS education programmes have proliferated, including those in Botswana, Ethiopia, Ghana, Kenya, Namibia, Nigeria, Sierra Leone, South Africa, Tanzania, Uganda and Zambia, and since the initial establishment of the East Africa School of Librarianship in Uganda in the early 1960s. Raseroka (1994) reported that LIS training in SSA doubled with the addition of South Africa. The demand appears to be greatest for graduates with bachelor's degrees, although postgraduate studies are increasingly common (Albright, 2005). For example, Makerere University in Uganda started a doctoral programme with four students in its initial cohort in 2005 (Kigongo-Bukenya, 2005).

There remains, however, no official reporting mechanism for tracking the graduates of these programmes (Ocholla & Bothma, 2006). Anecdotal evidence suggests that many of these graduates are working in HIV/AIDS information activities across a variety of settings, including community centres, documentation and telecentres, and non-governmental organisations involved in AIDS information, education and communication (IEC) activities (Albright, 2005). Because information is critical to the fight against HIV/AIDS and is necessary for preventing its spread, LIS professionals are uniquely positioned to meet this need. These professionals who are engaged in HIV/AIDS information activities have the opportunity to develop and strengthen a positive perception of the LIS discipline in SSA.

## Status of HIV/AIDS in sub-Saharan Africa

Sub-Saharan Africa accounts for only 10% of the



**Figure 1:** Adults and children estimated to be living with HIV/AIDS; a total of 39.5 (34.1–47.1) million  
*Source:* UNAIDS/WHO (2006)

world's population, but has over 63% of people living with HIV/AIDS in the world (Figure 1). In 2006, some 72% of the estimated 2.1 million AIDS-related deaths worldwide were in SSA (UNAIDS/WHO, 2006).

Some 87% (330 000) of the 380 000 children who died of AIDS-related causes in 2006 were in SSA. Despite intervention efforts, the numbers of new HIV infections are roughly equivalent to the number of deaths from AIDS each year. However, several countries in Africa have successfully reversed the prevalence of the disease, with IEC cited as the primary means of prevention (Green, 2003). Uganda has been credited with the greatest success in curbing the spread of the disease, and praised for its multisectoral IEC strategy implemented by President Museveni in the early years of the disease (Albright & Kawooya, 2004; 2005).

There is no vaccine or cure for HIV or AIDS. Information is all that we have and is, therefore, critical in efforts targeted at preventing the spread of the virus. Through widespread information about HIV/AIDS, the people of SSA

can gain the knowledge needed to change their behavioural response to the AIDS epidemic. LIS professionals are trained in the collection, organisation, management, storage, retrieval and dissemination of information and have the tools to be particularly instrumental in HIV/AIDS prevention efforts. However, the LIS profession faces barriers to this service that must first be addressed.

### Barriers to the LIS profession in sub-Saharan Africa

The problems facing the LIS profession in Africa are many. Problems stem from a combination of social characteristics, including oral tradition, varying rates of print literacy, a limited understanding of the specific information needs of people of SSA societies, and limited resources. At times, the need for libraries seems questionable, at best.

Mchombu (1991) identified the primary problems facing librarianship in Africa, grouping them into two categories: those that are external challenges

for libraries in Africa and those that are internally focused. External challenges are those that are “derived from the hostile social environment within which libraries exist in Africa” (Mchombu, 1991:186). These are the problems that professionals themselves identified as barriers to African librarianship. Internally focused challenges (Mchombu, 1991:188) address those issues that are caused by:

*... the structural decoupling of libraries in Africa from their key user target groups, and the development of an inward-looking mentality which tends to glorify internal processes at the expense of maximizing use of library resources.*

The combined framework will be used to analyse ways in which LIS professionals engaged in HIV/AIDS information activities can develop and strengthen a positive status for the LIS discipline in SSA. Each of the issues will be examined in light of opportunities for the LIS profession to respond within the context of HIV/AIDS information.

## External challenges

A list of external challenges identified by Mchombu (1991) is presented in Table 1. Each of these challenges is addressed below from the

perspective of LIS professionals engaged in HIV/AIDS activities.

### ***African readers have not yet developed a reading habit***

Many people in SSA cannot read. It does not, however, mean that they are incompetent or lacking in the ability to understand. Literacy takes many forms and oral tradition is a form of literacy that allows for the rapid transmission of information throughout local communities. LIS professionals in SSA involved in HIV/AIDS information activities are well-positioned to tap into the local community oral network, utilising the existing form of communication in order to spread accurate, relevant and useful information quickly.

LIS professionals can interact and engage with local communities, building trust while furthering the spread of critical information. Concurrently, these professionals can establish reading programmes that are specifically targeted at the needs of the communities they serve, using culturally appropriate techniques to foster reading skills (e.g. reading tents, mobile libraries).

1. African readers have not yet developed a reading habit.
2. Africa's oral culture and authoritarian transmission of knowledge do not favour the development of libraries.
3. Governments and decision makers do not fully support libraries; in particular, they have failed to institute and legislate national information policies.
4. African governments lack the notion of information as an important factor and strategy in the process of national development.
5. Governments in Africa are oversensitive to critical information, hence frequent attempts to block access to certain categories of information.
6. There is a low level of informatisation of the African society, and overall low competence and propensity in incorporating large amounts of innovative information into goods and services being produced.
7. Illiteracy rates are too high to enable people, particularly in rural areas and urban shanty townships, to appreciate the use of libraries.
8. Students read only to pass examinations, after which they stop reading.
9. The book industry has failed to supply sufficient materials in indigenous languages.
10. The economic recession in African countries has made it very difficult for libraries to obtain adequate funding, and often there has been a complete freeze on foreign exchange allocations.

**Table 1:** External challenges for librarianship in Africa (based on Mchombu, 1991)

***Africa's oral culture and authoritarian transmission of knowledge do not favour the development of libraries***

Several approaches can be used to address the problem of library development. Instead of assuming a print-based approach to librarianship, the incorporation of oral culture into the practice of LIS work can expand and transform the notion of librarianship into something that is decidedly African. Partnerships can be formed with other institutions to facilitate this transformation. For example, radio and drama are two primary means by which AIDS information is transmitted (Albright et al., 2007). LIS professionals can partner with media (e.g. radio) to develop effective AIDS information campaigns for the local community. LIS professionals can also team up with educational institutions to develop targeted educational programmes for AIDS information. These partnerships can build and expand the professional identity of LIS professionals.

***Governments and decision makers do not fully support libraries; in particular, they have failed to institute and legislate national information policies***

The LIS profession has a tremendous challenge to establish its professional identity in such a way as to garner support from the government and other societal institutions. Partnerships like those listed above will help to increase the visibility of the profession. In addition, as the role of LIS professionals in the prevention of HIV/AIDS is more highly recognised, these professionals will have increasing opportunities to participate in decisions regarding information policies.

***Governments lack the notion of information as an important factor and strategy in the process of national development***

The reduction of HIV/AIDS in several of the SSA countries (e.g. Botswana, Senegal, Uganda) has demonstrated the importance of information in creating social change. Similar changes may be possible through the targeted design of information campaigns for issues of national development. LIS professionals have an opportunity to organise their engagement in AIDS information activities collectively and to create more visibility

for the profession. Concurrently, the rise of the profession will increase awareness of the importance of information in national development.

***Governments are oversensitive to critical information, hence frequent attempts to block access to certain information***

LIS professionals are in a unique position to address freedom of information issues. HIV/AIDS information activities are only one area in which the LIS profession can promote the free flow of information, thus lowering barriers to information access. This is another area where partnerships between LIS professionals and the media (e.g. print and broadcast journalists) can facilitate access to vital information, particularly in the case of HIV/AIDS.

***There is a low level of informatisation of the African society, and overall low competence and propensity in incorporating large amounts of innovative information into goods and services being produced***

With the record number of graduates from LIS programmes throughout SSA, an increasing number of people are being trained in the use of new technologies, including those that are well-deployed within the region. The idea of informatisation need not be limited to computers; rather, it should be viewed broadly and can include mobile telephony and radio, two very widely adopted technologies in SSA. For example, information can be easily transmitted to mobile telephone users through text messages. LIS professionals can utilise these technologies in the provision of all types of information, including HIV/AIDS. Further, LIS professionals can be deployed as community resources to integrate computers and other technologies into local communities. It must be cautioned, however, that maintenance of new technologies must be supported in order to be effective over time.

***Illiteracy rates are too high to enable people, particularly in rural areas and urban shanty townships, to appreciate the use of libraries***

The notion of libraries is often applied to Africa

from a limited perspective, as represented by this outdated definition by UNESCO in 1970:

*... any organized collection of printed books and periodicals or of any other graphic or audio-visual materials, and the services of a staff to provide and facilitate the use of such materials as are required to meet the informational, research, educational or recreational needs of its users.*

The emphasis is on a print and audio-visual collection and does not represent the incorporation of newer digital technologies that are widely used in Western LIS practice. The question is: Can Africa not create its own variation of librarianship by incorporating more appropriate technologies for its own cultures? Again, the inclusion of oral communications (e.g. radio and drama) in the context of African information practice could lead to a greater appreciation for, and use of, libraries. HIV/AIDS information programmes would be a useful starting point for developing an African concept of library.

### ***Students read only to pass examinations, after which they stop reading***

The HIV/AIDS information programmes that incorporate oral communications could possibly facilitate increased interest in, and use of, LIS activities. Through increased involvement of the public, LIS professionals can expand programmes to include reading activities. In partnership with educational institutions, reading programmes can be designed to support school-related activities, including examinations. They can also be designed to facilitate the enjoyment of reading. Moreover, partnerships can provide access to additional reading materials through interlending agreements and expanded access to other collections.

### ***The book industry has failed to supply sufficient material in local languages***

Western publishers are cautious about publishing African materials and those in indigenous languages because of the limited market for these materials. Furthermore, African authors and organisations often make materials available for local distribution only (Sturges & Neill, 1997). There are also concerns that giving away their indigenous knowledge to publishing companies

in the industrialised countries will not result in economic rewards or incentives for African authors (Kawooya, 2005). There is a substantial amount of HIV/AIDS research in the grey literature of SSA. LIS professionals are trained in the management of grey literature, and should assume some leadership in negotiating the terms and conditions for making this information more widely available.

### ***The economic recession has made it difficult for libraries to obtain adequate funding, and often there has been a complete freeze on foreign exchange allocations***

The economic recession in SSA has been compounded by the devastation caused by HIV/AIDS. More than ever, it is necessary for LIS professionals to utilise their skills in targeting information to prevent the spread of the disease. LIS professionals must pursue positions of leadership in HIV/AIDS information activities in order to raise awareness of their professional value and increase their visibility.

### **Internal challenges**

A list of the internally focused challenges identified by Mchombu (1991) is presented in Table 2. These challenges are addressed below from the perspective of LIS professionals engaged in HIV/AIDS activities.

### ***The historical legacy of colonialism and its impact on librarianship***

There are a number of issues involved in the impact of colonialism on African librarianship. Reviewing the British model of library training in SSA, Batambuze (2005) suggests that it was geared towards creating a market for British publications in Africa. The outcome since then has been that African academics in LIS science “have failed to come up with an African LIS hybrid. Therefore, the library profession is not perceived as particularly useful, except by those who are already fairly educated”. Library responses to this are slowly building towards an identity of an African profession. In particular, the same creative and innovative approach to sources and services is found in HIV/AIDS information activities offered by libraries.

1. The historical legacy of colonialism and its impact on librarianship
2. The belief that information-seeking behaviour of Africans is identical to those of library users in Europe and North America
3. The emphasis on tending to documents rather than users
4. The ability of librarians to incorporate the integration of optimum information into their parent organisation
5. The need to create African materials (i.e. to facilitate an African publishing industry), rather than relying on book donations from the US and Western Europe
6. Matching the information needs of Africans with African materials
7. Weak library management and leadership based, in part, on the poor quality of training in LIS programmes abroad and at home

**Table 2:** Internally focused challenges for librarianship in Africa (based on Mchombu, 1991)

***The belief that information-seeking behaviour of Africans is identical to those of library users in Europe and North America***

There has been a fair amount of research on the information-seeking behaviour of Africans. In many cases, there are clear differences in the way that Africans seek information and information seeking in European and North American libraries. For example, Mchombu (1996) conducted a study of information needs in rural Botswana, Malawi and Tanzania in which 50% of the participants did not perceive that they had any information needs. He found that this perception depends on the way in which they were asked about their information needs. They were more likely to articulate their information needs if they were explicitly linked to their reality, to “what was going on around them” (Mchombu, 1996:78). Merely asking them what information they needed was not useful in drawing out their information needs.

The concept of information needs is more explicit to library users in North America and Europe. LIS professionals in SSA who work with HIV/AIDS information often encounter users whose information needs can be more easily articulated. Therefore, this is an excellent area for examining the information-seeking behaviour specific to Africans in particular communities.

***The emphasis on tending to documents rather than users***

African LIS professionals, being trained primarily in the British tradition, have learnt to focus on

managing the collection rather than placing their emphasis on the users. Libraries, therefore, have a very limited ability to serve the African population. LIS professionals engaged in HIV/AIDS information activities are often in direct contact with individuals who have a specific need for critical information. Professionals are sometimes required to go into the field to serve the information needs of these users, and then find that they must develop creative approaches to meet these needs.

***The ability of librarians to incorporate the integration of optimum information into their parent organisation***

LIS professionals in SSA, as elsewhere, reflect the mission of their parent organisation. They are responsible for ensuring the acquisition and distribution of relevant materials to the parent body. Those professionals engaged in HIV/AIDS information activities in SSA are uniquely positioned to assume a strong leadership role by identifying and selecting the most relevant materials for their parent organisation.

***The need to create African materials (i.e. to facilitate an African publishing Industry), rather than relying on book donations from the US and Western Europe***

African materials are needed to represent the specific realities of life in Africa. The political, economic, social and cultural differences need to be reflected in materials developed specifically

for Africa and its independent nations and communities. Materials published elsewhere, whether acquired through purchase or donation, cannot substantially address the particular needs of African societies. Because the number of people living with HIV/AIDS in SSA is so much greater than anywhere else, a large body of indigenous materials is produced on this topic. LIS professionals can facilitate the publication of these materials by prioritising and requesting them for their collections.

### ***Matching the information needs of Africans with African materials***

The evidence is clear that there is a need for HIV/AIDS information in SSA. These materials should reflect research and cultural practices in the local communities that will be most likely to prevent the spread of the disease. By examining the specific HIV/AIDS information needs of Africans with materials that are responsive to the specific needs of Africans, there is a greater likelihood of successful prevention than by relying on outside sources.

### ***Weak library management and leadership based, in part, on the poor quality of training in LIS programmes abroad and at home***

Problems with LIS management and leadership in SSA are linked to problems that stem from the British model of librarianship (Benge, 1996). African LIS professionals trained under the British model learn to address the information needs of Westerners and how to serve those cultures. What works in Northern Europe, for example, may not work in East Africa. More emphasis should be placed on training African LIS professionals in an African context of LIS practice. The role of information in the prevention of HIV/AIDS is an area that can promote the development of African LIS practice by incorporating the information needs of Africans into an African model of LIS education.

An example is the creation of an AIDS information course module for postgraduate students at the East African School of LIS Science at Makerere University in Uganda. This course seeks to incorporate identifiable information

needs of local communities with reference to culturally appropriate sources and services.

### **Considerations for sub-Saharan Africa**

Several considerations emerge from the activities of LIS professionals involved in HIV/AIDS information dissemination in SSA. These considerations can assist LIS professionals in overcoming the challenges identified above and utilising the characteristics of indigenous culture to facilitate the provision of information through formats that are better suited to African societies (e.g. radio, drama and audiobooks). These include the following:

- The scope of what is included in LIS practice in Africa should be broadened to include information sources outside the role of traditional libraries (e.g. community centres and mobile libraries), including those information activities related to HIV/AIDS. For example, information is commonly shared in community centres, youth centres, documentation centres and multipurpose telecentres. These venues serve as community centres where local forums and meetings can be conducted, both formal and informal.
- LIS practitioners should develop flexible HIV/AIDS programmes designed to meet specific needs of African people. This includes encouraging the development and production of information products and services appropriate to the local community, addressing issues of language, delivery and publishing. Materials should be designed specifically for a target audience. Because of the oral tradition, non-print materials should be widely used in conjunction with reading programmes.
- Partnerships should be established between libraries and other sources of HIV/AIDS information activities (e.g. educational institutions, the media). The value of HIV/AIDS information in prevention efforts is well recognised, and is increasingly at the core of policy and funding practices. LIS professionals should be involved in decision making and policy setting regarding information practices related to HIV/AIDS. By partnering with other institutions, LIS professionals raise their visibility and potential role for affecting policy.
- The LIS education curriculum in SSA should be reviewed. The incorporation of HIV/AIDS



information activities would be useful to raise public awareness and increase the visibility of the profession. Course work should include the characteristics of local culture, particularly oral tradition, and the information needs of local communities. Training should also address how to work in partnership with other organisations. Additionally, specialised training, possibly certification, in the unique HIV/AIDS information could be offered.

- LIS educational programmes should track the professional activities of their graduates, including where they find work, the types of organisations that employ their graduates, and so on. This will provide the necessary metrics to present an organised picture of the LIS profession throughout the region.
- Library associations in SSA should develop a position statement regarding the profession's role in the fight against HIV/AIDS. Related projects should be developed and evaluated, and the results should be widely publicised.

The combination of these activities will help to build the professional identity of the African LIS profession. LIS professionals working in HIV/AIDS information activities have an opportunity to lead the development of this identity.

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## **Are ICTs prerequisites for the eradication of poverty?**

Hennie Lötter

*This chapter provides a philosophical analysis of the claim that information and communication technologies (ICTs) are necessary preconditions for the eradication of poverty. What are the links between ICTs and poverty? First, technology is defined and then a brief depiction of ICTs is given. Thereafter, poverty is defined and a brief explanation of its context and causes is given. Then follows a discussion of the relationship between poverty and ICTs in three paradigm cases: (a) the role of ICTs in poor societies; (b) the effect of poor ICT knowledge and skill of individuals in highly developed technological societies; and (c) the impact of impoverished ICT knowledge and skills on the rich, powerful and intelligent in society. A procedure is proposed for decision making about the appropriation of ICTs by individuals and societies. The chapter closes by assessing the claim that both access to ICTs and their effective use are preconditions for the eradication of poverty.*

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## Introduction

Everyone who is familiar with the development of information and communication technologies (ICTs) over the past few decades is amazed at the spectacular progress made in designing new, more powerful technologies with an ever wider range of useful applications. For example, to observe the ICT-automated production of motor vehicles or to draw cash in different countries from one's own bank account through ICT-enabled automatic teller machines leaves almost anyone astonished at the precision, speed and effectiveness of these powerful technologies.

As with most new pioneering technological innovations in the past two centuries, such as telephones, automobiles, radio and television, the availability of, access to and effective use of ICTs are unevenly distributed both within countries and between them (Compaine, 2001:102). The expression, "the digital divide", describes uneven access to, and use of, ICTs throughout the world, both within and between countries (Bolt & Crawford, 2000:20, 98). Many people regard the digital divide as a matter of serious moral concern, as they judge that people without proper access to ICTs in today's interconnected global village lose out on important economic and social opportunities to secure their survival and improve their quality of life.<sup>1</sup>

Is this judgment correct? Has proper access to ICTs become a precondition for survival and flourishing in our world today?<sup>2</sup> If this judgment is correct, it would imply an empirical claim that every poor person in whichever part of the world needs one or more of the following – a computer, television, radio and mobile phone – as a pre-

requisite for eradicating his or her specific case of poverty. Somehow such a claim seems to fly in the face of our common sense judgments about the eradication of poverty in many areas of the world.<sup>3</sup> Informed people everywhere deem that poor people need proper jobs with adequate income to escape poverty. If such income is sustained over time, basic necessities such as decent housing, sufficient food, proper shelter and appropriate clothing can be acquired. This solution was good enough to eradicate poverty throughout most of our known history. Thus, are ICTs really a prerequisite for the eradication of all cases of poverty?

One could approach this topic from another angle. Sometimes poor people need fitting skills and the right kind of training to be able to get a job. At other times, their country's economy must grow and diversify to offer opportunities they qualify for. But do poor people need ICTs as such to eradicate their poverty, i.e. to get rid of their poverty at its roots? Does their society necessarily have to employ ICTs to make a success of their income-generating activities so as to be able to offer employment to all citizens?<sup>4</sup> Is our contemporary world so different from all previous human worlds that we now require ICTs for our mere survival?<sup>5</sup>

In this chapter, I want to provide a philosophical analysis of the claim that ICTs are a necessary precondition for the eradication of poverty in our world today. I will ask questions like the

<sup>1</sup> Some warn that the Internet could amplify the social differences rooted in class, education, gender and ethnicity (Castells, 2001:260). Current evidence suggests that in the first decade of its existence, the Internet has therefore reinforced existing economic inequalities (see Norris, 2001:66; Moss, 2002:162). Note the deep concern of the G8 Heads of State who set up the Digital Opportunity Task Force to identify ways in which the digital revolution can benefit all the people of the world (DOT Force, 2001).

<sup>2</sup> Castells (2001:269) thinks not being connected to the Internet is "tantamount to marginalization in the global, networked system. Development without the Internet would be the equivalent of industrialization without electricity in the industrial era".

<sup>3</sup> In 1973, E.F. Schumacher could still suggest that "there is nothing in the experience of the last twenty-five years to suggest that modern technology, as we know it, can really help us to alleviate world poverty" (Schumacher, 1973:123). See also the relative absence of ICTs among the solutions to the ten most urgent global challenges, as identified by the Copenhagen Consensus in 2004 (see <http://www.copenhagenconsensus.com>).

<sup>4</sup> These questions about the role of technology in development have often been asked in the past, as technology has always held promise as an engine of economic growth for transforming developing nations (Norris, 2001:6).

<sup>5</sup> Note how the change in the work situation is described: "The large-scale introduction of computers into the workplace has changed the very nature of many jobs from hands on to computer-aided or controlled processes requiring an entirely different skill set" (Bolt & Crawford, 2000:53).

following: What are the links between ICTs and poverty? Can poor people appropriate ICTs and thereby hasten the eradication of their poverty? Can lack of knowledge about, and skill in the use of, ICTs cause people to become or remain poor?

To answer these broad questions, I will first define technology and then give a brief depiction of ICTs. Thereafter, I define poverty and give a brief explanation of its context and possible causes. Next, I discuss the relationship between poverty and ICTs in three paradigm cases:

- The role of ICTs in poor societies
- The effect of poor ICT knowledge and skill of individuals in highly developed technological societies
- The impact of impoverished ICT knowledge and skills on the rich, powerful and intelligent in society

In a final section, I will propose a procedure for decision making about the usefulness of the appropriation of ICTs by individuals and societies. I conclude by assessing the claim that both access to ICTs and their effective use are preconditions for the eradication of poverty.

