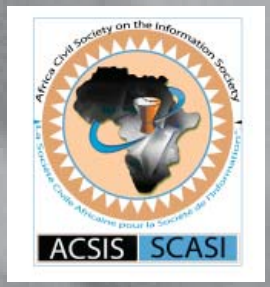

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African CSOs Speak

on the World Summit on the Information Society

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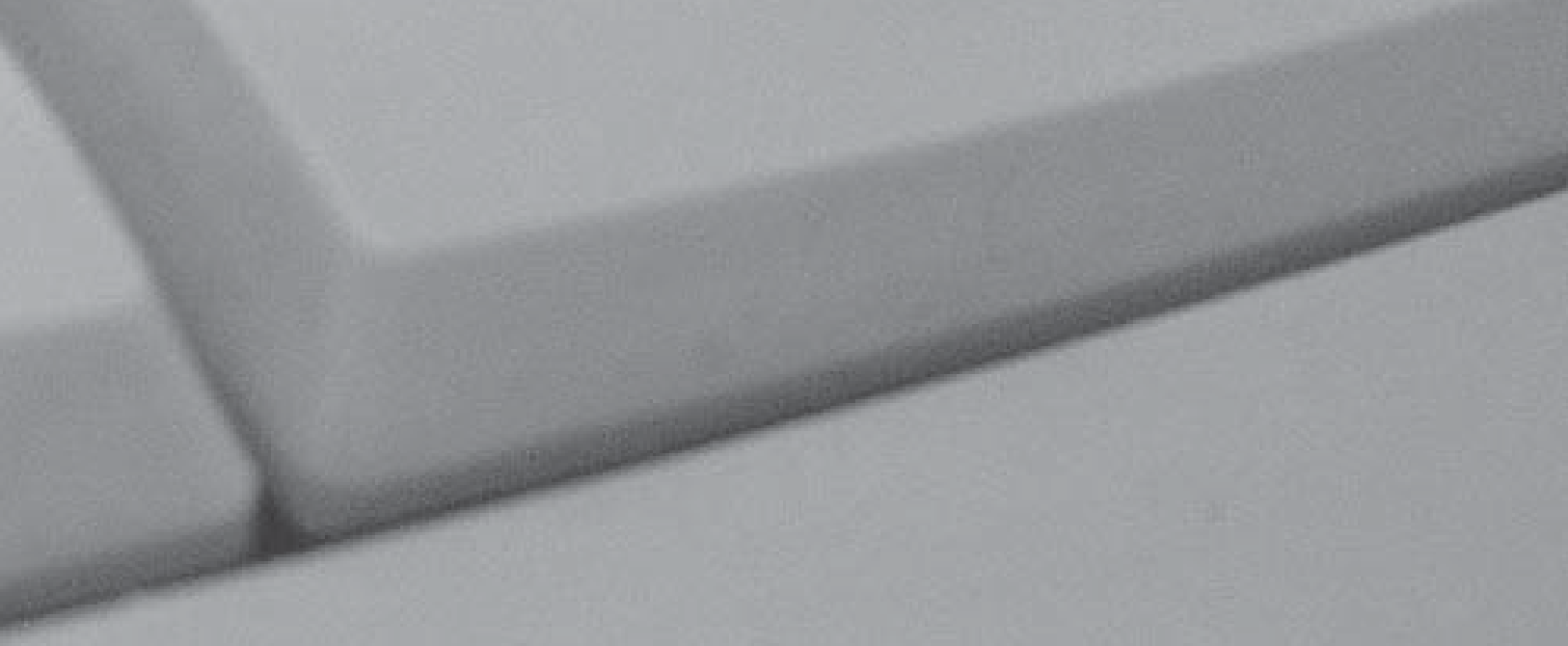

African CSOs Speak

on the World Summit on the Information Society

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Contents

WSIS Acronyms, Language and Definitions

ACS	Africa Civil Society
ACSIS	Africa Civil Society for the Information Society
AISI	Africa Information Society Initiative
ASCII	American Standard Code for Information Exchange
ccTLD	Country Code Top Level Domain name
CS	Civil Society
DNS	Domain Name System
DSF	Digital Solidarity Fund
ECA	United Nations Economic Commission for Africa
FOSS	Free and Open Source Software
FOSSFA	Free Software and Open Source Foundation of Africa
Geo	Geographic
GNP	Gross National Product
gTLD	Generic Top Level Domain name
IANA	Internet Assigned Numbers Authority
ICANN	Internet Corporation for Assigned Names and Numbers
ICT	Information and Communication Technology
ICT4D	Information and Communication Technology for development
IP	Internet Protocol
IPRs	Intellectual Property Rights
ITU	International Telecommunication Union
LDCs	Least Developed Countries
MDGs	Millennium Development Goals
MS	Microsoft
MSP	Multi-Stakeholder Partnership
NEPAD	New Partnership for African Development
NGN	Next Generation Network
NGO	Non-Governmental Organization
ODA	Official Development Assistance
PDA	Personal Data Assistant
PPP	Public-Private Partnership
R&D	Research and Development
RIR	Regional Internet Registry
SMMEs	Small and Medium-sized and Micro Enterprises
TFFM	Task Force on Finance Mechanisms
TLD	Top Level Domain name
UNICT TF	United Nations Information and Communication Technology Task Force
VoIP	Voice over Internet Protocol
W3C	World Wide Web Consortium
WGIG	Working Group on Internet Governance

Introduction

By Nnenna Nwakanma

The African Civil Society have engaged in the World Summit on the Information Society (WSIS) in a resolute manner. From its early stages, when the notion of ICT for development was only a nascent idea to the very last days of the second phase of the Summit, the profile of the African Civil Society has been transformed, making them serious partners in building Africa's Information Society.

Through participation in the WSIS process at the global, regional and national levels, African CSOs have learned some lessons. Indeed, one vital lesson is that it is best for us to speak for ourselves. We have also discovered that we have an enormous wealth of success stories which we can share at the continental level. Best practices need not be imported! Strategically, we have maintained our engagement at the global policy level whilst ensuring that at the national level we implement concrete activities for the public good.

In this publication, we are share the basic knowledge that we have acquired in the WSIS process and present capital issues, fundamental questions in building a people-centered, inclusive and development-oriented Information Society. These issues include, among others, management of Internet resources, Free and Open Source Software (FOSS), Multi-stakeholder partnership (MSP), and mainstreaming gender and the differently-abled persons.

We also share our battles, our stories, and realizations as we prepare for challenges for the future. We share our hopes as we prepare for the post-Tunis phase and reiterate our engagement, as the Africa Civil Society on the Information Society – ACSIS- to build an African Information Society where every African can create, access, utilize and share information and knowledge, enabling him or her, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life.

To reiterate the theme of the second phase of WSIS/Tunis, the African Civil Society on the Information Society believes and works for the notion and concept of ICT for All.

Ms. Nnenna Nwakanma is Co-founder of various Pan-African organizations: The Free Software and Open Source Foundation for Africa (FOSSFA)(www.fossfa.net), The Africa Network of Information Society Actors (ANISA), and the Africa Civil Society for the Information Society (ACSIS www.acsis-africa.org), one of the major Civil Society Actors in the World Summit on the Information Society. She represents the African Civil Society on the Digital Solidarity Fund (www.dsf-fsn.org), and advises on the Africa Information Society Initiative (www.uneca.org/aisi)

Wireless Doctor

By Tracey Naughton

V-sat is enabling remote areas to jump the hurdle of waiting for transport and communication infrastructure. In Salitwa village South Africa, Nurse Madikane no longer has to refer patients she can't treat to the nearest hospital – which actually is not so near. Being able to hook up to a doctor and have a patient – nurse-doctor consultation.

Salitwa clinic is connected to the Nessie Knight Hospital in Solikama through a wireless network. The system allows Nurse Patricia Madikane to transmit real time images of the patient and simultaneously have a telephonic discussion with the doctor at the hospital. Based on this input the doctor can provide a consultation for the patient, telling Patricia what medicines to prescribe and how the patient should be treated. This process takes approximately 20 – 40 minutes. If the patient had to travel to the hospital it would take all day and cost approximately R20 in taxi fees.

Initially Nurse Madikane feared the technology would be difficult to use, but she was astounded to find that it isn't any more complex than knowing how to use a phone and what to switch on in the clinic. These days she is training nurses in surrounding clinics to use the telemedicine system.

Getting to Grasps

By Nnenna Nwakanma

The Internet is the global network of computers and computer networks for the provision, sharing and exchange of information.

A protocol is a set of rules that governs communication on the Internet. IP means Internet Protocol

WWW means World Wide Web. Its use began in 1992. It is a way of identifying and locating information on the Internet. It is the W3C (World Wide Web Consortium) that manages the protocol.

Backbone refers to physical or technical infrastructure that allows for interconnection across the whole world. They may be computers, cables, satellites, switches and rooters.

Content is the information that is available on the Internet. This may be text, video, sound, or graphics.

Domain Names are simplified forms of Internet addresses. This is managed by the Internet Corporation for Assigned Names and Numbers - ICANN. In Africa, AfriNic was registered in 2001 to do about the same thing that ICANN does at the global level.

Open Source Software, unlike proprietary software, allows the user to read, to copy, to make changes and to build new versions without having to pay.

Privacy is the right to be excluded from publicity. It also includes unauthorized disclosure about your personal and intimate life and information. It includes the right to be free from intrusion and interference from all entities.

Spam is unwanted and unsolicited information sent to you. Most of them are adverts.

A server refers to the machine which stores and operates websites, this may also refer to the software which runs on such a machine and manages the delivery information.

Next Generation Network (NGN): a packet-based network able to provide telecommunication services and able to make use of multiple broadband. It offers unrestricted access by users to different service providers. It supports generalized mobility which will allow consistent and ubiquitous provision of services to users

A Registry is a company or organization that maintains a centralized registry database for the TLDs or for IP address blocks. AfriNIC is Africa's Registry.

Root Servers contain pointers to the authoritative name servers for all TLDs. There are 13 root servers carrying the IANA managed root zone file.

WHOIS is a question/answer protocol that is widely used to provide information services to Internet users.

Understanding the World Summit on the Information Society (WSIS)

Nnenna Nwakanma

ICTs, what are they?

The most common word in the WSIS process is ICTs. It appears in almost all pages of the WSIS documents. There are varying views on the definition.

The Association for Progressive Communications – APC, a Civil Society Organization (CSO), has defined ICTs as the technologies and tools that people use to share, distribute, and collect information and to communicate with one another, one-on-one, or in groups, through the use of computers and interconnected computer networks.

ICT, as defined in the Information and Communication Technology Sector Strategy Paper of the World Bank Group (Http://info.worldbank.org/ict/ICT_ssp.html), April 2002, consists of hardware, software, networks, and media for collection, storage, processing, transmission, and presentation of information (voice, data, text, images).

ICT sectors are defined by the Organization for Economic Cooperation and Development (OECD) as a combination of manufacturing and services industries that capture, transmit and display data and information electronically. Manufacturing includes office, accounting and computing machinery; insulated wire and cable; electronic valves and tubes and other electronic components; television and radio transmitters and apparatus for line telephony and line telegraphy; television and radio receivers, sound or video recording or reproducing apparatus and associated goods; instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process equipment; and industrial process equipment. Services include wholesaling of computers, computer peripheral equipment and software; wholesale of electronic and telecommunication parts and equipment; renting of office machinery and equipment (including computers); telecommunications; computer and related activities.

ICT crosses all sectors, bringing increased efficiency and new opportunities to areas from small enterprise development and international trade, to education and healthcare. It

also allows us to share experiences across geographies and organizations, so that we learn collectively and build on each others' advances.

Information and Communication Technology facilitates almost all areas of life: accounting, agriculture, business services, communication, construction, education, environmental management, financial management, health, investigations, judiciary services, legal services and procedures, media services, maintenance, national defense and security, office administration, printing, photography, publishing, personnel management, real estate, research, social services, training, tourism, urban planning, vacations, water management etc ..

The essential tools in this area may include: the Internet, the Cellular Phones, CD ROMs, PDA, websites, livechats, discussion groups, online collaboration, teleconferencing, video conferencing, web cameras, webcasting, e-learning etc.

The Digital Revolution

The digital revolution, fired by the engines of Information and Communication Technologies, has fundamentally changed the way people think, behave, communicate, work and earn their livelihood. It has forged new ways to create knowledge, educate people and disseminate information. It has restructured the way the world conducts economic and business practices, runs governments and engages politically. It has provided for the speedy delivery of humanitarian aid and healthcare, and a new vision for environmental protection. It has even created new avenues for entertainment and leisure. As access to information and knowledge is a prerequisite to achieving the Millennium Development Goals – or MDGs -, it has the capacity to improve living standards for millions of people around the world. Moreover, better communication between peoples helps resolve conflicts and attain world peace.

The Digital Divide

Paradoxically, while the digital revolution has extended the frontiers of the global village, the vast majority of the world remains unhooked from this unfolding phenomenon. With the ever-widening gulf between knowledge and ignorance, the development gap between the rich and the poor among and within countries has also increased. It has therefore become imperative for the world to bridge this digital divide and place the MDGs on the ICT-accelerated speedway to achievement.

The World Summit on the Information Society; the need for a global discussion

Recognizing that this new dynamic requires global discussion, the International Telecommunication Union, following a proposal by the Government of Tunisia, resolved at its Plenipotentiary Conference in Minneapolis in 1998 to hold a World Summit on the Information Society (WSIS) and place it on the agenda of the United Nations. In 2001, the ITU Council decided to hold the Summit in two phases, the first from 10 to 12 December 2003, in Geneva, and the second from 16 to 18 November 2005 in Tunis. This was endorsed by the UN General Assembly while according the lead role to ITU in cooperation with other interested organizations and partners. It further recommended that preparations for the Summit take place through an open-ended intergovernmental Preparatory Committee – or PrepCom – that would define the agenda of the Summit, decide on the modalities of the participation of other stakeholders, and finalize both the draft Declaration of Principles and the draft Plan of Action.

In Resolution 56/183, the General Assembly also encouraged contributions from all relevant UN bodies and other intergovernmental organizations, including international and regional institutions, non-governmental organizations, civil society and the private sector to actively participate in the intergovernmental preparatory process of the Summit and the Summit itself

The Summit Objectives

Recognizing the importance of the revolution in ICTs as a means of shaping the future of the world and in achieving the development goals outlined in the Millennium Declaration, world leaders decided that a global vision and a global dialogue were needed to build the framework of an all-inclusive and equitable Information Society. The objective of the first phase was to develop and foster a clear statement of political will and take concrete steps to establish the foundations for an Information Society for all, reflecting all the different interests at stake. At the Geneva Phase of WSIS nearly 50 Heads of state/government and Vice-Presidents, 82 Ministers, and 26 Vice-Ministers and Heads of delegation from 175 countries as well as high-level representatives from international organizations, private sector, and civil society provided political support to the WSIS Declaration of Principles and Plan of Action that were adopted on 12 December 2003. More than 11,000 participants from 175 countries attended the Summit and related events. The scope and nature of this ambitious project requires new public-

private partnerships, many of which were formalized during the Geneva Summit. Some of them were specifically targeted at bridging the digital divide.

Outlook Perspectives on the use of ICT for Development

A chip or a byte anyone?

By Tracey Naughton

The digital divide is also an age divide in Mseleni, Kwa-Zulu Natal, South Africa. Young people love going to the 'Chips 'n Bytes' computer centre and would rather do their homework using a computer. The Mayor is concerned that the community still needs more books, not computers because they are more accessible. Blessing Dlamini, the local librarian agrees, adding that books can be taken home by kids who have learnt to read, to be read to older people who are not literate. Not many rural communities have libraries but Blessing says 'when there is a library you see that there is a community that wants to learn and how much they want to learn', concluding 'the nation that grows is the nation that learns'.

The low cost Chips 'n Bytes centre has four refurbished computers and sustains access by charging R2.50 (US40¢) a month for students, double that for adults. Local attachment to the computers is demonstrated in their personification; each has a name - Goodness, Joy, Self Control and Kindness and centre members have their favourite terminal. The philosophy of 'each one, teach one' for skills transfer and discovery is the norm. Before the centre opened the nearest computers were 25 kilometres away – the cost of getting there was the equivalent of six months membership for a student at Chips 'n Bytes.

FOSS and GENDER – Different but Equals

By Anna Badimo

How various her employments whom the world
Calls idle and who justly in return
Esteems that busy world an idler too
Friends, books, her needle and perhaps her pen,
Delightful industry enjoyed at home
Can she want occupation who has these?

This poem from (Melton 1999) is dedicated to all women the world over, trying so much to make the most of their professions, irrespective of how humble or prestigious.

When change benefits a few, and becomes inaccessible to other members of society, then its true benefits will never be fully realized. While there is no debate over whether Information and Communications Technologies (ICTs) have impacted on our businesses and social lives, the question is how equitable this impact has been. The opportunities presented by ICT, and by Free and Open Source Software (FOSS) in particular, require a conscious and deliberate push to ensure that the social, political and economic gender inequalities that already exist in society today are not perpetuated.

Critics have pointed out that gender differences arise from social contexts, social roles and power relations (Rakow 1986) and (Thorne *et. al.* 1983 in Olson 1999). Further, culture and the economic position of men continue to reinforce this imbalance. The continuous reinforcement of these factors has left women with a feeling of powerlessness and inferiority that often downplay their true capabilities. Fortunately, these feelings have positively positioned women to express themselves, and be heard. The voices do not emanate from a "void" (a position of no experience), but from first hand experience, (Olson 1999). Campbell (1973) argues that from this position, the women's style has been one of "consciousness-raising" because it is grounded in personal experience, (Olson 1999). And it is from this position that women can continue to raise that awareness in order to ensure that implicit and explicit gender exclusion tactics are challenged and addressed.

