



Globalization a disservice to human development in Africa: the impact of ICT

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Introduction

Libraries in Africa are a product of the underdevelopment of the continent. To understand the current state of libraries in Africa it is important to appreciate the broader ramifications of global machinations and, in particular, the impact of globalization on the African continent. Rather than concentrate on libraries per se the paper attempt to demonstrate how globalization has diminished prospects for human development in Africa. The paper expounds on inequalities that have emanated from the integration of world economies but focuses on how adoption of ICT has failed to make meaningful contributions to uplift the social and economic circumstances of the majority of the population in Africa. In the same light diffusion of ICT in libraries has only produced half measures, at best. In many instances it has been a flop.

Definition of terms

The term globalization could mean different things to different people. It is probably one the hotly contested concepts. It can be defined as a process of worldwide integration of economies and societies. Merriam-Webster's Online defines globalization as "the development of an increasingly integrated global economy marked by free trade, free flow of capital, and trapping of cheaper foreign labor markets." It is a convergence of economic, political and culture systems. Globalization can be distinguished by a number of developments in the

world economy including emergence of world trade agreements, adoption of international standards and elimination of tariffs.

Advances in technology such as global telecommunication infrastructure, cross border data flow, the Internet, satellite networks and wireless telephones are also credited to globalization. It can be argued that global integration of markets was stimulated by unprecedented growth in Information and communication technology (Pigato, 2001).

Heeks (Kiplangat, & Ocholla, 2005:1) defines ITCs as “electronic means of capturing, processing, and communicating information and categorises ICTs to include: digital information held as 1s and 0s and comprises computer hardware, software and networks and intermediate technology based largely on analogue information waves such as radio, television and telephones.” Of course the Internet is an important component of ICTs.

The impact of ICT in modern society has been so intense and powerful that it has literally revolutionarized communication and interchange of information across the globe. Indeed some scholars (Afullo, 2000) refers to this radical transformation as a revolution founded on “convergence of communications, information, and media technologies.”

Human development relates to improvements to human life. In the main it encompasses increased life span, lowering of infant and maternal mortality, improved access to water, sanitation, education, etc. Human development, as elaborated upon, (Kabamba, 2008) is not so much about the wealth of a nation but setting conditions upon which society can create opportunities to improve social and economic conditions.

The essence of human development (UNDP, 2007) is creating opportunities for people to realize their full potential. While the wealth of a nation may have a bearing on enhancing human development inequalities in the distribution of wealth can be an impingement.

Power shift

Proponents of globalization will be quick to point out that increased prosperity in the world economy is an outcome of globalization. And without doubt globalization is largely responsible for the growth of economically powerful nations. It must be emphasized though that the growth of the world economy associated with globalization has seen winners and losses in the global village. With globalization the world has witnessed increased mergers and acquisitions of companies and ushered in formation of multi-national corporate bodies. Many corporate bodies like EBSCO, OCLC and Blackwell saw the metamorphosis of world economy as an opportunity to increase their market share on the international market.

The concept of globalization can attract political overtones and provoke nationalistic sentiments. Since the unfolding of this phenomenon the geo-political economy of the world has not been the same. National territorial boundaries seem to be weathering and giving way to 'internationalism.' In the words of Held and McGrew (Curry, 2002) globalization entails "re-articulation of international space, in which the notions of sovereignty and democracy are being prised away from traditional rootedness in the national community and the territorially bounded national-state." This view is shared by Korten (Curry, 2002) who argues that "the convergence of ideological, political, and technological forces behind this process of economic globalization shifts power away from the local governments who should be responsible for the public good (including funding for libraries) and shifts the power towards a handful of corporate and financial institutions driven by the quest for short term financial gains."

Trade

Perhaps trade can be singled out as one of the most important factors in fueling globalization. The assertion that globalization has led to greater convergence of poor and rich economies can not be disputed, particularly when one looks at the volume of trade involved. It is also evident (UNDP, 2005) that globalization has increased the share of developing countries in the manufacturing market. Nevertheless, fundamental structural barriers that hinder more equitable trade between developed and developing nations are still intact and in some cases structural barriers are growing bigger.

In any case while trade does offer opportunities to improve the standard of living of people greater participation in trade does not necessary translates in accelerated human development.