## What is technology? And ICTs?

What is technology? Technology is the art and craft, i.e. the smart use of human rationality and the intelligent development of specialised bodily functions, to design and develop skills and techniques and fabricate artefacts. We use these skills, techniques and artefacts for making and doing things necessary for our survival or useful for our flourishing. This means we develop and use technology to ensure the material necessities for us to survive and acquire the comforts of life for us to thrive. Technology provides us with means, tools and instruments for realising the fundamental goals we as humans set for ourselves.<sup>6</sup>

Through technology we optimise our human potential in a diversity of daily activities. We apply our technological skills to improve our efforts to produce food, make clothing, construct buildings, transport ourselves and our belongings, communicate with others, provide medical

care, and defend ourselves and our society (Jonas, 2004:24). The kind of technology available in a society is affected by the materials and instruments readily accessible, the amount of financial means available for investment, the number and quality of skilled and knowledgeable people, and the kind of ideas in circulation that might stimulate or suppress innovation and receptivity to new ideas (Kaplan, 2004b:xiv). We typically evaluate our technological products by:

- Their effectiveness, i.e. whether they serve the purpose we had in mind, or produce the desired or intended results
- Their efficiency, i.e. whether they work productively with a minimum wasted effort or expense.<sup>7</sup>

How do ICTs fit into this definition of the nature and role of technology? What we currently refer to as ICTs are based on a variety of analogue and digital technologies that give us telephones, radios, television and computers. My focus is on digital technologies, as these computer-based technologies are either the cause of worldwide concern about their effects that reinforce existing inequalities, or the reason for excitement about the promise that they might yield important solutions to get rid of crushing poverty.<sup>8</sup>

One possible definition of a computer, the

<sup>7</sup> Note how McNamara (2003) states this point: "The measure of any tool or process is whether it answers a need in the most efficient fashion, relative to other options, given existing constraints."

<sup>8</sup> McNamara (2003) articulates both the promise and threat of ICTs: "The hopes engendered by the new technologies and networks had as their mirror image a fear that differential access to these tools and innovations would increase inequality, further handicap the poor and disadvantaged, and deepen (perhaps irreversibly) the economic decline, social instability, and environmental degradation of poor communities and countries. Concerns about a digital divide and about its economic and social implications first appeared primarily in the United States, an expression of the growing awareness that access to the Internet and the broader economic and social opportunities it represented mirrored – and threatened to exacerbate – existing economic, social and ethnic divides within American society. Yet quickly the concept – and the concern – took on a broader global dimension, as analysts and policy-makers focused increasingly in the late 1990s on how the spread of a global Internet-enabled economy held the risk of leaving the poor behind."

<sup>6</sup> See Kaplan's (2004b:xiii–xiv) remarks on the difficulties of defining technology.

symbol of digital technology, is provided by the *Concise Oxford English Dictionary* (COED, 2004):

*An electronic device capable of receiving data and performing a sequence of logical operations in accordance with a predetermined but variable set of procedural instructions (a program) to produce a result in the form of information or signals.*

This definition points us in several directions that make deeper understanding of this technology possible. An “electronic device” points to the fact that computers are designed, need maintenance and require a constant flow of electricity. “Capable of receiving data” means that this technology can only deal with particular kinds of problems through receiving certain kinds of “material”, i.e. so-called “input”. Input here refers to matters that can be presented to a computer in the form of data, i.e. information offered in specified formats to be processed.

Data input is processed by “performing a sequence of logical operations in accordance with a predetermined but variable set of procedural instructions (a program)”. To do something useful with data requires people who are capable of designing programmes that convert the input according to the requirements of the people in need of the computer’s functions. The conversion of input leads to output “in the form of information or signals”. The output must be a result useful to some detailed aspect of one or more of our fundamental human goals related to survival or flourishing. Again, output can only be meaningful if there are people to understand and interpret it, or people who can connect and convert such output to other technological processes reliant on information or signals for their effective functioning.

Two issues follow from this discussion of a possible definition of a computer. The first issue concerns the kinds of problems that ICTs can address, and the other issue is the prerequisites for sustainable, productive use of ICTs. The definition of ICTs implies that ICTs embody very specific kinds of advanced technologies that are applicable to, and useful for, particular problems only. What are the kinds of problems that are amenable to ICT solutions? The spectacularly fast development of this technology in less than a century has enabled us to use its wide range of applications for a variety of functions. As technology, ICTs function as instruments, means

and tools to accomplish some of our fundamental goals related to our survival and flourishing.<sup>9</sup> So, what are the kinds of things that these technologies empower us to do better, faster, more productively, and perhaps more economically?

ICTs have overlapping functions, which can be dissected and classified as follows:

- A *calculative-financial* function in which ICTs calculate complex mathematical formulae, do sophisticated statistical computations, and perform intricate financial transactions
- An *administrative* function in which ICTs enable us to keep track of how we organise aspects of our dealings with the world and one another, such as business transactions, academic records, lending and returning books in libraries, recording climate patterns, or managing livestock on farms
- An *information* function that enables us to store and retrieve all kinds of information in large quantities, such as encyclopaedias and expert databases
- An *automation* function by which manufacturing, operational, design and administrative processes are taken over from human labour and done automatically by the superior programmed functioning of ICTs, such as the manufacturing of automobiles
- A *communication* function through which human communicative abilities are extended, such as electronic mail and text messages, websites and cellular telephone technology
- An *entertainment* function through which ICTs provide us with almost endless possibilities for playing games, watching movies, listening to our favourite music, and taking and manipulating as many photographs as we wish

These functions can be combined in various ways, for example, to facilitate education in the schools and universities, and enable more efficient management in corporate and public enterprises.

ICTs also require that certain preconditions are met for them to be usable. To be able to access and utilise the functions of ICTs requires several other technologies and skills as prerequisites. For

<sup>9</sup> McNamara (2003) says that “to the extent that ICTs can help achieve those other goals, they are a worthwhile tool of development efforts, but they remain tools, not goals”.

example, the definition above refers to a computer as an electronic device, which means that a constant supply of electricity is needed to operate a stand-alone personal computer. A telecommunication infrastructure is necessary for full use of the Internet, mobile phones and digital television. Similarly, basic literacy and adequate acquaintance with the mindset of software functioning are needed for minimally competent use of these technologies. For more advanced uses of ICTs, more sophisticated skills are needed.

There is not a single standard way in which to utilise ICTs. Almost all ICTs can be used at a wide variety of different levels. They constitute a set of multifunctional technologies that can be used at many levels for a variety of purposes by users with a varying range of skills. For example, some people with basic literacy skills use a personal computer as an electronic typewriter for their personal communication. Others, like highly trained physicists, also use their computers for complex mathematical modelling of stellar phenomena. In whatever depth or functionality a person uses ICTs, the crucial question for any technological innovation remains: Does this innovation help us do some things more productively or more efficiently and thus add more value to our lives? The use of ICTs in a specific society exposes its level of technological modernisation. To judge the level of technological modernisation one must note the following:

- The quality of the electrical and digital infrastructure and the competence of people trained in the use of ICTs show the possibilities for effective utilisation of ICTs in that particular society.
- The range of ICT functions applicable to, and useful for, societal functioning exposes the extent to which a society depends on state-of-the-art technology.
- The depth of penetration and the scope of diffusion of ICTs in a society point to the various functions of ICTs employed, the depth and quality of their use, and the range of their penetration into the personal and working lives of individuals.

This penetration and diffusion show the extent to which sophisticated technologies have been embraced and integrated as useful means to ensure people's survival and enhance their flourishing. In some technologically highly

developed societies where ICTs have penetrated deeply into the lives of citizens, and have been widely diffused in many industries and sectors of society, access to and competence in the use of ICTs have become requirements for most employment opportunities available. The intriguing question that remains unanswered is whether these technologies have altered the conditions for high performance economic functioning to such an extent that integrated use of ICTs has become a *sine qua non* for economic success in today's global village?

## What is poverty?

What is poverty and what can ICTs do to change the lives of poor people and poor societies? In this section, I want to establish possible links between poverty and technology. Through a brief definition and explanation of poverty, I want to show which problems of poverty can be solved by means of technology and which aspects of poverty call for different kinds of solutions.<sup>10</sup>

Poverty is a concept uniquely applied to humans to indicate when a specific person has fallen below the standard of life thought appropriate for someone in that culture. My general definition of poverty is as follows: Poverty can be seen as a lack of adequate economic capacities to maintain physical health and engage in social activities distinctive of human beings in a particular society. "Economic capacities" refer both to available resources, and to human abilities and capacities for utilising resources effectively.

This general definition of poverty can be split into two parts. One part refers to *absolute poverty*, which means that people do not have adequate economic capacities to provide enough food, clothing, shelter, security and medical care to maintain their physical health. It stands to reason that people living in absolute poverty will find the cost of access to ICTs, and training in their use, prohibitive.

Another part of the general definition of poverty refers to *relative poverty*, which means that although people may have adequate economic

<sup>10</sup> The section on poverty contains ideas I worked out in two conference papers titled: "Defining poverty as distinctively human" and "Why poverty is such a complex affair".

capacities to provide enough food, clothing, shelter, security and medical care to maintain their physical health, they cannot participate in any other activities regarded as indicative of being human in that society. People who are relatively poor will also be hard pressed to find the resources to enable them to make productive use of ICTs.

Poverty must be understood against the following background. A basic challenge for human beings is the need to identify, locate, extract, convert and consume resources for survival first, and for flourishing lives thereafter. These resources can be the following:

- Edible products found or cultivated by means of natural resources such as soil, water or organic material
- Materials for designing, manufacturing and constructing new composite materials, tools, buildings and infrastructure
- Living beings to provide or produce things we need as food, clothes or tools
- Ideas and innovations that improve or enhance any aspect of our lives
- Skills, talents, knowledge or insight that can provide services to others

The role of technology with respect to these resource identifying, extracting, converting and consuming processes is obvious. Good technology in its various guises enables us to do these things better, faster and more economically. Human beings have the intellectual and bodily characteristics that allow them to locate and convert resources in complex ways. We use resources in different ways that require variable degrees of human intervention. Words that refer to the location and conversion of food resources, like “collect”, “harvest”, “produce”, “slaughter” and “prepare”, reflect these degrees. We consume or use some resources directly, like fruits and flowers. Others need simple preparation, like meat and seeds that we process and cook or bake. In some cases we use complex processes to produce food, for example, followed by even more detailed processes of design and manufacture to deliver highly intricate products like beverages or fancy sweets. In all these cases of resource-dealing processes, people manifest a particular level of technological prowess. The plans, procedures or mechanisms we devise to do these things illustrate our knowledge of the issues involved, and demonstrate the level of

applicable technological and other skills we have acquired, developed and mastered.

Once a particular community has successfully located and converted resources to ensure its survival, and builds a flourishing social life, several new demands arise. New needs and wants for more sophisticated products and services develop, which in turn put increased pressure on the community’s abilities to locate new kinds of resources and find novel ways of converting them to suit and meet new demands. In this context, new and improved technologies play a crucial role in satisfying growing demands.

Resource-dealing processes, i.e. the complex series of activities consisting of the location, conversion, exchange and distribution of resources, can be short-circuited and thwarted in a diversity of ways, some being of natural and others of human origin. People can directly or indirectly influence these activities as follows:

- A particular community might be without sufficient resources, or run out of resources, and fail to find replaceable ones. These cases point to the possibility of failure of scientific knowledge or technological skill.
- Population growth might outstrip available resources and conversion skills.
- Societies might neglect the transfer of scientific knowledge and the development of technological skills for the location and conversion of resources.
- Fewer recruits, or recruits with lesser knowledge and skill, might fail their particular community in locating, converting or exchanging resources in the quest for survival and flourishing. It might be that the importance of the acquisition and application of technology was not adequately stressed in such societies.

Reasons other than neglecting scientific research or a lack of technological innovation are more often the causes responsible for making people poor. Political and economic factors are some of the important causes of poverty:

- A skewed or restricted allocation of opportunities to members of society for participating in the location and conversion of resources might diminish the society’s capacity to ensure survival.
- A disproportionate distribution of rewards to some participants at the expense of others on grounds such as the supposed extraordinary

value of their work, or their group membership, can create poverty, as well as resentment and conflict.

- Powerful political groups can employ political processes and mechanisms to determine and enforce distributions of resources that deliberately enhance some citizens and exclude or neglect others. They deny citizens' voice and vote to struggle for their fair share in resource-dealing processes.

If some groups dominate their communities through accumulation of excessive rewards for their role in resource-dealing processes, other groups may be significantly disadvantaged through their meagre share of resources, so that it weakens the central social project of location, conversion, exchange and distribution of resources in a particular community. In this way, poverty disables the capacities of segments of society to contribute their share to the joint societal project of ensuring survival and enhancing flourishing. Eventually, the existence of such disabled segments harms society as a whole.

Many forces independent of human influence also cause poverty, i.e. they thwart, distort or short-circuit the complex human activities of locating, converting, exchanging and distributing resources, i.e. resource-dealing processes. Natural disasters like hurricanes, volcanic eruptions, floods, droughts and tsunamis can devastate resource-dealing processes. Climates can enhance or destroy the cultivation and production of food and clothing. Geology can determine which mineral resources are available. Epidemics can devastate the economies of continents or exacerbate existing poverty by dealing fatal blows to key actors in resource-dealing processes.

Poverty can affect individuals only, or a society as a whole. Whole societies become poor when the highly complex processes of location, conversion, exchange and distribution of resources are short-circuited or foiled on such a large scale that significant parts of the population are classified as poor. Individuals are, or become, poor when they do not have, or cannot find, any rewarded role within resource-dealing processes, or are excluded from them, for whatever reason. Their poverty is due to the fact that they do not have roles or functions rewarded in their society's quest for the location, conversion, exchange or distribution of resources, nor are they compensated for this lack.

In summary, poverty is the result of any of many possible kinds of failure or obstruction somewhere in the highly complex series of processes involved in the location, conversion, exchange and distribution of resources. Lack of appropriate technology to realise fundamental goals can be an important one among the many causes of poverty.

If the lack of appropriate technology is one of the important causes of poverty, what role can ICTs play in the eradication of poverty? This question must be answered in two parts. One part of the answer is that ICTs must be introduced and applied in a society in the broader context of the general guidelines for eradicating poverty. The following truism undergirds my view on the eradication of poverty. Individuals and society are deeply intertwined, in the sense that their fates are linked and have a reciprocal influence on one another. This means that individuals and society have a complex complementarity, i.e. strong individuals with properly focused outputs can, though not necessarily will, benefit their society, whereas weak societies often, though not always, fail to equip their members for successful survival. If this truism is accepted, then interventions to eradicate poverty must never focus on either individuals or society alone.

The guideline implies that any intervention to eradicate poverty must ensure that a multitude factors are in place in society that will enhance the ability of poor individuals to acquire capacities and learn responsibilities that will enable their escape from poverty. Not only individual transformation to equip people for survival and flourishing, but especially social transformation is necessary to create and establish conditions favourable for the effective eradication of poverty. Social issues, such as governmental budget priorities, a state's macroeconomic policies and entrepreneur-encouraging practices that indicate the need to transform a society, require as much attention as individual requirements for education and training, or feeding and housing schemes.

The ideas about the societal infrastructure and policy framework needed for the empowerment of individuals, and the developed capacities of individuals required to strengthen the intellectual skills and capacities available to society, apply similarly to the challenges of providing a society with comprehensive ICT connectivity that



reaches the majority of the population. National policies and subsidies for creating enabling environments for investment in, and deployment of, ICTs must go hand in hand with individual training, capacity building and empowerment to deliver the human labour power needed to exploit the usefulness of ICTs optimally.<sup>11</sup>

These general guidelines for the eradication of poverty aside, what specific role can ICTs play to eradicate poverty? The second part of the answer to the earlier question now comes into play. In terms of what I have mentioned thus far, ICTs can only play a role in eradicating poverty if certain preconditions are met:

- Enough resources and infrastructure must be available to provide a constant flow of electricity and effectively functioning telecommunications connectivity, as well as resources to afford appropriate ICT equipment and software and their maintenance.
- Sufficient numbers of people must have adequate literacy skills and appropriate training to master ICT programmes relevant to poor people's needs and to maintain ICT equipment properly.
- The challenges requiring detailed attention in order to enable the eradication of the poverty of specific persons must be amenable to the particular functions that ICTs can fulfil, i.e. advanced and improved administration, automation, calculation, information storage and retrieval, communication and entertainment.

### What are possible links between poverty and ICTs?

In the context of the human nature of poverty and its multiplicity of causes as sketched above, what difference can ICTs make to the lives of poor people? I want to examine the possible impact of ICTs in three cases I deem to be typical of situations where ICTs can be relevant to the lives of poor people.

<sup>11</sup> Accascina (2000) sets as prerequisite for the use of ICTs the following: "Appropriate and forward-looking IT [information technology] and telecommunication public policies, legislation and an understanding of their overall impact on a country's welfare". See also Peters (2005), DOT Force (2001) and Arunachalam (1999).

### Case 1: ICTs, individuals, and poor societies

Imagine a very poor society where the vast majority of the citizens make a livelihood from agriculture. The citizens are illiterate and have barely enough means to buy seeds, agricultural tools or fertiliser. ICTs for use by themselves make no sense, as the people have more urgent priorities for simpler technologies enabling them to secure the necessities for survival. One can imagine that government or civil society relief organisations might use ICTs to improve the productivity and effectiveness of the services they provide to such rural poor people. One could also think that the children of the rural poor might be empowered by being taught basic uses of ICTs, provided that ICT-competent teachers, electricity and telecommunication infrastructure are available.<sup>12</sup>

Desperately poor people might have other needs for ICTs not related to the means they require directly for survival (Compaine & Weinraub, 1997:154). For example, they could want improved communication with their children, parents and friends. They might benefit a great deal from knowing in advance about inclement weather approaching, or from receiving accurate information about governmental services available to them. Poor people might want to become involved in protest action to strengthen their voice to express demands for better government services.<sup>13</sup> Through the use of ICTs that empower their communication and improve their information they can participate more readily in activities such as the ones listed above. One should also not underestimate the value of the entertainment ICTs can provide to poor people. Lack of suitable, affordable entertainment is a fairly common complaint made by poor people.

<sup>12</sup> Note how important it is to have teachers who are properly trained in the use of ICTs and have the ability to integrate ICTs into the curriculum (see Bolt & Crawford, 2000:26, 40, 55–56).

<sup>13</sup> Some authors refer to the "democratic potential" of ICTs (Norris, 2001:6). Norris (2001:171) further states that "the networking potential of the Internet and its ability to link transnational advocacy networks, grassroots political organizations, and the independent media around the world has aroused hopes that civic society can be nurtured and mobilized through digital technologies".

Now let us imagine a slightly better-off society with huge urban populations and semi-literate to literate citizens. Suppose such a society has an upwardly mobile economy where at least some opportunities become available for decently trained individuals by way of permanent employment in civil service departments or administrative, managerial or specialist positions in smaller or larger companies. Skill and knowledge in ICTs might just provide the edge for many talented people to grasp opportunities for employment in order to escape their poverty. Similarly, in such a society some kinds of entrepreneurs can set up small businesses that might easily outperform others through the advantages that good accounting software (the calculative-financial function), excellent information retrieval software (the information function) or stock-taking software (the administrative function) can provide.

The two examples above refer to the value of ICTs for individuals in poor societies. But what about the role of ICTs in improving the situation of a poor society in the global context of interdependent states that have strong trade, sport and cultural links that spur on even more development and growth?

Note the challenges to modernise technology that face developing countries in the context of our global economy. Can any developing country refuse to convert to the full-scale use of ICTs in order to make its production processes more efficient? Can it refuse technological modernisation that will enable its businesses to become more competitive in local markets, which nowadays all form part of what has become one diffused, interconnected global market? As in all cases of decision making about appropriate technologies, the main questions will be whether:

- A particular technology assists us to do things better, faster and more efficiently.
- The technology will deliver good returns on investment over the longer term.
- We can make the infrastructure and labour power available to utilise a proposed new technology effectively.

### ***Case 2: ICTs and poor individuals in rich societies***

Let us now imagine how the lack of ICTs in a person's employability profile can impoverish

that person and impair his or her effective functioning in a rich, modernised society. In most well-off, technologically advanced societies competencies in the efficient use of ICTs have almost become a prerequisite for employment in a very large range of jobs. People who are ICT poor are almost disqualified from good employment. They are furthermore excluded from many opportunities to get the benefits offered by ICTs, such as improved communication. Their interpersonal functioning is not as optimal as their society makes possible and their abilities allow. In a metaphoric sense, their lives are therefore also impoverished by their inability to utilise technological resources that can enhance the quality of their lives and help them accomplish some of their fundamental goals.

### ***Case 3: Lack of ICTs as an impoverishing factor for rich and intelligent people***

In wealthy, technologically advanced societies, rich companies and intelligent individuals can be impoverished if they fail to adapt meaningfully to the sweeping changes brought about by a technological shift, such as the winds of change generated by the ICT revolution. Imagine a highly successful, large grocery store that refuses to computerise in any way. Management cannot keep track through administrative software when it has to order goods to avert running out of stock, nor can it order via the online websites of suppliers or through their email addresses. As the company refuses to buy automated financial software, customers cannot pay by credit card and employees' salaries cannot be administered through effective payroll software. The company cannot keep in touch with the drivers of its vehicles via mobile phones and cannot make use of security satellite tracking systems. Such a store will soon be judged a dodo and be rejected by customers, suppliers and employees for its ineffective service.

Even highly intelligent people, such as excellent academics, can lose out if they are incompetent with respect to ICTs. Although many academics might think the nature of their job does not require great ICT competencies, even the best minds in the world might suffer inconveniences, be deprived of valuable information and opportunities, or lose time if they fail to adapt to the ever-increasing use of ICTs. An ICT-impover-

ished academic will become dependent on others for typing or emailing teaching materials and research reports. This might mean waiting unnecessarily to get things done. Similar losses will occur when such academics cannot use state-of-the-art technology for communicating with their peers or for retrieving intellectual resources contained in the latest online published research. Thus, even in a job based on reading books, writing research reports and talking to students, ICTs can enhance the academics' productivity and creative output.

### **Decision making on the role of ICTs in poverty eradication**

Can ICTs play a meaningful role in eradicating poverty? Not necessarily, as their role depends on various factors. I want to propose the following three ideas for possible guidance in decision making on the potential value of ICTs in every specific case of poverty.

#### ***ICTs must add value***

Introducing new technologies into the lives of poor people must add value to their existing livelihoods, or create new livelihoods that are better than the existing ones.<sup>14</sup> This means that ICTs must enable poor people to acquire basic necessities more easily without adding too much extra cost, or assist them to know about and access governmental services without wasting their time. Access to, and use of, ICTs must make poor people more employable or aid them to improve the management and administration of their economic activities. Also, ICTs must improve their communication with family, friends, business associates, colleagues and important service delivery institutions without too much hassle. ICTs must open up new vistas of a better quality of life for poor people that are within

their grasp, and suitably developed.<sup>15</sup>

#### ***ICTs must fit in***

New technologies must fit into existing lifestyles, sets of values and patterns of activity, or create new ones that can meaningfully convert older ones (Pacey, 2004:96). Meaningful conversion means new technologies will modify lifestyles, generate values and produce patterns of activity that can be maintained by already existing or easily acquired educational levels, sustained by available resources and acceptable to the people involved and affected (McNamara, 2003; Schumacher, 1973:141).