During the industrial era, women who worked in factories made contributions in various ways, going as far as making their own inventions. Margaret Knight is credited with about 90 inventions and 22 patents, Helen Augusta Blanchard earned at least 28

patents, and Beulah Louise Henry earned 49 patents and her inventions were around 110 (Stanley 1993). These patents varied from shoe-making machinery, domestic devices, accessories, and so on. Even today, it is not unusual to find women actively coming up with new ideas and being counted amongst the world's inventors, (http://www.wipo.int/women-and-ip/en/renown_inventors/).

These facts contradict the notion that women's contribution to the ICT sector has been minimal when in fact, from the beginning of computing, women were part of the various research projects and made contributions. In computing and ICT, women inventors continue to make contributions in the field (http://inventors.about.com/od/womeninventors/). What has reinforced gender-imbalances in the field of ICT is the male-dominated and internally focused culture and hacker-geek mentality that implicitly or explicitly discriminate against women at various levels, two of which are the technical and the user levels. At the technical level, female programmers are often rejected from the software labour market (Lin 2005). At the user level, the software requirements or design inputs of female users are often not respected and consulted (Lin 2005) and (Johnson 2003).

The importance of FOSS for advancing human development, especially in poor countries cannot be overemphasized. FOSS is about sharing knowledge. It embraces a culture that is a way of life for marginalized communities Even though there is little participation by women in FOSS projects, the FOSS community is one of constant innovation, sharing and spreading of knowledge. Women are better placed to share and spread the knowledge once they are equipped with the skills to apply FOSS in specific areas of everyday life and challenges, because it is intrinsic and intertwined with their culture and their way of living. Hence, a tool such as FOSS, when embraced by women, could be a catalyst for development and knowledge impartation and bridging the gender digital divide.

If appropriately harnessed, FOSS stands to meaningfully contribute to and mutually reinforce the advancement of effective, more expeditious solutions to bridging the gender digital divide. Therefore, the inclusion of women in the FOSS community would be one of the best strategies to spread knowledge and to make the better use of this knowledge to address the challenges faced by society, in the field of development and in sectors such as education and health. The opening up of General Public License (GPL) to facilitate the flow of information and knowledge (Lin 2005) can be one such contribution.

Numerous studies have delved into the ICT and gender debate from various angles, such as Gender and Computing (Galpin 1993 and Galpin et. al. 2002); Women and their participation in the ICT industry (Griffiths 2005 and Webster 2005); Gender and ICT as an application area, (Johnson 2003); Gender and FOSS (Gosh 2002, and Liu 2006); and FOSS as an enabler of economic development in developing countries (Weerawarana et. al. 2004). The findings reveal that the participation of women in ICT professions is low.

With respect to the participation of women in FOSS, no statistics are available. Gosh et. al. (2002) reported that only 1.1% of the participants in their study on FOSS developers were female. It is "an issue of some concern to policy makers, employers and indeed gender equality practitioners that, despite more than 20 years of attempts to attract women into this comparatively well-paid and privileged area of the labour market, women remain such a small and, worse, apparently declining, proportion of IT professionals", (Webster 2005). What is most encouraging about some of the findings is that there are women who see ICT as a career for them and who would like to be supported in growing within the field.

At the same time, "it is important not to disregard the very real problems facing women currently in the sector. Whilst many of our initial sample indicate their overall satisfaction with their ICT careers, there remain various indications that women are facing direct and indirect discrimination in the ICT workplace", (Griffiths 2005). Another important point is that women remain significantly under-represented in managerial and particularly executive positions in IT (Webster2005).

Given the lack of statistics on gender and FOSS in general and in Africa in particular, it is very clear from the above that a lot of work has to be done to ensure that FOSS is gender inclusive. The right time to open up the FOSS community is now - because it is still an emerging area for both men and women. Hence no one group should be given advantage over the other as has historically been the case.

The way forward

As noted in Griffiths (2005), it is difficult to say exactly what making something more 'female-friendly' involves. It would be a mistake to view women as a homogeneous group, which has the same views and opinions about how they need to be empowered. It is therefore "vital to recognize the heterogeneity of 'women' and 'women's experiences' (McRobbie 1997a, 1997b) because there is the possibility that what might appeal to some women will not appeal to others (Griffiths 2005).

Some have argued that the participation of women in FOSS should be left to market dynamics. However, these dynamics are dependent on being in the right place, at the right time and with the right people. With the present social imbalances, many women may not have the opportunity to engage with these dynamics. Given that ICTs are not neutral, when left alone to the forces of the market, they tend to mirror the social, political and economic inequalities that already exist in society today. Stakeholders involved in the development and implementation of FOSS projects must ensure that gender mainstreaming becomes an integral part of their planning.

Various strategies are needed in the planning of FOSS initiatives and projects through all spheres and at all levels. Some governments have already adopted FOSS as a standard, while some have got FOSS policies in place. A number of Non-governmental Organizations (NGOs) implementing FOSS projects need to ensure that gender inequality is addressed and that the playing field is leveled.

In going forward, it is important to include women in both technical and managerial positions. Their presence could contribute to a culture shift and creating a balance in management styles. They could also contribute to the technical aspects of FOSS at the level of strategy and planning.

These strategies hinge on 3 key thrusts: Policy, capacity development and the culture of ICT and FOSS in particular.

Policy: On gender policies in ICT and FOSS, a good starting point is to have policies that are clearly defined, that are enacted into law and that are supported by all the stakeholders. There is still work to be done on the sensitization of African governments to FOSS in a way that will influence policies on FOSS, and how women can benefit from these policies.

Capacity Development: Building the capacity of stakeholders in both the technical and end-user spheres is critical towards the advancement of FOSS. There is still a lack of awareness of FOSS among members of the public, and women in particular. Efforts to put the message across need scaling up for bigger impact.

Culture: There is a need for a cultural shift within the FOSS community and in the implementation of projects that accommodates women as players and recognizes women

as contributors to these projects. As mentioned previously, ICT and FOSS projects should be more people-centric rather than technology-centric.

In conclusion, gender inequality is deeply rooted in entrenched attitudes, societal institutions and various types of market forces. These inequalities are emphasized differently in different countries. In some countries, culture or religion play a major role in reinforcing and perpetuating gender inequalities. It is important to tackle these inequalities within the context of development, especially if ICT and FOSS are to be used as leverage for advancing community development. While the strategies presented here may be just guidelines, adoption of these strategies would vary between countries.

One thing that society must not accept is the concept of 'masculine' and 'feminine' professions because it is often this notion that gets misused in excluding women from professional areas where they stand to excel and benefit. If FOSS is to be a catalyst for development, a shift from a "brotherhood" or a "sisterhood" culture in the FOSS community to one that embraces gender equality and inclusion is needed. The FOSS community cannot afford to ignore inequalities based on race, creed, physical ability or gender, or any other criteria.

Anna Badimo, South Africa, Linuxchix Africa and the University of the Witwatersrand. Anna has an M.Sc and an MBA and is currently doing a Ph.D in Computer Science with a focus on HIV Recombination Detection. She is the co-founder of Linuxchix Africa, and a member of the WSIS Telecenters and WSIS Gender Caucus as well as the APC-Africa Women's Network.

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Perspective on Gender Issues and the Digital Divide

By Noeleen Heyzer

If you look at the opportunities and the threats that exist in the context of globalization, information technology can become a tool of either decreasing the inequalities that already exist in the world or increasing it. These inequalities include human rights, exclusion, class, language, the North-South divide, the divide between men and women, and even among women, between those who have skills and education and those who do not have them.

There are tremendous opportunities if we know how to shape these technologies and if we know how to intervene to ensure that in a knowledge-based economy and increasingly a knowledge-based international setup, the knowledge of women is used in the context of what is being designed in the technology as well as in terms of the knowledge of how they have solved problems of poverty.

It is extremely important that women are not just users of technologies. They should also be the producers of knowledge and they should also be involved with the design of these technologies. Equally important is the whole issue of the capacity that exists now. If look at the position of women on the poverty map, you find that the majority of the world's poor are women. They are rural.

We have to understand how different factors create poverty including the whole area of human rights - those who are excluded from access, those who excluded from resources and those who do not have the necessary skills. For instance, of the people that are not literate, the majority of them are women in rural areas. We need to improve the skills-base and we need to improve the capacity of women to access these technologies.

But of equal importance, it's not just the issue of access, but also the issue of time. Many women do not have time to improve their skills because of the burden of care and the labour-intensity of their work. If we were to build the capacity of women, we would need to reduce the labour-intensity and the work burden. We would need to improve the infrastructure that supports them, like water, the health care system because increasingly, more and more women are the health care system when health care system has broken down.

Noeleen Heyzer, Director UNIFEM is dedicated to the gender agenda in development. In her article she emphasizes the need for a critical gender look as a big challenge in the construction of the inclusive Information Society.

Pro-poor concerns in the Information Society; a personal perspective

By Charles Geiger

My personal vision is that this World Summit on the Information Society should also bring results for poorer people. Even if the Summit is primarily about the future (or already existing) Information Society and its social implications, we should not forget that the Summit is also embedded in the larger development concerns of the UN, expressed in the MDGs.

There is a general belief that the spread of ICTs will generate economic development and will specifically help developing countries to leapfrog into the 21st century. While this may be true on a global scale, I think there will be winners and losers when we look at individual states. The winners will be the countries, which have a comparative advantage with a skilled and comparatively cheap workforce and whose people have a command over one of the major world languages. The losers will be the countries with slow connections, unskilled labour force, low education quality, and whose population does not fluently speak one of the big world languages. (With regard to manufacturing, the winner and losers may be slightly different. Here the languages spoken are less important, more important is cheap labor force and a manufacturing tradition.)

Let us take the example of India, and specifically of Bangalore. Some 20 years ago, Bangalore was a sleepy garrison town, know as a pensioner's paradise. Today Bangalore is the fifth town in India, a boom town, and contains the headquarters of WIPRO and Infosys, and branch offices of several silicon valley companies. These silicon valley companies use their branch offices to work 24 hours around the clock. When it is evening in California, the software is sent to Bangalore for further programming, and when it is evening in Bangalore, it is sent back to California where the sun is rising. This does not only work in software development, but it also works e.g. for medical transcription. In general, South India has become the El Dorado for this kind of outsourcing. There is an English speaking, private school educated urban middle class, and the salaries are 1/10 to 1/5 of what you would have to pay for the same services in Europe or the USA. Many of the Forbes 500 companies have their accounting services in South India. The trend goes from putting up accounting branch offices to outsourcing whole informatics

departments. A good number of people in the USA and Europe are worried about this kind of trend.

And you have winners and losers not only among countries, but also within its population. The wealth created is not distributed evenly. In Bangalore, the winners are the English-speaking, private school educated urban middle class. In India, this is more or less synonymous with the higher castes. Lower castes and lower classes, people without caste and indigenous people, especially in the countryside, do not profit from the boom, or only through a slow, trickle-down effect.

Is there a possibility to remedy this situation? Are ICTs also relevant for poor people? It is reported that Bill Gates once said that when a child is hungry, do not throw a computer at him. This is certainly true, but there are ways and means to make the new information technologies relevant also to poorer people. But it will not happen on its own, it needs a dedicated government initiative and in many cases the help of the NGO community (a combination of top-down and bottom-up approaches). Let me give you some examples, again from South India, which is a big laboratory for Information and Communication Technologies for Development, or in short, ICT4D. Here the D does not stand only for economic development, but also for human and social development. There are a number of projects going on which prove the new ICTs are an excellent tool to strengthen human rights and social justice, curb corruption and reduce risks. Let us look at some of them

Veerampatinam is a small fishing village south of Pondicherry. Some 4 years ago, the M.S. Swaminathan Research Foundation opened, a Village Telecentre here. The centre is run by local women. They use the Internet for all sorts of activities, but one is extremely useful for the village: Every morning they download the weather data in the Bay of Bengal from a website of the US naval weather service. Then the height of the waves and the directions of the wind are announced through the temple loudspeakers. This information is free of cost. It is an excellent example of how high-tech can be combined with low-tech for very good effect. As a result, the mortality rate among the fishermen has been drastically reduced, due to better risk management.

The MS Swaminathan Research foundation also has Telecentres in 15 other villages is open to all people. In the other villages, the most sought-after information are crop prices, government information about subsidies, and, before the monsoon, weather

information. More information in this project is at www.infochangeindia.org/ItanddIstory.jsp?recordno=190&section_idv=9

The whole question of Global Public Goods (and global weather information is a global public good in my view) is also a theme of WSIS. Weather data is a much-debated question in The World Meteorological Organization (WMO). As more and more national weather services are getting privatized, there is a danger that global weather information will become a private good, where one has to pay for it. This would make the information unaffordable to the projects like the one described above. This would directly affect poor peoples possibilities to manage risk.

We should, with regard to ICT4D, not only focus on new technologies. Television has been used for years for distant education, and radio is still the medium with the biggest outreach to the rural population, especially in countries, which allow for local broadcasts.

But let us come back to South India: In Kerala, the Akshaya project intends to uplink all 990 Gram Panchayats – village communities - with a PC connection to the Internet. This is part of government measures in decentralization. The Government of Kerala has been a forerunner in decentralization. As early as 1998, the local development plans were developed locally and then sent to the Government. This process is now computerized. Similarly, the amount each village receives for its infrastructure and social development is made public. This is revolutionary in India, where until some years ago, the figures of the financial planning of the state Governments were regarded as a State secret, with all the possibilities for corruption. Now as these figures are public, the village headmen are accountable to the people. In fact, today, about 50+ States in the world have this kind of "Freedom of information" Acts, an important step in transparency, which influences directly and positively poor people's lives. More information on the Akshaya project is at www.akshaya.net .

Finally, a very interesting example from Karnataka: The Bhoomi project intends to computerize the land holding in the State of Karnataka. This is an Indian State about the size of France, with a population of 65 million inhabitants. In India, it is extremely complicated to buy, sell or mortgage land, due to the absence of an efficient land holding inventory. For one transaction of sale of land, you may need up to 25 documents, which prove among other things that you are the owner of the land and have the right to sell.

By computerizing the land records, this has an immediate positive effect on transaction security, and also on the possibilities of putting mortgages on land. Those of you who have read Hernando de Soto's book on the Mystery of Capital can evaluate the importance of the project. Ideally, it also curbs future illegal land grabbing by rich and influential farmers and protects small landholdings and illiterate farmers. A good description of the Bhoomi project is at: www1.worldbank.org/publicsector/egov/bhoomi_cs.htm

These examples show us that ICTs can influence poor people's lives. ICTs should be regarded as a tool, not as an aim in itself. It is my hope that in the Tunis phase of the Summit, besides the questions of Internet Governance and Financial mechanisms to bridge the Digital Divide, a main focus will be on ICT for development, for poverty reduction, for health, for education etc. The Tunis Summit will take place just two months after the MDG+5 Summit in New York. Worldwide, we are not on track regarding the MDGs, but I sincerely hope that at the Tunis Summit, we will be able, among other targets, to develop and demonstrate solutions that will help us accelerate achievement of the MDGs."

There are lots of possibilities in the ICTs for pro-poor initiatives. Something I have not mentioned in detail but which is specifically important in a lot of developing countries (including Africa) is to use ICTs for good governance and for creating transparency. There is a close link to the so called "Freedom of Information" acts. More than 50 countries (see http://www.freedominfo.org/survey.htm) have already adopted "Freedom of information" acts, which allow e.g. the publication of the budget and how much money is given to districts and to local village governments. This kind of transparency helps to curb corruption, and which helps indirectly poorer people, because riches are distributed more evenly.

Also, in e-governance, when information about subsidies, and formats for getting subsidies, are put on the internet, everybody can find the information and has an equal chance to get subsidies, which is often not the case now. There are lots of applications possible which make life easier for poor people (you do not have to bribe to get an official format for this and that, you can download it from the web...). Some of these solutions are not very expensive, the main ingredient is the will of governments to implement such measures. Therefore, any requests for donor financing should be coupled with sincere Poverty Reduction Strategy Programs on the recipient's side.

It becomes more and more clear to me that Africa and the needs of Africa (financial needs, bandwidth etc) will be a core focus of the Tunis phase of WSIS (besides Internet Governance and Financing Mechanisms in general). Tony Blair has set two particular tasks for the world's rich nations in 2005: sorting out Africa, and dealing with climate Britain takes over the presidency of the G8 this week, and UK will also chair the EU Council in the second part of 2005. I think Africa should keep this in mind and use it as a leverage. I also think that it is important that some direction for the Tunis phase of WSIS comes from the African Region. It will be a big help if the African countries can propose some universally acceptable solutions (especially in financing), to the WSIS PrepCom-Process and to the Summit in Tunis (a Summit which happens to be on African soil...).

Charles Geiger, Executive Director, World Summit on the Information Society (WSIS) has played an enormous role in all the aspects of the WSIS.

Village TV in Namibia

By Tracey Naughton

Driving through the Caprivi Strip in Namibia, an alien television aerial stands out above the thatched rooves in the distant village of Kanzinzila.

Postrick Katwa is disabled by a condition that could have been corrected at birth – were he not born in a remote village and in the era of apartheid (Namibia was once a province of South Africa). He is a self-taught tradesman who fixes radios for people in his and nearby villages. Postrick has never attended school but has a natural curiosity about the world outside the village he has spent his entire life in.

He convinced the headman to purchase a solar panel to charge a car battery. Fully charged, the battery runs a small television for two nights before going flat. The tragic twist to this story is the breakage of the solar panel on the dusty unmade road back to the village. It is now less efficient than it would have been and takes two weeks to re-charge the car battery.

Once every two weeks, for two evenings, villagers sit on the ground gathered around the television. What they watch is Namibia's state owned station that has its own capacity problems, to say nothing of freedom of expression issues.

Though the villagers like the information content the Headman is concerned about their predilection for soap operas – many African broadcasters fill airtime with old American soap operas that go for bargain basement prices on the international television market. His concern is the sense of inadequacy that has developed in the village's men because they cannot meet the aspirations for material wealth as seen on the village's small slices of TV entertainment.

