The Unsustainable Library: Does the Internet Really Help Us in Africa?

by Colin Darch

F irst, this presentation puts forward the proposition that in Africa, as in other parts of the non-industrialized world, traditional libraries of printed material may well be unsustainable. Second, and working from the assumption that the first statement is true, it argues that the advent of systems of information delivery based on ICTs (information and communications technologies), commonly known as the Internet and the World Wide Web, may not make much short term or immediate difference, for various reasons. This is a viewpoint that has been dubbed "techno-pessimist," and is characterized by a belief that political and economic issues cannot be ignored in the search for technological solutions, and that technology inevitably reinforces existing cultural and class divides in Africa. The opposite view, held by techno-optimists, argues that massive and cheap bandwidth and connectivity will leapfrog Africa into the Information Age and huge amounts of essentially free information will rapidly become available.

Can traditional print-based libraries be sustained in Africa? So far the overall record of their performance is not hopeful. The discussion about the sustainability of the "Alexandrian model" the indefinitely growing print storehouse is not new, even in the developed world. In the proceedings of an important, but now largely forgotten conference held in 1975, the North American Daniel Gore wrote that what he termed "the unexamined faith that to be good a library must be vast and always growing" rested on "nothing more solid than mistaken intuition" (Gore 1976, 3). His insights have not had as much impact on library practice, even in the United States, as one might have hoped. As Odlyzko (1999) has pointed out, there is a massive and "understandable inertia" in developed library systems, based on the existence of huge accumulated print collections that will have to be preserved until digitization is complete. Indeed, he goes on to argue that libraries may eventually be "disintermediated" or cut out of the loop, with scholarly publishers selling information services directly to

end-users. Thus,

> publishers may be able to retain or even increase their revenues
> and profits, while at the same time providing a superior service.
> To do this, they will have to take over many of the functions of
> libraries, and they can do that only in the digital domain.

In Africa and the developing world, the debate on sustainability has gone
in a different direction. It was picked up in the 1990s by such writers as
Agha and Akhtar (1992), Rosenberg (1994), Sturges (1997) and most
recently by Sturges and Neill (1998). None of them are especially sanguine
about the future of libraries in the continent. There is a generalized and
perhaps understandable absence of political will to make them so, given
that a clear causal link between information and socio-economic develop-
ment has not yet been modeled in mainstream economic theory. Sturges
and Neill, who characterise the Alexandrian model as an "alien implant,"
write that "the reality is that after more than three decades of independence
libraries are, at best, grudgingly tolerated by governments, and are placed
low on any national list of priorities" (1998, 92), In these circumstances in
most African countries, even a "steady state" or no-growth library model
oriented towards performance measures, such as Gore and his colleagues
advocated in 1975, has been extraordinarily difficult to implement. In
much of Africa academic libraries have no periodicals subscriptions, and
purchase few book acquisitions; many of them survive on gifts and
exchanges, and soft money from overseas donors. There is insignificant
local knowledge production, and local languages are ignored in favor of
English, French or Portuguese. Agha and Akhtar cautiously point out that

> [s]tudies indicate that information systems in developing coun-
> tries usually thrive when assisted with external aid through the
> development of products and services, along with related infras-
> tructural development. Unfortunately, however, once aid ceases,
> the information systems tend to function at a lower level of
> productivity, or on occasion, become inactive. (1992, 284)

But even aid to libraries, as Zeleza more forcefully argues, is often a
"dubious benefit": aid itself is a short-term solution, and sometimes
"donations [to libraries] are irrelevant and inappropriate. In the process, the

culture of silence and submission to imperialism, which is partly responsible for the African crisis in the first place, deepens." (1996, 295-296)

It is sometimes argued that the grand challenge facing modern librarians is the effective integration of past practice in the management of print sources, requiring the mediation of the professional information worker, with a developing practice in the organization of digital information, which can be accessed directly from the end-user's desktop. But if the inheritance of past practice is increasingly "emptiness, indeed squalor, behind the facades of library buildings," or "utterly empty shelves" (Sturges and Neill 1998, 93, 95), then the problem may lie at a deeper socio-economic level altogether.