ICTs must thus be adapted to the people they are meant to serve. What does this mean? Once people have basic literary skills, they must be made familiar with, and be trained in, appropriate ICT skills to suit their needs. The chosen ICTs must also be affordable and their use must be sustainable over the longer term. Poor people must be assisted to adapt to the changes ICTs bring about in their lives and be guided to utilise new opportunities available to them. Software, and even the Internet itself, must be developed and adapted to suit people's specific needs. The Internet should be shaped by its users according to their needs and values so as to have value in their lives (Couldry, 2003:90).

#### ***ICTs must be chosen judiciously***

The decision to implement new technologies must be made judiciously. This implies that the new technology must be appropriate in the circumstances. Thus, the technology must be tailored to the society's most urgent needs.<sup>16</sup> It

<sup>14</sup> See McNamara's (2003) point regarding this issue: "The challenge, then, is both to improve the current livelihoods of the poor and provide them with new opportunities appropriate to their circumstances while building their capacities and reducing their vulnerabilities so that, over time, they can broaden their economic opportunities as the economy itself grow and diversifies."

<sup>15</sup> McNamara (2003) puts it as follows: "ICTs, properly adapted to specific circumstances, have enormous potential. The key to realizing that potential is to begin the analysis not with the presence or absence of ICTs, but with the specific, interdependent causes (both local and global) and components of persistent poverty in a given country, the most effective measures for addressing those causes, and then and only then the tools (not just ICTs, but other resources, policies, partnerships, etc.) necessary to proceed."

<sup>16</sup> For McNamara the case is clear: we must select the most urgent needs to focus on: "[Any] development strategy requires difficult choices, and priorities need

must be for purposes that will benefit the society the most, and fit the developmental level of the people and the economy it is intended for. Most possibly, poor societies will find it difficult to afford a comprehensive introduction of state-of-the-art ICTs in all sectors of society. Cool heads and wise judgment will be required to determine the areas of intervention where the introduction of ICTs will be in the best interest of the further growth and development of ICT knowledge and skills that will enhance the productivity and competitiveness of that society.

Note how McNamara (2003) suggests we make decisions on these matters:

*One begins not with the question of what ICTs a given country lacks and what we can do about it (the implicit question underlying much digital divide analysis), but what specific types of change are required to make this country more sustainably prosperous, in ways that include even the poorest. ICTs are then brought into the analysis as possible instruments (among others, including both resources and policies) of these desired changes, not as a thing to be desired in themselves.*

## Conclusion

In this chapter I have argued for ideas that can assist us to rely on our considered judgment to determine the appropriate role of ICTs in the eradication of specific cases of poverty. If these ideas are taken seriously, limited funds for aid to poor people can be optimally employed to make the biggest difference to their lives. Note, however, that new technologies must always be used conjointly with other measures for eradicating poverty, as the idea of quick technological fixes for serious problems of poverty flies in the face of state-of-the-art expertise in the complexities of eradicating poverty (see Pacey, 2004:100).

I plead the case for a nuanced use of ICTs based on our considered judgment of the most urgent needs that must be addressed to eradicate specific people's poverty. We can already clearly see the tremendous range of application of ICTs and their pervasive influence throughout the world.

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to be chosen on the basis of an understanding of what are the most urgent needs of a given country and the actions most likely to have a positive impact on those needs."

Some or other form of ICTs, which are appropriately adapted to people's needs and competencies, is practically already a prerequisite as an important tool to complement other strategies needed to eradicate poverty.

Considered judgment about the introduction of ICTs is necessary, as any technology can be deemed obsolete in a specific context, regardless of how old or new it is. Even the latest and most sophisticated technology can fall into disuse, becoming something no longer used, or not used at all, if it does not appropriately address the needs of the people concerned or does not fit their capacities.

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## **Towards professionalism and commitment in Africa: The case for theory and practice of information ethics in Uganda**

**Isaac Milton Namwanja Kigongo-Bukenya**

*Though one could not exhaustively and conclusively define all the attributes of an information/knowledge society, it seems Uganda has made commendable strides in achieving such a society. One of the prerequisites of such a society is a corps of well-educated, trained and experienced information professionals to manage information and knowledge effectively in that society. Furthermore, the corps must act professionally and ethically at all times. In order to achieve this, an information code of ethics (ICE) is required. However, Uganda has as yet to establish an ICE, the reasons for which are outlined in this chapter. The ICE has two aspects: theory and practice; these concepts are explained and related. The Library Association (US) and the Chartered Institute of Library and Information Professions (CILIP), formerly the LA (UK), are studied as real-life examples and the provisions of these ICEs are briefly explained. In view of past experience, a process of establishing an ICE for Uganda is considered. The chapter concludes with an outline of the content of an ICE for Uganda.*

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## Introduction

The era of the information society has tightened its grip on Uganda. The Ugandan parliament has enacted several laws related to library and information services, a reflection of the commitment to information that is key to the development of its citizens. Ugandans crave information either for business ventures or as raw resources for development. Many information professionals are employed by organisations and institutions throughout Uganda, and thereby through taxation contribute to the country's GDP. The above observations are indicators of an information society (IS) or knowledge society (KS).

One of the engines of an IS/KS is a corps of well-educated and trained information professionals to execute information-related responsibilities according to moral set standards. This is the concern of the theory and practice of ethics enshrined in an information code of ethics (ICE).

## Theory of ethics

Theory in this chapter refers to documented literature on the concept, philosophy, mechanisms, principles, regulations and evaluation of an ICE. Such literature is consumed to guide and inform managers and practitioners, as well as students, researchers and library and information clients on issues of the ICE. Some of this "informing" literature is reviewed in the paragraphs that follow.

## Codes of ethics

The word "ethics" comes from a Greek word *ethos* (custom) and has to do with "conduct, theory of what is ultimately good or worthwhile, of good conduct and character, or moral rights obligations" (Boaz, 1972). Ethics are the customs or standards that a particular group or community acts on (Donalson, 1990).

Information professionals should have a basic understanding of ethical behaviour by members, such as conducting oneself according to the highest moral standards, ensuring organisational compliance with both the spirit and the letter of pertinent laws and regulations, and reporting to appropriate internal or external authorities any illegal or fraudulent act by the organisation. The

ICE or the code of conduct gives guidelines for professional conduct and provides guidelines in the ethical decision-making process (Jefferson & Contreras, 2005).

An ICE also establishes high standards against which individuals can measure their own performance and communicate to those outside the organisation the value system that the members must be asked not to deviate from (Vanasco, 1994). Lacovino (2002) rightly concludes that ethical principles enable us to reach normative judgments, and guide our thinking by providing us with the basis for determining how we should act when ethical issues arise. They do not provide definite answers – only answers that can be justified by way of argument, depending on the ethical viewpoints adopted and the decision-making models and process employed.

## The basis of information codes of ethics

The basis for ICEs can be outlined as follows (Kigongo-Bukenya, 1995):

- *Golden Rule*: This must either be stated or implied: loyalty, honesty, generosity, courtesy, frankness, goodwill, cooperation, friendliness, charity and sincerity, which are general standards of, or ideals for, conduct.
- *Voluntary spirit*: Most codes are voluntary because they are products of professionals' volition and therefore the extent of their efficiency depends on mutual understanding and common interest.
- *Machinery*: Each code should establish controlling machinery, and an arm in the form of a disciplinary committee to correct deviations.

## Characteristics of ICEs

Any ICE should incorporate the following features (Kigongo-Bukenya, 1995):

- *Duty to the client and employer*: This refers to the guiding principle that priority should be given to the interests of clients within prescribed or legitimate requirements. Professionals must be loyal and obedient to their employers within legitimate requirements.
- *Updating professional expertise*: Members must be competent in their activities, including the requirement to keep abreast of developments and those branches of professional practice in

which their qualifications and experience entitle them to engage.

- *Supervision of staff and trainees:* Experienced professionals must provide supervision and training to the juniors in order to ensure steady professional development leading to independent responsibility.
- *Non-discrimination on the basis of race, colour, creed, gender, religion, etc.:* Professionals should not exercise discrimination based on such attributes in the execution of their services to clients, except as limited by legal practice.
- *Confidentiality:* Professionals should not divulge information gathered during the course of execution of duty to their clients. Clients are entitled to secrecy of what transpires between them and the professionals. However, professionals are absolved from the “confidentiality tenet” in so far as required by law, or in answering questions from a disciplinary committee.
- *Personal financial interest:* Members’ actions and decisions should be determined solely by their professional judgment and they should not profit from their positions other than by normal remuneration or fee for professional services. Under no circumstances should a query remain unanswered.
- *Criminal offence:* Members must report the facts to the secretary of the professional association if convicted of any offence involving disciplinary action, or one that brings the profession into disrepute.
- *Cooperation in disciplinary proceedings:* Professionals must respond to any requirements from the disciplinary committee for comments or information on a complaint. They must attend committee proceedings when required to do so; and also attend upon a nominated person for the purposes of receiving guidance as to future conduct, if required to do so.

### ***The professional register***

A professional register is a list of eligible professionals accepted by authority to practise in the profession. An independent body set up by law administers the register and performs the following functions:

- Exercises general supervision and control over professional education

- Advises and makes recommendations to the government on matters of the profession
- Exercises control over professional matters through the disciplinary committee

### ***The concept of professional registers***

Professionals provide very important services, which could mean life or death to some clients. Consequently, stringent measures must be taken to ensure that such persons are enrolled only after receiving proper education and training, subscribing to the code of ethics, undergoing constant inspection and, in the case of malpractices, facing disciplinary measures. This is a safety measure against impostors who, if they were allowed to practise, would misinform clients and tarnish the good name of the profession.

### ***Criteria for inclusion in a professional register***

The procedure for enrolling a practising professional might differ from profession to profession. However, the following requirements are similar:

- Having successfully completed a professional programme of study
- Having been supervised by a qualified senior professional in the field in order to gain experience (internship)
- Being a citizen (non-citizens may have other conditions to meet before registration)
- Fulfilling requirements for specialisation
- Passing inspection of facilities and equipment (legal chambers, clinics, hospitals, etc.) to ensure minimum standards and security to clients

### ***The practice or application of ICEs***

Practice concerns managing the process of applying the policies, mechanisms and regulations relating to the ICE. The theory, part of which has been reviewed above, is the knowledge base that drives the implementation. The role of partners in the processes is briefly discussed below.

### ***The government***

The government sets the pace in developing library and information services in any country.



It enacts legislation to provide the basis of authority, sets up the organisational structure, provides funding, specifies the staff required and provides inbuilt evaluative machinery. Examples of fast-growing library and information services in Africa show the impact of the personal commitment of respective heads of government in countries like Ghana and Tanzania, thanks to Presidents Nkrumah and Nyerere. Related to the specifics of implementing ICE, the government should pass a law to control the profession by creating a professional register and controlling authority through adhering to the ICE.

### ***Professional Library and Information Association (PLIA)***

PLIA, the Professional Library and Information Association, is the heart and brain of the library profession. It should unite all the information science professions through a common forum to resolve issues concerning the profession. It must play the role of a positive agitator to create awareness and support among the citizens and the government. One of the key responsibilities of the PLIA is to ensure accreditation of education and training institutions in order to produce quality professionals. Furthermore, the PLIA must create active and supportive member institutions and individuals, and should conceive and implement the professional register and ICE to ensure that only registered people participate in its professional activities and that they do so ethically.

### ***Information professionals***

These are the individual information professionals who shoulder the responsibility for planning, implementing and evaluating plans in the field. Their education, training, experience, commitment and entrepreneurship will ensure the development of the profession and institutions in the field. It is from them that the leaders of the profession will emerge.

### ***International bodies – IFLA, etc.***

National professional associations must work hand in hand with international associations in their field, particularly IFLA. This is a world professional body that is the umbrella of

information professionals and institutions. IFLA organises annual forums to discuss and resolve issues related to the information fields. IFLA cooperates with institutions such as ISO, FID, ICA, etc., unique to the information professions with which mutual issues are decided and implemented.

### ***ICE in the UK and US***

The Chartered Institute of Library and Information Professionals (CILIP) founded in 2003 (formerly the Library Association, UK), and the American Library Association (ALA) are cases of references in establishing ICE. It should be noted that, despite the fact that the LA and ALA were established in 1876 and 1877 respectively, the operationalisation of ICEs never got approved by the LA Council until 1983 (subsequently revised in 2005) and by the ALA Council in 1995. The reasons for this delay of 107 and 118 years respectively surely indicate the difficulty in concluding an ICE. What is striking, however, are the similar provisions of these codes. The ALA's ICE, for instance, affirms its contract with the American people towards:

- Providing the highest level of service to all library users through appropriate and usefully organised resources; equitable service policies; equitable access; and accurate, unbiased and courteous responses to all requests
- Upholding the principles of intellectual freedom and resisting all efforts to censor library resources
- Protecting each library user's right to privacy and confidentiality with respect to information sought or received and resources consulted, borrowed, acquired or transmitted
- Recognising and respecting intellectual property rights
- Treating co-workers and other colleagues with respect and fairness and in good faith, and advocating conditions of employment that safeguard the rights and welfare of all employees of institutions
- Not advancing private interests at the expense of library users, colleagues or the employing institutions
- Distinguishing between personal convictions and professional duties
- Striving for excellence in the professional by maintaining and enhancing one's own knowledge and skills, encouraging the professional

development of co-workers, and fostering the aspirations of potential members of the profession.

Koehler & Pemberton (2000) state that ICEs in the US are prescriptive and aspirational in nature. Koehler (2001) further clarifies:

*The prescriptive, aspiration nature of codes of ethics is in part a function of the society in which these associations are found and in part a function of the role the professional organisations have been ascribed and ascribe to in the society.*

The UK's ICE makes similar provisions:

- Avoiding misconduct in providing information services
- Members' compliance with the Charter and bylaws of the Association
- Catering for the interests of clients at all times
- Protecting users' right to information
- Fulfilling contractual obligations owed to the employer
- Avoiding any type of discrimination
- Observing users' privacy and confidentiality
- Exercising professional judgment
- Members responding to any requirements of the disciplinary committee

As Hill (1997) emphatically states, the practical use of the code is an occasional reminder to members, especially new ones, that being a member of a profession does entail an obligation to conform to standards of behaviour normal among other members.

### Challenges of developing an ICE for Uganda

A few decades down the road since the Uganda Library Association (ULA) was formed in 1972 after the dissolution of the East African Library Association, no law to control the affairs of the Uganda Library and Information Association (ULIA) – which ULA became in 2004 – a professional register or an ICE has been adopted in Uganda. The reasons for this are not clear, but it is believed that some of the causes are as follows:

- There is selfishness among professionals, organisations and institutions, who seem not to like interference in their affairs.
- The government has taken its time to enact enabling legislation, partly because of little

pressure, or negligible political gain that would accrue. For any ICE, there is a need for a professional register of practising professionals. Such a register is administered by the designated authority, which should be set up by law. In Uganda, this authority is ULIA, which is yet to be established by law and then can set up a professional register. It would otherwise be very difficult to develop and enforce the ICE.

- There are also many people who pose as information professionals in different disciplines that have sprung up. Examples include journalists, computer scientists, and so on. There is a need for a clear identity of who the information professional is, and such a person should register with the Association.
- There appears to be a lack of seriousness on the part of both the ULIA leadership and membership to exert due pressure to put their house in order.
- These efforts are further affected by the nature of the employment sector, which is now becoming more and more privatised. Many organisations employ libraries or information professions without consulting the Association.
- Given the socioeconomic, political and cultural conditions of Uganda as a developing country, there is a likely need to censure certain information, for example concerning different political ideologies, pornography, etc. However, this may conflict with the need to provide for freedom of access to information, as may be required under the ICE.

The writing is on the wall, however. An ICE is long overdue. ULIA should wake up and normalise this situation if Uganda is to be counted among information/knowledge-based societies, managed by professionals who are controlled by legal authority to ensure quality and professionalism in the field.

### ***Proposed elements of a Ugandan code of information ethics***

Vanasco (1994) lists the following elements. First, unethical behaviour should be avoided. The professional code of ethics for Uganda should therefore define unethical behaviour to include all actions that result in unfairness to others, whether those behaviours are legal or not.

Examples may include:

- Bribery, which is considered to be the ethical problem occurring most frequently internationally
- Accepting personal gifts, because professionals' ability to maintain professional objectivity might reasonably be questioned

Second, information professionals should stay abreast of developments and constantly develop themselves and grow professionally. When professionals are unaware of current developments and standards, they are likely to conduct themselves in an unethical manner.

Third, the professional body must render final decisions on disciplinary matters by taking either of the following actions:

- Censure, involving a written reprimand that outlines the consequences of repeated actions
- Suspension, which is imposed when the misconduct warrants more serious disciplinary action than a censure
- Expulsion of a member or forfeiture of membership for the most serious cases of misconduct

Creating a more ethical work environment consists of several steps, which may include:

- Establishing of a code of conduct, an ethics committee and a policy empowering the professional body to check compliance with the code as part of its responsibility
- Continuous training on how to deal with ethical dilemmas
- Willingness to accept responsibility for one's behaviour

### A summarised proposed code of ethics

An ICE for information professionals must essentially address issues related to the standard of conduct, competence, honesty, social implications, professional development and protection of the profession. A proposed code of ethics for the information profession of Uganda appears below.

*Information professionals should act with professional responsibility and integrity in dealing with clients, employers, employees, students and the community generally. By this is meant the following:*

- *Priorities: To serve the interests of clients and*

*employers, employees and students, and the community generally, as matters of no less priority than the interests of colleagues or oneself.*

- *Competence: To work competently and diligently for clients and employers.*
- *Honesty: To strive for integrity and reliability under all circumstances.*
- *Social implications: To strive to enhance the quality of life of those affected by an information professional's work.*
- *Professional development: To enhance information professionals' development, and that of their colleagues, employees and students.*
- *Information profession: To enhance the integrity of the information profession and the respect of its members for each other.*

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## **E-governance in eastern and southern Africa: A webometric study of the governments' websites**

Omwoyo Bosire Onyancha

*This chapter explores the adoption of one of the information and communication technology tools, namely the Internet and, more particularly, the World Wide Web, by eastern and southern African governments as a means of facilitating interactions between the state and its citizens. It was observed that most governments in the region have constructed their own websites, some of which are up to date. English is the most commonly used language to prepare the websites. Other findings include that foreign missions recorded the highest number of webpages, followed by political parties; the .com or .co top-level domain generated most webpages, followed by .ac or .edu in each country; most governments provide contact information as opposed to sitemaps and feedback forms, which recorded relatively few postings; governments with few webpages and large quantities of in-links (including self-links) recorded high web impact factors; and only the South African government provided links to other eastern and southern African governments. Ethical issues regarding the analysed variables, as well as conclusions and recommendations, are discussed.*

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## Introduction

Information and communication technologies (ICTs) are increasingly becoming important tools with which individuals, corporate institutions and organisations and even countries not only create, store, disseminate and use information, but also market their services and products. The Internet, being one of the modern ICT tools, offers several opportunities and services, such as electronic commerce, web-based education, electronic mail and electronic governance. E-governance is defined as follows (Jensen, 2002):

*... the use of ICTs to promote efficient and effective government, facilitate more accessible government services, allowing greater public access to information, and making government more accountable to citizens.*

E-governance involves the delivery of government services and information to the public using electronic means. The United Nations Educational, Scientific and Cultural Organisation provides an elaborate definition (UNESCO, 2005):

*... the public sector's use of information and communication technologies with the aim of improving information and service delivery, encouraging citizen participation in the decision-making process and making government more accountable, transparent and effective.*

Backus (2001) gives e-governance a commercial impetus. The author argues that e-governance is a form of e-business in governance and defines it as the application of electronic means in the interaction between the government and citizens and between the government and businesses, as well as in internal government operations, in order to simplify and improve the democratic, government and business aspects of governance.

According to Chisenga (2004), e-governance is meant to fulfil the following goals:

- Improve the internal organisational processes of governments
- Provide better information and service delivery
- Increase government transparency in order to reduce corruption
- Reinforce political credibility and accountability
- Promote democratic practices through public participation and consultation

An audit of the technological developments in Africa indicates that most governments on the continent are vigorously promoting the use of ICTs in the provision of services to their citizens. A study conducted by Chisenga (2004) noted that the majority of the African governments are finding their way into cyberspace through the construction of their own websites. It has been observed, however, that the mere ownership of a website does not mean effective e-governance (Waiswa, 2006). Quoting Dr Subhajit Basu, a lecturer at Queen's University in Belfast, Vincent Waiswa agrees that ICTs only support and stimulate good governance. Websites, nevertheless, are essential tools (and sometimes prerequisites) for governments to realise or attain any effective e-governance.

According to Sangonet (in Chisenga, 2004), the following benefits can be realised if governments distribute their information through ICT tools such as the Internet and the Web:

- It costs less than print distribution.
- Broad distribution can be achieved at relatively little cost.
- Speedy distribution is possible at low cost.
- More information can be made accessible at lower costs.
- The government is therefore able to provide more information to the public than before.
- Different, but important, types of information can be distributed (staff members of departments, contact details, etc.).
- Access can be provided to information in remote or rural areas.
- People can respond and/or put their views across.
- It puts into effect commitment to transparency, accountability and democratisation.

Commenting on the benefits of e-governance in China, Kluver (2005:76) argues that:

*... e-government initiatives in China have had as their purpose not the empowerment of citizens, nor even to attract external investment, but rather to add stability and order to a chaotic governing process and social change, and to reestablish the control of the governing authorities, including improving the quality of surveillance and data gathering, and hence policy-making, the elimination of corruption, and ultimately, the re-legitimation of the Communist Party of China.*

Bar-Ilan (2005:975) defines the Web as an "enor-

mous set of documents connected through hyper-text links created by authors of web pages". In addition, links are used to improve the performance of information retrieval systems on the Internet, and more so the Web. Therefore, for a person to access government information successfully, he or she would be required to follow particular links as provided by webpage authors, commonly known as webmasters. Links that are not well constructed or active (broken or dead links) would make information access and government-to-citizen or government-to-business interactions impossible. This would render the whole system of e-governance null and void, for it is through the web links that citizens or the business community can reach, and be reached by, the government.

In view of the above, an evaluation of websites in terms of content and links (to and from other websites) would help to measure the performance of the various governments on the Web. This would provide valuable information that can be used in formulating relevant policies for improving the situation, specifically as regards service delivery through the Internet and Web.

### The purpose of the study

This study sought to examine the broad performance and impact of eastern and southern African governments on the Web with a view to determining their visibility and impact. These research questions were used to inform the study:

- How many countries in eastern and southern Africa have constructed government websites?
- Which is the language used most commonly to prepare the websites?
- How up to date are the government websites?
- How many government and government-related institutions own websites in each country?
- Does each government website provide essential features (e.g. feedback forms, search engines, contact details, site maps)?
- How much has each government's site contributed in terms of webpages in each country?
- What is each government's web influence or impact?
- Are there any interlinkages between eastern and southern African governments' websites? If so, what is the nature or type of these linkages?