Including differently-abled people in the Information Society From Attitudes to Technology

By Ife Akintunde

Introduction

As the discussion on ICT continues, within and outside the framework of the WSIS, one often ignored perspective is how ICT affects differently-abled people. This is due to a lack of awareness (including among differently-abled people themselves) of two things: the untapped potential of the differently-abled person and the technology, which is available to exploit the potential.

This chapter aims to examine why the principles enunciated in the WSIS should be inclusive of differently-abled people, how this can be done effectively and the mutual benefits, which will result for both differently-abled people and their communities. Although the general principles discussed will hold true for all disabilities, it will concentrate mostly on visual impairments. There are at least three reasons for this; the first is that it would be impossible in the space allocated to deal with all disabilities. Furthermore, visual impairment is the most obvious, (although not the most likely) factor, which may prevent full access to information. Thirdly, It is the area of which I have greatest experience.

It is also important to note that this chapter cannot contain all solutions to all problems. It is much easier to create an awareness of the issues raised, perspectives of disability, sources of information, available technology and how to think through solutions. Before proceeding however, there are five important principles which guide this work, and which should equally guide the reader, policymaker, civil society organization, or any other group or individual, in dealing with differently-abled people. Some may appear unnecessarily patronising at this point; however, by the end of the chapter, I hope to have demonstrated how ignoring them has led to an unequal application of law, policy and technology towards differently-abled people.

The first point is that disability does not; of itself limit access to ICT. Access is restricted only by the intelligence of the user and the availability of resources. A person, who by reason of disability has limited vision, is still able to use the computer, as the vision has

no bearing on intellectual capability. The challenge is to adapt ICT to cater for the lack of adequate vision.

Secondly, there is a surprisingly wide and growing range of adaptive or assistive technology, designed to make ICT available to differently-abled people. There are however two important issues to consider; unfortunately, the extra software or hardware may add to the cost of the unit, but as a result of growing competition, prices have come down considerably. The second issue is that for several reasons, - the size of the market, the profile of disability etc, - the relevant information regarding access technology is often difficult to locate. At the end of this chapter, some details of organizations, which provide impartial advice, will be provided.

A third theme, - related to the first two above – is that the variety of adaptive technology reflects the range of disabilities. The tendency to use the all-encompassing concept of disability leads to an assumption that all people of the same disability have the same needs. This is not so; taking visual impairment for example, it will become clear that there is a broad range of impairment covered in the term 'blindness' or 'visual impairment'. For some, access to ICT can be made easier by adjusting lighting or print size. For others however, (even those with some useful vision) access is possible, only by speech or braille. The wrong adaptive device may be as disabling to a visually impaired person as an absence of access technology.

Fourthly, to differently-abled people and their supporters, disability has been elevated to a rights issue, on a par with race, gender and religious rights. They justify their position with reference to the estimated numbers of differently-abled people, the failure of most legal jurisdictions to recognize them as a distinct entity and the consequent deprivations, which differently-abled people endure. Differently-abled people are routinely and constantly unable to exercise such seemingly inconsequential rights as freedom of information, privacy and safety. Sometimes, policymakers, philanthropists and radio and television presenters discuss issues relating to disability without inviting differently-abled people to participate in the process. For differently-abled people, it is the same as asking a panel of male discussants to tackle an issue, which specifically relates to women.

Finally, in bridging the digital divide, adaptive ICT is mutually beneficial, to both differently-abled and non-differently-abled people. The inability of differently-abled

people to fully interact with their society has often led to the presumption that they are of less than average intelligence. This is generally not the case; however, ICT can release the hitherto locked potential of differently-abled people. It can enable them to access the information which they need, and which the rest of society takes for granted. The result is that they will then be able to interact, on an equal basis with their non-differently-abled counterparts.

Questions and attitudes

Disability always raises many questions; perhaps the most important is how much a differently-abled person can and cannot do. After all, the word 'disability' implies a lack of ability. The answer to this question will vary, depending on who is giving it; a differently-abled child will probably think like all other children that nothing is impossible, but as failures and rejection become regular features of life, the answer may be an understatement of ability. On the other hand, a non-differently-abled person is likely to look at the more obvious medical characteristics of the disability and take less note of the compensations, such as adjustments, technology and character.

The correct answer to the question will vary; it will depend on the individual. Although disabilities may be similar, no two differently-abled people are the same. Taking visual impairment for example, a person may be considered totally blind or partially sighted. The definition for blindness varies from country to country, but in some cases, people registered blind may actually have some vision[1]. There are so many different types of vision; including: peripheral vision, tunnel vision, long or shortsightedness. Some vision is affected by glare, some can read large print, others can read white characters on a black background, or black characters on a white background.

Moreover, disability is affected by such subjective factors as character, education and technology. Some are more determined than others, some have been educated to a higher standard and others have access to technology, which makes seemingly impossible tasks possible. For instance, it was possible, as a result of highly advanced technology and legal technicalities for a technically blind person to drive a car in California (Runyan:

[1] See for example, the survey carried out in the United Kingdom: Bruce: I, McKennell: A, and Walker: E, "Blind and Partially Sighted Adults in Britain, the RNIB Survey." HMSO (1991) according to which, 36 percent of visually impaired people and 75 percent of partially sighted people can read large print, but only 12 percent of visually impaired people and 28 percent of partially sighted people read large print books (pages 81-87

M., No Finish line: My life as I see it, (Putnam) (2001) p98). In addition, societal attitudes to disability can often influence the answer to the basic question of what a differently-abled person can and cannot do.

On the whole, it is probably fair to conclude that most differently-abled people do not fully achieve what they can. Although this is true the world over, it is more glaring in Africa. In the United Kingdom for instance, whereas the few visually impaired graduates in Nigeria have focussed on qualifications in law and the liberal arts, there is a thriving association of blind computer users (British Computer Association of the Blind, http://www.bcab.org.uk). There is anecdotal evidence of blind politicians, successful musicians and physiotherapists, while a visually impaired person ran a creditable ten thousand metre race for the United States at the Sydney olympics of 2000 (Runyan M., pp252-292).

The reasons for the relatively fewer African differently-abled role models are complex; for the purposes of this paper, I will examine three broad problems that African differently-abled people face. The first is the general lack of development in Africa. Development (particularly the growth in information technology) has helped differently-abled people overcome traditional prejudices and achieve goals. ICT has shifted the focus to a more inclusive provision of information. In the past, visually impaired people either used tactile or audio as their primary source of information. In the past, it has been estimated that only about four or five percent of materials printed in the UK were reproduced in a format that was accessible to people with visual impairment (Library and Information Commission, (2000) Research Bulletin, Vol. 2, page 19. Also, Lockyer: S, Creaser: C. and Davies: J. E. Availability of Accessible Publications: (RNIB) (2004) p32). There were a number of reasons for this low rate of reproduction, including copyright restrictions and the cost of production in alternative formats. The result was a concentration of resources on popular books by bestselling authors, to the neglect of others, (e.g. academic titles.

However, any information, which is produced electronically, is at the same time accessible to both visually impaired and fully sighted people, so long as the technology to convert it into the required format has been acquired. Now, the information can be produced electronically before the user decides on the form by which it will be accessed. It is true that sometimes, such material needs to be adapted to make it more accessible to a differently-abled person. Nevertheless, electronically produced information represents a much greater leap forward for visually impaired people than it does for the rest of their community.

Much has been made of the information and digital divide between rich and poor people, and between rich and poor states. There is another divide, between differently-abled and non-differently-abled people. One element of this is the time lag in the provision of services to differently-abled people. By the time braille was invented in 1827, as a means of communication for the blind, the printing press had been invented and several countries were providing free education for their other citizens. Moreover, the general rule of inventions seems to be that when something is developed for a specific purpose, it is later found to have a broader application. It is only after the broader uses have been explored that differently-abled people are considered. Such was the case with the computer, which was originally used for complex calculations, before becoming the tool of everyday use, which it is now. However, the problem still remains that although the computer is now being made available to differently-abled people, the process is relatively slow, both in terms of percentages of population and sophistication of technology.

The second problem is the absence of information about African differently-abled people and disability. This is allied to a more general absence of information. In preparing this paper, this author had sought and failed to obtain relevant data from several government and other departments in African countries. This contrasts with other continents where information is more readily available. For example, The Royal National Institute for the Blind produces a survey of blind and partially sighted people in the United Kingdom (Bruce: I, McKennell: A, and Walker: E, "Blind and Partially Sighted Adults in Britain, the RNIB Survey. HMSO (1991) or for a summary, http://www.rnib.org.uk/xpedio/groups/public/documents/PublicWebsite/public_resfaqs. csp).

This survey shows the people who are registered blind or partially sighted, the various degrees of visual impairment, those who can read braille, or those who rely more on audio or even large print, etc. In an earlier paper, (Access Technology for Africa: Potentials, Possibilities and Challenges for African States. (unpublished) presented at the conference of World Federation of Engineering Organizations (2001) Abuja, Nigeria).

I argued that it would be impossible to use their conclusions in Africa for several reasons:

- Definitions of visual impairment differ from one jurisdiction to another;
- In Africa, there is a greater incidents of preventable visual impairment;

- There is also a higher recorded birth rate and lower life expectancy.

However, it is important to have proper information to guide planners, service providers and users. At a very basic level, the following information should be made available:

- Accurate statistical information on numbers of differently-abled people, based on registration, user surveys, etc.
- Information on various types of disabilities, causes, effects, available governmental programmes, technology, etc.

The third problem is the absence of a clear perspective on disability. Our approach to disability is influenced by our definition of the term. Scholars have developed at least three models of disability, each of which defines an attitude. The first is the medical model, which defines disability by medical symptoms, such as the lack of vision. This model is favoured by medical or rehabilitation experts who are trained to cure or rehabilitate people with illnesses and disabilities[2]. It is also used by most legal jurisdictions; for example, in the United Kingdom, a person is defined as differently-abled "if he has a physical or mental impairment which has a substantial and long-term adverse effect on his ability to carry out normal day-to-day activities" (Disability discrimination Act, 1995). In most cases, this model views disability as a problem, which is to be solved, either by medical intervention or by some other means.

The second model is the religious model, which views disability as related to two concepts, sin and charity. The idea that disability is related to sin is based on a loose interpretation of scriptural assumptions that humans are made to be perfect, except where there is sin. Some justify their position from a question asked by Jesus' disciples when confronting a blind man; they wanted to know if his blindness was a result of his sin or that of his parents (Gospel of John, chapter 9 v 2). In fact, in that passage, Jesus stated that the blindness was not as a result of sin, but that the works of God be made manifest. However, even that question may reflect thinking, which still prevails. The relation to charity is based on the notion that differently-abled people are disadvantaged; most of the world's religions encourage acts of kindness to differently-abled people, the poor, destitute and other disadvantaged people. It is this notion, which

[2] Deborah Kaplan distinguishes between the medical and the rehabilitation model in her article 'The Definition of Disability' in http://www.accessiblesociety.org/topics/demographics-identity/dkaplanpaper.htm

motivates almsgiving, the development of special almshouses and other institutions for segregating differently-abled and poor people in 19th century Europe.

Note: The term "differently-abled" has replaced the traditional "disabled" in accordance with an agreement by Civil Society activists involved in the production of this publication.

The third model is the most progressive, and is favoured by most disability organizations. It views disability as a social construct, a result of the creation of barriers, which prevent differently-abled people from carrying out all the activities, they wish. According to this model, a differently-abled person is capable of carrying out every activity, to the extent that the facilities for enablement are in place. Thus for example, this chapter has been written by a visually impaired person. To the extent that the computers and their accessibility devices exist, there is no disability in composing and producing the chapter. However, someone with a similar visual impairment would be differently-abled, if they had no access to the technology, which makes the production of this chapter possible.

Lessons from History

From a social model perspective, one of the most important lessons of history is that successful inventions resulted from an attitude, which sought to shift the barriers of disability. Furthermore, differently-abled and non-differently-abled people need to work in co-operation towards achieving this aim. The result of co-operation is usually a mutually beneficial relationship. Three brief case studies might help show how a mutually beneficial relationship results from a social model of disability.

The first is the story of Louis Braille, whose name is now immortalised in the system of writing, which he designed for visually impaired people. He was born in 1809 in the village of Coupvray, just outside Paris. At three years, he lost his sight in an accident, while playing with sharp instruments in his father's blacksmith's workshop. By age 17, he was teaching at the school for blind people in Paris, and had much experience of the cumbersome method of reading, loosely based on the standard print alphabet. His alternative system was based on a code developed by Charles Barbier, a soldier who invented a system for the military to communicate in the dark without giving their position and information away to the enemy. Despite the lack of support by fellow teachers and other institutions, (including the French Academy of Science) Braille's method persisted with blind people until it was eventually recognized by all as the best system for communicating with people with visual impairment. This happened long

after its inventor had died in 1851, when a blind musician publicly declared after a concert that she could not have learned the music without the braille code.

Until the computer age began to offer real alternatives, braille was the universally accepted medium of instruction and information for those who could not see enough to read print. It is however worth emphasizing that the early users of braille did so under great opposition, because of "the superior attitude of sighted administrators … wishing to do only what they thought was right (without grasping) that the blind knew what was best for them" Bickel: L, Triumph over darkness: The Life of Louis Braille, (National Library for the Blind, UK, p148). There is perhaps an important lesson to learn, namely, that the people who know best about any given situation are those who are in it. This means that a visually impaired person is probably the best person to explain visual impairment. It does not however mean that this person is the only person who can do something about it. In more recent times, a process of consultation has developed; one which is based on the realisation that anything developed for differently-abled people must be done with the active co-operation, (especially at the testing stage) of people with the particular disability.

On 30 April 1808, just before Louis Braille was born, an Italian named Pellegrino Turri built the first typewriter (www.decades.com/ByDecade/1800-1809/9.htm or www.precision-dynamics.com.au/typewriters/turri.html). Interestingly, he built it for his blind friend, the countess Carolina Fantoni Da Fivizono. Between then and the emergence of the home and office PC, the typewriter was the equipment of choice for people in the writing profession, such as secretaries, journalists and authors. Even the computer keyboard is modelled after its predecessor on the typewriter. Before the rise of the PC, the typewriter was, for visually impaired people, the primary means of written communication with sighted people, because users did not have to see what they were typing. This piece of equipment, first invented for a blind person, has proved its universal worth and is the precursor to modern wordprocessors.

The third historical event to highlight here is the development of the Internet. It is not the intention of this chapter to trace its history, or examine how widespread and versatile the Internet has become. However, it is worth pointing out that the internet has become a vital tool for differently-abled people, who previously had access to only very limited information. The internet (and ICT in general) means that all material accessed by sighted people is equally accessible to blind people. In the past, special

provision had to be made to reproduce information in a specific format for a visually impaired person. The second thing to note about the internet is that one of its leading visionaries was J. C. R. Licklider. In 1960, long before the internet, he had published an article in which he envisioned a network of computers "connected to one another by wide band communication lines and to individuals by leased-wire services" (man computer symbiosis)[3]. Licklider was not a computer scientist; he was a professor of psychoacoustics who had used computers in his research and was able to see the potential.

There are several other important developments which have brought the information age to differently-abled people. A careful analysis of each is beyond the scope of this chapter. These three examples have been chosen to highlight several important issues to be considered in the inclusion of differently-abled people in the WSIS process. These include, but are not limited to the following:

- The inclusion of differently-abled people in the WSIS process requires innovative thinking, primarily because disability is beyond the scope of most people;
- Fortunately, there are already a number of high tech and low tech developments which can be deployed and it is up to the relevant authorities to seek these out;
- In providing a solution, it is important firstly to clearly define the problem. Thus, the problem for Louis Braille was that blind people could not read, and the problem for Pellegrini Turi was that they could not write;
- It is also important that the user is satisfied that the solution provided meets their needs, not just that the designer or provider believes that they are the best solution for the problem identified;
- Solutions may be mutually beneficial for both differently-abled and non-differently-abled people, and may have wider unforeseen advantages. This is the case with the development of the scanner, which can be used to scan pictorial images such as maps and photographs, as well as printed images for conversion into electronic format for visually impaired people. It has also been discovered to be true of web designs which cater for the needs of differently-abled people;

Available Technology

The technology required to bring differently-abled people into the information age is

[3] See also Licklider, J. C. R. and Taylor, R. The Computer As A Communication Device, in which the authors predicted that by 2000, millions of people will be 'online'. Both articles can be obtained in PDF format from the website: http://www.memex.org/licklider.pdf

currently available, and keeping up with developments outside the world of disability. However, the absence of supporting infrastructure, lack of awareness and general cost of technology are just some of the reasons why differently-abled people do not have access to what is available.

There is overwhelming evidence that Africa lacks the supporting infrastructure, such as internet connectivity and computer hardware and software. However, a detailed exploration of these issues is beyond the scope of this chapter. It is also clear that there is little or no awareness of whether differently-abled people need to access the information society, and if they do, how technology may assist them.

The first question is a cultural one, relating to perceptions of disability. It is also the primary question in deciding how to include differently-abled people in the information society. There are several reasons why differently-abled people need to access the information society. Firstly, they are just as needy, and as entitled to information. Disability does not in any way reduce the need for information. In fact, as differently-abled people are more cut off from society, one can easily argue that they are more needy of accessible information. Secondly, like other members of the society, differently-abled people want to interact with the rest of society, either through work, leisure or social contact. As noted earlier, disability does not necessarily mean reduced intelligence or capacity. Indeed, as differently-abled people in other cultures have participated in their societies, it has been observed that their activities have also benefited the rest of their communities. Increased access to information in Africa is likely to produce the same results.

Some have even gone further to argue that anti-discrimination measures be enacted in the various African jurisdictions, to ensure that differently-abled people get the same facilities, (with the necessary adaptations) as their non-differently-abled counterparts. Such legislation will ensure that differently-abled people can fully interact with their communities, as they will have access to the same information as others. By compelling employers, service providers and governments to take the needs of differently-abled people into account, it will also encourage increased awareness of the technology which is currently available and encourage improvements which are specific to Africa. This is consistent with observations made after the adoption of the Americans with Disability's act, (1990) in the United States (Sinton: P. High-Tech Devices Have Revolutionised Differently-abled Peoples' Lives", San Francisco Chronicle, July 17, 2000).