Africa and the Internet

Is it likely that the Internet will come to our rescue? Most of Africa is marginalized in general ICT development, both quantitatively and qualitatively. In many countries, telecommunications remain a monopoly closely regulated by the state. Telephone access is itself problematic outside major urban centers. The Internet and the Web are inaccessible to the majority of citizens, and even if they have the technical means and the skills and ability to gain access, many useful digital information resources are too costly for most people. Distribution of resources within Africa, in all senses, is hopelessly skewed in favor of South Africa. According to the January 1999 top-level domain survey by the Internet Software Consortium, there were some 43 million Internet hosts in the world, of which 144,445 were in South Africa. The next most connected African countries were Egypt, with 1,908 hosts, and Zimbabwe with 1031. At the other end of the scale, fifteen African countries or territories are listed as having no doestic Internet hosts at all. These are Angola, Burundi, Central African Republic, Chad, Djibouti, DRC, Equatorial Guinea, Eritrea, Gabon, Gambia, Guinea, Mayotte, Rwanda, Somalia, and Sudan (ISC 1999). The UNDP estimates that only one person in a thousand, or 0,1 percent of the inhabitants of sub-Saharan Africa, are Internet users, compared to one in four, or 26,3 percent of the citizens of the United States. Sub-Saharan Africa has nearly ten percent of the world's population, while the USA has less than five percent (UNDP 1999, 63). If South Africa were to be discounted, these numbers would drop off the bottom of the chart.

These points are often, ironically, made most tellingly by using the technologies of the Web itself. Several researchers such as Stephen G. Eick of Bell Laboratories have worked at various times on global "visualizations" of Internet information flows. What is most fascinating about Eick's images, for example, even though they are now admittedly several years out-of-date, is the way that the Internet globe or the arc map simply pass the African continent by, usually without comment from the author. Another source for a variety of such images is Martin Dodge's Web-based Atlas of Cyberspaces (1999). Harpold (1999) has addressed these issues in a paper entitled "Dark Continents: A Critique of Internet Metageographies," where he makes the important point that inequities within such categories as a country probably matter as much as inequities between countries themselves. Thus, South Africa's 27th position in the NSC domain survey, above Austria, New Zealand and Mexico, tells us nothing about the differentiated class and race basis of access to digital information that makes up a more complex reality.

The most comprehensive survey of Internet connectivity in Africa at the time of writing is probably Mike Jensen's (1998b), and used in conjunction with such other sources as the same author's list of ICT development projects (1998a), gives a wide-ranging snapshot of a rapidly changing environment. Although change within Africa in terms of connectivity and access is dramatic, the gap between the developed world and Africa is widening, and is likely to continue to do so.

The question of the ideological underpinning of the worldview that the Internet presents to African end-users has also preoccupied African librarians and information workers. Da Costa (1996) has pointed out that knowledge generated in Africa is most likely to be found on the Internet at Web sites based in North American universities, which "reflect it back" to its original producers. Nawe (1998) has argued along similar lines that "equal access does not necessarily imply equal benefit," and concludes her paper with a telling quotation from Aboriginal women in Australia: "If you have come to help me, you are wasting your time. But if you have come because your liberation is bound up with mine, then let us work together."

However, the problem with digital information in Africa is not only an infrastructural one of bandwidth, telephony and workstations. The content itself – information – is increasingly seen by the developed world as a commodity, and its availability and distribution is increasingly driven by the desire to maximize profit. To facilitate this, the legal system for the protection of intellectual property rights has been significantly widened in recent years, particularly since 1993. For many librarians and information professionals, the broad issue of intellectual property rights is normally seen through the narrow prism of the impact of copyright law on their daily activities. However, the imposition of the present world trade regime at the conclusion of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), in December 1993 "marks a clear historical demarcation in the global control of information" (Frow 1996, 89).