### Methods and procedures

The study employed two approaches, namely link and content analyses, to gauge the presence and impact of eastern and southern African governments on the Web. A total of 20 countries were targeted for this purpose: Angola, Botswana, Djibouti, Eritrea, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Seychelles, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. The study relied heavily on the Internet to obtain website addresses for each country. Three Internet-based online sources provided links to African countries on the Web:

- African governments on the WWW: <http://www.gksoft.com/govt/en/africa.html>
- African governments on the Internet: <http://www.uneca.org/aisi/NICI/africagovinternet.htm>
- Foreign governments in Africa: <http://www.lib.umich.edu/govdocs/forafr.html>

These three sources provide links to a variety of websites of a given country which, in turn, provide various access points to African governments' home pages. Government ministries or departments, state houses or presidents, national assemblies or parliaments, prime ministers, etc. are some of the national institutions whose home pages are provided by these sites. Others include representations in foreign countries (foreign missions and high embassies) and political parties. At this stage, only a government's official URL address was used to conduct a content and link analysis of eastern and southern African governments. The portal, notes Chisenga (2004), usually provides an "entry point or access point to all or some web sites of executive and legislative organs of the government, and government agencies".

A total of 13 government portals were identified (Table 1). However, when the time came to access these websites, those of Djibouti, Namibia and Uganda were inaccessible, with the common website access error ("the page cannot be displayed") popping up. Nevertheless, the websites were used to measure the respective governments' impact using link analysis, thus leaving out a content analysis of that country's website.

In order to perform a link analysis of eastern and southern African governments, two online indexing services – Google ([www.google.com](http://www.google.com)) and

No.	Country	Government website address
1	Botswana	<a href="http://www.gov.bw/">http://www.gov.bw/</a>
2	Djibouti	<a href="http://www.republique-djibouti.com/">http://www.republique-djibouti.com/</a>
3	Kenya	<a href="http://www.kenya.go.ke">http://www.kenya.go.ke</a>
4	Lesotho	<a href="http://www.lesotho.gov.ls/home/">http://www.lesotho.gov.ls/home/</a>
5	Madagascar	<a href="http://www.madagascar.gov.mg/">http://www.madagascar.gov.mg/</a>
6	Malawi	<a href="http://www.malawi.gov.mw/">http://www.malawi.gov.mw/</a>
7	Mozambique	<a href="http://www.mozambique.mz/">http://www.mozambique.mz/</a>
8	Namibia	<a href="http://www.grnnet.gov.na/">http://www.grnnet.gov.na/</a>
9	South Africa	<a href="http://www.gov.za/">http://www.gov.za/</a>
10	Swaziland	<a href="http://www.gov.sz/">http://www.gov.sz/</a>
11	Tanzania	<a href="http://www.tanzania.go.tz/">http://www.tanzania.go.tz/</a>
12	Uganda	<a href="http://www.government.go.ug/">http://www.government.go.ug/</a>
13	Zimbabwe	<a href="http://www.gta.gov.zw/">http://www.gta.gov.zw/</a>

**Table 1:** Eastern and southern African governments' websites used in the study

AltaVista ([www.altavista.com](http://www.altavista.com)) – were used to extract relevant data. A combination of unique search queries was used in each case, as follows:

- The number of links from one government site to another (e.g. from South Africa to Kenya) – Google: *site:gov.za (space) "www.kenya.go.ke"*; AltaVista: *domain:gov.za (space) "www.kenya.go.ke"*. This first search strategy is a bit limited in that hyperlinks are sometimes in the name of a person or institution. For example, the Kenyan government's website can be linked to using either a URL or a name hyperlink (i.e. *Government of Kenya*, or <http://www.kenya.go.ke>). This study used the aforementioned query in the belief that when the hyperlink is in the name of a particular government, the linking page would still provide a URL alongside the name.
- The total number of pages linking to the website – Google: *link:www.gov.za/*; AltaVista: *linkdomain:gov.za/* or *linkdomain:www.gov.za/*
- The total number of pages on the website – Google: *site:gov.za/* or *site:www.gov.za/*; AltaVista: *domain:gov.za/* or *domain:www.gov.za/*

The web impact factor (WIF) was calculated in order to measure each government's web influence (impact) as follows:

$$WIF = \frac{\text{Total number of pages linking to the website}}{\text{Number of pages on the website}}$$

In this study, social networks were constructed using the Pajek computer-aided software. Tables were largely used to present the findings.

## Results

Results cover the following sub-themes, which were derived from the purpose of the study and the research questions: language of webpage construction; availability and number of government and government-related institutions that own websites; up-to-datedness of websites; essential features; total top-level domains; the number of in-links and the number of pages; WIF; and governments' interlinkages.

### *Language of the websites*

Of the total of 13 government websites, all except those of Madagascar and Mozambique were prepared in English. Mozambique's website was largely in Portuguese, and the English version of the website was still under construction. In the case of Madagascar, the government's website was constructed in French and there was no English version.



No.	Country	Government website address	Copyright date	Date of update
1	Botswana	<a href="http://www.gov.bw/">http://www.gov.bw/</a>	2006	–
2	Djibouti*	<a href="http://www.republique-djibouti.com/">http://www.republique-djibouti.com/</a>	–	–
3	Kenya	<a href="http://www.kenya.go.ke">http://www.kenya.go.ke</a>	2005	2006
4	Lesotho	<a href="http://www.lesotho.gov.ls/home/">http://www.lesotho.gov.ls/home/</a>	–	–
5	Madagascar	<a href="http://www.madagascar.gov.mg/">http://www.madagascar.gov.mg/</a>	–	–
6	Malawi	<a href="http://www.malawi.gov.mw/">http://www.malawi.gov.mw/</a>	–	–
7	Mozambique	<a href="http://www.mozambique.mz/">http://www.mozambique.mz/</a>	–	–
8	Namibia*	<a href="http://www.grnnet.gov.na/">http://www.grnnet.gov.na/</a>	–	–
9	South Africa	<a href="http://www.gov.za/">http://www.gov.za/</a>	2004	2006
10	Swaziland	<a href="http://www.gov.sz/">http://www.gov.sz/</a>	–	–
11	Tanzania	<a href="http://www.tanzania.go.tz/">http://www.tanzania.go.tz/</a>	2001–2007	–
12	Uganda*	<a href="http://www.government.go.ug/">http://www.government.go.ug/</a>	–	–
13	Zimbabwe	<a href="http://www.gta.gov.zw/">http://www.gta.gov.zw/</a>	–	–

**Table 2:** Government portals' copyright and update dates

Note: Websites indicated with an asterisk were inaccessible.

### ***Up-to-datedness of government websites***

Two dates were considered in this analysis: the copyright date and the date of page or site update. In several cases, there were as many different dates as there were web directories, domains or pages on a given government's website. Sometimes each department's website contained dates of update that differed from the portal's date(s). Every effort was made to obtain dates from the government's portal. Where the main portal did not display any date, the page "About us" or "About the government" was used to extract the two dates where possible (e.g. South Africa). In some cases, the date of update was in the form of the "date today" (e.g. Kenya). The latter cases were excluded from the data analysis and only the year of update was considered.

Only countries with government portals were analysed in this section. Table 2 shows that all the websites whose dates were given were up to date and their copyright dates were current. Most sites, however, did not provide the dates of either copyright or update. Kenya and South Africa provided both, proving that the websites were up to date, as 2006 was the year in which this study was conducted.

### ***Government and government-related institutions with own websites***

This section presents data extracted from all the eastern and southern African countries, irrespective of whether they had official government websites or not. Table 3 shows the number of government and government-related institutions in each country that had their own websites at the time of the study.

The table reveals that a total of 13 countries had constructed government portals from which most departments and other government-related institutions could also be accessed, apart from directly accessing their websites with their own URLs. These countries include Botswana, Djibouti, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda and Zimbabwe. South Africa leads in the number of government and government-related institutions that have websites (92), followed by Uganda (29), Kenya (25) and Ethiopia (23), while Angola, Mozambique and Namibia had 19 such institutions each. (It should be noted that South Africa's total number of institutions does not include the provincial or regional governments and departments.) A comparison of different institutions indicates that

No.	Country	Gov. portal	Ministries	National Assembly	President/ Prime Min.	Political parties	Foreign missions	Others	Total
1	South Africa*	1	23	1	–	11	35	21	92
2	Uganda	1	10	1	1	1	5	10	29
3	Kenya	1	7	1	1	3	7	5	25
4	Ethiopia	–	–	1	–	6	9	7	23
5	Angola	–	5	1	–	3	7	5	19
6	Mozambique	1	6	–	–	1	2	9	19
7	Namibia	1	7	–	2	2	4	3	19
8	Sudan	–	2	–	–	2	13	1	18
9	Madagascar	1	7	1	–	–	4	5	17
10	Tanzania	1	2	1	–	2	7	3	16
11	Zimbabwe	1	–	1	–	4	2	4	12
12	Malawi	1	2	–	–	–	1	5	9
13	Zambia	–	–	–	–	–	–	9	9
14	Lesotho	1	–	–	–	–	2	5	8
15	Swaziland	1	2	–	1	–	2	2	8
16	Seychelles	–	1	–	–	1	1	4	7
17	Botswana	1	3	–	–	–	1	1	6
18	Djibouti	1	2	–	–	1	–	2	5
19	Somalia	–	–	–	–	–	1	1	2
20	Eritrea	–	–	–	–	–	1	–	1
	Total	13	77	8	5	37	104	102	344

**Table 3:** Government and government-related institutions that have their own websites in each country

Note: In countries marked with an asterisk, only the national government and government-related institutions were counted, and regional or provincial institutions were not included in the national tally.)

foreign missions belonging to a country were in the majority (104), followed by government ministries (77), political parties (37), government portals (13), national assemblies or parliaments (8), and presidents or prime ministers (5). The government ministry portals provide access to government institutions that fall under the respective ministries.

The category “Others” includes electoral commissions; constitutional commissions; national police; national banks, television stations and radio stations; Office of the Government spokespersons, the national bureau of standards, etc. It should be borne in mind that South Africa’s system of government comprises national and

provincial/regional governments which, in turn, consist of several regional institutions.

### ***Distribution of webpages according to the most commonly used generic TLDs***

Five generic top-level domains (gTLDs) – i.e. ac/.edu, .com/.co, .org/.or, .gov/.go/.gv, and .net – that are commonly used to register domain names were selected and used to examine, among other aspects, the share of each government’s gTLDs (i.e. .gov, .go, or .gv) of a country’s total gTLD tally.

Table 4 therefore shows the distribution of

No.	Country	.co + .com		.edu + .ac		.gov + .go + .gv + .government		.net		.org + .or		Total*	
		Google	AltaVista	Google	AltaVista	Google	AltaVista	Google	AltaVista	Google	AltaVista	Google	AltaVista
1	South Africa (.za)	8 160 000	18 000 000	655 760	1 760 000	147 000	414 000	58	26	406 000	1 020 000	9 368 818	21 194 026
3	Uganda (.ug)	165 000	200 000	15 900	8 540	39 400	16 200	0	0	32 649	15 000	252 949	239 740
8	Tanzania (.tz)	46 800	168 000	26 800	23 200	52 300	17 600	0	1	19 500	12 300	145 400	221 101
5	Zimbabwe (.zw)	135 000	166 000	7 950	10 300	2 400	1 640	0	0	20 500	15 100	165 850	193 040
7	Kenya (.ke)	157 000	123 000	10 700	12 300	21 800	10 100	0	0	15 200	12 500	204 700	157 900
6	Namibia (.na)	154 000	99 200	1 440	2 550	210 000	22 000	0	3	25 900	5 220	391 340	128 973
12	Mozambique (.mz)	85 000	94 900	919	626	63 200	10 400	1	0	12 500	7 050	161 620	112 976
15	Swaziland (.sz)	0	7 160	357	318	3 550	2 520	0	0	11 800	102 000	15 707	111 998
10	Ethiopia (.et)	111 000	2 500	15 100	7 660	11 600	12 600	15 700	32 900	2 510	1 570	155 910	57 230
9	Zambia (.zm)	197 887	34 300	1 218	857	7 640	4 490	310	135	11 800	9 730	218 855	49 512
4	Botswana (.bw)	168 000	7 560	228	98	26 200	23 300	0	0	2 370	1 880	196 798	32 838
16	Lesotho (.ls)	210 000	14 900	37	12	20 800	3 620	0	1	2 580	2 930	233 417	21 463
17	Malawi (.mw)	1 524	494	607	2 070	1 620	1 900	0	0	2 480	4 980	6 231	9 444
18	Sudan (.sd)	23	19	4 160	217	28 100	4 420	5 020	714	431	111	37 734	5 481
11	Madagascar (.mg)	49	34	0	0	56 800	4 420	0	0	327	216	57 176	4 670
14	Seychelles (.sc)	562	1 380	171	146	893	737	1 530	761	20	26	3 176	3 050
13	Djibouti (.dj)	0	2	25	1 990	626	528	0	1	49	35	700	2 556
19	Eritrea (.er)	2 640	302	1 940	1 650	483	405	0	0	33	63	5 096	2 420
2	Angola (.ao)	3 270	1 530	0	0	11 800	818	0	0	0	1	15 070	2 349
20	Somalia (.so)	0	35*	0	0	0	1*	0	2*	0	4*	0	229*
	Total	9 597 755	18 921 281	743 312	1 832 534	706 212	551 698	22 619	34 542	566 649	1 210 712	11 636 547	22 550 996
	% of total	82.5	83.9	6.4	8.1	6.1	2.4	0.2	0.2	4.9	5.4	100.0	100.0
	Average pages per country	479 888	946 064	37 166	91 627	35 311	27 585	1 131	1 727	28 332	60 536	581 827	1 127 550

**Table 4:** Number of webpages distributed by the most common generic TLDs (gTLDs)

Note: Somalia's gTLD pages could not be accessed in order to verify their authenticity, although the domain names ended with an .so ccTLD.

webpages according to the gTLDs in each country, as well as the country's total webpages (i.e. pages that contained a country's code TLD, or ccTLD). Table 4 reveals that the country leading in the number of webpages bearing only the country's cTLD was South Africa, which yielded 9 368 818 and 21 194 026 webpages in Google and AltaVista respectively. Other countries performing relatively well (in the order of Google first and then AltaVista) were Uganda (252 949; 239 740), Tanzania (145 400; 221 101), Zimbabwe (165 850; 193 040), Kenya (204 700; 157 900), Namibia (391 340, 128 973), and so on.

Generally, it can also be observed that the .co or .com gTLDs (commercial organisations) recorded the highest number of webpages in most countries, followed by .org or .or gTLDs (non-profit-making organisations) in both indexing services. This pattern emerges when the total number of pages (third row from the bottom of Table 4) is considered. There were a total of 9 597 755 and 18 921 281 .com or .co webpages in Google and AltaVista respectively, while .edu or .ac gTLDs produced 743 312 and 1 832 534 webpages in the two indexing services. Government institutions' webpages (.gov or .go) totalled 706 212 and 551 698 pages, while network infrastructures (.net) produced 22 619 and 34 542 webpages in Google and AltaVista respectively.

### ***Provision of important features on the governments' websites***

An examination of the governments' websites for the purposes of finding out the provision of information-related tools or services yielded the results presented in Table 5. Four aspects that are pertinent to citizen-government relationship in e-governance, namely, feedback forms, contact information, sitemaps, and search engines/options were considered.

Table 5 reveals that apart from Lesotho, South Africa and Swaziland, which offered all four features, the remaining countries' websites offered fewer than four. (The websites of Djibouti, Namibia, Uganda and Zimbabwe were not accessible at the time.) Notably, contact information (e.g. contact persons; telephone, fax and cell-phone numbers; email addresses) was provided by nine of the 13 countries, followed by search engines (6), sitemaps (5) and feedback forms (4).

### ***Webpages in, and links to, government portals***

Government domain pages on the Web were evaluated in order to compare (using both the Google and AltaVista search indexing services) the visibility and influence of the governmental portals of eastern and southern African countries on the one hand, and the entire or cumulative .go/.gov/.gv government websites on the other hand. As expected, there were more webpages at, and links to, the .go/.gov/.gv government webpages than there were webpages at, and links to, the government portals. For instance, Botswana yielded 22 900 (AltaVista) and 1 620 (Google) government portal webpages, and a total of 23 300 (AltaVista) and 26 200 (Google) government webpages.

As links, the country had a total of 69 500 (AltaVista) and one (Google) government portal webpages and 73 700 (AltaVista) and zero (Google) links to the cumulative government webpages. The same pattern was witnessed in all the other countries.

In Table 6, there were altogether 461 767 governmental portal webpages in AltaVista, while Google yielded a total of 204 667 webpages in the same category. The cumulative government webpages (i.e. all pages containing .go/.gov/.gv gTLDs) were 528 228 and 672 696 in AltaVista and Google respectively. Links to government portal webpages totalled 536 510 (AltaVista) and two (Google), while all government webpages had a total of 631 871 and zero links in AltaVista and Google respectively.

### ***Government web impact factors***

Table 6 provides the web impact factors (WIF) for each government, as recorded with both AltaVista and Google.

The WIF was calculated as the ratio of the total in-links to the total webpages at the website(s). The highest WIF was recorded by Djibouti's government portal (701.0 in AltaVista), followed by Uganda (288.0), Zimbabwe (235.3), Kenya (136.0) and Mozambique (47.2), all as reflected in AltaVista. In the case of Google, it was noted that all government portals recorded zero WIF when rounded up to the nearest whole number.

No.	Country	Feedback forms	Search engine	Contact info	Site map
1	Botswana	x	√	√	x
2	Djibouti	–	–	–	–
3	Kenya	x	x	√	x
4	Lesotho	√	√	√	√
5	Madagascar	x	√	√	√
6	Malawi	x	x	√	x
7	Mozambique	√	x	√	x
8	Namibia	–	–	–	–
9	South Africa	√	√	√	√
10	Swaziland	√	√	√	√
11	Tanzania	x	√	√	√*
12	Uganda	–	–	–	–
13	Zimbabwe	–	–	–	–
	Total occurrences	√ = 4, x = 5	√ = 6, x = 4	√ = 9, x = 0	√ = 5, x = 4

**Table 5:** Governments' provision of feedback forms, search engines, contact information and site maps

Note: The site marked with an asterisk did not have a site map option, but indicated the option "About this site".

No.	Country	Government portal only		Government sites (collectively)	
		AltaVista	Google	AltaVista	Google
1	Botswana	3.0349	0.0006	3.1631	0.0000
2	Djibouti	701.0000	0.0000	1.3277	0.0000
3	Kenya	136.0000	0.0000	3.2673	0.0000
4	Lesotho	1.2359	0.0000	2.1188	0.0000
5	Madagascar	6.2867	0.0000	1.1403	0.0000
6	Malawi	1.7643	0.0000	1.5158	0.0000
7	Mozambique	47.2222	0.0000	0.8173	0.0000
8	Namibia	1.7714	0.0000	1.4500	0.0000
9	South Africa	0.8750	0.0000	0.8913	0.0000
10	Swaziland	1.7393	0.0000	1.8175	0.0000
11	Tanzania	5.2857	0.0002	1.6989	0.0000
12	Uganda	288.0000	0.0000	1.7160	0.0000
13	Zimbabwe	235.3383	0.0000	22.6829	0.0000
	Total	1.1619	0.0000	1.1962	0.0000

**Table 6:** Web impact factors

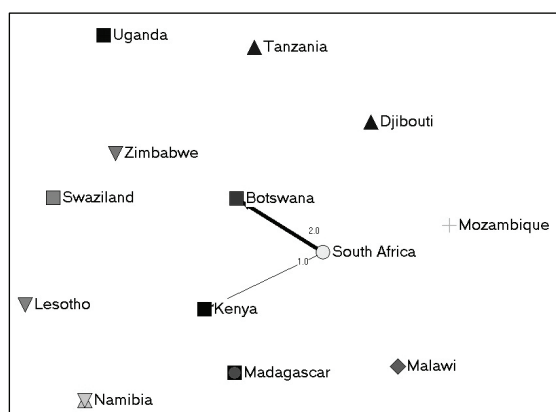


Figure 1: Government interlinkages (AltaVista)

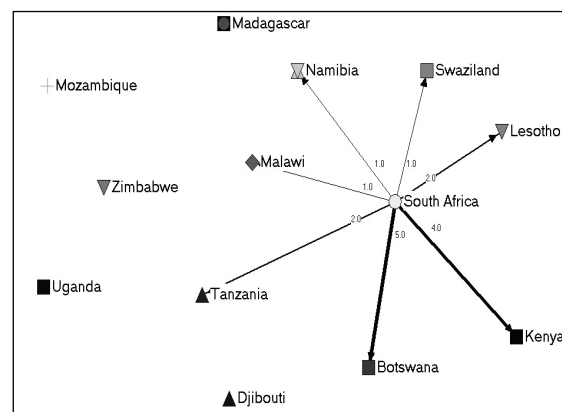


Figure 2: Government interlinkages (Google)

When the total number of government webpages was considered, it was found that Zimbabwe had the highest WIF (22.7), followed by Kenya (3.3), Botswana (3.2), Lesotho (2.1), Swaziland (1.8), Uganda (1.7), Tanzania (1.7), Malawi (1.5), Namibia (1.5), Djibouti (1.3) and Madagascar (1.1). Again, all government websites produced zero WIF in Google. Cumulatively, as shown in the last row in Table 6, the government portals produced a WIF of 1.16 while all the government websites produced a WIF of 1.20, as measured using AltaVista data. The WIF, in both cases, was nil in both AltaVista and Google.

### Government interlinkages

The social networks shown in Figures 1 and 2 provide inter-site linkages among the government websites. Only the South African government provided links to other government websites, while it received none from any of the governments investigated. In AltaVista, South Africa provided two links to Botswana and one to Kenya. In Google, seven countries received links from South Africa: Botswana (5), Kenya (4), Tanzania (2) and Lesotho (2), while Malawi, Namibia and Swaziland received one link each.

### Discussion and conclusions

It was observed that several governments in the region had constructed websites. Of the total of 20 countries in eastern and southern Africa, 13 (65%) provide government portals. This falls far below the expectations of many, especially in this era of technology. One may ask: Why is it that

the other seven governments in the region have not constructed their websites? Are they reluctant, or is it because they have not been enlightened about the Web's benefits?

Chisenga (2004) is of the opinion that African governments lack active involvement in Web development. It would be interesting to conduct a study to identify reasons as to why governments in Africa are not actively participating in Web development and engineering. Chisenga's study reported that 24 African governments had their own websites, of which 12 were from eastern and southern Africa. Kenya and Swaziland were excluded from his study because their websites were not accessible at the time. The same problem resurfaced during the current study, where three government websites (Djibouti, Namibia and Uganda) could not be accessed. Whether they were "dead links", or whether the servers that hosted the websites were not functional, could not be ascertained at the time of conducting the study. Nevertheless, it is worth mentioning that this scenario impacts negatively on a country's e-governance activities. As librarians like to say, "a book that is misshelved is as good as a lost book" – so any website that cannot be accessed for a prolonged period of time could just as well have been non-existent. Citizens cannot keep abreast of the goings-on in the government, nor are they able to download important documents from the website, which service e-governance is meant to provide.