The second question is a technical one, and its answer will depend on the nature and needs of the differently-abled person. As noted earlier, there are so many disabilities that one solution cannot fit all. However, one solution may be useful for more than one disability. For example, For example, people with dyslexia may benefit as much from voice recognition software as those with little or no limb movement. The question to ask is not 'what disability are we dealing with?' but 'what are we trying to achieve?' The answer to that question is, to allow the individual concerned to access the computer. This will naturally lead to the next question, 'why can this individual not access the computer?

The technology which assists differently-abled people to access ICT is called access or assistive technology. In the past, this comprised bulky and sometimes cumbersome hardware which either stood alone, or was attached to a computer. These days, developers favour a more integrated system.

There are several ways to provide access technology. The first is within the operating system. Microsoft's Windows operating system and apple's Macintosh have built-in accessibility features which can magnify the words on the screen, provide audio feedback or assist people with limb impairments. Indeed, some standard software, such as outlook express and Microsoft Powerpoint also have audio feedback functionalities. The second approach is to develop access software for specific purposes. Software has been developed to provide access to the screen for visually impaired people, translate documents into braille files, recognize scanned characters and convert them into electronic formats and read data transmission and menus on 3G mobile phones. The third approach is to provide a hardware solution. Some hardware would require additional software, such as drivers or recognition and translation software. Generally, hardware solutions are used only when there is no software alternative, or the intended action cannot be accommodated in standard hardware. Examples of these would include producing braille.

It would be impossible to describe all access solutions in this chapter. For further information, several agencies produce updated information on access technology. The royal National Institute of the Blind produces technology factsheets which can be accessed from their website, (http://www.rnib.org.uk). A similar facility is offered by the American Foundation for the Blind from their website (http://www.afb.org)

Finally, access also includes the ability to interact with software and internet sites. This is a constantly changing area, influenced by new developments and creative ideas. Any

suggestions will therefore be subject to new developments. Several guidelines have been issued for programme developers (see for example the RNIB guidelines at http://www.rnib.org.uk). The general rule is to design software which takes disability into account. Thus, for example, a visually impaired person may find it easier to use the keyboard than the mouse; for this reason, several software developers ensure that there are keyboard alternatives. Similar considerations also apply to the development of websites. Several organizations have their own guidelines including the Web Accessibility Initiative of the Worldwide Web Consortium (http://www.w3.org/wai).

The final consideration in deploying access technology is cost. As resources in Africa are limited, this is an important factor. Fortunately, the cost of access technology is much reduced, as a result of several modern trends. The first is the shift from systems developed specifically for differently-abled people. These days, differently-abled people use standard equipment such as scanners and computer speakers. This means that a standard computer will have most of the necessary hardware for any differently-abled person. There is one exception to this general rule, namely, where the hardware in question performs a task which is not necessary for a non-differently-abled person. This would include specific imput devices such as a braille keyboard, as well as braille embossers, (printer) and braille displays.

Conclusion

This chapter can only be described as a brief introduction to the many issues surrounding the provision of ICT for differently-abled people. The reader is urged to read further for several reasons. First, an informed approach to disability is essential; but this would be impossible without a clearer understanding of the abilities, difficulties and technology. Information about disability is widely available but rarely consulted. Secondly, there is a growing danger that differently-abled people may once again be marginalised. This would be a gross injustice, because the technology does exist, at a reasonable cost, to reverse the marginalisation. Furthermore, several countries outside Africa have introduced an legal obligation to include differently-abled people in the fabric of their communities, recognizing their rights, duties and obligations as fellow citizens.

The higher proportion of differently-abled beggars and the relatively lower percentage of successful role models is a sad testimony, which may create the impression that differently-abled people are somehow not clever enough to achieve their goals. However, it is more likely that differently-abled people are just as clever, but lack the information

and support which others have, to achieve their goals. The words of J. C. R. Licklider and Robert Taylor are particularly insightful when they write: "For the society, the impact will be good or bad, depending mainly on the question: Will "to be on line" be a privilege or a right? If only a favoured segment of the population gets a chance to enjoy the advantage of "intelligence amplification," the network may exaggerate the discontinuity in the spectrum of intellectual opportunity" (The Computer as a Communication Device).

I would particularly urge careful study of the various websites referred to. In recognition of the changing nature of websites, I have refrained, wherever possible from referring to specific documents. However, I have acted with the confidence that there will always be relevant information in these websites, on such vital issues as available technology, good website and software design and the general needs of differently-abled ICT users.

Profiles

HIV Awareness Films

By Tracey Naughton

It's not so easy to use media to develop awareness about how the HI virus spreads when there's a ten-hour journey between the capital city of Maseru and a village and no electricity at the other end of the journey. These are the challenges that Aids organizations face in the 'Mountain Kingdom' of Lesotho.

The village of Khohlo Ntso is situated some 250 km's north east of capital Maseru and just south of Khatse dam. The drive takes between four and six hours winding over four, three thousand metre high mountain passes. For residents of Khohlo Ntso a trip to Maseru by bus takes at least ten hours. Water for everyday use is collected from standpipes or at the river 20 minutes walk into the valley.

With the assistance of international donors Sesotho Media - a film production company, has been involved in rural outreach and the distribution of educational materials on HIV, to every school in Lesotho. Locally made films are the centrepieces of the outreach strategy. In these, Basotho characters reveal their positive status and talk about the impact it is having in their lives and the lives of people they live with – the infected and the affected. The video projector has to be powered by a generator, which hums in the background. The discussion around the films will often be followed by very practical advice on prevention and care.

It's often hard for donors to appreciate the value of outreach strategies that use film as a communication tool and many people don't see local content made in their own language because of these blockages. At the same time, AIDs organizations argue that the power of audiovisual material as a medium to develop awareness and convey practical information on care and treatment, should not be under-estimated for it's ability to project the real issues through culturally plausible characters.

SchoolNet Mali vient de lancer le projet « Computers for Schools in Mali »

Entretien Avec Sounkalo Dembele, Coordinateur Mali d'I*EARN, de Schoolnet et de Drums for Solar

By Ken Lohento

Avant votre projet, quelle était la situation des NTICs au Mali, en particulier à l'école ?

Il n'y avait aucun ordinateur dans les écoles publiques pour les élèves. Généralement il y a un ou deux ordinateurs pour l'administration. Quelques écoles privées étaient équipées en PCs mais elles sont financièrement hors de portée de la majorité des élèves. C'est ce manque d'accès au niveau des écoles publiques qui est à l'origine du projet ainsi que la rencontre avec l'ONG Panafricaine SchoolNet Africa. Un des objectifs de SchoolNet Africa est de faciliter l'accès des écoles aux NTIC. SchoolNet Africa nous a assisté dans la mise en place du volet Mali et dans l'élaboration de projets.

Le gouvernement malien a-t-il élaboré une stratégie NTICs ? Quelle a été l'attitude du gouvernement et des Ministères vis-vis de votre projet ?

Lorsque nous avons commencé à travailler sur notre projet, il n' y avait pas encore de stratégie nationale relative aux NTIC. Cependant, il s'est tenu récemment un séminaire pour l'élaboration d'un plan stratégique.

Nous avons bénéficié et bénéficions encore de l'appui du Ministère de l'Education. Le Ministère a mis à notre disposition des salles pour l'organization de la formation Thinkquest Africa. Cet appui compte beaucoup pour notre projet, nous devons engager tous les acteurs dans le domaine de l'éducation. C'est aussi un impératif pour l'USAID qui finance notre projet.

Comment est né votre projet ?

Ce projet est né de la collaboration entre différents partenaires comme le résume notre slogan « *Creating Synergy to Make Difference* ». Comme le dit le proverbe malien « *L'arbre*

sur la colline pense qu'il est plus grand que les autres », nous n'aurions pas pu réussir sans la synergie ce concours d'énergies !

Nous avons d'abord bénéficié du soutien de SchoolNet Africa, en la personne de Shafika Isaacs qui en est la Directrice. Elle a aidé au lancement de SchoolNet Mali et nous a mis en contact avec d'autres organizations comme Computer Aid International qui a fourni les ordinateurs. A travers SchoolNet Africa, nous avons bénéficié de l'expérience du Western Cape Schools Network et rencontré Jenny King, la Directrice de Western Cape SchoolNet. Je tiens aussi à mentionner Le Centre de Formation Pratique en Elevage et sa Directrice Madame Cisse. Le CFPE héberge les locaux de SchoolNet Mali, le centre de formation SchoolNet et le centre de maintenance.

Notre projet a été présenté à l'USAID Mali pour financement. Il rentrait dans le cadre du plan stratégique de l'USAID pour le Mali 2003-20012, objectif spéciale communication pour le Développement. Le projet a été soutenu par l'équipe ComDev (Communication pour le Développement) à travers son chef, Dennis Bilodeau. Le projet devrait prendre fin en décembre 2004.

Combien d'écoles participent à votre projet ?

Nous avons sélectionné 10 écoles qui devait recevoir 20 PCs chacune. Le nombre a été revu à la hausse ce qui amène le nombre a 11 écoles. Cela pour permettre a la fois au maximum d'en bénéficier et de faciliter l'opérationnalisation des salles qui demande un investissement souvent pas facile avec les écoles publique. A ceci s'ajoutent notre centre de formation SchoolNet Mali (15 machines) et une petite école maternelle Ecoles Naminata Bamba qui a reçu 5 PCs.

Les écoles se situent dans plusieurs régions du Mali à Bamako, Kati, Koulikoro, Ségou, et Sikasso. Nous avons volontairement inclus des écoles situées hors de Bamako et dans des régions rurales.

Un premier point a été la connection des écoles à l'électricité : nous n'avons pour cette première phase du projet pu faire participer que des écoles ayant l'électricité. C'est peu représentatif des écoles au Mali où entre 60 a 70% n'ont pas l'électricité.
Nous avons pris en compte plusieurs critères : une salle à disposition pour héberger la classe informatique, l'engagement des écoles à accepter des ordinateurs de seconde main, l'engagement des écoles à assurer la maintenance et la sécurité des ordinateurs.

Un autre point important a été la relation entre l'école et la communauté locale : nous voulions des écoles fortement intégrées dans les communautés. Par exemple, la maternelle Les Petits Saints à une équipe de football et une équipe de basket ball, dont les membres seront invités à utiliser les ordinateurs.

Comment s'est passé le déploiement des ordinateurs ? Quelles sont les activités du projet que vous avez mises en place jusqu'à présent ?

Le container est arrivé fin mai 2004. En **juin** et **juillet**, nous avons retesté les machines et installé Mandrakelinux. Fin juillet, nous avons organisé une journée SchoolNet à laquelle les écoles, les partenaires du projet USAID-Mali ainsi que les principaux acteurs des NTIC au Mali (Association des Utilisateurs de Linux, ISP etc) et des organizations internationales telles le PNUD,GeekCorps Mali ont participé. Il s'agissait de faire une démonstration de l'installation de Linux et d'en faire la promotion, comme de partager les expériences des différents participants dans le domaine de l'utilisation des logiciels libres. A la fin de la journée un des participants Pierre KALUZNY volontaire a GeekCorps dit :

« installer les ordinateurs n'est pas un problème mais en faire un événement mérite félicitation »

Durant le mois d'août, les écoles prêtes sont venues chercher leurs PCs : les 11 écoles ont à ce jour récupéré leurs ordinateurs.

En parallèle à l'installation des classes informatiques, nous avons tenu plusieurs séances de formation. I*EARN Mali en collaboration avec SchoolNetMali a organisé une formation de formateurs aux applications de linux, a la création et au gestion de réseau le tout couronnée par des notions de maintenance informatique.

USAID a financé une formation adressée aux gestionaires des salles informatiques dans le domaine de la planification et du marketing. Il est impératif que chaque salle soité gérée de façon rentable et en accord avec le réglement que nous avons élaboré avec les écoles.

Chaque école a sa propre organization interne mais doit maintenir la classe informatique. La question de l'entretien des PCs se pose si la salle n'est pas gérée de façon viable. Les élèves, les professeurs et les utilisateurs des ordinateurs devront contribuer, même symboliquement. Nous pensons que la gratuité tue. D'après notre expérience, il faut impérativement aborder l'aspect de la rentabilité si l'on veut que le projet soit durable.

Depuis février 2003, I*EARN Mali en partenariat avec SchoolNet Mali forme les enseignants à l'intégration des NTICs à leurs cours et méthodes d'enseignement.

Dans le cadre de ce projet, nous avons mis en place un centre de formation SchoolNet appelé « Lonigna Gwenden » ou Espace de Connaissance, qui se veut un espace d'éducation montrant toutes les potentialités de l'outil informatique. Les visiteurs peuvent tester Linux, mais aussi accéder à Microsoft, Adobe ou à d'autres types de logiciels.
Nous avons aussi mis en place un centre de maintenance qui créera un partenariat avec des écoles informatiques où des techniciens en herbe se forment bénévolement à la réparation et nous permettent de bénéficier de leurs compétences.

Thinkquest Africa qui est devenu **Mtandao** est un autre programme que nous essayons de mettre en oeuvre malgré l'absence de connexion Internet. Nous aimerions former les professeurs, les élèves et leurs parents à l'utilisation de l'outil informatique et la conception de sites web (Thinkquest est un programme de SchoolNet Africa où des équipes d'élèves de différents pays élaborent des sites web sous la direction de leurs professeurs).

Quels sont les problèmes et obstacles que vous avez rencontrés et comment avez-vous pu y remédier ?

Nous pensons qu'il n y a pas de **problèmes** mais des **expériences** cependant nous avons rencontrés des difficultés majeurs pour la connexion Internet qui fait défaut et qui nous permettrait de gérer le projet de façon plus efficace, de communiquer avec les écoles et de surmontes les difficultés en temps réel. Reliées à la toile, les écoles pourraient participer aux formations en ligne organisées par SchoolNet Africa. Pour la connexion on négociait des heures de connexion avec des cybers pour nos différentes activités qui nécessitaient une connexion ou utiliser la connexion de l'école avec un débit très faible.

Nous avons eu quelques difficultés techniques avec les ordinateurs mais Computer Aid International nous avait fournir un nombre important de pièces détachées (disques durs, mémoire RAM etc.), ce qui nous a permis d'avoir 200 machines fonctionnelles. Nous allons de plus opté pour la mise en réseau des machines ce qui permettra plus de performance.

J'ai personnellement rencontré d'autres problèmes liés au fait que SchoolNet Mali et I*EARN Mali sont des organizations jeunes et gérées par des jeunes. Des préjugés à

l'égard de la jeunesse, un certain jeunisme je dirais, laissaient les gens sceptiques. Je suis passé à **l'émission Cyberntic** en **2003** et tout récemment en **Octobre 2004** celà a donné beaucoup de crédibilité à notre travail et nous a donné beaucoup de contacts.

Un de nos défis est la viabilité de notre projet : jusqu'à présent le coordinateur, le technicien et notre secrétaire comptable travaillent sur une base quasi bénévole. Nous aimerions pouvoir les rémunérer en fonction de leurs compétences et contributions.

Quels développements souhaiteriez-vous pour votre projet ?

Le projet devrait toucher tout le Mali, c'est-à-dire que nous aimerions connecter au moins un lycée et deux écoles primaires dans chacune des huit régions du pays. Il s'agirait d'inclure aussi des écoles n'ayant pas d'électricité. Nous espérons utiliser l'énergie solaire avec la contribution de Drums for Solar, une ONG américaine partenaire du projet.

En plus de l'équipement PC, chaque école serait connectée à Internet. Ceci implique de négotier avec les fournisseurs d'accès Internet au niveau du Mali.

Est-ce que vous avez un message pour les lecteurs de cet article, en Afrique et ailleurs ?

C'est d'abord de remercier les lecteurs qui ont pris leurs temps oh ! combien précieux a lire cet article en cette époque ou le monde va la quatrième vitesse.

En conclusion, je lance un appel à tous ceux qui peuvent nous assister en nous faisant bénéficier des formations à court et long terme pour la bonne gestion du projet. En nous assistant par la formation ils nous permettrons d'acquérir la richesse la plus pérenne : La connaissance.

Fighting for What's Right: The Kenya Internet Exchange Point

By Brian Longwe

"*Wait and see, we will shut you down!*" These ominous words came from a senior Telkom Kenya manager to the Chairman of the Telecommunications Service Providers of Kenya (TESPOK) regarding the Kenya Internet Exchange Point (KIXP). TESPOK had just launched KIXP amidst much acclaim and fanfare, but the events that followed clearly showed that some people were far from happy with this positive development in Kenya's Internet growth.

The warning was carried out and within hours. Telkom had disconnected all ISPs links into KIXP on the basis of a hastily made decision by the Communications Commission of Kenya (CCK) that KIXP was operating illegally. These events, which took place in November 2000, marked the beginning of what will probably be remembered as the biggest regulatory battle in Kenya's history and a key defining moment for Kenya's Internet industry.

Simply put, an Internet exchange point is like a clearing-house, where local Internet Service Providers (ISPs) bring their correspondent traffic and exchange it; in essence keeping local traffic local. Before KIXP, an email between two people who had different ISPs would leave the country, go via the USA, Europe and sometimes Asia before coming back into the country to the intended recipient – even when that person was across the road.

TESPOK fought hard and fought well, engaging a strategy that covered multiple fronts. There was a legal approach, where the CCK's decision was appealed against before the communications Appeals Tribunal. This was accompanied by a sustained public campaign through press releases, interviews, press conferences and news articles via the local and international media. There was also a well-focused awareness approach, which targeted key government individuals including ministers, permanent secretaries and members of parliament amongst others.

A year and a half later, KIXP was reactivated with an official launch on the 14th of February 2002, presided over by none other than the Director-General of CCK himself.