The UNDP report notes that in the face of the world economic boom Sub-Sahara Africa is becoming 'increasingly marginalized.' The region, "with 689 million people, accounts for a smaller share of world exports than Belgium, with 10 million people."

At the core of unfair trade are the restrictions imposed on developing countries to penetrate the world economy. The UNDP report reviews that "The world highest trade barriers are elected against some of its poorest countries; on average the trade barriers faced by developing countries exporting to the rich countries are tree times higher than those faced by rich countries when they trade with each other." According to the UNDP report three quarters of the world population surviving on \$1 per day are located in rural areas. Their chance to emerge from poverty largely depends on agriculture trade and rules governing such transactions at global level. However, subsidies of the farming community of rich nations continue to suffocate opportunities for agricultural development in developing countries and subsidies are reported to be on the increase (UNDP,

2005). In Africa, like in most developing countries, poverty is more entrenched in rural areas where more than 70% of the poor live (International Fund for Agricultural Development, 2008). These people depend on agriculture for their livelihood and yet development assistance which has been the life pipeline of many rural dwellers in Africa is reported to be on a decrease (IFAD, 2008).

Thanks to globalization incidences of poverty are rising in Sub-Saharan Africa. As the IFAD (2008) report on poverty in Africa suggests "Overall, the pace of poverty reduction in most of Africa has slowed since 1970."

Inequalities

It is generally understood that India and China are among the fastest growing economies in the world. As a matter of fact they are broadly heralded as successful stories of globalization. However, there are huge disparities between the wealth created and the human development index of India and China. Incidentally one of the power engines of the Indian economy is exports in technology. The Prime Minister of India was the first to admit that while global integration of the Indian economy changed the face of the Indian economy actual improvements on human development were not proportionate to the economic boon. (UNDP, 2005). For example, prior successes recorded in child and infant mortality were decreasing and the country was considered to be off the mark to achieve the Millennium Development Goals targets.

Among the regions that have enjoyed technological boom are the Southern cities of India. Ironically "1 in every 11 children dies in the first five years of life for lack of low-technology, low-cost interventions. Malnutrition, which has barely improved over the past decade, affects half the country children" (UNDP, 2005).

The point here is that globalization has clearly spurred economic progress especially in developed countries but also in a select number of countries in the developing world. But the crux of the matter is that deep rooted inequalities in the distribution of economic spin-offs between nations and within countries pose serious questions about the relationship between global economic boom and poverty alleviation.

Africa has no reasons to celebrate. Globalization will claim responsibility for the emerging middleclass in a number of developing countries but the majority populations have been cut off. It is also evident that "income inequality is increasing in countries that account for more than 80% of the world population. Inequality in this dimension matters partly because of the link between distribution patterns and poverty levels" (UNDP, 2005).

At the pinnacle of globalization "all 19 of the world's countries with the lowest human development index (HDI) are in Sub-Saharan Africa." (UNESCO, 2003). Even the gains in the human development that were sighted in developing

countries from 1990 appear to be evaporating. As the UNDP (2005) notes “in 2003 18 countries with a combined population of 460 million people registered lower scores on human development index (HDI) than 1990 – an unprecedented reversal.” In the SADC region it is observed that “between 1985 and 1990, the value of the human development index (HDI) increased in most member countries but it decreased between 1990 and 1994” (UNDP, 2000).

The IFAD report of 2008 paints a gloomy picture of diminishing opportunities and growing sense of hopelessness in Africa. It notes that “the incidence of poverty in Sub-Sahara Africa is increasing faster than the population. Overall, the pace of poverty reduction in most of Africa has slowed since the 1970s”. In the rural areas the situation is depressing and desperate. It is “marked by continuing stagnation, poor production, low incomes and rising vulnerability of poor people” (IFAD, 2008).

ICT and human development

There is so much euphoria about the ICT and how it is making a difference in the world order. Accompanying the excitement is the growing misconception in Africa and elsewhere that substantial benefits will accrue with ICT adoption and diffusion (Harris in Kwele, Ocholla and Adigun, 2006:109). We are living in the information age so we are told. The era of information society in which information plays a pivotal role in our lives and technology has become a standard mode for storage, processing and sharing information and knowledge. While this may be true of many societies it will be blatant exaggeration to suggest that Africa is party to the global information superhighway.