Another danger of not owning a website is related to the "new forms of piracy" on the Web

(Ndioo, 2007). According to Ndioo, some individuals and companies are making huge sums of money by intentionally depriving real companies of their right to own domain names. These parties are busy registering domain names using renowned companies' names, only for them to demand that company X buys the rights from them if the latter wants to use the domain name with which the former had registered "their" company. Although this has not happened with government domain names, it is a possibility and calls for governments to register their domain names with appropriate Registration bodies, not only because of the fear that their domain names may be used by others, but also for the purposes of enhancing e-governance.

Previous studies (e.g. Chisenga, 2004) have shown that government websites are used for several reasons, some of which include informing the public of new developments in the government through such websites as the official government spokesperson's website; full-text government documents; the country's constitution; government forms (e.g. application forms for birth certificates, visas, etc.); online application facilities; government contact details; feedback facilities; frequently asked questions; and statements of responsibility. This study considered four of these features, namely feedback forms, search engines, contact details and site-maps, each of which is important in its own right and contributes to effective and successful e-governance. For instance, Chisenga (2004) and Markus (2001) observe that the interaction between the government and the public is stimulated with various applications. For example, people can ask questions via email, use search engines and download forms and documents, while feedback facilities act as discussion tools that the public can use to comment on various government policies and decisions. It was encouraging to note that most of the aforementioned four features were provided by all the accessible government websites. The most noticeable was the availability of contact details (telephones, emails and persons to be contacted) on all these websites.

It is well acknowledged that language, among other factors, affects the usability or "citedness" of a document (Garfield, 1993). It is therefore important to state that one of the factors that may determine the usability of a website or webpage

is the language<sup>1</sup> in which it is constructed, thereby affecting the citedness/linkage of the website or webpage. Consequently, international recognition is limited if the website is in a language that is not international. It was observed that English was the language in which most websites were prepared, probably because of its international use. The other languages included Portuguese, French and Arabic. Countries' use of these languages in preparing their government websites and as official languages of communication can be attributed to the nations that were colonial masters in those countries. One would argue that local national languages (such as Swahili, isiZulu, Afrikaans, etc.) should be used to prepare alternative websites to the ones using an international language. Although this may improve e-governance, it is debatable whether or not it is necessary, given that most citizens who use the Web are well versed in the official language of communication in their countries.

Concerning the gTLDs, consistency in the use of several variations of the gTLDs in a given country was observed. For instance, in Kenya, the use of .co, .or and .ac for companies, organisations and academic institutions was observed, while South Africa uses .co, .org and .ac respectively. While some countries used .gov (e.g. South Africa and Zimbabwe), others such as Angola used several variations for one type of institution (e.g. .gov and .gv for government institutions). Southern African countries largely used .org and .gov, as opposed to eastern African countries, which largely used .or for non-governmental organisations (NGOs). Uganda was the exception, using both .or and .org for non-profit-making organisations. Worth noting too was the dominance in each country of .co or .com for commercial organisations.

Commercial organisations' webpages totalled 9 597 755 (Google) and 18 921 281 (AltaVista), accounting for 82.5% and 83.9% of the total webpages for the five gTLDs respectively. The government webpages were favourably represented in each country, yielding a total of 706 212 (6.1%) and 551 698 (2.4%) pages in Google and AltaVista respectively. This was

<sup>1</sup> Language here does not refer to computer language (i.e. the system of commands used to develop software), but natural language (English, French, Arabic, Afrikaans, Swahili, etc.).

deemed to reflect the real situation in each country where there are more commercial companies than government institutions or any other type of institutions, such as NGOs and academic/educational institutions, and has nothing or very little to do with the preference of either .com or .co as TLD.

Another aspect that was considered when studying the government websites was the date of copyright or update. This analysis did not yield comprehensive results because most government websites did not provide either of the dates. However, results from those that provided these dates showed that all the websites were up to date. It is recommended that all websites should provide the dates of copyright and/or update, as these dates not only reflect how current the website is but, in scholarly publishing, the date of publication is crucial especially when it comes to citation. It will also show professionalism in website and webpage construction on the part of the webpage authors.

Table 4 shown earlier also provides the number of webpages on the government and government-related institutions' websites. As mentioned, all but seven countries in eastern and southern Africa owned government portals. The most productive of the institutions were foreign missions, followed by government ministries, political parties, and the national assembly. This pattern of distribution is typical of any country where foreign missions and political parties are several, while such institutions as the offices of presidents or prime ministers, national assemblies and even ministries in a country would be one each. In fact, one would not find, for instance, two offices of the presidency, the prime minister, a certain government spokesperson, and so on. There is normally one office for each of these institutions. Even when there are two deputies in a particular office, they will always be classified under the name of the respective office. In addition, it is most probable that foreign missions, especially those based in developed countries, would find it convenient and compelling to prepare their own websites because of the environment in which they are operating.

Developed countries provide enabling or conducive conditions, facilities and expertise for the construction of websites. For instance, one does not need to labour so much to convince the administration of foreign missions about the

need to have an own website. Other factors that may contribute to the construction of more websites for foreign missions than any other government and/or government-related institutions could be advanced technology and expertise, which are readily available in developed countries.

Results from an analysis of the number of webpages in, and links to, government portals show, as expected, that these portals yielded fewer webpages and in-links than all the government websites put together. Again, the AltaVista search engine produced more webpages and in-links for each government than Google. In fact, Google produced zero in-links for most of the governments in the region. Commenting on this type of pattern, Thelwall (n.d.) says that Google only reports a fraction (about 10%) of links that the search engine is aware of, which may explain why it produced less links to eastern and southern African governments. South Africa was the most prolific, as well as most linked to, (sited) government. Others that yielded a large number of webpages and in-links include Botswana, Lesotho, Namibia, Swaziland and Tanzania.

Impact-wise, as shown in Table 6 earlier, the situation was almost the opposite of the above. Countries with fewer webpages and a large number of in-links produced higher WIFs than their counterparts. This analysis saw Djibouti leading with a WIF of 701 (from only one webpage and 701 in-links) in AltaVista, followed by Uganda (288) and Zimbabwe (235).<sup>2</sup> Collectively, all government websites, including those belonging to government-related institutions (as long as they contained .gov or .go TLDs), yielded the highest WIF for Zimbabwe (22.7) in AltaVista, followed by Kenya (3.3) and Botswana (3.2). Again, Google yielded a zero WIF for most governments. This perhaps illustrates why impact factors should be used with care when assessing the quality of websites, webpages or documents, because a country such as Djibouti, which yielded only one webpage, produced the higher WIF than South Africa, which had 416 000 webpages.

With regard to government inter-linkages, it was observed that only the South African government

<sup>2</sup> It is worth noting that, in this case, we analysed all in-links, including self-links.



provided links to other governments that were investigated. All links to the other eastern and southern African governments originated from the Association of Law Reform Agencies of Eastern and Southern Africa at the Department of Justice in South Africa. The website ([www.doj.gov.za/alraesa/contacts/](http://www.doj.gov.za/alraesa/contacts/)) provides contact information of the member countries. There were no government-to-government links, i.e. links from one government portal to another. These links need to be created, especially now that countries in Africa have come together to form the African Union and other regional organisations such as the Southern African Development Community (SADC), East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA) and the Pan-African Parliament (PAP), which brings together parliamentarians from all over Africa.

Interestingly, while we encourage African countries to make use of ICTs in the administration of e-governance, it is worth noting that the major impediment to the use of these tools lies with the public, who could be incompetent in ICT usage. This is a hindrance not only in developing countries, but also in developed countries. For instance, the UK *Financial Times* of 22 May 2006 reported:

*The UK is still struggling to get the public to use online and other electronic forms of government in spite of multi-billion pound investments in them.*

A larger population of African countries does not have access to ICTs, and even when they do, citizens are often incapable of fully utilising these tools due to their low level of literacy, in general, and computer literacy, in particular. E-governance will be successful if the African governments move fast to solve the myriad problems that may hinder the effective use of ICTs in the region, such as poor telecommunication infrastructure, illiteracy levels, poverty, and computer or ICT "phobia".

Finally, we focus our attention on ethical issues in relation to the variables outlined and discussed in the sections above. Firstly, while we would commend various governments for constructing websites and making various documents available on the Web, it is advisable that these be published in several languages to cater for the majority needs just as for those in "real space". Unlike in cyberspace, where individuals

access and interpret Web documents by themselves, in "real space" they are assisted by designated government officers, especially when it comes to the completion of forms. This is all the more reason why web documents should be prepared in simple formats, as well as in a language that is easily understood by most citizens.

Secondly, in information ethics, two interrelated factors affect access to information: the right of access, and free access (Ackerman & Britz, 2006). In this regard, governments should formulate policies governing these two issues. The big question, though, is which and how much information the government should allow free access to without compromising the security of data and the nation or country at large. It should be remembered that good governance or democracy is defined in terms of transparency and accountability. This study did not delve into the content of government websites in detail, but in regard to the four features analysed, it was noted that most government websites offer feedback forms, contact details, sitemaps and search engines. These are fundamental basic features that should be provided by all government websites. Another factor that affects free access, as mentioned above, is the provision of active links. Webpage authors should therefore ensure that all links to and from government websites are operational.

Thirdly, as MacDonald (1995) notes, one of the web-based features with ethical importance is what he terms "clarity of administrative responsibility". He argues that websites should clearly state the owner(s), i.e. the persons responsible for the sites' administration. The same applies to government websites. It was encouraging to note that all government websites investigated in this study indicated ownership and/or administrative responsibility. Related to this is the date of copyright or date of update, which should be considered and published on each government website.

Lastly, we borrow an argument from Rose (2005: 2-3) regarding situations where several government institutions have independent websites, as was witnessed in this study:

*At its worst, each agency of a government may have its own processes controlling interaction with those it serves and distinctive information technology that is not readily compatible with other*

public agencies. While a single agency may be able to introduce e-governance services, citizens will be frustrated if they must sign on and off a number of different web sites when their requests involve a multiplicity of national and local offices of government.

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## **Towards a creativity research agenda in information ethics**

**Justine Johnstone**

*The value of information and its associated tools and technologies for human wellbeing and social development is no longer controversial. While still less well-endowed than other regions, Africa has growing numbers of print and electronic journals, funding programmes, and researcher and practitioner networks concerned with the generation and use of information in multiple domains. Most of this activity focuses on information as a knowledge resource, providing the factual basis for policy and intervention. By contrast, more creative applications of information – as the basis for new ideas, whether or not they turn out to be factual – have been almost entirely ignored. Being able to generate and develop new ideas is, however, an equally important and arguably a prior capability but, until recently, one that has been little understood. Recent advances in cognitive science and creativity research are changing this, however. It is now possible to see how a rich research agenda can be developed concerned with the role of information and information and communication technology (ICT) as creative resources.*

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## Introduction

The value of information and its associated tools and technologies for human wellbeing and social development is no longer controversial. While still less well-endowed than other regions, Africa has growing numbers of print and electronic journals, funding programmes, and researcher and practitioner networks concerned with the generation and use of information in multiple domains. And it now has its own learned society dedicated to studying and promoting the welfare of the African infosphere.

This is an exciting time for all those concerned with information and with Africa, and a good moment to consider future research agendas. One area that has received almost no attention so far from either the information or the development community, but which is centrally related to human and social wellbeing and depends fundamentally on information resources, is that of creativity. This chapter outlines some directions for a research agenda that it is hoped will become part of the AIES community's work in the future.

## Creativity

The generation of new and valuable ideas is a core component of the ability of individuals and groups, both to respond adaptively to change and to envision and bring about change (Runco, 2004). As such, creativity is clearly of central importance to human, social and economic development – and yet the concept has received little direct attention in development research, and almost none in informatics and information and communication technology (ICT) for the development field.

The reasons for this are obscure, but one might speculate that they could derive in part from the common association of creativity with world-leading achievement in the arts and sciences, and thus apparently a lack of connection with the lives and problems of the poor. In fact, this view, while true of some creativity research, represents a small and somewhat outdated conception of the subject, which increasingly focuses on creativity as a universal human capacity and an everyday activity that can be either nurtured or damaged by a wide range of social and environmental factors, including information

resources and technologies. There is, therefore, a strong case to be made for a research agenda looking in detail at the linkages between information and creativity in the context of African development.

## *Creativity as a developmental capability*

Despite the almost total lack of overt reference to creativity in development writing, there are many points of contact at a conceptual level. Creativity research, for example, focuses on a diverse range of phenomena familiar to anyone working in development, such as:

- Problem definition and problem solving (Mumford et al., 1991)
- Divergent thinking (the ability to come up with multiple possible solutions rather than striving after a single “right” answer)
- Tolerance of ambiguity
- The cognitive flexibility to deal with a changing environment (Flach, 1990)
- Advances in the arts, sciences and technology (Dudek, 2003)

Creativity has also been studied as an economic driver, through its role in innovation and entrepreneurship (Runco, 2004; Stehr, 1994) and in the development of cultural and creative industries. Similarly, concern with aspects of creativity – or the lack thereof – can be found in multiple guises in development literature, including:

- “Cultural dependency” (Seers, 1981)
- Project problem solving (Hirschmann, 1967)
- Explanations for changes in models of development (Sikkink, 1997)
- Alternative and liberatory ways of thinking (Escobar, 1995; Shrestha, 1995)
- Envisioning a better future as the basis for resistance (Scott, 1985) or policy development (Blackmore & Ison, 1998)
- Innovation and new ideas in participatory practice (Chambers, 2005)
- Fostering local research capacity (Kim, 1995; Adair, 1995)

Development applications of creativity concepts can be roughly categorised as either instrumental or constitutive. In the former case, creativity is valued because of its potential to deliver some other development objective. Hirschmann (1967), for example, commented on the role of creative

problem solving in development projects and the way in which long-term commitment and irreversibility tended to unleash more creative responses, albeit at some cost (Chambers, 2005). Similarly, creative arts such as drama and painting can be used to develop awareness of, and engagement with, issues such as HIV or children's rights, or as therapy.<sup>1</sup>

Perhaps the dominant instrumental perspective, however, is an economic one, where creativity is viewed as "human capital" – a resource with economic value. The creative industries as well as technical and scientific innovation can provide employment, generate revenue, attract investment and broaden the economic base. Even from a purely instrumental point of view, then, the importance of fostering creative capabilities is not in question as a development strategy.

A more profound perspective on creativity can, however, be found underlying liberatory and "people-centred" approaches to development, where the ability to free oneself from conceptual constraints, to think differently, to imagine new forms of society and to envision a range of alternatives is seen not as a vehicle for arriving at development, but as part of the very meaning of development. Such views can be found in, for example, the Marxian concept of "false consciousness", Gramsci's notion of ideological control, Freire's "pedagogy of the oppressed", liberation theology, dependency theory, the ideational resistance proposed by Fanon, Said and Escobar, and also capability theory (e.g. Sen, 1992, 1993, 1997, 1999; Nussbaum, 1995, 2000; Alkire, 2002).

Also in the work and meaning of development itself, important but often implicit connections to concepts related to creativity can be found in various forms in several policy domains. At an international level, the Universal Declaration of Human Rights asserts rights to freedom of thought, expression, belief (and, importantly, of the right to change one's beliefs) and participation in cultural life and the arts and sciences. National policies typically include a central focus on the development of "human capital" through,

for example, health and education – both of which have deep and complex links with aspects of creativity. Cultural and economic policies that aim to promote artistic, technical and scientific development, or industries such as media and tourism, or that focus on innovation and entrepreneurship, also frequently make implicit or explicit reference to the fostering of creativity. Many developing countries, for example, have adopted local content strategies aimed at promoting indigenous media production.

Policy is, however, not just instrumentally related to creativity, but can also be seen as the outcome of creative process, based on a vision of what could be and of how it might be achieved. A number of developing countries have shown high creativity in the development of new policy frameworks and approaches to difficult social problems. For example, South Africa's Truth and Reconciliation Commission has shown how a local innovation can come to be globally recognised and influential. The conception of an "African Renaissance" has similar aspirations and African philosophical concepts, such as *ubuntu*, have been creatively used in framing policy and practice in many areas. As recognition grows of the limitations of Western "domination and exploitation" views of the environment, conceptions of nature drawn from African and other traditions of thought can be expected to enter creatively into policy discussions at a global level.

### **Creativity research**

Studies of creativity are standardly classified into four main focal categories (Rhodes, 1961; 1987):

- *Person*: The traits, abilities, motivational and affective states, and behaviours that appear to be correlated with creativity, such as the work of Barron & Harrington (1981), and Amabile (1990)
- *Process*: Cognitive and social dynamics governing the generation, expression and acceptance or adaptation of new ideas (e.g. Martindale & Hasenfus, 1978; Runco, 1991; Csikszentmihalyi, 2003)
- *Pressure*: Pressures in the social and material environment that either enhance or inhibit creativity (Murray, 1938), such as access to resources, family or organisational structure, support for and valuing of originality, or the

<sup>1</sup> It is arguable that the therapeutic use of creative expression may be better seen as a constitutive perspective, since therapy and self-development are closely allied.

need to find solutions to urgent problems (e.g. Amabile & Gryskiewicz, 1989; Witt & Beorkrem, 1989; Sulloway, 1996; Albert & Runco, 1989; Amabile, 1990)

- *Product*: Studies of creative outputs, such as publications, patents or art works (Simonton, 1984; Gardner, 1993)

Runco (2004) identifies a significant amount of creativity research with a disciplinary focus, some of which cuts across the focal categories or fails to fit the classification scheme above. Those of particular relevance to development domains include the following:

- Connections between physical and mental health and creativity (Maslow, 1971; Rogers, 1970; Runco & Charles, 1997)
- Cognitive research on memory, attention, knowledge, intuition, imagination, problem finding and conceptualisation, as well as specific thinking techniques and skills (e.g. Pollert et al., 1969; Martindale & Greenough, 1973; Mumford et al., 1991; Runco, 1999)
- Research on family structure (Sulloway, 1996) and gender roles and differences (Harrington et al., 1983; Reis, 1999) in creativity
- Economic theories relating creativity to socio-economic status (Dudek et al., 1993) or to conceptions of “human capital” (Walberg & Stariha, 1992)
- Studies of educational practices, such as testing techniques (Reiter-Pelmon et al., 1997), classroom environment (Wallach & Kogan, 1965) and teacher attributes and expectations (Graham et al., 1989; Runco, 1984, 1989, 1992)
- Research on creativity in organisations and groups (Amabile, 1990; Witt & Beorkrem, 1989; Runco, 1995; Rubenson & Runco, 1992) and on innovation (reviewed by Service, 2003; and Rickards & DeCock, 2003)
- Connections between social processes and creativity (Amabile, 1990; Paulus & Nijstad, 2003) and the effectiveness of social techniques, such as brainstorming (Rickards & DeCock, 2003)
- Studies of creativity domains (Gardner, 1983), the addition of new domains, such as morality (Stein, 1993; Gruber, 1993) and nature (Solomon et al., 1999), and the increasing recognition given to “everyday” creativity as part of normal problem solving (Cohen & Ambrose, 1999; Runco & Richards, 1997)
- Cultural differences in creativity, such as

levels of social control (Aviram & Milgram, 1977), attitudes and values (Johnson et al., 2003), expectations (Dudek et al., 1993), domain differences (Runco, 2004) and similarities, for example in childhood developmental research (Raina, 1984)

Some authors have suggested other classificatory schemes. Hemlin et al. (2004), for example, argue that environmental influences on creativity need to be studied at the micro-, meso- and macro-levels. There is, therefore, no simple way of characterising the field but rather – and perhaps appropriately – a broad and divergent body of work cutting across multiple disciplines, all with useful – if very different – contributions to make. As a result, an African creativity agenda has the potential to open up an extremely rich and interesting field of investigation.

### Information as a creative resource

Information is the raw material of human thought. Without access to information and the ability to process it effectively, we cannot meet our basic survival needs, relate to others, do our jobs or find our way around the world. Whether acquired as sensory input, through social learning or partially encoded inherently, information is the medium in which our minds operate and the transformation of information – in visual, verbal, spatial, symbolic or another form – is thinking. Some of this thinking is about factual knowledge – for example, working out how clean a water source is, how many children go to school or where there are jobs – but a great deal is about how things could, should or might be, or could, should or might have been. These “counterfactual” or imaginative thought processes depend on information just as much, and are just as important as those involved in knowledge acquisition. They are, in fact, heavily involved in the generation of knowledge, particularly of a theoretical or probabilistic nature. Yet they have received barely a fraction of the attention from academic, practitioner and policy communities.

One reason for the lack of attention to creative processes in information disciplines is that, until quite recently, we have had few tools for describing and analysing imaginative phenomena. Recently, however, new approaches in cognitive science seem to offer promising ways of thinking about the creative functions of information and

even, perhaps, about the creative foundations of ethical thought itself.

### ***The theory of conceptual blending***

Until recently even in cognitive science, it tended to be assumed that the imagination was beyond the scope of empirical investigation and that while it might be possible to correlate creativity with a range of personal, social and environmental factors, the actual mechanisms of new idea production themselves were somehow permanently inaccessible to scientific investigation (Evans et al., 2006). Since the 1990s, however, a powerful, flexible theory known as “conceptual blending” or “conceptual integration” has been developed in the field of cognitive linguistics. It shows imaginative processes to be systematically involved in human thought and identifiable in language through the use of mapping tools and techniques.

Conceptual blending is a general theory of idea generation as a process in which elements of two or more “mental spaces” are “mapped” onto one another and merged to form a third space with emergent properties of its own not found in the two contributing spaces (Fauconnier, 1997; Fauconnier & Turner, 1998).<sup>2</sup> Conceptual blending, it is argued, is a systematic but complex form of processing which, contrary to traditional views of imaginative thinking, exhibits many standard features and obeys a number of optimality constraints (Fauconnier & Turner, 1998; Turner, 2001). Much of the time conceptual blending operates as “background” cognition at a level below that of conscious thought, but it can also be intentionally engaged in during deliberately imaginative cognition.

This theory of dismantling and recombining elements of symbolic structures has some powerful applications. For Turner (2001), it is the basis of language, and even the distinguishing feature of human intelligence including, in particular, the processes of metaphor, analogy and counterfactual reasoning that lie at the heart of creativity. Counterfactual reasoning is also a primary tool of

human and social science research. Historical reasoning frequently takes the form of retrospective counter-to-reality speculation, such as: “If the Treaty of Versailles after World War I had not been so punitive, the Nazis would never have gained power in Germany”.

By contrast, policy disciplines operate in prospective mode, focusing on the potential results of actions as yet unperformed, for example: “Increasing income tax to fund better healthcare will be acceptable to the electorate only if they see results quickly”. According to conceptual blending theory, what is going on in cases of this sort is, in fact, a type of thought experiment or mental simulation in which elements of a set of ideas about public services, taxation and healthcare provision are combined with elements from a set of ideas about public attitudes about tax and services. The policy being proposed is the result of this simulation. In this case it is a conditional result, with the element of speedy results being seen as critical in the formation of public attitudes. The success of the policy, it is being suggested, will depend on whether healthcare reform can be accomplished in a timescale that integrates with that of public attitude formation. In this way, conceptual blending theory shows how meanings are creatively manipulated in essentially the same ways in a vast range of everyday and expert thinking.