In his speech, he lauded the efforts of the ISPs who bravely weathered the odds and doggedly pursued what they knew to be a critically essential part of Kenya's Internet infrastructure.

KIXP's story has never been fully told, and there isn't enough space here to write it all – maybe one day, while penning our memoirs, we will capture all the elements that went into creating the core that drives Kenya's Internet today. What we can do here, however, is try to capture some of the lessons learnt and hope that someone somewhere may draw strength, courage, motivation or simply learn a slightly different approach.

As mentioned, the first thing we did was look at the law – what rights did we have? What could we or couldn't we do? Were there any legal grounds for KIXP to operate as it had? Where could our cause be heard? Was there anyone who acted as a check and balance over CCK?

We were very glad to find our answers in the Kenya Communications Act '98 in the form of the Communications Appeals Tribunal. TESPOK rallied its members together and called for contributions towards the legal fees and other expenses that would be required to wage the battle. Out of the then 15 odd members, 7 responded energetically, throwing their time, energy and money into the cause.

Over a period of seven to eight months, the concerted efforts of these ISPs, coupled with growing support from the rest of private sector, public, government and civil society brought about a drastic shift of opinions. All of a sudden the right people were asking the right questions, and demanding answers. Most importantly the single strongest argument against KIXP - that it would pose a threat to national security - was debunked and thrown out of the window. This particular argument, it seems, had been one of KPTC's and later Telkom Kenya's best "secret weapon" against anyone and anything which they felt threatened by. Once the individuals and agencies responsible for national security were enlightened to the true function that an Internet exchange point performs in a country and realized the risks and hazards that we faced without KIXP, they gave the initiative their full support and played a key role in demystifying KIXP.

Quelling the rumours and lies that had been spread was only one part of the problem. A strong legal and regulatory case had to be made to justify the existence of KIXP. We decided to take a technical approach, and presented KIXP in its constituent parts. By

breaking it down this way we were able to demonstrate that in it's purest form KIXP was nothing more than an Ethernet hub (also called a switch). Similar to thousands that existed at the time in every single computer network in the country. We argued that if KIXP was illegal and needed a license, then so did every single Local Area Network (LAN) in the country. The case was watertight and unquestionable. Long before the tribunal held the hearing, CCK informally made contact with us and indicated that it would be best to settle the matter out of court and avoid a long, messy legal tussle. We complied and after much discussion and negotiation, opted to eat humble pie, save the regulator face and apply for a license for KIXP. At the time it was the quickest way to get what we wanted, a functional and efficient Internet exchange which had the support of the local authorities. Within a matter of months, the license had been issued and the exchange was at work keeping local traffic local.

The single most important lesson learnt from our experience with KIXP is probably the importance of having a dream and a vision – pushing forward and reaching for that dream against all odds and not backing down no matter who stands in the way. For a long time the ISPs had been the underdogs, manhandled and mistreated. Our experience with KIXP redefined us, gave us a new boldness and courage to stand up for what we felt was right. To challenge the thinking that had kept Kenya in the darker reaches of the Information age and to push the country closer towards the beginnings of a digital economy. There is still a lot of work to be done. We still need champions who will hold forth and patiently overcome ignorance, fear and indecision to take the country forward in the global information revolution.

Brian Longwe is the Chief Technology Officer for ISP Kenya and also serves as General Manger for the African Internet Service Providers Association, which among other things aims to help African ISPs establish Internet Exchange Points in their countries as part of their national development goals.

IPv6 distribution in Africa, a Civil Society model for IT Policy Development

By Timothy McGinnis

This paper will attempt to describe the way in which the next generation Internet Protocol addressing scheme is currently distributed, globally and in the African region. I will present the current AfriNIC Policy Development Process as a model of Civil Society cooperation. The proposed ITU geo-political addressing scheme will be compared with the current regional addressing system in terms of meeting WSIS/WGIG goals. I will present the current AfriNIC Policy Development Process as a model of Civil Society cooperation.

Introduction

Currently there are two types of Internet Protocol (IP) addresses in active use: IP version 4 (IPv4) and IP version 6 (IPv6). IPv4 (32 bit numbers) has been the historical and predominant current version, while IPv6 (128 bit) began with experimental deployment in 1999 and is seen as the future of IP addressing.

Brief History of Internet Numbering Resources

In order to understand how Internet Protocol address distribution is done, and how it might be done differently in the future, we need to examine its history.

> "The assignment of numbers is also handled by Jon. If you are developing a protocol or application that will require the use of a link, socket, port, protocol, or network number please contact Jon to receive a number assignment." Postel RFC790 September 1981

In the early days of Internetworking (1972), one small organization the IANA (Internet Assigned Numbers Authority) handled the network numbering resources. IANA was really one man, Jon Postel who apocryphally kept track of it all in a notebook.

While the IANA continued its function (and still is) the "root" registry, in 1992, regional addressing (roughly by continent) began. Centralization under the IANA gave way to the new paradigm of regionalization whereby Regional Internet Registries (RIRs) allocated and assigned IP resources.[4] This shift came about for a number of reasons:

- Sheer volume;
- Distance from the address space consumers;
- Lack of an appropriate global funding structure; and
- Lack of local community support.

Europe, Middle East and Africa

In 1992, The European Internetworking Community (RIPE) formed the Réseaux IP Européens Network Coordination Centre (RIPE NCC) in order to carry out the European numbering function. RIPE NCC region also included the Middle East and Africa north of the Equator.

Asia/Pacific

In 1993, the APNIC (Asia and Pacific Network Information Center) began serving as the RIR for Asia and Pacific region.

The Americas

Also in 1993 the InterNIC a quasi-governmental body mandated to organize and maintain the growing DNS registry and services was formed. The InterNIC also did number resource allocation to the parts of the world not covered by APNIC or the RIPE NCC. 1997 saw the birth of ARIN (American Registry for Internet Numbers), which was charged with the numbering function for the Americas and Africa south of the Equator.

The first initiative for establishment of AfriNIC started in 1997 before ICANN, when some of the earlier Internet adopters from Africa (Niii Quaynor – Ghana, Alan Barrett – South Africa, Sana Bellamine – Tunisia and Nashwa Abdel-Baki – Egypt) proposed a document to set up an organization to manage Number resources in Africa. The idea behind the initiative was to adapt the allocation policies applied by the already established RIRs (RIPE NCC and APNIC) to Africa's realities. This proposal resulted to a consensus in 2000 with the setup of AfNOG (the African Network Operators group). It was decided that the overall overseeing of AfriNIC will be done by representatives elected from the six identified sub-regions in Africa (Northern, Western, Central, Eastern and Southern). The resulting organization was registered in Mauritius with its various operations distributed among three other countries as follows:

- Technical Operations in South Africa
- Backup and Disaster Recovery in Egypt
- Training coordination in Ghana.

Source: http://www.afrinic.net/about.htm

[4] Development of the Regional Internet Registry System
Daniel Karrenberg, RIPE-NCC; Gerard Ross, APNIC; Paul Wilson, APNIC; Leslie Nobile, ARIN

LACNIC (Latin American and Caribbean Network Information Center) was accredited in 1992 to do the numbering function for Central and South America.

Africa

Africa was historically split along the Equator for addressing purposes between RIPE NCC and ARIN until the formation of AfriNIC. Nine years of hard work by African network operators, academics and other interested parties saw the final accreditation of a RIR for Africa in 2005.

ICANN

In 1998, the ICANN (Internet Corporation for Assigned Names and Numbers) was formed. This non-profit, private sector corporation formed by a broad coalition of the Internet's business, technical, and academic interests worldwide is recognized as the "global consensus entity to coordinate the technical management of the Internet's domain name system, the allocation of IP address space, the assignment of protocol parameters, and the management of the root server system[5].

ICANN is currently responsible for carrying out the functions of the IANA.

In summary, the current system of IP address distribution is one in which the global pool of addresses is managed by IANA, who allocate very large blocks to Regional Registries, who then allocate smaller blocks to their members (network operators) who then assign relatively small amounts of address space to their customers.

AfriNIC's Policy Development Process: A Model of Civil Society behavior

AfriNIC shares a number of things in common with the other RIRs, besides their primary address stewardship function. They are all neutral and impartial non-profit membership based organizations that support the activities of the communities they represent.

In addition, they have very similar approaches to how policies are determined in their region. This is done in an open, transparent, well-documented, bottom up process of discussion and consensus-based decision making. All interested Internet users can participate in the policy development process, including governments, Civil Society

[5] http://www.domainavenue.com/faq_history.htm

(CS) groups, individuals, academics, etc. This process is well documented on each of the RIRs websites.[6]

One does NOT have to become a "member" of AfriNIC, pay any dues, or attend any meetings to help make policy. All one has to do is join one (or more) of the public policy mailing lists and one is given an equal voice. The RIRs call this inclusive, democratic, multi-stakeholder approach "Industry Self Regulation". While the use of this term means that the RIRs are probably just being honest about who most often participates in the development of policies, many CS organizations, academics, interested individual end users do contribute and their voices are heard just as loudly as those of network operators.

The authors view is that the way IPv6 addressing policy is done in Africa (and globally) is a CS model of how Internet Governance (IG) policy development process should be done.

The process is clearly open to everyone, decisions are made by consensus and every step in the process is well-documented. It is transparent in that every mail to policy lists is archived and freely available, every meeting is minuted in great detail, audio and video of policy meetings are available in both real-time and archival formats. In addition, it is possible to participate via IRC/jabber and other "chat" formats to ask questions of and make comments in RIR meetings if one can't attend in person.

The policy making process involves all parties who wish to partake. The result is that discussions are not rushed and parties that may be affected by a decision are given the opportunity to discuss, review, and provide any input they feel is relevant to current proposals.

Unfortunately, some involved in the WSIS/WGIG process, while acknowledging the excellent job done by the current scheme, seem intent on re-inventing this particular wheel for their own political reasons. A few governments would like to control who can connect to the Internet, control the content that users can access or control VOIP (Voice over IP) access to protect their incumbent telecom monopoly. Unfortunately, one cannot control who connects to the Internet or who uses VOIP by exercising control over the allocation and assignment of IPv6 addresses. It is clear these governments have been misled.

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[6] http://www.afrinic.net/pdp.htm ;http://www.ripe.net/ripe/policies/index.html ; http://www.arin.net/policy/irpep.html ; http://lacnic.net/en/politicas/index.html; http://www.apnic.net/docs/policy/dev/index.html

African Civil Society Organizations should support and join in the AfriNIC policy development process. Regrettably, most Civil Society groups involved in the WSIS/WGIG process do not seem to know that there is an open, bottom up way that Internet Resource policies are made. Instead, Civil Society groups in the North that purport to speak for Africa seek to add another layer and component of IG to the way that IP addresses are currently distributed.

AfriNIC has just been accredited as the fifth RIR by ICANN, and the open, transparent way that policy is created has worked remarkably well for over a decade for the other RIRs

The global routing table is a list of all prefixes (and associated information) that are in use within the Internet. Source: http://www.bgpexpert.com/bgpanswers.php

Africa's current IPv6 address policies are made in an open, transparent democratic consensus driven fashion. This process is an ideal Civil Society decision-making style. African Civil Society Organizations should be allowed to continue to help shape African IPv6 policies, Governments too should be allowed to offer input as an equal stakeholder.

Benefits of the Current Scheme (Provider Based Aggregation)

The current scheme of regional distribution allows for what is termed Provider Based Aggregation. This is the concept whereby Internet Registries allocate and assign address space to Internet Service Providers and other network operators who then sub-allocate or assign these addresses to their customers or the customers of their customers. Aggregation is currently seen as the primary goal of v6 addressing policies. Aggregation means that large blocks (aggregates or prefixes) of addresses can be routed by a provider/operator. The benefits of this model are that the IPv6 global routing table (GRT) can be kept to a manageable size.

Within the current constraints of the Internet's architecture and the deployed hardware and systems the Internet uses provider-based address aggregation as a means of ensuring that the Internet continues to operate in a viable and cost-effective manner.

http://www.apnic.net/news/hot-topics/docs/itu-submission-20041210.pdf

It is the data in routing tables which allows routers to forward packets to the correct destination. Keeping this routing table to a size that can be handled by currently

deployed routers is a major challenge faced by the Internetworking community. Aggregation is the key to meeting this challenge.

This is especially true in IPv6 because of the incredibly large number of potential routes that could be injected into the v6 routing table. Massive growth in the routing table means that memory in routers will need to grow to handle the load. Upgrading routers is a costly proposition - these costs will eventually be passed along to African consumers. Some African ISPs will not be able to absorb these costs, leading to further consolidation in the African ISP market.

In summary, without adequate aggregation, an explosion in the size of the GRT will mean higher costs for African ISPs and therefore for African Internet users.

Geo-Political Based Aggregation

One proposal coming from the ITU (and a very few other folk) is to establish a new addressing scheme which would entail allocation of IPv6 blocks to national entities. These would act as "National Internet Registries", where users could go to get their IPv6 addresses. This would provide "competition" between the RIRs and the National Registries, and create a "market" for these resources.

There are a number of fatally serious flaws to this idea. Included below are some of them:

1. Costs for this are un-funded. Setting up one IR per country will be enormously costly. These

Compared to the IPv4 address policy, the goal of aggregation is particularly important in IPv6 addressing, where the size of the total address pool creates significant implications for both internal and external routing. IPv6 address policies should seek to avoid fragmentation of address ranges. http://www.isoc.org/briefings/012/ Takashi Arano 2003

One option for possible future consideration, discussed with some industry experts, is the idea that, in addition to the current arrangements for allocation of IPv6 address by the RIRs, one could reserve a portion of the large IPv6 space for country-based assignments, that is, assign a block to a country at no cost, and let the country itself manage this kind of address in IPv6. By assigning addresses to countries, we will enable any particular user to choose their preferred source of addresses: either the country-assigned ones or the region/international-assigned ones. A competition between the country registration agency and the regional registration agencies will exist, but people will have a good choice. Sovereignty connected to the registration of addresses will be safeguarded. The details and constraints, in particular the very important issues related to routing table size (it is essential that address allocation continue to be consistent with the need of ISPs to continue aggregating routes), could be further discussed if this proposal encounters favor.

Source: Zhao rev1 2005

funds can be better spent in direct pursuit of WSIS targets instead of the narrow, political benefit that this proposal seeks. Duplication of effort means more wasted money. Why spend money on something that is technically not needed?

2. Lack of capacity by governments. Many African governments lack the financial means to create a "National Registry". Many also lack the "in-country" technical skill sets needed to set up an IP registry (an RPSL compliant WHOIS Database and nameservers serving AAAA (IPv6 address) records amongst other things). In addition the human factors must be considered. In many African countries, what the "West" calls "corruption" is simply the way things get done. It is not inconceivable that providers would have to bribe national registry staff to get the space they want or need. This does not happen under the current addressing scheme. Members of AfriNIC get what they need because of their technical need for address space, no other factors are considered.
3. This idea "breaks" the aggregation described above. An explosion of routing table size under this scheme could undermine the stability of the Internet for the following reasons:

    a) Network topology does not usually match national geography: a provider operating a Pan-African or multinational network can get one /32 allocation (or larger if needed) from AfriNIC and announce one route in the routing table. If Governments mandate use of "their" v6 space under geo-political addressing, network operators might have to get one block per country and announce all of the country blocks (and possibly their RIR) block into the routing table. Multiplying this by the number of countries and then multiplying by the hundreds of Providers that have multinational networks produces large numbers of potential new routes that may be injected into routing tables.
    b) Further complicating the scenario, some of countries that partake of a geo-political addressing scheme may not abide by the current global policies as outlined in RFC 3177. For example, what if some of these countries decide that their IPv6 can be "Provider Independent" or "portable". These terms mean that the block is not part of a larger aggregate and can be routed independently. This is a concept that exists in IPv4, but is absolutely not allowed in IPv6 for the health of the GRT. This would lead to many more small IPv6 routes being announced.
    c) The above scenario may lead to premature exhaustion of Autonomous System Numbers as well, since many of the IPv6 blocks described above could be routed via an independent ASN. (This is an even more finite resource than IPv4 addresses).

d) If governments mandate the use of "their" v6 space this means providers would have to pay to route any already used AfriNIC space AND "national" addresses. Increasing costs means more pressure on African ISPs in an environment where profit margins are already razor thin.
e) The process whereby national governments would decide on IPv6 policies would almost certainly be less inclusive than the current CS process.
f) Governments do not route IP space, providers do. If governments were in charge of part of the v6 space, they might require providers to announce the government blocks. This would force providers to give unfunded transit. In other words, pass packets without compensation.
g) Another of the global policy principles is that IPv6 addresses are not "property", they are only leased, and not sold. Under the ITU scheme, governments might not follow the CS rules and create a "market" for IPv6 space. This could lead to "address shopping" whereby provider 1 in country A might get their addresses from country B, due to more favorable conditions in country B. There are other global IPv6 policy principles and goals that might be ignored by national governments

In conclusion, AfriNIC has just been accredited as the fifth RIR by ICANN, and the open, transparent way that policy is created has worked remarkably well for over a decade for the other RIRs. Allowing the ITU to allocate part of the IPv6 space to national governments (as proposed by the ITU) would be detrimental to the sustainability of AfriNIC. Hundreds of African stakeholders have spent countless hours on AfriNIC development over many years. In addition the official African position made by the Regional WSIS process and communicated by the Economic Commission for Africa does not recommend any changes to IPv6 allocation arrangements.

Creating an additional IPv6 addressing scheme will be costly, taking money away from WSIS goals that are already clearly defined.

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KwikPhone and KwikNet

Telecentres around the world appear in many guises. There isn't a one size fits all solution, and where there is, it usually doesn't meet human development needs. Urban areas are better able to support medium size businesses that sell ICT services.