There is no question about it. ICT has been, and continues to be, the backbone of globalization. However, the assumption that diffusion of ICT in Africa will result in economic prosperity and human development needs further scrutiny. Econometric studies conducted by Kenny, et. al (Adeya, 2002) validates the causal correlation between advances in telecommunication and economic growth. However, it was also observed that “most evidence springs from the high returns on investments in the telecommunications sector.” Others will argue (Adeya, 2002) that a causal link will be hard to establish since telecommunication can be a causative agent but it can also be a consequence of economic growth.

Technological theorists view advances in technology in incremental terms and presupposes that technology has transformed the world (Albright, 2005). But they fail to demonstrate how technology has impacted on the quality of ordinary lives and are silent of the growing inequalities that continue to drive the poor into perpetual social and economic strangulation. Under certain circumstances a numeric increase in the use of mobile phones, radios or television may help to improve the ability of a population to communicate more effectively and efficiently but does not necessarily result in significant gains in the human development index (Albright, 2005).

Access to ICT

The digital divide between African and the developed world is so profound that we can not, with sincerity, talk of a global digital village. We are a world living apart from each other.

In Sub-Saharan Africa the digital divide manifests itself in different forms. For example, Jensen (Kebende 2004:274) notes that in this region there is 1 Internet user for every 250-400 people. The world average is pegged at 1 in 15 people while in the US and Europe the average is 1 in 2 people. On the same token in Sub-Saharan Africa there are 8 computers for every 1000 people. The world average stands at 68 computers per 1000 and in the G8 they have 360 per 1000.

The growth in the use of new technology especially mobile phones and the Internet has been spectacular in recent years. Citing the work of Hapkin, Maele (2003) alludes to the exponential growth in the number of Internet users. He writes that “while in 1995 there were only 3,000 Internet users on the continent, and five countries had full-time connections to the Internet in 1996, by the beginning of 2001 all African countries had Internet connectivity and the number of Internet users was estimated at 3.11 million.” But the bottom line is that these figures, impressive as they may sound, only represented one percent of users worldwide and only less than one percent (Mutula, 2004, citing a UN document) of the population of Sub-Saharan Africa has gone online.

Further evidence to demonstrate that Sub-Saharan Africa is off course on the information highway is contained in a UNESCO (2003) record where it is reviewed that “for 100 people there are 17 radios, compared to the global average of 36; 3.5 television against 23; and 0.3 computers versus the world average of 4.4.” More recent data (Internet World Statistics, 2008) notes that between 2000 and 2007 the number of Internet users in Africa swelled by 882.7%. Needless to mention that in comparative terms Africa lags far behind the rest of the world in Internet penetration. As at December 2007 Africa’s share of the Internet use in the world stood at 3.4%. And as Schloman (2004) points out there are more Internet users in New York than the entire African continent. And yet Africa is said to be on the fast lane of the information highway.

Beyond access

There are numerous impediments to use of ICT in Africa. In spite of ‘awesome statistics’ on the rise of Internet users Internet connectivity remains virtually exclusive to urban areas. This means that to start with the majority of the African population living in the rural areas does not have access to the Internet and may not have access in the foreseeable future. As Alden (2004) puts it “throughout the countries of sub-Saharan Africa, access to media is largely an urban phenomenon. Newspapers and the internet cafes, though expensive, are

available in every Africa capital; but in rural areas - where it is often a struggle to achieve basic health care and education - a newspaper is often a luxury, and the Internet is a distant dream.”

For many African urbanites Internet access is unaffordable. The cost of Internet in African can be as high as 5 to 10 times more than Europe or US (UNESCO, 2003). It is partly for this reason that the most common application for Internet in Africa is e-mail communication. Surfing the web is not just expensive but it can also be unreliable due to erratic power supply and poor ICT infrastructure (Marker, Mcnamara & Wallace, 2002).

The relevance and applicability, to the Africa conditions, of content on the web is another factor. There is very little information on local content that could relate to the material circumstances of the rural poor in Africa. By far much of what is available on the web is created outside Africa. For example in 2002, “Africa-produced content accounted for less than 0.05 percent of global web content” (Taylor, 2002:283).

Another indicator of the low output of local content is the publishing record. Sopova (Mutula, 2004:280) writes that “of the 900,000 estimated to have been published every year in the world, only 1.5 percent is published in Africa.” Unless there was a massive movement to substantially increase the presence of local content on the global web, the web will remain irrelevant, to the 70% rural population living in Africa, for many years to come.