### ***Creative problem-solving blends***

One interesting area of application for blending theory, particularly in the context of African development, is in local problem framing and problem solving. A large amount of research and many failed programmes across the development agenda testify to the need for problems and solutions to be locally framed and locally owned. Research by the author, for example, found AIDS organisations operating in KwaZulu-Natal identifying needs for “alternative conceptions” and appropriate “models”, “strategies”, “approaches”, “programmes” and “how to” understanding in multiple domains. At the same time, it is clear that new models and local innovations are emerging, as communities struggle to come to terms with critical problems for which ready-made solutions do not exist.

While local innovations themselves have to some extent been studied, very little is known about

<sup>2</sup> “Mental spaces” are dynamically produced conceptual clusters generated “online” during the process of cognition. They draw on more stable conceptual structures, such as scripts and schemata.

the creative processes through which problems are framed and solutions developed locally. Blending theory offers a promising suggestion as to how we might start to undertake such investigations. Consider, for example, this comment by an NGO worker in a rural area, criticising the way in which social science professionals were advising the closure of orphanages in favour of community care – as, she saw it, without full understanding of local realities:

*The people who work down there in the community are saying, "Our people are so poor, nobody is prepared to take somebody else's child". One woman keeps about 54 AIDS orphans in her home. She is not rich but she says, "What can I do, they don't have any other place to go?" She is always open and anyone who wants to come and take those children can come. But nobody comes forward. Most people are so poor. They say, "Everyone wants to feed those kids but I can't even feed myself. How can I look after somebody else's child?"*

In this example we can identify two contributing mental spaces, one associated with the problem situation and one with the proposed solution. The blend – a mental simulation in which the advocated solution is imaginatively implemented in the problem situation – is implied rather than made explicit:

- *Contributing space 1* (Problem space – perceived real-life situation): There are many orphans in our community but families do not take them in.
- *Contributing space 2* (Solution space – proposed desired outcome and associated intervention): Children do better in families than they do in orphanages. Orphanages in this community should be closed.
- *Blend* (Simulation space – projects intervention into real-life situation generating counterfactual scenario): Local families take in children. Families cannot feed themselves. The implied (unspoken) result is that families cannot feed the orphans either, with disastrous results.

The blend does not cohere but terminates in the asking of a rhetorical question ("How can I look after somebody else's child?"), with the implied answer "You can't". There is no way to integrate the two contributing spaces and the blend disintegrates. The "solution" offered by outside experts turns out not to be a solution at all, and

the thinker is returned to contemplating the problem space. This example might seem somewhat negative, ending as it does in the rejection rather than the generation of a solution. Failed blends, like *reductio ad absurdum* arguments, however, do some useful cognitive work. The thinker is not in the same position after running the simulation than he or she was before. While the solution put forward by the experts has been rejected, the problem ends up being the focus of renewed thought, refocused from a question about the best type of care for orphans to a more fundamental question about poverty and survival.

It is not difficult to see how ethical thinking itself could be conceived in similar terms. For example, in considering choices between different courses of action we typically simulate various scenarios in our minds – often socially assisted through dialogue with others – in order to see what their effects might be and how we feel about them. It may even be possible to give quite precise definitions of moral emotions based on this theory. Empathy, for example, could perhaps be seen as a complex blend of an already blended space (a hypothetical "me in someone else's shoes" space composed of elements of my own subjectivity, combined with elements of another person's identity) with an action or event space, giving a composite "what it would be like for someone else if I did this/if this happened" blend. Simulations of this sort would then feed back in to my conceptualisation of the action or event space, leading me perhaps to adjust my views or intentions in the light of my simulated experience of being in someone else's situation.

### ***The role of ICT***

Another direction for research in this field is in investigating the linkages between creativity and ICT. To date, research on these topics has been conducted almost exclusively in Western contexts where there is, for example, a significant research agenda examining the effects of electronic environments on various forms of creative activity, such as idea generation, problem solving, expressive writing and artistic production (e.g. Wertheimer, 1985; Christensen, 1989; Christensen & Tennyson, 1988; Moore-Hart, 1995; Klein et al., 2003; Klein & Dologite, 2000; Yang, 2003; DeRosa, 2007; Delfino & Manca, 2007). In



addition, software and hardware development has been seen as a creative undertaking; digital media are increasingly being integrated into artistic production and performance, leading to new genres; while, on a more macrolevel, whole new creative and content industries are emerging, at least some of which may have genuine claims to influencing the economic dynamics of creativity.<sup>3</sup>

In trying to establish some order in this field it may be useful to categorise approaches to ICT and creativity according to the nature of the engagement with technology, for example, whether it is concerned with development, implementation, use or automation (Mateos-Garcia, 2006). Development here refers to the process of constructing new and useful technologies, applications and products; implementation to find new ways of applying existing technologies; use to apply ICT instrumentally as a tool or medium for supporting or enhancing creative activity; and automation to enhance attempts in artificial intelligence to replicate creative activity in machines. In addition, research will vary according to level (individual, social, industry sector, etc.) and according to object of study or disciplinary orientation – for example, whether it is focused on an individual behaviour, social process or creative outcome of a particular sort. Almost no research in any of these fields has been focused on developing regions of the world. This is cause for concern, given the intimate connection that exists between development and capabilities such as problem solving and innovation.

## Conclusion

A considerable amount has already been written on the general topic of information and ICT as contributors to development, and particularly on their importance as resources for development knowledge, communication and interaction. So far, there has not been any equivalent focus on

information as a resource for more creative development functions, such as idea generation and problem definition. A creativity perspective, it is proposed, may well provide useful insights that complement and enrich existing perspectives on the developmental role of information in the African context. Investigating the mechanics of mental blending and simulation, for example, may show how local perspectives can lead to new and more constructive ways of framing problems, and how expert understandings can be more coherently integrated with local realities. Considering ICT as a creative resource may lead to new ways of conceiving and evaluating the role of Internet projects such as Development Gateway and Eldis, and may suggest new forms of technological intervention and engagement.

It is perhaps not obvious that this is an *ethics* research agenda. However, as hinted above, creativity research holds out the prospect of new ways of understanding ethical thinking. In addition, a focus on information as a creative resource necessarily incorporates a value dimension, as creativity is explicitly about the production of *valuable* new ideas. Considerations of who creates new ideas, who they are valued by and for what purposes, how they are propagated and to whom, and how they interact or conflict with other values and interests, are thus necessarily central to a creativity analysis. Ideas are born into political and contested space, and how they succeed or fail to achieve recognition and influence can depend on a multitude of social, political and economic factors entirely independent of any intrinsic or technical worth. Thus, in considering the role of information, access, participation and influence will be key issues to address. ICT has the technical potential to provide tools for both idea generation and idea propagation and recognition. However, ICT resources are not equally available to all and even when they serve as mere access to resources it does not enable equal use to be made of them and equal benefits derived.

In examining the creative dimension of information and ICT, then, it is essential to consider not only the technical aspects, but also the full range of factors affecting the ability of individuals and groups to derive creativity benefits from them. A central part of a creativity agenda in information ethics will thus be the analysis and critique of existing systems and regimes as they impact

<sup>3</sup> The use of the word creative in “creative industries” does not, of course, imply any necessary connection with ideas that are either new or valuable. In the UK, for example, the Department of Trade and Industry defines creative industries as those which make money from content or intellectual property, thus including mobile phone ring tones and satellite navigation systems.

differentially on the creative capabilities of individuals and groups. If blending theorists such as Turner and Fauconnier are right and creativity is the distinctive mark of our humanity, then there can be no issue more important in information ethics.

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## **Information ethics: A student's perspective**

**Sarah B. Kaddu**

*Based on personal experience, and content analysis, this chapter examines information ethics (IE) from a student's perspective. Within this framework, it defines IE, outlines the history of IE and highlights incidences of IE violations in Uganda. The chapter concludes with proposals for better adherence to IE in Uganda. The chapter presents personal experience, observation and a content analysis methodology.*

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## Introduction

Information ethics (IE) is an important aspect of the information science discipline. Being able to determine what is right or wrong, good or bad, is very important in any discipline. IE directs a vision in life. It is a commitment to do right and uphold the good in the execution of responsibilities in the profession. Not doing so would be violation of IE. Nevertheless, some players in the information science field violate IE. Based on a student's perspective, this chapter highlights incidences of the violation of IE. It also makes proposals for better adherence to IE in Uganda.

## Ethics defined

According to Capurro (1988:2) and Kostrewski & Oppenheim (1980), the word ethics is derived from the Greek word *ethos*, which means "way of living". Ethics is a branch of philosophy that is concerned with human conduct, more specifically the behaviour of individuals in society. Ethics examines the rational justification for our moral judgments; it studies what is morally right or wrong, just or unjust. Ethics leads to a set of rules of conduct for specific situations, and basic ethical principles guide the development of standards for specific professions and groups.

There are two aspects to the definition of ethics: being able to determine what is right or wrong, good or bad, as well as a commitment to doing what is right and good. Ethics is a subset of values – a value applies to things that are desired, as well as what one ought to do, which can include such concepts as wealth, happiness, success and fulfilment. Ethics defines how a moral person should behave, whereas values include other beliefs and attitudes that guide behaviour (Froehlich, 1992).

## Brief history of information ethics

According to Moore (2005), IE is the field that investigates ethical issues arising from the development and application of information technologies. It provides a critical framework for considering moral issues concerning information privacy; moral agency (e.g. whether artificial agents may be moral); new environmental issues (especially how agents should behave in the infosphere); problems arising from the lifecycle

(creation, collection, recording, distribution, processing, etc.) of information, especially ownership; and copyright in the environment of a digital divide.

IE has grown over the years as a field in information science and has been embraced by many other disciplines as well (Hauptman, 1988). In the US, IE has had a 20-year history of development, pulling together strands from information science and computer science.

In addressing issues of IE, Hauptman (1988) lists these problem areas in librarianship: censorship, privacy, access to information, balance in collection development, copyright, fair use, codes of ethics, and problem patrons:

*In fact, even at its beginning the domain of concern in information ethics spilled over to other areas: computer ethics, information systems ethics, ethical issues in Management Information Systems, and Information Policy.*

Besides Hauptman, others also began using the phrase *information ethics*. Capurro (1988) wrote an article on "Information ethos and information ethics", but did not raise some of the issues in IE. This prompted Kostrewski & Oppenheim (1980) to write an article raising such issues as the confidentiality of information, bias in information provided to clients or consumers, the quality of data supplied by online vendors, and the use of work facilities.

## Key players in IE violation in Uganda

In my experience as a student, the key players in IE have been lecturers, students, information workers, and employers. They play both positive and negative roles.

### Lecturers at university level

The first moral obligation of a lecturer is to prepare, teach and evaluate students effectively. This would include preparing course outlines, schemes of work, and setting and marking course work and examinations. Miller (1971) lists the good qualities of ethically based lecturers:

- Coming to work regularly and on time
- Being well informed about their students and subject matter
- Planning and conducting classes with care

- Regularly reviewing and updating instructional practices
- Cooperating with or, if necessary, meeting and holding discussions with parents of under-achieving students
- Cooperating with colleagues and observing university policies so that the whole institution works effectively
- Tactfully, but firmly criticising unsatisfactory policies and proposing constructive improvement

Whereas many lecturers meet the above requirements, there are others who do not plan what is to be taught in advance, miss lectures, fail to report on duty daily, are drunk on duty, or demand money from students in exchange for marks, etc. Many times, lecturers and teachers have been accused of breaching the code of confidentiality by leaking examination papers or colluding with those who do so.

### ***LIS students***

The most obvious example of some library and information science (LIS) students violating LIS ethics is plagiarism. Some LIS students borrow words, sentences and even paragraphs from many sources without acknowledgement. This is especially common with assignments or projects submitted by students.

Further, some students have a habit of buying other students' work from secretarial bureaus around universities and pretend that it is their own work. The rules in universities are clear in this regard: once caught cheating or copying, such a student can be expelled. This does not, however, deter students from copying. Copying can be associated with a lack of confidence in producing individual work, a lack of skills to produce a good piece of work, or laziness. In some cases, there is the belief that "everyone does it, why not me?" For instance, at Makerere University, once students are given an assignment or project, they take the instructions to a nearby secretarial bureau and for a fee the bureau prepares the assignment. This is done at a fee payable to the person managing that particular bureau.

Another problem is photocopying, which has become a plague in the academic setting. Too much photocopying is seen these days compared

with years ago. This violates the ethical issues related to copyright. In some cases, almost the entire textbook is photocopied. Once students are reminded about infringing copyright, some will photocopy the book chapter by chapter until they have eventually photocopied the entire text.

### ***LIS students and computer crimes***

Though other key players in LIS have violated computer ethics, the major culprits appear to be students. The problem is not so much about the physical security of the hardware (protecting it from theft, fire, flooding, etc.), but rather "logical security". Spafford et al. (1989) divide logical security into five aspects:

- Privacy and confidentiality
- Integrity, ensuring that data and programmes are not modified without proper authority
- Unimpaired service
- Consistency, ensuring that the behaviour and the data we see today will be the same tomorrow
- Controlling access to resources

### ***Information professionals***

Other key players in information science ethics violations are librarians, or information professionals (IPs). Some of the ways in which they have done so are discussed below.

#### ***Concealment***

IPs have been observed to avoid giving frank negative feedback because they do not want to offend others. However, it should always be remembered that being dishonest is disrespectful. The key in this case would be to share negative information, or disagree with others, in ways that still communicate the facts. Besides, it is unethical to use one's position to bully others. Publicly criticising college staff, programmes and other trustees abrogates the responsibility to protect the assets of the university or college.

#### ***Influencing staff***

IPs have tended to influence staff by asking for favours. They may excuse behaviour that might not meet ethical standards because "no one will

be hurt". Using one's position to influence staff, to ask for special favours, perks or tip-offs, or to share confidential information may seem easy, but violates the ethic of trustworthiness and is never "harmless".

### *Acting in an irresponsible manner*

In some cases, IPs have acted in non-professional ways because they have observed others doing the same. Seeing others act in unethical ways is, however, no excuse to perpetuate unethical behaviour. Some organisational and group practices or systems may be so deep-rooted that they seem acceptable, even if they are ethically questionable. Ethical trustees will always evaluate their own and other's behaviour against the institution's information code of ethics.

### *Censorship and intellectual freedom*

Some IPs have been guilty of excluding from the collection materials to which they personally object. Some successfully pressurise schools to restrain children under certain ages from using certain materials. Abbott (1987) concurs: "Censorship can occur when materials are restricted to particular audiences, based on their age or other characteristics." For instance, groups of IPs may not want such materials to be sold in video stores, published, or displayed, for example, in art galleries.

According to Samek (2003), intellectual freedom is the right of every individual to both seek and receive information from all points of view without restriction. It provides for free access to all expressions of ideas through which any and all sides of a question, cause or movement may be explored. Many IPs have denied users freedom of access to information. There have been restrictions to information in the collection based on it being "trash", "immoral" or "biased". Restrictions not only apply to printed information, but have also extended to online information, to the extent of buying special software to filter information that is "unfit for consumption". Concerns have been raised about freedom of access to information. Samek (2003) states:

*Our citizens must be informed; intellectual freedom is the basis for our democratic society. Our people are self governors and to do so responsibly, our*

*citizenry must be able to access information to make well-informed decisions. Libraries must be dedicated to providing the ideas and information, in a variety of formats, to allow people to inform themselves. Intellectual freedom is the freedom to hold, receive and disseminate ideas.*

## **Conclusion**

IPs, lecturers, students and information workers have been identified as key players in the violation of information science ethics in Uganda in their diverse roles. As IPs continue to develop, they face new challenges in balancing the many roles demanded of them. We are called upon to develop and implement policies throughout the entire lifecycle of information.

Among the greatest challenges facing IPs in Uganda is the need to earn "ethics trust" from those to whom information is provided, and to expect IE from the organisations for which they work, and from themselves. Understanding our own sense of ethics, and calling upon that sense throughout all aspects of our work, is the greatest challenge we face.

## **Recommendations**

### ***Freedom of access to information***

Access to information is a welfare right. The issue of access to information as a welfare right requires IPs and information science institutions in Uganda to take positive steps to satisfy those rights.

According to Rawlsian theory (Rawls, 1971), people who are behind a veil of ignorance need access to information. In order for a society to make informed decisions and understand the consequences of social policies, the people must have access to the information for a democratic society to function effectively. This is a basic right in order to facilitate the decision-making process.

IPs in Uganda need to promote intellectual freedom for the welfare of our society. This includes government agencies and libraries collaborating to make the information accessible to everyone. According to Miller (1971), people need access to information and diverse perspectives to really understand a topic. The US Library Bill of Rights promotes free and equal access to everyone



regardless of their age, level of education, legal emancipation, or race. To accomplish the dissemination of so much information, access to information would have to be a welfare right in order to work effectively.

The library collections in Uganda should include a wide variety of topics, providing materials on both sides of an issue. As regards labelling areas of the library collection, librarians in Uganda need to be careful about censoring the content of materials through using biased labels. For labelling to organise materials in a way that would allow patrons to access a particular topic quickly, it must be kept unbiased. Correct and efficient labelling could save the patron the time of sorting through thousands of pieces of irrelevant information.

### ***Equal access to library use***

All IPs in Uganda should note that patrons should not be denied access to materials on whatever basis. Rawlsian theory would deny access only if disruptive behaviour is breaking the contract of the social system. By allowing a disruptive patron, others who are in the library are being denied fair equality, and a just society would not allow someone to harm others. Patrons who are uncomfortable around the disruptive patron may decide never to come back to the library. Therefore, this disruptive patron has limited others from using the library due to his or her presence. Rawlsian theory would choose to ban this person in order not to make the majority of the patrons comfortable.

### ***Privacy rights***

The responsibility of all IPs in Uganda should be to ethically facilitate, not monitor, access to information. This is according to the American Library Association's (ALA) interpretation of the Library Bill of Rights. Books and other library resources should be provided for the interest, information and enlightenment of all people of the community that the library serves. Materials should not be excluded because of their origin, background or the views of those contributing to their creation. The ALA's Library Bill of Rights continues:

*This commitment is implemented locally through*

*development, adoption, and adherence to privacy policies that are consistent with applicable federal, state, and local law. Everyone (paid or unpaid) who provides governance, administration, or service in libraries has a responsibility to maintain an environment respectful and protective of the privacy of all users. Users have the responsibility to respect each other's privacy. Anyone on the library staff who collects or accesses personally identifiable information in any format has a legal and ethical obligation to protect confidentiality.*

Libraries in Uganda should provide materials and information presenting all points of view on current and historical issues. Materials should not be proscribed or removed because of partisan or doctrinal disapproval.

IPs should also challenge censorship in the fulfilment of their responsibility to provide information and enlightenment. Libraries should co-operate with all persons and groups concerned with resisting abridgment of free expression and free access to ideas. A person's right to use a library should not be denied or abridged because of his or her origin, age, background or views.

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## Using information technology to create global classrooms: Benefits and ethical dilemmas

York W. Bradshaw, Johannes J. Britz, Theo J.D. Bothma & Coetzee Bester

*The global digital divide represents one of the most significant examples of international inequality. In North America and Western Europe, nearly 70% of citizens use the Internet on a regular basis, whereas in Africa less than 4% do so. Such inequality impacts business and trade, online education and libraries, telemedicine and health resources, and political information and e-government. In response, a group of educators and community leaders in South Africa and the United States have used various information technologies to create a “global classroom” that connects people in the two countries. University students, high school students and other citizens communicate via Internet exchanges, video conferencing and digital photo essays. The project has produced a number of tangible benefits and has developed a model for reducing inequality in global education, at least for those institutions with the technological resources to participate. We also present several recommendations for expanding the initiative and thereby increasing the number of people who can benefit from it.*

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## Introduction

Global inequality is an enduring reality, and nowhere is this more evident than when examining the global digital divide. Across Africa, for example, only 3.6% of the population use the Internet, well below the world average of 16.9%. At the upper end of the world system, 24 countries (primarily in North America and Europe) have Internet usage rates that exceed 60% and five countries have rates higher than 70% (Internet World Stats, 2007). This global digital divide impacts business and trade, online education and libraries, telemedicine and health resources, and political information and e-government.

Inequalities in information technology (IT) clearly represent an ethical issue (see Britz, 2007). The “wired” world has distinct advantages over the “unwired” world in terms of access to resources and opportunities. These advantages perpetuate global inequality and make it more difficult for the developing world to catch up. As discussed below, solutions to the global digital divide are extremely difficult to implement for a variety of reasons.

This chapter discusses an ongoing project that uses IT to facilitate greater equality in global education. More specifically, for more than five years, a group of university professors, secondary school teachers, government leaders and non-governmental organisation (NGO) leaders in South Africa and the US have formed a unique “global classroom” that facilitates international education and intercultural understanding. We discuss this project in substantial detail and then examine its implications for ethical issues related to development, equality and social justice.

## Theoretical issues

There is no question that IT has altered the world economy in many ways (see Sassen, 2006). International capital flows, global trade and the exchange of electronic information have changed the way that companies and individuals conduct business. Distance and place are becoming increasingly less important factors, as ITs facilitate connections between people and companies, regardless of their geographic location. The problem, of course, is that not everyone has access to these technological resources. Lack of

access to computers, the Internet and other forms of electronic information makes it virtually impossible for some countries – and their citizens – to participate fully in the global economy (Britz et al., 2006). Moreover, because information technology is associated with better health and overall quality of life, the many countries with low levels of IT are at a distinct disadvantage relative to economically developed nations (Bradshaw et al., 2005).

A number of scholars argue that information poverty is an ethical issue – a moral issue – precisely because it is correlated with other types of poverty (Capurro, 2000; Britz, 2004; Britz & Blignaut, 2001). Remedying the global digital divide is, according to this perspective, a matter of social justice. IT is part of the “formula” for developing poor regions, a process that is hampered by the fact that rich and powerful countries control the global information system.

Interestingly, this view is consistent with both the “cyber-optimist” and “cyber-pessimist” theories outlined by Pippa Norris in her book, *Digital divide: Civic engagement, information poverty, and the Internet worldwide* (2001). On the one hand, cyber-optimists assert that IT is a positive force in the world today, associated with economic growth, health, democracy and other features that typically characterise societal development. On the other hand, although cyber-pessimists do not disagree with these sentiments, they assert that rich countries maintain control over IT and ensure its unequal distribution globally. Thus, rich countries utilise IT for their own benefit, at the expense of poor countries.

Below, we discuss an innovative project that has the capacity to create greater equality of access to educational resources through the use of IT.

## Background

In October 2002, Johannes Britz attended a conference on “Ethics of electronic information” at the University of Memphis in the US. At the time, he was a Professor in the Department of Information Science at the University of Pretoria. One of his major research and teaching interests focused on information poverty as an issue of social justice. During the conference, Prof. Britz met York Bradshaw, Chair of the Department of Sociology at the University of Memphis. One of

Prof. Bradshaw's research and teaching interests examined the impact of IT on development and quality of life in poor countries. Over the next few months, Profs Britz and Bradshaw continued a dialogue that ultimately expressed a desire to initiate the following:

- Connect classes at the two universities through the use of IT.
- In the classes, examine the effects of IT on various social, political and cultural issues. An important question would be whether inequalities in access to IT are correlated with inequalities in development.
- Examine all of these inequalities in an ethical context. For example, "information poverty" represents an ethical challenge because it translates into a poorer quality of life in the developing world.