KwikPhone and KwikNet are collocated businesses based in the centre of Zimbabwe's second largest city – Bulawayo. Local residents use the facilities for personal and employment purposes. CV's are typed neatly and re-produced using the computers and printing facilities; tender documents can be accessed via the Internet. The biggest use of the centre though is for phone calls. People who don't have computer skills, or literacy, can communicate without embarrassment by phone. The centre has fourteen phone lines; one is used for the Internet. There is little demand for email services. Email is often used for job applications, but the majority of people don't have a network of people to correspond with by email

La société civile dans le partenariat multiacteur: réflexions à partir de l'expérience du projet CIPACO de l'IPAO[7]

Le Sommet Mondial sur le Développement Durable de 2002 ainsi que le Sommet Mondial sur la Société de l'Information (2003-2005) ont consacré le Partenariat Multiacteur (PMA) comme le format de coopération le plus susceptible de garantir la disponibilité des ressources nécessaires à la réalisation des projets de développement durable. Ce partenariat rassemble le secteur privé, le gouvernement, la société civile (deux à deux ou de façon multilatérale) autour d'un projet, d'une action de développement spécifique. Certaines activités du CIPACO (Centre sur les Politiques Internationales des TIC pour

[7]Les opinions exprimées ici ne sont pas forcément celles de l'Institut Panos Afrique de l'Ouest et du projet CIPACO et n'engagent que l'auteur de l'article.

l'Afrique de l'Ouest et du Centre, projet de l'Institut Panos Afrique de l'Ouest (IPAO)[8] initialement financé par le programme international CATIA[9]), sont réalisées dans ce cadre partenarial. L'objectif de cet article est de présenter quelques manifestations de ce partenariat du point de vue de la société civile africaine. L'article examine en particulier le partenariat secteur privé - société civile, compte tenu de sa particularité. Cette analyse est essentiellement réalisée à partir de l'expérience en cours du projet CIPACO Une analyse du PMA est au préalable proposée.

La partenariat multi-acteur : échappatoire ou indispensable nécessité ?

Le partenariat multiacteur est à la mode, notamment dans le discours international. De prime abord, on ne peut s'empêcher de considérer les appels à la mise en place de ces partenariats avec circonspection. En effet, malgré la pertinence que revêt le concept et au vu de l'histoire de la coopération au développement, on peut légitimement se demander si l'objectif non officiel de ces stratégies n'est pas le désengagement des pays riches de l'accroissement de l'aide publique au développement, ainsi que l'imposition du secteur privé. En effet, le PMA est parfois présenté comme la solution aux besoins de financement du développement. Or on sait que les engagements pris au sommet de Monterrey ne sont pas respectés et que la recherche de stratégies de financement pour compenser ce déficit est devenue une nécessité. On sait également qu'en dehors des Etats, seul le secteur privé possède ces financements complémentaires, qu'il peut mettre à disposition selon ses priorités et intérêts. Dans le même temps, la privatisation et le libéralisme (ou même l'ultralibéralisme) ont le vent en poupe et sont promus. L'inclusion théorique de la société civile ne serait alors qu'anecdotique, formelle, puisqu'elle est aujourd'hui incontournable tout en n'ayant pas les moyens de mettre à disposition ces financements nécessaires.

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[8] L'IPAO www.panos-ao.org est une organization régionale africaine dont l'objectif est de l'objectif est de promouvoir une culture de la démocratie, de la citoyenneté et de la paix en Afrique, à travers l'information et la communication. Elle est membre du Panos Council qui regroupe différents Instituts Panos du monde entier, et a son siège à Dakar. L'IPAO réalise sa mission à travers quatre programmes ((1)Communication, Société Civile et bonne gouvernance ; (2) Pluralisme de l'Information, (3) Médias Diversité et Conflits (4) Nouvelles Technologies de l'Information et de la Communication) et deux Départements ((1) Radio et (2) Presse Ecrite. Le CIPACO s'insère dans le Programme NTIC. La neutralité technologique marque aujourd'hui l'action de l'IPAO dont les activités s'articulent autour de tous les moyens de communication, de la radio à l'internet.

[9]Le Programme CATIA "Dynamiser l'Accès aux Technologies de l'Information et de la Communication (TIC) en Afrique" vise à favoriser l'appropriation sociale des TIC et des opportunités qu'elles offrent pour les populations marginalisées, et ainsi jouer le rôle de catalyseur pour les réformes. CATIA est un programme de trois ans, né d'une collaboration étroite entre DFID, d'autres donateurs et acteurs comme l'ASDI, le CRDI, l'ACDI et l'USAID. CATIA est mis en œuvre à travers neufs composantes différentes, le CIPACO étant inséré dans la composante baptisée 1F – www.catia.ws

Mais le réel intérêt des PMA, si l'on s'en tient aux entendements officiels et à une certaine réalité du concept, est qu'il place les activités de développement dans une perspective écologique de développement durable, qu'il institue un sens de responsabilité et d'intérêts partagés dans la coopération entre les différents acteurs. Les nécessités d'une gouvernance exemplaire de nos sociétés rendent aujourd'hui indispensable l'inclusion de tous les acteurs, la sauvegarde des intérêts publics (lutte pour la sauvegarde de l'environnement, défense des droits humains) et la recherche de financements alternatifs. Il est évident qu'un partenariat entre l'Etat, la société civile et le secteur privé, peut assurer ces différents besoins, chacun de ces acteurs ayants des expertises et des axes d'interventions spécifiques et complémentaires. Dès lors, le PMA apparaît dans de nouveaux habits, devient utile et pertinent.

L'institutionnalisation en cours des PMA a pour implication la reconnaissance de la société civile, comme acteur incontournable de la gouvernance mondiale (et locale). Il faut rappeler que cette reconnaissance s'est progressivement construite sur le plan international, avec pour points culminants les démonstrations de force contre l'Accord Multilatéral sur l'Investissement[10] (1998) et l'Organization Mondiale du Commerce à Seattle (1999). Dès lors la société civile est devenue un interlocuteur incontournable. En Afrique, en particulier, la crise de l'Etat au début des années 90 avait favorisé l'entrée en scène décisive des ONG et associations.

Le Partenariat Public Privé (PPP), une forme limitée peut-être du PMA, entre l'Etat et le privé, est en réalité une pratique bien vieille, même s'il selon toute vraisemblance, il n'est promu en Afrique qu'à partir de l'ouverture des marchés dans les années 90, et de l'officialisation de l'indisponibilité des pays développés à contribuer à l'aide publique au développement international à hauteur de 0,7% de leur PIB (on y revient…). Pour sa part, l'Institut Panos Afrique de l'Ouest, porteur du CIPACO, coopérait depuis sa création avec le secteur privé des médias. Mais c'est surtout depuis l'organization du Sommet Mondial sur le Développement durable de 2002 que le partenariat multi-acteurs devient

[10] Voir l'article Partners Or Adversaries? The G7/G8 Encounters Civil Society, par Peter I. Hajnal http://www.g8.utoronto.ca/scholar/hajnal20000720/ . En décembre 1999, lors d'une réunion de l'OMC, des manifestations violentes ont été organisées dans les rues de Seattle (USA) pour protester contre les mesures de l'OMC et la libéralisation inhumaine de l'économie. Cette réunion qui a ainsi échoué grâce à l'action de la société civile, fait suite à l'échec de l'adoption de l'Accord Multinational sur les Investissements (AMI) de l'OCDE en 1998, suite à la mobilisation de la société civile internationale. Voir Civil Society - The Third Global Power - The Collapse of the WTO Agenda in Seattle – (Auteur: Nicanor Perlas) http://www.southerncrossreview.org/4/wto.html

une institution[11]. A cette occasion, diverses réunions préparatoires ont été consacrées à la définition des modalités de partenariats internationaux susceptibles de renforcer et de financer le développement durable. Au final, des principes pour leur gestion ont été définis à Bali (Indonésie), en 2002 et plus de 200 types de partenariats internationaux auraient alors été signés dans la foulée[12]. Une bonne définitive des partenariats multiacteurs dans le domaine des TIC, a été proposée par le réseau international Global Knowledge Partnership (GKP) :

« *Alliances between parties drawn from government, business and civil society that strategically aggregate the resources and competencies of each to resolve the key challenges of ICT as an enabler of sustainable development, and which are founded on principles of shared risk, cost and mutual benefit*[13].»

Le GKP a également proposé des principes de gestion de ces partenariats dans le secteur TIC, en partant des Principes de Bali[14]. En outre, dans la Déclaration de principe adoptée à la phase I du SMSI, la nécessité de promouvoir ces partenariats a été également affirmée (point B120).

« *L'édification d'une société de l'information à dimension humaine est une entreprise commune qui requiert une coopération et un partenariat entre toutes les parties prenantes.* »

Des initiatives ont été ainsi mises place dans cet esprit : Groupe de Travail sur la Gouvernance de l'Internet (WGIG), inventaire des activités liées à la mise en place du plan d'action *(WSIS stocktaking)*, organization d'ateliers divers. Dans le même ordre d'idées, le Rapport Cardoso[15] commandité par les Nations Unies a, entres autres, spécifiquement recommandé que la société civile s'associe et soit fortement associée aux initiatives multilatérales. Le PMA se présente donc comme un mécanisme pertinent autour duquel une certaine volonté politique internationale se mobilise. Mais on peut se demander

[11] Diverses réunions internationales sont en cours prévues sur le PMA dans le cadre du SMSI. Certains acteurs proposent même la création d'une institution onusienne pour gérer le PMA.

[12] Voir : http://www.iisd.ca/wssd/partnerships.html. Les expériences décrites ici, ne suivent pas forcément ces principes, en tout cas, n'ont pas été examinées sur leur base, compte tenu de l'ampleur relative de ces expériences. D'ailleurs les principes de Bali ou ceux définis par le GKP ne sauraient être considérés comme des normes impératives définissant exclusivement ces partenariats.

[13] Multi-Stakeholder Partnerships: issue paper, prepared by Overseas Development Institute and the Foundation for Development Cooperation for the GKP, 2003 : http://www.globalknowledge.org/gkps_portal/index.cfm?menuid=178&parentid=179

[14] http://www.iisd.ca/wssd/download%20files/annex_partnership.pdf

[15] http://www.un.org/french/reform/panel.htm Rapport publié en 2004, commandé par Kofi Annan dans le cadre de la réforme des nations Unies ; il a, entre autres, examiné les conditions d'une meilleure inclusion de la société dans les activités des Nations Unies.

s'il ne s'agit pas que d'un mécanisme de plus, qui n'est pas *en soi* vecteur d'innovation, puisque son efficacité reste tributaire des aspirations humaines.

Du partenariat secteur société civile - secteur privé

Le partenariat société civile - secteur privé est l'un des plus problématiques par essence. Ici, par société civile, nous entendons uniquement les associations et organizations à but non lucratif (à l'exclusion de celles du secteur privé). En effet, alors que le privé a pour objectif majeur (hégémonique) la réalisation de profits, ce qui se fait parfois sur le dos de l'intérêt public, la société civile se présente comme le garant de cet intérêt, aux côtés des pouvoirs publics. L'antagonisme, dès lors, paraît naturel. Les chemins ultra-libéraux qu'empruntent aujourd'hui l'économie mondiale et le débat international sur cette question viennent renforcer cette opposition de principe. Les multinationales n'ont jamais été autant clouées au pilori, les mouvements alter-mondialistes s'amplifient, même si on peut noter au niveau international un certain essoufflement ou une crise d'identité[16]. Même dans le cadre du SMSI, les initiatives pour regrouper société civile et secteur privé ont souvent attiré la foudre des acteurs de ces mêmes cercles, notamment de la part de la société civile. Ainsi, lors de la Prepcom 2 de février 2005, les représentants de la société civile et du secteur privé ont rédigé un communiqué commun appelant à un renforcement du partenariat multi-acteurs dans la prise décision au SMSI. Ce communiqué conjoint, a été vivement critiqué par des acteurs de la société civile, non sur le fond, mais sur la procédure, le communiqué n'ayant pas au préalable été collectivement discuté, notamment sur la liste de discussion « Plénière ». En réalité, ces critiques témoignent de la méfiance à fleur de peau ou du pessimisme féroce observé à l'endroit de ce type de partenariat. Comme l'avait indiqué l'un des acteurs, dans un contexte connexe,

> « *...La société civile a un lourd handicap celui d'être totalement dépendante financièrement parlant.... le diable anime les opérateurs du secteur privé... prenons nos distances et évitons d'être avalé par ce secteur privé dévastateur. Mon discours sera autre le jour où nous trouvons la solution de notre autonomie financière et cela est possible, faisable et souhaitable*[17].»

[16] L'organization des forums sociaux s'amplifie en Afrique : ces forums se décentralisent actuellement, vers les régions, les pays. Ainsi, s'organisent aujourd'hui le forum social malien, le forum social ouest-africain (2èem édition prévue cette année), etc.

[17] Liste de discussion « Plénière » de la société civile, déclaration d'un abonné le 01/04/05

Ralf Bendrath[18] suggère également que la société civile n'a pas encore bien compris comment fructifier la participation aux initiatives multiactrices (en général) :

> *"Besides the usual "we have to be involved if we have the chance", there is a lot of scepticism, but not yet a full understanding of how to use these new structures in global governance."* [19].

Le moins que l'on puisse dire, c'est qu'il s'agit d'un partenariat difficile, de prime abord.

Partenariats société civile - secteur privé en Afrique

Ces partenariats ne se mettent pas en œuvre dans les mêmes conditions au Nord et au Sud. En effet, alors que la cible des mouvements altermondialistes occidentaux est d'abord la multinationale occidentale, celle des mouvements altermondialistes africains n'est pas la multinationale africaine (sauf dans des cas très rares), tout simplement parce qu'il y en a pas ou très peu. Dans les deux cas, les multinationales occidentales sont les premières cibles. La promotion du secteur privé africain (notamment les PME), également entravé par l'expansion d'un certain secteur privé occidental, est même une revendication de l'altermondialisme africain.

On peut alors se demander si la crainte d'une aliénation éthique avec le privé ne devrait pas être moins forte, pour l'instant tout au moins, en Afrique. Ici, le secteur est en construction, et par conséquent peu hégémonique. En outre, les interpénétrations entre les deux secteurs sont une réalité quotidienne sur le continent, dans le domaine des TIC tout au moins. Le secteur privé a souvent appuyé certaines activités des associations, contre promotion publicitaire. Ainsi, pour organiser des manifestations de sensibilisation sur les usages des TIC pour le développement, une association sollicite un distributeur de matériel informatique pour le prêt du matériel, et un prestataire de services internet pour la connexion réseau. Le secteur privé est également parfois sollicité pour apporter une certaine expertise en matière de ressources humaines (réalisation des réseaux, animation d'une thématique technique spécifique, etc.). Ainsi, la société civile contribue grandement à la création du marché TIC, par ses actions de sensibilisation et de

[18] Ralf Bendrath travaille avec la fondation allemande Heinrich Böll Foundation; il est l'animateur d'un des principaux sites web dédiés à la participation de la société civile allemande et internationale au SMSI (site financé par cette institution) http://www.worldsummit2003.de/ - Il a produit quelques articles sur le SMSI.

[19] Voir Discussion emerging about opportunities and strange bedfellows, Mars 2005 (Ralf Bendrath http://www.worldsummit2003.de/en/web/735.htm

formation de toutes les couches des populations, depuis les débuts des TIC en Afrique[20]. Elle contribue ainsi directement et indirectement au développement des activités du secteur privé dans ce domaine. Ce rôle ne lui est pas souvent officiellement reconnu. En outre, toujours dans le domaine des TIC, beaucoup d'acteurs du privé ont été ou sont membres d'associations, dans le secteur des TIC. En effet, l'observation empirique nous indique que, dans beaucoup de cas, le militantisme dans les structures à but non lucratif se présente ces dernières années en Afrique comme une étape transitoire vers la création d'entreprise. Ceci est vrai surtout pour les entreprises TIC créées par des jeunes. Cette transition se présente pour beaucoup comme une période d'incubation, de maturation de l'idée de création d'entreprise, une solution provisoire à la difficulté habituelle d'insertion professionnelle (tout comme elle illustre également, dans bien des cas, un réel souci d'œuvrer pour le développement local des/via les TIC).

On pourrait donc avancer l'hypothèse qu'à l'heure actuelle, un partenariat secteur privé – société civile se mettra plus facilement en œuvre en Afrique qu'en Occident. Toutefois, les capacités d'intervention des entreprises en Afrique, sur le plan financier, n'est pas la même qu'en Occident, et le concept de responsabilité sociale semble plus partagée en Occident qu'en Afrique. Ces derniers éléments apportent un des réserves à notre hypothèse. Mais, en tout état de cause, la problématique du partenariat secteur privé-société civile dans le secteur des TIC, n'est pas exactement la même dans ces deux espaces géographiques. L'analyse de sa mise en oeuvre doit donc se faire à travers les grilles appropriées.

Introduction sur l'expérience du projet CIPACO de l'IPAO

L'action du CIPACO est par essence multiactrice. Non seulement parce que la mise en place de politiques sociales, nationales ou internationales, pertinentes et inclusives

[20] Voir Ken Lohento, ONG et technologies modernes de communication en Afrique : approche historique et critique , mai 2003, in NetSuds, Cahiers de sciences sociales sur les enjeux des technologies de la communication dans les Suds, revue quadrimestrielle du réseau de recherche AFRICANTI-CNRS-CEAN, l'Harmattan, N°2, octobre 2004. Disponible sur http://www.iafric.net/benin/histong.htm

exige l'implication des trois secteurs, comme l'atteste (imparfaitement) le SMSI[21], mais également parce que son origine et son environnement institutionnel l'y conduisent.