Coupled with the challenges posed by lack of local content is the high illiteracy rate and the language barrier. Having access to the Internet is one thing and making good use of it is another. To surf the web effectively or communicate using e-mail one requires a certain level of literacy and language skill and these skills are not abundant in Africa (Marker, Mcnamara, & Wallace, 2002). Furthermore 70% of websites available globally are in English language (Schloman, 2004). Africa is one of the regions of the world where illiteracy is high. According to UNESCO (2003) the “adult illiteracy rate in Sub-Sahara Africa is 41%, and about 40 million children do not attend school out of a global total of more than 100 million.” Perhaps even more worrying is the observation made by UNESCO that there are no indications to suggest that there will be improvements (UNESCO, 2002).

Extensive use of the English language in schools and institutions of higher learning does not help development of local content in indigenous languages. Instead Africa relies on imported learning materials from other countries. Imported books come along with value systems and culture attributes alien to Africa (Mutula, 2004).

The English language, with all the influence and dominance it has in the global digital warehouse of knowledge and information, can be fatal to early childhood

language acquisition and performance at school. Studies conducted in Burkina Faso demonstrated that children who started school in their mother tongue performed better in school than their counterparts in standard primary schools. The IK Notes (1999:2) further review that “experience and research have increasingly demonstrated that children starting school instructions in their mother tongue or language already well known to them stand a better chance of success - including success at mastering second language of written communication like French or English - than those who are forced to assimilate to totally foreign language from the onset.”

In understanding the challenges of diffusion of technology in rural Africa it is also important to appreciate the role of traditional means of communicating information. Informal networks are the dominant means of information transfer. The rural poor depend on information they can trust. Information obtained from a community leader, friend or relative will be found to be more trust worthy and reliable than ICT mediated sources that will lack the personal touch, ‘trust, confidence and security’. (Marker, Mcnamara, & Wallace, 2002).

Limitations

Having pointed out some of the difficulties of using new technology, or diffusion of ICT, in Africa it must be emphasized that ICT has great potential to address some of the pertinent needs of the rural population in key development areas such as health, agriculture extension, education, better engagement with local government and other stakeholders. Perhaps more importantly ICT can be a powerful tool for social, political and economic empowerment. Many African countries have come on board to position themselves to tap on the benefits if ICT. And indeed there are success stories in a number of countries. Kwele, Ocholla, & Adigun (2005:109) make note of various initiatives and promising results in a number of countries including Nigeria, Mozambique, Rwanda and Botswana. It is interesting to observe that in many of the rural development projects use of traditional technology (radio and TV) was very high. For example “the use of the radio alone scored an average of 73.4% while the use of TV averaged 39.2% among respondents” (Kwela, Ocholla & Adigun, 2005:114).

A gold rush for new technology is not advisable in Africa. The romantic view that developing countries have been given a ‘window of opportunity’ to advance from “zero’ or ‘limited’ technological capacity to broad-based ‘sophisticated’ technology should be interrogated further. Pigato (2001) makes reference to a number of studies which affirm that “internal information, and hence knowledge, gained through learning by doing over time, represents the most significant factor in a firm’s ability to adapt and change to a new technological market environment.” A ‘leapfrogging strategy’ does not allow sufficient time for understanding, assimilation, adaptation and learning, so crucial in making the best use of technology.

In the same vein bridging the 'digital divide' can not be a viable development strategy in Africa. Bridging the digital divide is not only unrealistic for Africa it can actually undermine effort to alleviate poverty. In the words of Marker, Mcnamara & Wallace, (2002) "effort to 'bridge the digital divide' and increase access to ICTs, unless looted in, and subordinate to, a broader strategy to combat poverty, risk diverting attention and resources from addressing the underlying causes of poverty." This view is in tandem with Pigoto's assertion that "ICT must focus on strategic benefits in areas where complementary investments have already been built." Where there is no match between priorities in poverty alleviation and a given technology there is no justification for ICT investments.