During January to March 2003, Profs Britz and Bradshaw began talking to colleagues about these issues. Prof. Britz enlisted the collaboration of Prof. Theo Bothma (Chair of Information Science at the University of Pretoria) and Mr Coetzee Bester (Executive Director of the Africa Institute of Leadership, Research and Development and a former Member of the South African Parliament). Prof. Bradshaw enlisted the collaboration of Dr Wanda Rushing, an Associate Professor of Sociology at the University of Memphis. The larger group began to work together to outline a curriculum for a course that would accomplish the objectives noted earlier.

The group decided to launch its first "global classroom" during September 2003. From May to August, the following was accomplished:

- Two courses were identified as the ideal for the new initiative, namely "Information and development" at the University of Pretoria (taught by Prof. Britz and Mr Coetzee Bester) and "Globalisation, culture, and information technology: Is 'place' still relevant?" (taught by Profs Bradshaw and Rushing).
- Profs Bradshaw and Rushing travelled to Pretoria to work with their South African colleagues on the course content and objectives. The group decided that the two classes would share about 60% of the overall course content. In other words, both sides would collaborate on 60% of the "global classroom" course and keep 40% of their courses separate. This was necessary because their respective academic calendars are different. The Pretoria courses

begin and end nearly a month before the Memphis courses do.

- Pretoria students enrolled in the "Information and development" course and paid local fees to the University of Pretoria, whereas students in Memphis enrolled in the "Globalisation" course and paid local fees to the University of Memphis.
- The faculty members worked out common readings (for the 60% of the course that would be shared), course assignments and assessment guides. The group also decided on a web design for the course, which was hosted at the University of Memphis. All students from both universities who were enrolled in the global classroom course were given full access to the course website. Because WebCT was widely used on both campuses, it was selected as the course platform.

After ten months of dialogue and about six months of intensive planning and curriculum development, the Universities of Pretoria and Memphis were ready to launch their first truly global classroom initiative.

### Early lessons learnt

Even before the course officially commenced, we had already learnt several valuable lessons that have endured through the years. We consider these issues a "must" for a successful global classroom experience that relies heavily on modern technology:

- Both sides should have at least one "champion" who will "sell" the course to colleagues and upper-level administrators; collaborate with others to work out details for the course (including all substantive, logistical and technical issues); and troubleshoot when challenges occur (and they will!). Profs Britz and Bradshaw served this role in the beginning.
- The "champions" must have the support of key administrators to accomplish course and programme objectives. Administrators can provide crucial resources and support, and they can open doors (or close them!) when troubles emerge. Prof. Britz had the strong support of his department chair (Prof. Bothma), who enlisted the support of his dean. As chair of his department, Prof. Bradshaw enlisted the support of his dean. Great ideas, strong "champions" and excellent adminis-

trative support are “musts” when organising global classroom experiences.

- Although champions are vital, team effort is important, especially as the project continues. Each side needs its own team and the respective teams need to work with each other to function as a “global team”. The teams need not be large, but they do need to have clear objectives and work well together. We have already discussed how the teams worked together to plan the course and develop the curriculum.
- Part of the team effort includes strong support from the IT departments at both institutions. Equipment between institutions must be compatible and the “academic” part of the course must be coordinated with relevant “technical” issues. For example, if part of the course is Internet based, several questions must be answered. For instance, what platform will be used – WebCT, Blackboard, or something else? Which institution will host the site? Who will design the website? Who will upload photographs and other materials that might be used? And, if part of the course utilises video conferencing, several additional issues need to be addressed: Does each institution have an adequate video conferencing facility? What type of connection can the institutions make (ISDN, IP, etc.)? Can the institutions work around the large time differences in the two locations? Who will pay for ISDN connections, which are expensive?

### **First global classroom: University of Pretoria and University of Memphis**

The global classroom course occurred primarily in September and October 2003. For two weeks, students focused on various theoretical issues related to the effects of IT on development. For four weeks, students examined whether “place” (i.e. local history and culture) still matters in an increasingly global society. And for two weeks, they studied ways to increase IT around the world, especially in countries that lack adequate resources.

A major part of the course not only studied information technology, but also used IT to connect the students across nearly 8 500 miles. Throughout the course, two different asynchronous discussion rooms were available. One

was an “open chat room”, where students could talk about virtually any topic. Most of the discussion revolved around non-course material, such as popular music in South Africa and the US, sports, leisure activities, types of parties that the students attended, and so on. The other discussion room focused on the video conferences that were a vital part of the course. Prior to the video conferences, one or more of the instructors would post a set of questions or a short lecture that outlined the main issues pertaining to the conference. Following the video conference, the students continued their discussion online. There discussions were frequently more intense than the actual video conferences and lasted for several days – sometimes longer!

An interesting example of inequality of access to IT emerged early in the course. The Memphis students sent frequent messages to their colleagues in Pretoria, and it was often several days before they received a response from most of them. This frustrated the Memphis students, who initially saw this to be a sign of apathy on behalf of the Pretoria students. But, as they would soon learn, this conclusion was incorrect. During a video conference, the instructors asked: “How many of you have a computer at home that is connected to the Internet?” The hands of more than 70% of the Memphis students went up, but fewer than 20% of the Pretoria students.<sup>1</sup> To communicate with their counterparts, students in Pretoria had two options – either go to an Internet café and pay for a connection (which is not feasible for many students who are on a tight budget), or send messages from a campus computer lab during class time. Recognising the challenge, Prof. Britz and Mr Bester gave students an opportunity to respond during regular class time. The computer labs were over-subscribed and therefore students were seldom able to use the labs outside of class time.

Although students enjoyed communicating via the Internet, it paled in comparison to the popularity of the live interactive video conferences. Four times during the course (about every two weeks), the students would talk to each other for 75+ minutes on a wide range of topics

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<sup>1</sup> Fortunately, in 2007, the instructors conducted a similar poll, and nearly 80% of hands in both classes were raised.

associated with the course.<sup>2</sup> The instructors would determine the primary topic well before the video conference and would post a question or two on the discussion board in advance.

Each video conference also began with a short "lecture" of about 10 minutes by one of the faculty members. The first video conference addressed the theoretical issue, "Are you a 'cyber-optimist' or a 'cyber-pessimist' (i.e. is IT good for the world, or not)? The second video conference examined the role of "place", seen in global perspective. The third looked at the effects of IT on health, education and overall quality of life. The fourth focused on possible solutions to the global digital divide.

Prior to the video conference, it was very important for instructors on both sides to have their students thoroughly prepared for the day's theme. Students needed an understanding of the content as well as the technology being utilised. For example, we talked about the different technologies that can connect video conference partners (ISDN, IP, etc.), along with the pros and cons of each approach. If students are not prepared for such technology, they may "freeze" due to the "wow factor" that video conferencing brings to first-time users, who are often surprised by the real-time reality of the experience.

Following the short lecture that started each conference, the faculty member would normally ask an initial question (or questions), to which each side would respond. The faculty member on the other side would then have the opportunity to respond and ask a question (or questions), to which each side would again respond. Once the discussions begin, it is essential to have good leaders on both sides. The leaders must work together to give both sides an equal opportunity to speak, and they must take advantage of the impromptu topics that enrich the discussion. They must also allow students to ask each other questions, which can lead to very interesting discussions.

A particularly valuable and moving segment occurred during the final 20–25 minutes of the last video conference. All the students were given an opportunity to express their sentiments about

what the video conferences meant to them. Students on both sides said that the conferences had opened their eyes, reduced stereotypes (such as "Americans are all rich and arrogant" and "South Africans are unsophisticated and live in the bush"), enhanced intercultural understanding and made them much more interested in visiting each other's country.

Moreover, and importantly, the course "forced" each side to look more intensively at its own challenges. For instance, upon learning more about apartheid and race relations in South Africa, the Memphis students observed (primarily during private class sessions) that Memphis still suffers from some of the same challenges. Racial tension is very real in Memphis, a reality associated with history, poverty and violence. One Memphis student commented, "We still have our own apartheid right here", whereas other students disagreed with this view. The point is that the video conferences prompted an excellent discussion of race relations in the "other place".

In addition to video conferences and Internet discussions, the students used one other form of IT to work together. Specifically, for their final assignment, they completed a photo essay that required good-quality digital photographs. The classes were divided into five "global teams", each of which had students from the University of Pretoria and the University of Memphis. Each team decided what topic it wanted to investigate – a task accomplished through intense email negotiations! The Pretoria students then took relevant photographs in the Pretoria region and the Memphis students took photographs in Tennessee. The photos were exchanged over the Internet and each student was required to write his or her own essay from the topics. Topics included "The fight against HIV and AIDS", "Providing healthcare to poor communities", "The role of religion in society", "International cuisine as an expression of culture" and "Popular culture and society".

In conclusion, students were assigned a grade (or mark) for each section of the global course (Internet discussions, video conference participation, and photo essay). The Memphis students were graded only by their instructor (Profs Bradshaw or Rushing) and the Pretoria students were graded only by their instructors (Prof. Britz and Mr Bester). Although instructors from both sides

<sup>2</sup> At that time, the connections were made via an ISDN connection that cost about US\$500 per conference – the two universities split the costs.

shared comments about the students' overall performance, there was never a desire for one side to grade the other side's students.

### **Broadening the scope: Subsequent global classrooms**

Following the success of the initial global classroom, the project has been repeated and expanded in three ways.

#### ***Continued projects***

First, the global classroom concept has continued at the University of Pretoria and the University of South Carolina Upstate (USC Upstate). Mr Coetzee Bester assumed primary responsibility for the course at the University of Pretoria (after Prof. Britz moved to the University of Wisconsin-Milwaukee) and Prof. Bradshaw assumed primary responsibility for the course at USC Upstate (when he moved there). The two universities held a global classroom in September–October 2005 and again in September–October 2006. Although the topics and themes have changed slightly since the initial course in 2003, the overall organisation and format have remained the same. Moreover, the same information technologies (Internet discussions, video conferences and digital photography) have been utilised in all three courses.

Interestingly, the global digital divide made the video conferences more challenging over time. As mentioned earlier, ISDN connections were used during the initial global classroom project in 2003. Both sides utilised this technology. In recent years, however, most US universities (including USC Upstate) have moved away from ISDN technology because it is usually not needed – instead, IP connections are the norm and are essentially free! Unfortunately, however, IP connections are problematic when, as in the case of the University of Pretoria, there is insufficient broadband capability to utilise this technology. Thus, the only way the University of Pretoria and USC Upstate could establish reliable interaction was for the former to utilise an ISDN connection to a “bridge” that converted the transmission and made an IP connection with USC Upstate possible. The University of Pretoria normally used a bridge in the Netherlands, and the cost of a 90-

minute video conference typically came to about US\$385. In other words, lack of broadband capability was financially costly to the University of Pretoria.

### ***Participation by high schools***

Second, and very exciting, the global classroom has moved successfully to the high school level. For several months in 2006, USC Upstate worked closely with both the Pretoria High School for Girls and Spartanburg High School to initiate a very successful project that has run much of the 2006–2007 academic year. Since October 2006, the two schools have engaged in three video conferences and exchanged more than a dozen photo essays. The three topics investigated thus far are: “Is information technology a positive force in the world?”; “Is popular culture uniting the world?” and “War: when (if ever) is it justified?” The students have also exchanged hundreds of emails over a dedicated discussion board on WebCT.

By all accounts, the global classroom for high school students has been enormously successful. The students have taken the project very seriously and participated at an impressive level. The successful interaction also resulted in an invitation to the headmistress of the Pretoria High School for Girls to participate in an international conference in Spartanburg, South Carolina in March 2007, as well as an invitation for two students and a teacher from the Pretoria High School for Girls to attend a Youth Leadership Institute on the USC Upstate campus in June 2007. Moreover, an exchange programme from USC Upstate would visit the school in Pretoria in June 2007.

It is important to point out that global classrooms at high school level face special challenges, most of which ultimately relate to issues of equality and ethics. We mention a few here:

- High schools normally do not have video conferencing facilities or software packages like WebCT. Thus, they must partner with institutions that do, or pay substantial rental fees. In the case of our high school global classroom, the Pretoria students used the video conferencing facilities at the University of Pretoria and the Spartanburg students used the facilities at USC Upstate. A grant awarded to USC Upstate from the US Department of



Housing and Urban Development covered the costs associated with the video conference. Moreover, USC Upstate hosted the WebCT site for the global classroom, and students at both high schools were given passwords to the site, which could be accessed at no charge.

- High schools also need partners who bring expertise in technology and curriculum issues. In this case, the two high schools had extensive assistance from both USC Upstate and the University of Pretoria on such issues. Prof. Bradshaw coordinated the effort at USC Upstate and Prof. Theo Bothma provided crucial support at the University of Pretoria. All the lessons learnt in the university-level global classrooms were applied to the high school classrooms.
- Although external support is important, nothing is more important than having committed teachers and administrators in the high schools. Just as with global classrooms at the university level, both sides must have at least one “champion” who will advocate for the project at all times. They need to be outstanding teachers who have the support of their respective administrators and who can work well with people at different institutions. Ms Janis Haynes (Social Studies teacher at Spartanburg High School) and Ms Jeanne Cyrus (English teacher and debate coach at the Pretoria High School for Girls) were true champions of the global classroom – and kept it going at all times. They also had strong support from the principals at each institution.

In the end, global classrooms will need human, capital and technological resources to succeed. Schools in poor areas will have difficulty in securing access to such resources.

### ***Occasional conferences***

Third, in addition to formal classrooms, the global classroom concept can be used for occasional events. For example, in October 2005, we used video conferencing at an international conference held on the USC Upstate campus titled, “Using information technology to globalise the curriculum”. During a session at the conference, a panel of South African experts (led by Mr Coetzee Bester) talked via interactive video with conference participants about a number of social, political and economic factors influencing

South Africa. The panel broadcast from the video conferencing facilities at the University of Pretoria. And, in June 2007, 50 high school students at a Summer Youth Leadership Institute on the USC Upstate campus would hold a video conference with youth leaders in South Africa, again using the facilities of the University of Pretoria and USC Upstate.

### **Conclusion and recommendations**

Based on case studies, this chapter has discussed the use of global classrooms at the university and high school levels. In our view, the success of these international initiatives is due to two common characteristics:

- They rely on committed and well-trained professionals who know how to create and sustain such projects.
- They possess the financial and technological resources to make the projects possible.

Unfortunately, there are relatively few institutions across Africa and the rest of the developing world that have the resource capacity to launch similar initiatives. The impediments to widespread use of these global classrooms are related to issues of inequality. On the positive side, however, this also means that global classroom initiatives could be much more prevalent if several key constraints are overcome. We put forward three recommendations here.

First, teachers in the developing world (and, for that matter, the economically developed world) need intensive training in how to incorporate information and communication technology into the classroom. Although the acquisition of new computers, new servers and new satellite hook-ups would be a positive step, they are not particularly useful without trained teachers who can use them in an effective and creative manner. It is not just a matter of understanding the technical use of equipment; instead, it is about devising a curriculum that incorporates the new technology in a creative learning environment.

Training programmes for teachers need to include several components:

- Teachers need intensive training over several weeks at institutions that have innovative programmes in the area of teaching with technology. It would be an invaluable opportunity for teachers to see the programmes in action;

receive instruction in relevant pedagogical and technical issues; talk to students and instructors; and build networks that will serve them well into the future. These training opportunities could take place at a venue anywhere in the world with the requisite facilities and programmes.

- “Onsite” training is also important. Visits by teachers and technology experts to schools with new technology would also be valuable. It would enable teams of educators from the local school and from outside the local school to work together on a variety of issues.
- Online resources are also a crucial part of (continuous) training for educators throughout the world. Good online resources can be used for “basic” training in technology and curriculum issues, and also for a wide variety of ongoing “advanced” discussions. Sophisticated discussion boards on teaching with technology, incorporating indigenous knowledge in a digital age and a myriad other topics would be an outstanding resource for teachers in all regions of the world.

Second, institutions in the developing world need access to computers, servers, video conferencing equipment and other electronic resources. It follows that if they acquire these resources, they need assistance maintaining them. The value of many donations of equipment has eroded over time because little or no provision was made for maintaining and repairing the equipment. Moreover, as was already mentioned, the lack of broadband access remains a difficulty that slows connectivity and increases the cost of doing business. Greater resources, combined with well-trained “human capital”, would go a long way towards resolving some of Africa’s most intractable IT challenges.

It would be enormously beneficial if international and regional actors could provide the human, financial and technological resources to help local actors develop creative solutions to the digital divide. In Africa, for example, the New Partnership for Africa’s Development (NEPAD) has launched a very exciting “e-schools” initiative designed to connect 600 000 schools across the continent through IT. NEPAD has already supplied many schools with computers, satellite hook-ups, television monitors and video conferencing equipment. The challenges ahead are the following:

- To provide the necessary resources in order to maintain the equipment and train technicians to repair it
- To train teachers how to use the equipment and, perhaps most importantly, to integrate technology into the classroom in an effective manner

Third, partnerships are essential in building global classrooms. Partnerships expand human, capital and technological resources. In our case, the relationships among the universities and the high schools (and the key players at each institution) made possible a unique global learning experience. It is also important to point out that some partnerships did not work out along the way. This project attempted to recruit several other institutions and, for various reasons, they opted not to be a part of the initiative. Several expressed great interest initially but then, when hard work and resources were required, they dropped out. This again underscores our primary argument that global classrooms are extremely valuable and require great commitment on the part of all partners.

Global inequality has maintained a serious digital divide that places developing countries at a distinct disadvantage. Addressing this inequality is a matter of ethics and social justice, precisely because information poverty maintains other types of poverty. We hope that our initiatives will play a small role in reducing poverty.

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## Co-production on the Web: Social software as a means of collaborative value creation in Web-based infrastructures

Tassilo Pellegrini

*The concept of co-production was originally introduced by political science to explain citizen participation in the provision of public goods. The concept was quickly adopted in business research targeting the question how users could be voluntarily integrated into industrial production settings to improve the development of goods and services on an honorary basis. With the emergence of the social software and Web-based collaborative infrastructures the concept of co-production gains importance as a theoretical framework for the collaborative production of Web content and services. This chapter argues that co-production is a powerful concept, which helps to explain the emergence of user-generated content and the partial transformation of orthodox business models in the content industries. Applying the concept of co-production to developmental policies could help to theorise and derive new models of including underprivileged user groups and communities in collaborative value creation on the Web for the mutual benefit of service providers and users.*

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## Introduction

While from its early days the Internet has been a place of social interaction (Rheingold, 1993), the increasing spread of Internet connections and improvements in the usability of (mobile) Web applications have lowered the participatory barriers for users to engage actively in virtual communities and the production of Web content. The tremendous success of Wikipedia as a communitarian project of high-quality content provision, the increasing popularity of blogging as a low-cost, personalised editorial activity and the rising importance of tagging platforms as referential architecture for the approval of relevance and quality have raised attention to how user-generated content (UGC) is affecting and altering orthodox business models in content industries.

Media companies – especially aggregators – but also public organisations have already begun to take advantage of the increasing availability of UGC on the Internet for various reasons, either by establishing their own collaborative platforms or by taking over established service providers. With the growing amount of UGC available, increasing attention is being paid to the question of how collaborative action on the Web can be used for value creation, while taking into account that service providers and users share production resources and facilities in a manner of enterprise collaboration for mutual benefit.

## Web collaboration as a means of co-production

Theories of co-production have originated from public policy research. According to Ostrom (1996:1073):

*Co-production is a process through which inputs from individuals who are not in the same organization are transformed into goods and services [...] that transform citizens into safer, better educated or healthier persons.*

Co-production implies that users (i.e. citizens) can play an active role in producing (public) goods and services of consequence to them. According to Incera et al. (2005:3), collaboration can be defined as a state of mutually beneficial relationships between two or more parties who work towards common goals by sharing

responsibility, authority and accountability for achieving results. Hence collaboration can be seen as a specific mode of co-production to improve structural deficiencies in production settings and value chains.

Empirical investigation in the development of open source software has revealed that co-production accounts for about €1.2 billion for freely available software, which leads to 36% in savings in corporate research and development per year, compared with conventional ways of software development in Europe (Ghosh, 2006).

Research in media economics has shown that co-production is used as an efficient means to shift the costs of content production from the service provider to the user (Hess, 2004). For example, the Japanese mobile mail magazine market is almost entirely built on the honorary engagement of users in the production and continuous provision of media content (Funk, 2004).

Research in human computing has focused on the improvement of collaborative infrastructures for value creation in service provision, such as the semantic enrichment of images through collaborative tagging (Golder & Huberman, 2006; Von Ahn & Dabbish, 2004). The trend towards using open access repositories (e.g. Wikipedia) to collect, organise and make available highly dispersed amounts of data in special interest domains characterises another field of application based on the principle of co-production (Winterbottom & North, 2007).

Over the past few years, microeconomic theory has increasingly paid attention to the role of the user in creating value in the innovation lifecycle by the application of cyber-infrastructure (Hsu, 2006; Leadbeater, 2006; Fichter, 2005; Franke & Piller, 2004). Widespread cyber-infrastructure like the Web are a necessary (but not sufficient) precondition to achieve economy of scale in co-production communities, where the users share production resources and facilities with the providers, in a manner of enterprise collaboration (Hsu, 2006).

Co-production has to be conceptualised as a two-level infrastructure consisting of the following (Ostrom, 1996):

- A (top-down) service provider, who provides the stable running, toolkits and marketing of content services
- A (bottom-up) content producer who adopts

the infrastructure to provide creative work in exchange for improvements in services, reputation, visibility, self-esteem, fun, etc. and tries to avoid underutilisation of knowledge, skills and time.

Service providers profit from the selective integration of users along the product lifecycle, which can significantly improve the overall production process (Fichter, 2005), leading to lower transaction costs in information provision and search, and accumulating a critical mass of data for service development, provision and the reduction of cycle times (Hsu, 2006). To enable and govern co-production sufficiently, however, service providers have to establish adequate remuneration and incentive models to encourage participation, promote trust and secure quality standards.

### Foundations of user-generated content

Wikipedia (n.d.) defines UGC as “various kinds of media content that are produced or primarily influenced by end-users, as opposed to traditional media producers, licensed broadcasters and production companies”. UGC production embraces activities such as publishing, commenting, referencing, reviewing, rating, syndicating, tagging and querying.

UGC emerges from a microcontent-based, self-organising infrastructure. It is being embedded within an “architecture of participation” based on the principles of bottom-up networks, self-service, openness, self-regulation and decentralisation (O’Reilly, 2005). In monetary terms, tools and services are cheaply available and cost-effective, being designed not just for the production of content, but also for the management of relationships and shared resources.

UGC embraces first-order editorial content and second-order meta-content, which makes it applicable for re-use outside the context in which it has been created. Tags and folksonomies are examples of meta-content that is being used to generate surplus statements, views and references in a domain. Semantic enrichment through second-order content therefore is a crucial, indispensable means in the improvement of content services.