En effet, le recours aux acteurs des trois secteurs pour la mise en place des stratégies de lutte contre la « fracture numérique » se situe au cœur du Programme CATIA dans le cadre duquel a été initié le CIPACO. Alors que certaines des composantes de CATIA impliquent de façon transversale les trois secteurs, d'autres placent directement chacun d'eux en leur cœur. Ainsi, la composante « Robust African Internet Backbone with Exchange Points at the Core and Strong ISP Associations» a pour cible principale le secteur privé; elle est directement gérée par l'association des associations de fournisseurs d'accès internet en Afrique (AfrISPA). La composante « Policy and Regulatory Capacity Building» œuvre pour l'émergence d'instances de régulation fortes et efficaces dans le secteur des TIC ; elle a de fait pour finalité le renforcement des institutions publiques. La composante «Networking African Radio Stations» favorise le renforcement et la création des réseaux de radios communautaires et a donc pour finalité le renforcement de la société civile. Dernier exemple, les Centres sur les Politiques Internationales des TIC, notamment le CIPACO[22], ont pour cibles tous les trois acteurs. Par ailleurs, comme indiqué plus haut, l'Institut Panos Afrique de l'Ouest n'en est pas à sa première expérience multiactrice. Bien qu'étant une structure de la société civile, elle a, depuis toujours, collaboré ou appuyé les institutions publiques et du secteur privé dans le monde des médias.

Depuis sa mise en place en 2004, le CIPACO collabore avec les trois secteurs. Son comité régional consultatif et son réseau de partenaires institutionnels ont été constitués dans cet esprit. Son système d'information (site portail sur les politiques régionales et internationales des TIC, bulletins d'information) a pour cibles ces différents acteurs. Les feed-back reçus indiquent que des acteurs des institutions publiques (notamment les régulateurs et autres professionnels), de la société civile (les médias, associations,

[21] Il convient ici de noter que bien que l'implication des acteurs non étatiques dans la gouvernance des TIC n'est pas discutée, ils ne sont qu' « observateurs » au SMSI. La prise de décision n'incombe qu'aux gouvernements et il n'est pas mis en place de mécanismes clairs, formels garantissant la prise en compte de leurs préoccupations. Seule l'influence ou l'infiltration des délégués gouvernementaux (beaucoup d'acteurs gouvernementaux étant parfois parallèlement de l'un ou l'autre des deux autres secteurs) leur permet d'avoir une certaine présence dans les décisions prises. Par ailleurs, Ralf Bendrath note que, pendant la Prepcom 2, "The government delegations listened to the activists and independent experts much closer now, because they needed their input and ideas, especially on Internet governance. Empirical research done on WSIS phase one also suggests that CS impact is bigger in the early stages and gets smaller and smaller towards the end, when all that counts is the governments' agreement". Discussion emerging about opportunities and strange bedfellows, Mars 2005 (http://www.worldsummit2003.de/en/web/735.htm

[22] Un autre centre sur les politiques internationales des TIC a été mis en place et couvre l'Afrique de l'Est et l'Afrique Australe : le CIPESA, géré par Bridges.org

consultants et chercheurs), et du secteur privé (associations professionnelles, entreprises) consultent les informations mises en ligne. Le CIPACO essaie de développer des relations avec les régulateurs, puisque la régulation, dans son sens large (gouvernance, législation) est l'une de ses thèmes généraux[23]. Les initiatives d'appui à la régulation du secteur des médias que mène l'Institut Panos Afrique de l'Ouest depuis plusieurs années servent d'ailleurs de terreau au développement de ces stratégies. Un certain nombre de projets communs sont donc en émergence et en discussion avec les différents acteurs.

Un acteur avec lequel une collaboration innovante (et peu évidente) est en développement est le secteur privé. Compte tenu du caractère inhabituel pour une association de ce type partenariat, non seulement en Afrique mais également sur le plan international, nous voudrions nous focaliser là-dessus dans ce texte. L'analyse globale est largement basée (mais pas uniquement) sur l'expérience du CIPACO.

Partenariats avec le secteur privé

Nous évoquons ici l'expérience du projet CIPACO avec le secteur privé, à travers quelques exemples significatifs.

Organization d'un débat sur le développement du trafic internet en Afrique de l'Ouest et au-delà

Du 11 avril au 8 mai 2005, un débat électronique a été organisé, par le CIPACO, en collaboration avec AfrISPA, l'association des associations de fournisseurs d'accès Internet Africains www.afrispa.org. Il s'agit d'une association regroupant uniquement des acteurs du privé. Le choix du sujet « *Développement du trafic local internet en Afrique de l'Ouest et du Centre et au-delà : état des lieux, études de cas, rôle des acteurs et perspectives* » et l'objectif de la discussion (sensibiliser et contribuer aux stratégies visant à réduire les coûts des TIC, du niveau international au niveau national[24]) justifient cette collaboration. En effet, la connexion internet est de plus en plus fournie par le privé, dans un contexte de libéralisation des télécommunications où il est le premier à subir et déplorer les coûts de l'interconnexion aux backbones internationaux.

L'intérêt du CIPACO se trouvait dans son objectif général et dans celui du débat (contribuer aux stratégies de réduction des coûts internationaux et du coût général d'accès aux TIC

[23] Un rapport sur la régulation des communications électroniques à l'heure de la convergence en Afrique de l'Ouest et du Centre vient d'ailleurs d'être réalisé.

[24] Pour plus d'informations sur ce débat, consulter : http://www.cipaco.org/rubrique.php3?id_rubrique=21&lang=

pour le développement). L'intérêt pour AfrISPA, c'était la poursuite de la sensibilisation des acteurs (autorités publiques, régulateurs, société civile, etc.) sur la problématique stratégique du trafic local. Une discussion sur le *half-way proposition*, un document de plaidoyer portant sur le sujet, et rédigé par AfrISPA était également inscrite à l'ordre du jour ; le débat était susceptible de nourrir la mise à jour du document en cours de réalisation. Par ailleurs, il y avait un certain intérêt pour AfrISPA de renforcer la sensibilisation de l'Afrique de l'Ouest sur la problématique des points d'échanges, et de faire sa promotion dans cette région qui paraît moins sensibilisée ou organisée sur ces questions, et où l'association elle est peu présente. Les deux partenaires avaient donc des intérêts légitimes de collaborer. AfrISPA a été fortement impliquée dans l'organization du débat en apportant son expertise en tant que co-facilitatrice des quatre sous-thèmes retenus. Chacun des thèmes était en effet co-modéré par un membre de l'association. L'Institut Panos Afrique de l'Ouest était responsable de toute l'organization logistique (plateforme virtuelle, promotion, etc.) de la préparation du contenu, des synthèses et traductions (il s'agissait d'un débat bilingue français-anglais), et de la co-modération lorsque nécessaire.

Le résultat obtenu a été à la hauteur de l'investissement des deux partenaires puisqu'on peut affirmer, au vu des contributions et de l'appréciation des participants, que le débat était un succès[25]. La présence d'AfrISPA a été un gage et a contribué à la qualité des discussions. Les deux partenaires ont eu une appréciation satisfaisante de cette activité, bien qu'une évaluation systématique n'ait pas été faite. Il faut toutefois noter que la collaboration a été aussi facilitée par le cadre partenarial existant entre l'Institut Panos Afrique et AfrISPA, vu que ces deux institutions sont associées au Programme CATIA.

Evaluation de la participation du secteur privé TIC africain au SMSI

L'IPAO à travers le CIPACO collabore également avec le secteur privé dans le cadre de son projet d'évaluation de la participation du secteur privé africain au Sommet Mondial sur la Société de l'Information[26]. Le CIPACO ayant pour objectif de renforcer la participation africaine à la prise de décision régionale et internationale en matière de TIC, la réalisation de cette activité tombait comme une opportunité. L'accent est mis

[25] Le débat a enregistré la contribution d'acteurs originaires d'une vingtaine de pays (dont 19 africains), 1 abonné sur 4 a contribué, près de 4 messages ont été postés quotidiennement (sans compter les traductions ou synthèses régulières)

[26] L'étude sur l'évaluation de la participation du secteur privé africain au SMSI comporte une série d'enquête en Afrique, la veille (online et offline), la recherche documentaire, etc. Ses (premiers) résultats devraient être disponibles d'ici la tenue du sommet de Tunis.

sur le secteur privé parce que, d'une part, il présente le paradoxe d'être à la fois le fer de lance du développement des TIC et le secteur le moins visible au sommet, d'autre part parce que la participation des autres acteurs est étudiée par d'autres institutions[27]. L'une des composantes du projet (enquête au cours de l'organization de l'atelier de promotion du secteur privé ouest-africain West Africa TIC 2005 (Sénégal, mai 2005)), a été coordonnée par l'Organization Professionnelle des TIC du Sénégal (OPTIC www.optic.sn), avec laquelle une convention de collaboration a été signée. La collaboration avec OPTIC, co-organisatrice de l'atelier régional, permet le contact avec certaines initiatives régionales (Forum Afrique, AFICTA, FOPAO, etc.). Des discussions avec la seconde association du secteur (SISTA) ont également eu lieu. Cette collaboration indispensable permet d'impliquer directement les acteurs étudiés dans l'activité.

L'intérêt des associations du privé qui s'associent/s'associeront à l'évaluation est sans doute de collaborer sur un projet visant à favoriser le développement du secteur. C'est d'ailleurs le cas pour OPTIC qui met en place d'autres initiatives dans le cadre du SMSI.

Hébergement du site du CIPACO

Le CIPACO héberge son site web chez un fournisseur d'accès privé sénégalais[28]. Ainsi le projet oeuvre doublement à promouvoir l'hébergement de contenus africains sur les réseaux africains et au renforcement de l'expertise africaine en matière d'hébergement de contenus[29]. En compensation, cette entreprise offre l'hébergement à tarifs étudiés (50% du tarif officiel) et nous bénéficions souvent d'une réactivité que n'aurait pas offerte un prestataire situé hors du pays (l'IPAO a son siège à Dakar). Il convient toutefois de préciser que le choix du privé ne s'est pas fait ni parce que le fournisseur public est moins performant, ni par idéologie, mais il est plutôt le résultat de contingences diverses.

Leçons apprises

Au début du pessimisme…ensuite de la persévérance

Comme suggéré plus haut, c'est le sourire condescendant ou l'ironie (exprimée ou non)

[27] L'association APC étudie la participation des pays du Sud au SMSI, avec un accent mis, entre autres, sur la participation globale africaine, en particulier celle de la société civile. Le programme AISI de la CEA étudie également certains aspects de la participation des Etats africains ; une évaluation de la mise en œuvre du plan d'action du SMSI par les gouvernements a été ainsi réalisée.

[28] Arc Informatique www.arc.sn

[29] En effet, héberger les site web en Afrique est un choix que beaucoup d'institutions se refusent à faire, du fait du coût de l'hébergement (jusqu'à 10 fois plus cher qu'en Occident) et des conditions techniques moins reluisantes

qui, en général, accueille de prime abord, un souhait de partenariat avec le professionnel du secteur privé. Ensuite, si le projet lui paraît avoir un certain intérêt, l'expérience nous a montré qu'il faut une bonne dose de persévérance pour que le privé fasse montre d'une réactivité suivie. Alors que vous attendez son feed-back sur un projet de convention, il est peut-être entrain de réfléchir sur la facture que le fisc vient de lui adresser… Ici, l'intérêt ne se mesure pas à l'aune des mêmes indicateurs. Il apparaît que c'est d'abord l'intérêt financier qui mobilise *promptement* le privé, et non une intervention sur les politiques (plaidoyer, sensibilisation, études, etc.), même lorsque les cibles sont les partenaires ou décideurs de son secteur. Ceci ne doit aucunement se comprendre comme une indisponibilité du privé à se mobiliser pour des causes non financièrement profitables, mais telle est la réalité brute. Le privé vit dans un environnement concurrentiel et institutionnel parfois féroce où la lutte pour la survie est beaucoup plus âpre que ce que connaissent les associations. Par ailleurs, le peu de considération dont les associations jouissent en général auprès du privé s'explique largement par le fait qu'elles sont perçues, soit comme des opportunistes uniquement à la quête des financements (qui seront détournés à des fins personnelles), soit comme des objecteurs de conscience, soit comme des « discoureurs » n'occasionnant que perte de temps, soit comme des concurrents déloyaux. Il va sans dire qu'une meilleure connaissance et compréhension des déterminants des deux acteurs, sans que l'on y perde son âme, sont vitales pour une coopération efficace et bénéfique à tous.

Pour une professionnalisation des associations ……vers l'émergence des entreprises citoyennes
Nous avons avancé plus haut que des lenteurs dues à la réactivité du privé peuvent survenir dans la collaboration. L'inverse peut bien évidemment se produire, notamment avec des associations non professionnelles ou ayant des procédures de validation assez lourdes (pour raisons de transparence parfois). Dans tous les cas, les associations devront avoir des procédures professionnelles et se départir autant que faire se peu de l'informel, afin de devenir des interlocuteurs crédibles auprès des entreprises. D'un autre point de vue, il faut appeler à l'émergence d'entreprises citoyennes, intégrant les problématiques environnementales, l'intérêt public dans leur mode opératoires.

Et l'homme est à la mesure de toute chose

Comme le dirait Protagoras…A l'image de tout autre type de partenariat, la mise en œuvre efficace de tout projet collaboratif dépend dans une large mesure des relations particulières existant en amont, ou pouvant naître entre certains de ses acteurs majeurs. Toutefois, quelle que soit l'excellence de ces relations, l'inexistence d'un cadre

institutionnel et de lignes de conduite rigoureux et formalisés, mettra en danger à terme la bonne conduite des opérations.

Pour finir....

On peut avoir des appréhensions sur la mise en œuvre des PMA, car parfois les intérêts instinctifs des partenaires sont contradictoires. C'est notamment le cas entre le secteur privé et la société civile. La mise en œuvre de réels PMA, répondant par exemple spécifiquement aux critères proposés par le GKP, peut n'être qu'anecdotique ou exceptionnelle. Mais, quelle que soit leur consistance, les partenariats inter-sectoriels sont toujours enrichissants, porteurs de réelles opportunités d'innovation, et parfois gages d'une réussite exceptionnelle des actions entreprises. Le partenariat multiacteur peut réellement favoriser une gouvernance sociale durable et inclusive, même s'il est loin d'être une panacée et qu'il exige souvent de la persévérance. Les expériences menées par l'Institut Panos Afrique de l'Ouest dans le cadre du projet CIPACO en particulier, semblent plutôt globalement positives, pour l'instant du moins. Il est souhaitable que les différents secteurs, notamment le secteur privé et la société civile, puissent apprendre à mieux se connaître, que les a priori soient levés ou contenus, et que chaque partenaire puisse accepter les limites éthiques ou professionnelles de l'autre.

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CONCLUSION

Mixed Business Powered by the Sun

Joe Matsoso lives in a small village some 40 Kms North West of Lesotho's capital, on the plateau of hills above Maseru. The village is called Ha Tsetso and is accessed on the Lancers Gap road. The village is connected to the Lesotho electricity grid and a telephone tower exists allowing residents to connect to it if they own the appropriate telephonic equipment. Most don't or can't afford to. Access doesn't always lead to access!

Joe owns a small shop and bar that's situated at the road intersection where the taxis from Maseru stop for the village - or maybe the taxi's now stop there because of his shop. Either way the creative mix and multi-application of technology has turned this remote corner of Lesotho into a communication and transport hub.

Joe's solar panels work all day and night. At first light they heat old coal irons so his children can iron their school uniforms. By day the panels charge the phone system he sells call time from, and cook sausages for commuters. At night the panels stored power provides music to the small bar.

The solar cooker consists of a concave, polished steel bowl 1.5 metres wide. The suns passage has to be followed throughout the day and the concave dish needs to be turned slightly, every twenty minutes to focus the sun on the cooking pot. The phones and music are powered by another solar panel that stores power in car batteries.

The phone system operates like a cell phone except it is not mobile – via radio wave. A normal handset is connected to a transmitter receiver box attached to wall. Across the road is a similar system except the transmitter is mounted on a 5 m pole with solar panel for power and 2 phone lines run to nearby houses.

The Africa Civil Society on the Information Society: Beyond WSIS

Why the process?

The Africa Civil Society is part of the process … to build a people-centered, 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, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights.

Where are we coming from?

We know that information and communication technologies (ICT) play a significant role in development efforts and poverty alleviation. ICTs open up new horizons for the creation and exchange of knowledge, for education and training and for the promotion of creativity, cultural development and intercultural dialogue. Our challenge in Africa is to seize the opportunities of ICTs and to apply and integrate them into a wide range of activities. Particular challenges include the improvement of information literacy, an improvement of ICT infrastructures, the enhancement of access to ICTs, the practical use of ICT, in particular in education at all levels.

Much of the requisite infrastructure is either non-existent or grossly inadequate and insufficient. Even in the urban centres where they do exist, their operations are epileptic and their services are undermined by poor funding, obsolete and inadequate equipment. These inadequacies seriously impede the infrastructural basis for the development of the continent and prevent the citizens and institutions from engaging in and benefiting from global exchanges that ICT facilitates. Structural rather than political constraints are thus the major impediments facing the increased and enhanced use of ICT's in knowledge development and management as a vital component renovating and innovating our economic wellbeing and quality of life. Resources and services need to be designed to enable ICT's to facilitate knowledge-based solutions that cater effectively to the social, cultural and developmental needs of our citizens at all levels in Africa, for sustainable development.

What are the targets?

1. Connect villages with ICTs and establish community access points,
2. Connect universities, colleges, secondary schools and primary schools with ICTs,
3. Connect scientific and research centers with ICTs,
4. Connect public libraries, cultural centers, museums, post offices, and archives with ICTs,
5. Connect health centers and hospitals with ICTs,
6. Connect all local and central government departments and establish websites and email addresses,
7. Adapt all primary and secondary school curricula to meet challenges of the Information Society, taking into account national circumstances,
8. Ensure that all the world's population have access to television and radio services,
9. Ensure the development of content and to put in place technical conditions in order to facilitate the presence and the use of all world languages on the Internet,
10. Ensure that more than half of the world's inhabitants have access to ICTs within their reach.