It seems apparent that there is need for more research in Africa to explore innovative ways of applying new technology in local conditions which may vary from one region to the other. However, constraints in resources can be a limiting factor especially considering that there are many competing interests in the provision of basic necessities such as access to water, food, housing, health and education. Little wonder that Africa investments in scientific and technological research are estimated at 0.01% of the GDP (UNESCO, 2003). This is in sharp contrast to "2% or more in industrialized countries with much bigger GDPs" (UNESCO, 2003). Government engagement with development partners or private bodies could offer possible solutions.

Is ICT a solution to alleviation of poverty in Africa? Obstacles to human development are not mysterious to Africa. Common problems and trends are known to governments in Africa and are well documented in literature. Heeks (Adeya, 2003) is among those who are skeptical about the role of ICT in rural development. He argues that what the poor needs is "knowledge to access, assess and apply existing information and need resources for action more than they need access to new technology." He contends that the poor are looking for 'locally-contextualized' information and have little or no interest in information sourced in foreign context.

Libraries

Libraries, particularly public libraries, are a microcosm of products of globalization in Africa. The history of libraries in Africa has its roots in colonialism. The philosophical foundation of libraries in Africa, organization and practice has been influenced by the Anglo-American models (Hart, 2007). However, more recently the impact of globalization has been more pronounced in shaping the nature of library services.

Many librarians of independent Africa were trained in library schools overseas (Kabamba, 2008:6). The education received though appropriate in the context of the host countries was not particularly suited to Africa (Mostert, 2001). The same could be said about the curriculum of library schools that came into being in

independent Africa. Essentially they were packaged on imported models and had little resemblance to social and economic conditions that prevailed in Africa (Issak, 2000).

Furthermore Kabamba, (2008) postulates that public library services offered were hardly relevant to the day to day information needs of the African people. Drawn, principally, from imported sources public library materials 'at best', appealed to information interest of the few educated Africans. As a result the information interests of the 'vast majority' of the people who had little or no education were unfulfilled (Alemna, 1995).

Libraries have not been spared by the encroaching poverty that is ravaging the continent. Public libraries have been the hardest hit. They are now characterized by shortages of skilled staff, budget cuts and poorly maintained building infrastructures. Many more challenges are confronting libraries today. Donations that fill the empty shelf spaces of public libraries do not always match the reading interests of the library community.

Are public libraries tailored to serve community interests? Is Lack of resources really the fundamental issue here? Kabamba (2008:10) suggests that the philosophical basis of public libraries could be the underlying factor. Public libraries in Africa have embraced the global view of the 'public good' of public libraries. The principle of 'public good' calls on public libraries to open doors to all "on equal basis without prejudice to race, gender, religion, education, sex or social status" (Kabamba, 2008:4). While these principles are generally accepted as democratic and inclusive they fail to account for viability of this approach given the political, cultural and economic differences between countries and within national boundaries. Information needs and aspirations of people will vary between developed countries and poor countries, between urban and rural areas etc. As such a global monoculture approach to public library services, it seems to me, is an attempt to mimic library services offered in the northern hemisphere, but comes at the expense of alienating libraries from the funding bodies and the communities they are intended to serve.

In the same spirit, of thinking globally and acting globally, public libraries have chosen to stick to international standards (Anglo-American) even when circumstances clearly point to the need for alternative solutions. In his paper Kabamba (2008) makes reference to the organization of libraries into compartments that, to a large extent, are better understood by librarians themselves. He is also critical of elaborate processing and organization of materials where a simpler but purposely designed arrangement could be more accommodating to clients, especially, the less sophisticated library users. On the other hand the elitist and bureaucratic disposition of public libraries does not help to create a more flexible, less authoritative and more tolerant library atmosphere.

ICT use

ICT has also penetrated libraries in Africa. The results have not been so great. Rosenberg's (2005) investigation into the status of university libraries, focusing on digitalization, makes very sad reading.

The study, that excluded South Africa, notes that library automation started early in the 1990s but the majority were unable to complete the process. The report observes that many libraries started with automating the cataloguing functions however, not only did they fail to complete the task but were unable to move on to cover other processes.

Many computers were found to be in working order but connectivity to the Internet was very low. Rosenberg (2005:7) writes that "only 35% of libraries have 75% or over of their computers connected to the Internet, whilst 15% are not connected at all." About half of the libraries that responded to the question on the type of Internet connectivity indicated that connectivity (slow speed) was either poor or very poor.