According to media economics, goods that are being traded on a market can be characterised by

their excludability from use and their rivalry in consumption (Kiefer, 2001). By applying these two dimensions to UGC, the matrix shown below can be drawn. The matrix indicates that although media content can have several good characteristics, it is best described as a “club good”, characterised by non-rivalry in consumption but excludability in use. The latter aspect might be intriguing to those who think of Web content as a public good because of its free availability in terms of monetary costs.

		Rivalry	
		Yes	No
Excludability	Yes	Private goods (i.e. universal resource identifiers)	Club goods (i.e. blogs, tags, mash-ups, folksonomies)
	No	Common pool goods (e.g. air, water, space) – not relevant to UGC	Public goods (open access repositories, such as Wikipedia)

However, taking into account that the use of Web content is bound to production resources such as hardware, software, Internet connections, skills and time, and the usage of the content is frequently bound to conditions of use, such as access fees, referencing, revealing personal data, agreeing to user tacking and profiling, and/or exposure to advertisements, we find an exchange pattern between service provider and content producer that makes the club good paradigm applicable.

### Examples: collaborative tagging in ESP Game, Peekaboom and Phetch

The following section introduces applications that have been developed by Carnegie Mellon University School of Computer Science. The examples illustrate some low-level approaches incorporating the idea of co-production for the semantic enrichment of images on the Web by collaborative tagging. The empirical set-up takes into account the fact that certain improvements in quality of service are hard to achieve by machines, but easy to handle by humans. Hence the human being is seen as an extension of the computing system.

According to Heymann (2006), collaborative tagging systems are:

*... a good way to leverage large numbers of users to help organize very large, rapidly changing corpora which would be difficult to organize automatically. Often, this works because users are working in their own self interest as they mark an object with a particular tag, and when all of these tags are aggregated together, the system can make assumptions about objects based on the aggregate activities of hundreds of thousands or even millions of users.*

The basic idea behind the following applications was to let users do the semantic enrichment of images in their spare time by playing it as a game. According to Von Ahn & Dabbish (2004), 5 000 people continuously playing the game could assign a label to all images indexed by Google in 31 days. In the game, two or more anonymous players form a team to contest against time and higher scoreholders in labelling pictures, locating objects in them and phrasing their content.

### **ESP Game**

ESP Game (<http://www.espgame.org>) is a Java application for collaborative tagging of images. A team of two randomly chosen anonymous players come together for a limited amount of time to describe images by using tags. For each matching tag, both players collect grants that are added to their individual score. The purpose of the game is to improve image search by collecting annotation data on a lexical level based on a quota model. Only those tags that pass certain quota criteria are stored as legitimate annotations of an image.

### **Peekaboom**

Peekaboom (<http://www.peekaboom.org>) is a Java application used to identify the location of an object within an image. Peekaboom is an extension of ESP Game, as it deepens the semantic enrichment of images from a lexical level to a spatial description of objects located within the image. Two randomly chosen anonymous players take turns at either presenting an object in an image or guessing what the object could be. The first player gets an image along with a word related to the image (i.e. cow). By clicking on certain parts of the image the first player reveals

little portions of the image to the second player. For the second player the game consists of a slowly revealing image, which has to be named. Once the second player has guessed the correct word, the players move on to the next image and switch roles.

### **Phetch**

Phetch (<http://www.peekaboom.org/phetch/>) addresses the accessibility problems that visually impaired people have with images. It was designed to produce descriptive captions of an image so that screen readers – programmes that convert the text of a webpage into synthesised speech – are capable to process the content of the image and visually impaired people can share a common experience of the Web.

Phetch is a game played by 3–5 people who generate explanatory phrases for images from the Web. The players are randomly grouped with others. One player is chosen as a describer and the others are the seekers. The describer gets an image and has to help seekers find it in a given corpus by typing search strings related to the captions. Given only text from the describer, the seekers must find the image using a search query that presents them with a collection of possibly matching images. The first seeker to find the correct picture wins and becomes the next describer. Each session of the game lasts 5 minutes, during which all players should go through as many images as possible.

### **Remuneration models in collaborative environments**

The examples described above illustrate how gaming can be applied to set up a remuneration model between service providers and content producers. Users experience fun in competing against time and higher scoreholders by contributing to the qualitative improvement of the service. To secure quality of service, anonymity and knowledge about motivational aspects are crucial, as trust and positive feedback (e.g. satisfaction, pleasure) are indispensable factors in this specific co-production setting (Lieberman et al., 2007). Nevertheless, in the case of collaborative tagging to extend the level of productivity beyond mere entertainment, more elaborate remuneration models are required.

### **Virtual currencies**

Elaborate remuneration models take into account that increases in productivity can be achieved through coupling voluntary engagement with material rewards.

With Second Life (<http://www.secondlife.com>), the co-production architecture is built in a way that rewards users with the possibility to capitalise on their engagement by developing services on their own. The precondition to this is the establishment of a market based on a virtual currency (the "Linden Dollar") that enables surplus transactions between service providers and content producers. The coupling of the virtual currency to "real-world" financial transactions by stable exchange rates deepens the remuneration value users acquire by participating in the co-production setting and promotes productivity.

Second Life provides a hierarchical, multi-level remuneration model incorporating the infrastructure providers (Linden Labs) at the top with various service providers down the taxonomic functionality of the game. In addition, Second Life theoretically enables its users to switch between various roles, thereby taking full advantage of either being a service provider or a content producer.

### **Bonus systems for collaborative content production – a scenario**

Bonus systems – here defined as the deliberate rewarding of positive feedback – could be a powerful means to encourage UGC and participation in co-production settings. In the case of collaborative tagging, scores acquired through a game or any other form of mutually positive interaction could be assigned material value for exchange and trade outside the production setting. The score could be transformed into a virtual currency that is mutually accepted by service providers to grant access to surplus goods and services, such as premium services, personalisation, discounts, downloads, etc.

To enable market conditions, the currency must be accepted among various service providers from a business Web transcending the validity of the virtual currency into "real-world settings" by offering material exchange. Rewarding models based on bonus systems could promote the

spread of cyber-infrastructures by giving users the possibility of gaining material rewards through collaborative engagement and, simultaneously, of acquiring literacy and skills in the use of advanced Web technologies. Bonus systems could also be seen as a metric for productivity in co-production settings, which is a necessary precondition for allowing the evaluation of user participation and centrality in a given domain or community.

### **Conclusion**

Co-production is a powerful concept. Transformations will take place along various dimensions, including the modes of production (i.e. from design to co-design), the relationship between producers and consumers (i.e. from consumer to prosumer), and possibly even the socioeconomic conditions in industrialised societies (i.e. from disintegrated to reintegrated value chains) (Weber & Fröschl, 2006).

To benefit from co-production from a service provider's perspective means to incorporate it at the right level at the right scale and scope, based on trust and mutual benefit. To benefit from co-production from a user's perspective means to ensure that one's creative work does not get harvested without one's permission by at least claiming fair remuneration and privacy, ideally based on a social contract. In a co-production environment, however, content producers have to take account of the fact that, due to structural reasons, corporate actors are in a more privileged position when it comes to exercising power and enforcing legal rights. Hence, the individual user is in a much weaker position under co-production circumstances than the corporate actor. This unequal distribution of power might be one of the hampering effects in the deployment of co-production concepts and should therefore receive close attention.

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## Challenges and opportunities in the protection and preservation of indigenous knowledge in Africa

Jangawe Msuya

*This chapter presents challenges and opportunities in the protection and preservation of indigenous knowledge (IK) in Africa. Specific examples have been taken from the Maasai pastoralists and the Sambia and Zigua traditional medicine men of North-eastern Tanzania. The chapter argues that there is a threat of IK extinction due to lack of recording and problems associated with preservation and protection of the knowledge from pirates. Examples of efforts made by Tanzania in IK preservation, including efforts by the Economic and Social Research Foundation in developing IK database and training initiatives at the University of Dar es Salaam, are discussed. Ethical issues in IK systems are also discussed, with emphasis on returning IK benefits to the owners of the knowledge, and involving people in IK research. Finally, the chapter highlights challenges in IK prevention and suggests measures that can be taken to alleviate them. These include, among other things, developing appropriate IK policies and practices, establishing IK resource centres, offering training, doing research and developing South-South IK networks.*

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## Introduction

Indigenous knowledge (IK) can be defined as a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments and an intimate understanding of the environment in a given culture (Rajasakeran & Arren, 1992). IK can be seen as local or traditional knowledge that is unique to every culture or society. This knowledge influences planning as well as decision making in local areas.

IK is regarded as a problem-solving mechanism for rural communities. It is recognised as having relevance to the daily life of most individuals, economic development, culture preservation and political transformation, which leads to poverty reduction. IK plays a substantive part in the eradication of poverty among communities in different parts of Africa. The knowledge is implicit and thus difficult to systemise. It is embedded in community practices, institutions, relationships and rituals.

IK is effective in helping to access the poor with information as, in most cases, it is the only information they control and certainly the one with which they are familiar. When they are empowered with IK, they can use it to solve critical problems. IK is said to be as old as the human race itself. Johnson (1992) identifies the following characteristic features of IK:

- It is locally bound, i.e. indigenous to a specific area.
- It is culture and context specific.
- It is non-formal knowledge.
- It is orally transmitted and generally not documented.
- It is dynamic and adaptive, not static, changing as the society changes socially, economically, culturally, etc.
- It is holistic in nature.
- It is closely related to the survival and subsistence of many people worldwide.
- It belongs to the community – the knowledge is communally owned.

Based on the above, it can be concluded that IK is scientific in the sense that it is obtained through many years of practising and practising, and therefore provides scientific solutions to problems that communities are facing. IK belongs to the particular community; it is there for helping

to solve people's problems and is to be shared communally. Those who possess the knowledge possess it on behalf of the community. IK is meant to benefit all the people in the community.

## IK practices in Tanzania

### *The Maasai of Northern Tanzania*

The Maasai people of Northern Tanzania are pastoralists. They interact directly with the environment from childhood. In this way, they have acquired a great deal of knowledge on their environment. They have ensured that the knowledge on physical resources is used sustainably.

For instance, their strategy of mobile grazing allows their animals to utilise a wide variety of forage vegetation types that are dispersed in the wild. This practice increases seasonal grazing and the carrying capacity of the land. Through their intimate association with the natural grasslands, Maasai pastoralists are familiar with every plant in their rangelands and pastures. They can describe the palatability of each plant for the different animals they keep, and they know each plant's seasonality, nutrition value, toxicity and medicinal properties.

The pastoralists have knowledge and experience of supplementing their animals' diet with minerals, which not only provides resistance to disease, but also enhances their appetite, growth, fertility and milk production. The Maasai are fully aware of the migration pattern for effective land use and conservation. This is an example of true indigenous knowledge that belongs to the community for the community.

### *The traditional medicine men of North-eastern Tanzania*

In the North-eastern part of Tanzania lives the Sambia and Zigua people. These communities are well known for their traditional medicine. They have cured people from wounds, stomach pain, tropical diseases such as malaria, etc. through the use of herbs and other traditional means. The knowledge is said to be transmitted among family members from one generation to the next. The father in the family works very closely with the eldest son, who then does the same and carries over the skills to his eldest son.

The same is done by the mother, who passes on the knowledge to her eldest daughter. This knowledge has all the characteristics of IK outlined above. Some women have even specialised in assisting women in labour.

This knowledge is, however, threatened as formal schooling takes over. As children go to school, the potential successor has a choice between abandoning Western education and being a traditional medicine man, or joining a modern medical school towards a formal career. This is the dilemma facing sons and daughters of the Sambia and Zigua medicine men and women.

### **Current issues in the management of IK in Africa**

There are pertinent issues with regard to the management of IK systems in Africa. One of them is the threat of extinction of IK. As mentioned, most IK practices have not been recorded in written form. The knowledge is transmitted orally from one generation to the next. In this way, IK easily faces extinction due to a lack of recording.

Among the leading reasons for the possible extinction of IK is that the focus has been on IK that has a direct cash value, thus ignoring the “non-cash” knowledge. For example, attempts have been made to research and document medicinal plants, as such initiatives lead to the discovery of substances that can be used by large pharmaceutical industries to develop medicines. On the other hand, not much has been done in areas such as traditional dances, rituals and languages, as they do not contribute directly to economic productivity. The main area of concern for IK systems in Africa, therefore, is how they should be preserved. What measures need to be taken to ensure preservation of the knowledge so that it is transmitted from generation to generation?

Lack of written memory on IK has also led to its marginalisation. IK is usually not documented; it is orally transmitted, as we have seen in the case of the Maasai pastoralists and the Sambia and Zigua medicine men of Tanzania. The new generation, who spend most of their time in formal education, are exposed more to Western education systems and less to IK. As such, there is little appreciation of the existence of IK. Africa

has largely been unable to document its IK so as to protect and prevent it from becoming extinct or from being pirated.

It should be noted that there is less appreciation of IK today than there used to be in the past. Western-based knowledge has taken over in the education system. Anyone practising IK as a means to obtain solutions, such as for medical problems, is looked down upon as outdated and primitive. Western medical technology has taken over. The issue, therefore, is how to ensure that IK is integrated into the global knowledge system for its survival.

There is also concern about the need to take stock of what IK can be found in Africa. For example, the following needs to be addressed:

- What kind of IK exists in different parts of Africa?
- Where is it? If someone wants particular knowledge, where can he or she get it from?
- Who owns the knowledge or has to be consulted to access it?
- Under what conditions is the knowledge accessible? In other words, what intellectual property rights exist in getting access to the knowledge?

### **Protection and preservation of IK in Africa**

#### ***Protection versus promotion of IK***

It is common knowledge that Africa is very rich in IK. The issue of protecting the knowledge is a topical one. There is, however, a debate on the promotion and development of existing IK. Which of the two should be given priority? Should Africa first put more emphasis on the protection of what is currently there, or should it first promote the IK for wider awareness?

During the conference on African Information Ethics held in Pretoria, South Africa, in February 2007, IK panel members deliberated on the issue of promotion versus protection of IK, and which should be given priority. The discussion was very stimulating and, in the end, it was agreed that Africa should focus on promoting IK, particularly in the areas of medicinal plants, game reserves, the environment, etc., and add value to the knowledge as a prerequisite for its protection. Whereas protection was acknowledged to be important, the argument was that IK

should be made known widely through promotion, after which the next stage is protection. Protection before promotion was seen to be an inward-looking approach. Other members of the panel, however, were of the opinion that both should be done simultaneously.

### ***Preservation and protection of IK in Tanzania through the ESRF database***

Several efforts have been made in Tanzania with regard to the protection and preservation of IK. One of these is the Tanzania Development Gateway database of the Economic and Social Research Foundation (ESRF).

ESRF is a non-governmental organisation (NGO) in Tanzania whose main objective is to build and strengthen human and institutional capabilities in economic and social policy analysis and decision making, and to enhance understanding of policy options within the government, donor community and in the growing non-governmental sector in Tanzania.

ESRF has developed a database on IK that is a product of the Tanzania Development Gateway, an initiative that uses information technology and the Internet to promote social and economic development within Tanzania. The database was established by ESRF to enhance sharing and dissemination of IK information, experiences and practices in Tanzania. Its objectives are to:

- Provide a platform where IK is captured, stored and disseminated
- Provide a mechanism for sharing this knowledge and also integrate it with modern science and technology to enhance the dissemination of information
- Promote sharing and dissemination of IK information, experience and practices
- In realisation of IK and its contribution to socioeconomic development, promote development of IK systems to improve the provision of information to local communities.

### ***Training in IK systems***

Some IK training initiatives have been developed to train people in IK principles and practices. The Faculty of Law of the University of Dar es Salaam in Tanzania, for example, has a course on IK systems. The course is, however, taught from a

legal point of view. At the moment, it is taught as a module of Intellectual Property Rights. This is an effort on the right direction.

### **Ethical issues in IK**

As highlighted earlier, IK has been practised in Africa since time immemorial. With globalisation, whereby countries in the world are open and connected in all spheres of life, there are ethical issues that need to be considered when one is discussing IK systems in Africa. One such issue is the ownership of research findings or discovery. For example, if research on IK is conducted in a certain remote village in Africa, with information provided by the villagers themselves as respondents, who owns the findings of that research, or the innovation for that matter?

The tendency has been that researchers from the West conduct research and, after data collection, they are seen no more. The ownership remains with the researcher who patents the findings. The indigenous people are used only to generate data and have no knowledge of the outcome of the data they have produced. If the innovation is a resource with economic value, it is patented by the researcher, often without involving the respondents. This is unethical.

Equally important is that research methods used in IK should be appropriate to the indigenous community. The kind of data collection methods, data analysis and presentation of the findings should be brought down to a level that the indigenous people would understand. It should be considered unethical to use research methods that may have a negative impact on the people, whether physically or otherwise. For instance, research methods that may subject respondents to harmful practices or bodily harm should be considered illegal.

Another ethical issue is that IK systems should be inclusive. They should include all groups in the community and no group should be marginalised. For example, all age groups (youths, elders, etc.) should be included in research and enjoy the benefits accrued from IK. In terms of gender, both men and women should be involved in the IK research process. In many areas in Africa, women have been marginalised and given low priority when it comes to information

generation and use (Nkebukwa, 2007). IK researchers should tap information from all social groups. More importantly, they have to be gender sensitive.

In terms of the use of IK, profit has to be returned to the people who are the owners of the knowledge. Any benefit accrued from IK must also benefit the owners of the knowledge. In many cases, IK discoveries have been made and patented elsewhere without the indigenous people being aware of this. The researchers who claim ownership of the innovations end up benefitting from ownership and utility of the IK.

There has to be promotion of a positive identity and consciousness of IK. People have to appreciate the existence, relevance and use of IK that is available locally. IK is knowledge just like any other knowledge that can help people in a local setting. If valued and used appropriately, it can help liberate people in Africa from overdependence on Western knowledge.

Similarly, the negative side of IK has to be identified. This implies that we have to present IK in a critical manner and analyse it objectively to be able to see its negative side. In other words, there has to be a balanced view of IK systems. We have to be able to present and discourage the negative side of IK. It has to be noted that not all IK is good. For example, some people in Africa practise witchcraft. This is an indigenous form of knowledge, but harmful, as it affects others without their consent. Such types of IK should be revealed and completely discouraged.

### Challenges in preserving IK in Tanzania

As pointed out earlier, most IK is not available in written form. It is mainly found in practice and is transmitted orally from one generation to the next. This renders its preservation difficult. Education in Africa has traditionally been transmitted orally from one generation to the next. Africa is basically an oral society and IK has followed the same pattern. Moreover, such transmission has mainly been family based or occurs in small ethnic groups.

People in a community may have certain knowledge about a particular aspect. The problem, however, is that in some cases they are not conversant with how that knowledge works scientifically. For example, in the Usambara area

of North-eastern Tanzania, and indeed in many other parts of Africa, there is sound knowledge of traditional medicine men that prevent thieves from stealing property, such as cattle or other forms of wealth. This is believed to be true and practicable. The issue here is the science behind this knowledge – how does it operate scientifically? With an electronic security system, one can say exactly how it works; with this type of IK, it is difficult, although it is seen to work.

Another challenge is that, owing to its local or environmentally specific nature, IK has traditionally not been viewed as “capital” in a business sense. It has tended to be exclusive at times, susceptible to suspicion, and sometimes to abuse (Kaniki & Mphahlele, 2002). Thus, IK has not been managed as effectively as scientific knowledge, which is well managed because it is taken as knowledge that can be interpreted as capital value or profit.

Not much research has been conducted in IK and the findings documented. It is therefore difficult to obtain that knowledge and incorporate it in the educational curriculum for the purpose of formal transmission from one generation to the next. In this way, even the development and subsequent improvement of the knowledge can be difficult. It is understandable that knowledge generated by research institutes and universities is considered a resource just like any other resource that can be used for development. It is well organised, preserved in libraries and information units, and disseminated for wider access to the user community. This is not the case with IK. There is sufficient evidence (Covin & Stivers, 1997) that IK can be drawn from a wide range of disciplines, such as:

- Environmental conservation
- Traditional education systems
- Health practices and prevention
- Medical technology
- Sustainable agricultural practices
- Local industry and technology, and many other areas

The problem, however, is how the local knowledge practices, principles and methodologies are appreciated and applied. Whereas modern scientific knowledge generated through scientific research processes is highly appreciated, in many respects IK is still questionable.

## Recommendations

The following recommendations are put forward with a view to improving the generation, collection, preservation and use of IK.

### *Adoption of appropriate policies*

Each country needs to have in place appropriate policies that encourage and provide guidelines for the innovation, conservation and preservation of IK. South Africa, for example, adopted IK policy in 2004 (Saleti, 2007), which provides the government's stance in this matter. Policies are expected to address the following, among others:

- The government's appreciation of IK
- Political commitment towards IK systems
- Copyright and patent issues
- Use of IK
- Transborder IK systems and how to share them
- Statement on the protection of IK
- Preservation of IK
- Distribution of benefits accrued from IK

### *Research in IK systems*

There has to be deliberate efforts to conduct research in the area of IK. This role can best be undertaken by universities and appropriate research institutes. Areas can include disclosing, recording and preserving IK. Issues such as the following are relevant:

- What specific IK systems exist in Africa?
- How is the knowledge applied for productivity?
- What practices, traditions and norms surround the innovation, use and transmission of IK in Africa?
- How can specific community-based measures be used to promote IK systems?

### *Establishment of IK databases*

Equally important is the creation of databases on IK. Libraries and information centres have this role to play. Other stakeholders, such as private organisations, relevant ministries and government organisations and NGOs, can all join hands in recording and preserving IK.

### *Establishment of IK resource centres*

Some countries have IK resource centres in place. For example, in Nigeria the following activities are carried out:

- Conducting and coordinating research activities on IK
- Disseminating IK information
- Networking IK initiatives
- Exchanging IK information with other centres
- Doing quality assurance on IK practices
- Formulating IK policy

Each country needs to have IK centres legally established and its operations guided by law.

### *Involvement of the government and NGOs in IK systems development*

African governments need to take a leading role in intervening and participating fully in the creation, development and protection of IK. This commitment is essential, as it makes room for actors to invest in these initiatives. Political commitment in such endeavours is an important aspect of IK development. Individuals and NGOs will have the courage and strength to become involved if they realise that the government places value and emphasis on IK systems.

Important too, is the involvement of NGOs in IK development initiatives. The government, in its capacity, needs only to set policies, rules and regulations governing aspects related to the use and protection of IK. Core IK activities, such as research, use and dissemination of IK, can be done by individuals as well as governmental and non-governmental organisations. In the Tanga region in Tanzania, for example, there is an NGO known as Tanga Aids Working Group (TAWG). This HIV/AIDS organisation uses both local IK expertise and modern medical experts to fight against HIV/AIDS. The combination of Western and indigenous medical facilities, plus counselling, has proven to be very successful in helping people living with the disease. Scheinman (2002) points out that this is a low-cost alternative to imported therapies.

### *Formation of collaborative teams with other developing countries*

International conventions on IK are world

forums that many African countries are not conversant with. It is therefore important that, in IK development at international level, African countries collaborate with developing countries on other continents that are interested in IK systems, for example Brazil, China and India, for joint negotiations and collaborations. This is a struggle that developing countries cannot be given at no cost, but they have to work on it in order to acquire collective strategies at regional and international levels.

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