Priorities

The African Civil Society has fixed the most urgent priorities as follows:

A National ICT strategies (drawing up national ICT policy to serve as a guideline for growth)
B Building infrastructure/maintenance of infrastructure equipment
C Human resource development and capacity building
D Partnership between the public and private sectors (as well as civil society)
E Research and development with emphasis on software development
F Regional cooperation
G E-applications (e-governments, e-health, e-education, e-commerce etc)

Issues

A. Policy Processes

Policies tend to be loose. There are separate policies for IT, Telecommunications, Broadcasting, Mass Media etc. There is the need for convergence of these policies. Civil Society entities are mostly not aware of the policy issues and the policies themselves. Within the Civil Society, other problems undermine effective policy participation. These

include, lack of knowledge and expertise on change management, lack of funding, lack of effective networks and language barriers.

B. Finance

The Civil Society has no money, no power, and little respect from government and private sector and often suspicion form them. Although ICT Civil Society's have and generate great ideas, the many and autonomous organizations have difficulty with co-ordination, integrity, accountability, and expertise. The Civil Society has been accused of being self-serving and self-centred in some instances. ICT projects are very expensive partly on account of infrastructure and related technical requirements and Civil Society has difficulty with getting funding for these projects.

C. MDGs

The African Civil Society (ACS) has not played a crucial role in the determination of the MDGs because it was not in a position to make significant contribution to the process that ended in September, 2000. Once the Declaration was signed and adopted, the ACS tried to appropriate the MDGs, sometimes with the support of the United Nations System (UNS) and the other partners in order to facilitate its implementation. For that reason, various consultations were held on a sub-regional (Dakar, Bamako, Lagos, Ouagadougou) as well as a linguistic bases (English-speaking, French-speaking, etc.).

While the importance of the ICTs has been acknowledged in the conception and the initial implementation of the MDGs, the ACS notes that these have been established more according to an economic perspective than a social dimension. This explains that after the MDGs, the NEPAD was launched, appearing as an African translation of the MDGs; and the NEPAD was in turn followed closely by the process of the PRS.

At some national levels, for example in Nigeria, the role of the ACS rather concerned the use of the ICTs in the sensitization of the populations on the MDGs through actions such as the GCAP (Global Campaign Against Poverty). At the Africa sub-regional level, especially in Central Africa, the implementation actions related to the NEPAD have in turn concerned the MDGs.

D. Media

There are a lot of challenges that have held up full participation in the drive towards an inclusive information age, especially and including the need to influence decisions.

A The apparent lack of clarity as to what is "media" and how it sits in relation to Civil Society;
B The lack of awareness and training for journalists in issues relating to new technology in communications for development;
C Constraints in the realization of freedom of expressions, freedom of information and basic human rights in most African countries;
D Inadequate access and absence of local content/language that would afford people at the grassroots the opportunity to better understand and appreciate the information society;
E Lesser understanding and opportunities for print and editorial level journalists in the WSIS process;
F Poor working conditions - including low and delayed wages, inadequate insurance coverage – for journalists, leaving a situation of threat to ethical or moral based practice;
H Reluctance on the part of some African leaders to adopt the African Peer Review Mechanism, which should propel them into greater respect for human rights and freedom;
I The absence of key National and Regional media bodies at WSIS and other key ICT fora.

E. Multi-Stakeholder Partnerships (MSP)

The WSIS is a Multi stakeholder process and civil society has participated actively in it. During the first phase of WSIS, the African civil society issued a position paper which was taken into account in the international civil society contributions. Some of these contributions have been put in the final Declaration of Principles and Action Plan, even though civil society was not happy with those two documents. The participation of African civil society continued during preparatory conferences in Accra, Ghana and in Abuja, Nigeria as well as during past PrepComs. Electronic debates on WSIS issues (internet governance, financial mechanisms, etc.) were organized. The ACSIS association contributed largely to Africa's productive participation in the WSIS. The Civil Society organizations are better organizing themselves to improve their contribution to WSIS and beyond. The Civil society, however, has had little or no means to contribute effectively to the WSIS, notably because of financial constraints.

Recommendations

The Africa Civil Society believes that a viable and inclusive Information Society in Africa is possible and that the attainment of the 2015 targets is not impossible. To this end, several we are putting the following recommendations on the table:

A. Civil Society organization

1. The African Civil society should create a monitoring group/system in order to insure that it's own initiatives (initiatives of the different NGOs and associations, for example) respect ethic standards;
2. Civil Society has to be better organized at national, regional and continental levels; it should be given the needed support to become professional in the implementation of its activities in order to become a credible partner to the government and the private sector;
3. African governments should create development institutions which would support civil society activities;
4. The African Civil Society should create a monitoring group/system in order to insure that it's own initiatives (initiatives of the different NGOs and associations, for example) respect ethic standards;

B. Partnerships

1. African governments should create development institutions which would support civil society activities;
2. The African Civil Society has to collect and document positive MSP experiences;
3. Civil society's negotiation skills/ capacities have to be strengthened; this capacity building should be also done internally;
4. Governments and international organizations should better involve African civil society in the decision-making;
5. African Civil Society has to establish an effective partnership with private sector, but has to take care of to protect its independence and ethic values

C. Advocacy and awareness

1. The African civil society has to advocate and lobby so that they get more and more involved by governments, in governance initiatives, at the national, regional and international level;
2. Civil Society should push for the setting up of a "catalyst groups" in each country to serve as the nucleus for promoting growth of ICT. The group should draw its

membership from IT-active persons with emphasis on the universities. This was the pattern adopted by India, and, in a modified form, by China.

3. Civil Society should promote massive publicity campaigns for wide acceptance of computers and to conquer "compuphobia" – fear of high tech.
4. Civil Society should build an active data base of information on who can be relied upon for advocacy actions

D. Capacity building

1. **"Catch them young" approach**: introducing computer use in schools at all three levels: primary, secondary and university. Serious work with computers (such as programming) can be taught at senior secondary, and tertiary (university, IT training schools etc) levels. The catalyst group in each country should be involved in this exercise.
2. **Local expertise involvement.** For sustainable growth, local experts must be involved at all levels, in projects using ICT for development purposes;
3. Research and Development should include studying the environmental impact of ICT e.g. in disposing of obsolete computers, effect of radiation from telephone masts, and health issues arising from heavy cell-phones use etc;
4. Capacity building should also include the building of data- bases for reliable and up to date information about the African continent.

E. Policies and policy processes

1. Examine policies and regulatory frameworks and do yearly reviews within the 5 year review period;
2. Document all Civil Society activities and publish these to inform the populace;
3. Establish a databank which houses all Civil Society data;
4. Establish partnership with the National Statistical Offices in order to get data needs incorporated in surveys;
5. Advocate for tax levy on ICT equipment to be reduced;
6. Civil Society representation in all ICT regulatory bodies and commissions;
7. Civil Society should understand the principles of change management and enlighten the masses on it;
8. Check the commitments of governments to international treaties;
9. Civil Society should be ready to consult and if need be, confront the United States in regards their decision to retain supervision of the DNS root servers;

F. Millennium Development Goals (MDGs)

1. The Civil Society will ensure it is effectively engaged in monitoring and evaluation of the implementation of the MDGs;
2. The ACS will promote transparency and accountability in the implementation of the MDGs, as well as the NEPAD, the PRS and the Commission for Africa. This will be achieved in partnership with other groups ;
3. The ACS will advocate for her inclusion in the realization process of the MDGs, similar to the ACP-EU Agreement where the Civil Society is classified among the "Non State Actors";
4. The ACS will collaborate with her various partners on ICT-related projects and activities for the achievement of the MDGs. The ACS's involvement is indispensable for the successful outcomes of the MDGs;
5. The details of roles and contributions of the ACS at the various stages of the MDGs process will be clearly spelt out, and especially for the midterm review in September 2005. These roles should be clearly acknowledged by the other members of the partnership including governments and international development institutions.

G. Finance and Finance Mechanisms

1. A research to be conducted to ensure the financial autonomy of the African Civil Society;
2. Governments should make provisions in their national budgets for IT investment in addition to the Global Digital Solidarity Fund;
3. Public/Private/Civil Society (PPCS) partnership should acknowledge and respect the watchdog role of civil society e.g. in ensuring that African countries granted debt cancellation or debt relief do not end up again in the debt trap through frivolous borrowings.
4. A co-ordination unit needs to be formed for Civil Society Organizations' finances/ financing.
5. Civil Society to partner with Private sector and governments to conceive and establish projects to benefit the poorer/est sectors of society;
6. Civil Society to be an integral part of the management of the Digital Solidarity Fund in all African countries

H. Media

1. Increase the participation of journalists and media groups in activities and issues relating to the pending World Summit on Information Society (WSIS);

2. The promotion of a conducive environment for media pluralism that enhances cultural identity and diversity;
3. Establish an independent media sustainability fund in member African countries;
4. Better networking, especially through strategic sharing of resources like the setting up and patronizing of independent news agencies;
5. African governments should ratify and implement all Treaties and Declarations that ensure and promote the Freedom of Expression Concepts that are rooted in Article 19 of the UDHR;
6. African leaders should make haste in signing unto the African Peer Review Mechanism (APRM), and to make media pluralism and freedom of expression as further criteria for this important assessment.

Annex

ACSIS – The Strength of a Civil Society Network

The representatives and delegates of the African civil society organizations, participating in the WSIS process since the beginning, have felt the need to better organize themselves, in a light, smooth running and efficient coordinating mechanism. This became a prerequisite at this critical phase of the process, for an effective and dedicated action. After months of online discussion, the African Civil Society entities engaged and active during the First Phase of the World Summit on the Information Society, in Geneva, Switzerland, in December 2003 constituted their network – the Africa Civil Society for the Information - ACSIS, a Non Governmental Organization with a non-profit aim; the action domain being the use of Information and Communication Technology for African Development.

With support from the Economic Commission for Africa (ECA) and the government and people of Tunisia, the ACSIS official lunching took place in Tunis in April 2004.This launch was the realisation of a long-time dream of African civil society entities as was shared in the general civil society online forum of the African Information Society Initiative.

To better pursue its development goal, and in accordance with the objectives of the Declaration of Principles and Plan of Action, the African Civil society, based on discussions carried on in its virtual plenary before, during and after the first phase of the WSIS, has moved ahead to an enabling phase in the Africa Information Society Initiative (AISI).

Motto
Information and Communication Technology for African Development: ICT4AD

Mandate:
ACSIS acts as an umbrella structure through which African Civil Society can influence policy and ensure that strategies and programmes enable the promotion of development: poverty alleviation, use of appropriate ICT for balanced development, participation of

communities/civil society in policy and strategy development and the implementation of development initiatives. ACSIS:

PROMOTES the views and interests of African CS to ensure that new and traditional ICT can be utilised for promotion of sustainable development and the formation of an Information Society based on social justice and human development;

ADVOCATES & LOBBIES for the development of comprehensive and inclusive ICT strategies to address the digital divide;

INFORMS CS generally on national, regional, continental and international deliberations regarding ICT for development policies, strategies and initiatives for the promotion of balanced development;

ADVISES national, regional, continental and international institutions on the needs and interests of African CS;

BUILDS CAPACITY: develops capacities and promote action-oriented dialogue on our key aims;

NETWORKS and *PARTNERS* with grassroots organizations, national, regional, continental and international institutions to develop and add value to existing policies and initiatives aimed at promoting ICT

Tasks:

The chief tasks of ACSIS include, among others:

ADVISORY

- Develop and add value to existing ICT policies, strategies and initiatives;
- Advise on ICT policies and strategies that advance the social, economic and political development of Africa and African communities;
- Co-ordinate and support African CS input/participation into a range of national, regional, continental and international ICT policies and programmes;
- Ensure African CS representation (as appropriate) on a range of ICT related commissions or bodies

INFORMATION

- Draft text, conduct research and collate information including drafting an African CS position document;
- Provide information in an accessible format (including research/analyses) on ICT policies, strategies, initiatives and best practice;
- Promote and disseminate information on the use of a range of ICT for the promotion of human development, to a range of stakeholders;

ADVOCACY & LOBBYING

- Participate, as appropriate, in conferences, seminars and other activities related to ICT in order to advocate on behalf of and inform African CS and other partner stakeholders;
- Policy formulation and development

CAPACITY BUILDING

- Develop human capacities and promote action-oriented dialogue in partnership with grassroots organizations, national, regional, continental and international institutions

PARTNERSHIPS & NETWORKING

- Establish contact and partnerships with a range of stakeholders to enable the African CS to have input into policy formulation and implementation;
- Facilitate networking to enable the sharing of information, expertise and best practices.

Organs

1- The General Assembly.
2- The Council of National Focal Points.
3- The Regional Co-ordination Commission.
4- The Liaison Committee
5- The Presidency
6- The Secretariat

Structure

ACSIS aims to be a very light, functional and efficient structure. Its inclusiveness approach makes the national focal points the critical actors at the grassroots level.

Membership

Membership is open to all organizations officially registered in their countries of origin as well as to any African willing to contribute to the use of Information and Communication Technology for African Development.

Virtual Forums

ACSIS relies heavily on discussions, ideas and exchanges of all members on its virtual plenary. Members are permanently aware in contact through the virtual forum. The membership options to the list as well as message archives are open and transparent. At the moment, about five hundred (500) persons and organizations are using this list for active exchange, announcements, networking and learning. The address is Http://mailman.greennet.org.uk/mailman/listinfo/africa

Realizations

ACSIS has, beyond all reasonable doubt, demonstrated the strength of a network. In keeping with its mandate of Civil Society promotion, advocacy, lobbying, information, training, advising, partnership, networking and capacity building, it has:

- Contributed largely to the official documents of the WSIS as well as the Civil Society Declaration ;
- Contributed to a better functioning of the international Civil Society Bureau in the WSIS process by heading the Youth, Science and Technology, and Media caucuses;
- Hosted the International WSIS Civil Society Bureau on the African soil, being the very first time the international bureau met outside its traditional base of Geneva, in Switzerland;
- Hosted the Louder Voices Symposium on Internet Governance on the African soil, bringing the question home and giving the majority of African Civil Society entities the voice in the IG debate;
- Held bilingual (English and French) online consultations on the capital issues of ICT4D – Priorities, Internet Governance, and Finance;
- Conducted a training forum parallel to the Second Africa Regional Preparatory Conference for the Phase II of the WSIS;
- Co-organized a Multi-Stakeholder Partnership (MSP) Forum in the WSIS process;
- Organized a continent-wide preparatory forum dedicated to the issues in ICT for African development to kick start the Ministerial committee and the Africa Regional Preparatory Meeting for the World Telecommunications Development Conference (Qatar 2006) and the World Summit on the Information Society (Tunis 2005).

Support, Collaboration and Partnership

ACSIS has received the trust, the support and the collaboration of the following, to which it wishes to also express its gratitude:

- The people and the government of Tunisia
- The people and the government of Guinea
- The government of the Democratic Republic of Congo
- The people and the government of the Federal Republic of Nigeria
- The people and the government of Ghana
- The people, the presidency and the government of Senegal
- The Nigerian Communications Commission – NCC
- The Regional Council of Dakar
- The French National Institute of Telecommunications
- The United Nations' Secretary General, Kofi Annan
- The United Nations Economic Commission for Africa – ECA
- The International Telecommunications Union
- L'Organization Intergouvernementale de la Francophonie – OIF
- The United Nations ICT TaskForce
- UNESCO
- UNDP
- UNITAR
- The Digital Solidarity Fund – DSF
- The United Nations Non-Governmental Liaison Service – NGLS
- Heinreich Boell Stiftung
- The Conference of NGOs in Consultative Relationship with the UN – CONGO
- The Global Knowledge Partnership – GKP
- The Association for Progressive Communication – APC
- The International Conference Volunteers – ICV
- The United Nations Online Volunteers – UNV

About the Authors

Anna Badimo, though very soft spoken, ventures where many fear to thread. She studied computer science and programming, with a rare balance in academia, gender mainstreaming, and human advancement. In the article on FOSS and Gender, Anna charts the way forward for gender and grassroots development and invites us to join forces to face the challenges.

Brian Longwe has championed the course of Internet Exchange Points in Kenya and as Chief Technology Officer for ISPKenya, he also serves as General Manger for the African Internet Service Providers Association, which among other things, aims to help African ISPs establish Internet Exchange Points in their countries as part of the fight for their national development goals. His article tells it all.

Charles Geiger has played an enormous role in all the aspects of the World Summit on the Information Society – WSIS. Here is a man who dares the whole world to move from words to action, from declarations to execution, from *Palais des nations* to Veerampatinam. In his contribution, he shares the great challenge of making the Information Society tangible for the poor.

Ife Akintunde has a very soft spot for the visually challenged. His own visual impairment has helped him see the challenges better. In his article, he gently compels us to take a look from the different side and helps us see the challenges is a refreshingly new way.

Ken Lohento is a well-known active lobbyist. He is among the pioneers of the ICT revolution in Francophone West Africa. His dream is to see all partners play their roles efficiently. He shares insight on a deeper relationship of all multi-stakeholders partners.

McTim has been living online for more than 20 years. He consults for African and European ISPs on IP resource gives trainings and lectures on DNSSEC, Internet Governance and Internet identifiers. He has been chosen as an ISOC WSIS Ambassador for the WSIS Prepcom3 and for the Tunis phase of the WSIS. He shares resources here in his article on IPv6.

Nnenna Nwakanma is a believer in African development and the use of ICTs. As co-

founder of various Pan-African organizations: The Free Software and Open Source Foundation for Africa (FOSSFA)(www.fossfa.net), The Africa Network of Information Society Actors (ANISA), and the Africa Civil Society for the Information Society (ACSIS www.acsis-africa.org), she represents the African Civil Society on the Digital Solidarity Fund (www.dsf-fsn.org), and advises on the Africa Information Society Initiative (www.uneca.org/aisi)

Noeleen Heyzer of UNIFEM is dedicated to the gender agenda in development. In her article she emphasizes the need for a critical gender look as a big challenge in the construction of the inclusive Information Society.

Tracey Naughton has spiced up the whole of the WSIS process for the African Civil Society. As a writer, she tells the stories of ordinary people and the impact of ICTs in their lives. The little stories that spice up this book were contributed by Tracey.