The report observes that a wide range of e-resources was accessible in many libraries. What was worrisome was that very few libraries had the capacity to maintain subscriptions. Most libraries accessed e-resources through donor support or free of charge. Little progress was reported on digitalization of local content. In the words of Rosenberg (2006:10) "digitalization of full text and the establishment of IRs are even less common."

Public libraries are probably worse off. Another study on use of ICT in public libraries in Anglophone Africa was conducted under the auspices of The International Network for Availability of Scientific Publications (INASP). The report was categorical that outside South Africa automation of libraries was very rare. Among the public libraries that had computerized Internet usage was restricted to e-mail communication. However, "almost none are providing web-based library information services to users; ICT facilities are therefore not being used directly to benefit user communities" (Chisenga, 2004:V).

Such is the extent of the benefits ICT in libraries in Africa. Clearly the full potential of ICT has not been realized. Perhaps what is even more unsettling to both library staff and clients is that more often than not there is great publicity and jubilation attached to launching of ICT projects. High expectations are raised and when a project fails it can be so demotivating and frustrating that people lose confidence in the ability of libraries to meet their information needs.

Concluding remarks

There are numerous issues that need to be addressed to harness ICT in Africa. In addition to the ones discussed in this paper there are concerns around ICTs

national strategies, liberalization of the telecommunication sector, creating enabling regulatory environment, infrastructure development, and unequal distribution of technology, among others. It would appear though that diffusion of ICT in Africa, especially among the rural poor, is bound to be problematic unless it is located and embedded in the socio-economic context of individual communities.

At Library level globalization has really created opportunities for collaborations and interchange of skills and experiences across the globe. Consortiums, staff exchanges, sabbatical and visiting scholar schemes, study visits and international conferences are examples of cooperative arrangements that have helped the library professional to learn from experiences elsewhere and improve library practice in Africa.

Nevertheless, on the ICT front, Africa is yet to leap the full potential of modern technology. While development aid and donor support have assisted to kick start adoption and diffusion of ICT in libraries Africa has lacked the capacity to build momentum. Sustainability issues may have played a bigger role but it could be helpful to study the extent to which cultural elements and missing links in change management might have played a part. Another challenge that does not seem to have received much attention is measurement of the scale to which preoccupation, and futile attempts, to adoption and diffusion of ICT are depleting capacity to maintain manpower and library infrastructures and limiting resources to acquire the much needed print materials and reprographic facilities.

References

Adeya, C. 2002. ICTs and poverty; a literature review. Available. http://www.hec.unil.ch/aosterwa/Documents/eDev/IdPVD_Seminaire_03_04/Adeya_2002.doc (Accessed 1 May 2008).

Afullo, T. 200. Global information and Africa. Available. <http://proquest.umi.com/pqdweb?index=36&sid=7&srchmode=1&vinst=PROD&fmt=3&startpage=-1&clientid=57125&vname=PQD&RQT=309&did=115921658&scaling=FULL&ts=1209048202&vtype=PQD&rqt=309&TS=1209048730&clientId=57125&cc=1&TS=1209048730> (Accessed 24 March 2008).

Alden, C. 2004. For most Africans, internet access is little more than a pipe dream. Available. <http://www.ojr.org/ojr/workplace/1079109268.php> (Accessed 28 March 2008).

Alli, B. 1995. The health effects of unemployment in Africa. Available. <http://www.aidc.org.za/?q=node/view/627> (Accessed 28 march 2008).

- Chisenga, J. 2000. Global information and libraries in sub-Saharan Africa. Available.
<http://proquest.umi.com/pqdweb?index=34&did=115921685&SrchMode=1&sid=7&Fmt=3&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1209048202&clientId=57125> (Accessed 24 March 2008).
- Curry, A. & Thiessen, K. 2002. Library Aid to developing countries in Times of Globalization: A literature review. Available.
http://www.chrisdaydesign.com/worldlib/vol12no2/print/curry_print.html (Accessed 24 March 2008).
- IFAD. 2008. Rural poverty in Africa. Available.
<http://www.ruralpovertyportal.org/english/regions/africa/index.htm> (Accessed 28 March 2008).
- Internet World Statistics. 2008. Usage and population statistics. Available.
<http://www.internetworldstats.com/af/za.htm> (Accessed 28 March 2008).
- Internet World Statistics. 2007. South Africa Internet usage, population, broadband and market report. Available.
<http://www.internetworldstats.com/af/za.htm> (Accessed 28 March 2008).
- Jain, P. 2006. Empowering Africa's development using... Available.
<http://proquest.umi.com/pqdweb?index=1&did=1022831471&SrchMode=5&Fmt=4&retrieveGroup=0&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1203949445&clientId=57125> (Accessed 24 March 2008).
- Kabamba, J. 2008. Libraries re-loaded in service of the marginalized. Paper prepared for the XVIII Standing Conference of Eastern, Central and Southern Africa Library and Information Associations (SCECSAL). 15-18, July 2008, Lusaka, Zambia.
- Kawooya, D. 2004. "Universal access to ICT and lifelong learning." Available.
<http://proquest.umi.com/pqdweb?index=1&did=783638811&SrchMode=5&Fmt=3&retrieveGroup=0&VInst=PROD&VType=PQD&RQT=309&VName=PQD&TS=1203949445&clientId=57125> (Accessed 24 March 2008).
- Kiplang'at, J. and Ocholla, D. 2005. Diffusion of Information and Communication Technologies in communication of agricultural information among agricultural researchers and extension workers in Kenya. South African Journal of Library and Information Science, 71(3):234-246.
- Kwelke, A., Ocholla, D. & Adigun, M. 2006. The feasibility of ICT diffusion and use amongst rural women in South Africa. South African Journal of Library and Information Science, 72(2):108-118.

- Lor, P. 2004. Storehouse. Available.
http://www.journals.co.za/images/ejour/linga/linga_v3_n1_a5.pdf (Accessed 24 March 2008).
- Maele, V. 2003. Africa in the digital Age. Available.
<http://web.ebscohost.com/ehost/pdf?vid=2&hid=5&sid=c4d05bbd-e33b-4620-a2b7-ccd431cc76a6%40sessionmgr103> (Accessed 24 March 2008).
- Marker, P. Mcnamara, K & Wallace, L. 2002. The significance of information and communication technologies for reducing poverty. Available.
http://www.oecd.org/dac/ictcd/docs/matrixdocs/GBR_paper1.pdf (Accessed 1 May 2008).
- Merriam-Webster's Online dictionary. Available. <http://www.merriam-webster.com/dictionary/globalization> (Accessed 7 May 2008).
- Pigato, A. 2001. Information and communication technology, poverty, and development in sub Sahara Africa and South Asia. Africa Regional Working Paper Series no. 20. Available. <http://www.worldbank.org/afr/wps/wp20.pdf> (Accessed 1 May 2008).
- Schloman, B. 2004. The digital divide: How wide and how deep. Available.
<http://web.ebscohost.com/ehost/delivery?vid=4&hid=3&sid=77b3fa3f-e3b6-4df9-a9c3-b8f7c3bc4287%40sessionmgr106> (Accessed 24 March 2008).
- Sign, J. 1999. South Asia in the global electronic village: Issues and implications. Paper presented at the 65th IFLA Council and General Conference. Bangkok, Thailand, August 20-August 28 1999. Available.
http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/16/3a/17.pdf (Accessed 25 March 2008).
- UNDP. 2000. SADC regional human development report 2000: Challenges and opportunities for regional integration. Available.
http://hdr.undp.org/en/reports/regionalreports/africa/sadc_2000_en.pdf (Accessed 29 March 2008).
- UNDP. 2005. Summary human development report 2005: International cooperation at a crossroad, aid, trade and security in an unequal world. Available. http://hdr.undp.org/en/media/hdr05_summary.pdf (Accessed 29 March 2008).
- UNDP. 2007. Human development reports: Human development concept. Available. <http://hdr.undp.org/en/humandev/> (Accessed 14 March 2008).

UNESCO organizes seminar: UNESCO and NEPAD, from vision to action. 2003. Available. http://portal.unesco.org/education/en/ev.php-URL_ID=14481&URL_DO=DO_TOPIC&URL_SECTION=201.html (Accessed 28 March 2008).

UNESCO. 2002. The long road to literacy in Africa: UNESCO education. Available. http://portal.unesco.org/education/en/ev.php-URL_ID=8516&URL_DO=DO_TOPIC&URL_SECTION=201.html (Accessed 05 May 2008).