A key objective of the 1993 negotiations was to extend intellectual property rights through patent, copyright and trademark law to such new areas as pharmaceuticals and agri-chemicals, whose products (medicine and food) are fundamental to human well-being. The view of the industri-alized countries (the United States and its allies) was, and remains, that the knowledge-and-information components of these commodities are them-selves private capital goods. An alternative view is the traditional one that the basis of scientific method is full disclosure. This in turn makes information and knowledge broadly a public good, both in the sense that they are non-depletable, and in the legal sense that they cannot be bought and sold.

In such an environment, librarians should actively begin to question whether the extension of current intellectual property rights practice to digital information

   is in the best interests of modern society....patent and copyright
   provided exclusive rights in an age when the means of replica-
   tion were technologically limited and it was feasible to receive
   an income stream for several years from publication, for exam-
   ple. However, with the exception of publishing for entertain-
   ment purposes, this is no longer the case and has never really

been the case as far as the "learned societies" were concerned. (Underwood 1999)

It is not only on the political left that concerns are being raised about the extension of intellectual property rights at the expense of the shrinking public domain. A recent North American book on legal aspects of the information society argues that the trend set at the 1993 GATT negotiations "...leads us to have too many intellectual property rights, to confer them on the wrong people, and dramatically to undervalue the interests of both the sources of and the audiences for the information we commodify" (Boyle 1996). This "commodification" of information in the global economy presents a gloomy prospect for librarians in Africa, who have been trained in the liberal tradition of the free flow of information. It seems that we will not be able to enter the electronic library of the future without a credit card.

Hand-in-hand with the process of expanding intellectual property rights into new areas, we are also seeing the increasing commercialization of the Internet and the privatization of the public domain. This represents a sharp contradiction, in the sense that the technology allows us limitless and barrier-free access to information sources, but law and economics may prevent us from utilizing it without paying. There is little doubt that, for example, US business regards this prospect with something approaching glee. A recent management text put it this way:

> Information and knowledge are the thermonuclear competitive weapons of our time. Knowledge is more valuable and more powerful than natural resources, big factories, or fat bankrolls. In industry after industry, success comes to the companies that have the best information or wield it most effectively — not necessarily the companies with the most muscle. (Stewart 1997: ix).

The Internet, and more specifically e-commerce, are the means by which this success is to be achieved — and as this happens, the role of the Internet as a means for ensuring the free flow of information for non-commercial purposes is already diminishing. The "dot-com" or commercial domain alone already constitutes just under 30 percent of the total number of hosts

on the Internet, compared to just over ten percent for the "dot-edu" or educational domain. Admittedly, these figures are applicable only to the United States, since everywhere else the geographical domain is first level. More significant is the exponential growth of electronic commerce in dollar terms. Analysts at eMarketer, an Internet research company, predict that the value of e-commerce will rise from US$98.4 billion in 1999 to an estimated US$1,244 billion in 2003, while the US share of the market will drop sharply (eMarketer 1999, 31).

The corollary of commercialization is the privatization even of information that has been produced in the public domain, by the assertion of intellectual property rights and other legalistic means. In most countries of the world it is accepted that public funds are used to support knowledge production in public institutions, whether state-funded universities and research institutes or government commissions and the like. Typically the product of such processes are freely available: in the United States, for instance, government publications are broadly speaking exempt from copyright controls. But the process that Noam Chomsky has dubbed the "socialization of risk, the privatization of profit" is nonetheless insidiously at work. We have seen a concrete example of this process recently in South Africa, where a text produced at the taxpayers expense has effectively been handed over for profit to a publisher.

The Truth and Reconciliation Commission (TRC) was appointed by the South African government to collect evidence and report on gross human rights violations of the apartheid years. The TRC made the text of its final report, as well as transcripts of all the testimony heard on the TRC Website available on a cheap CD-ROM. However, the publishers of the printed version of the report – selling for over R700 for the 5 volumes – allegedly forced the withdrawal of the CD-ROM from sale, and the removal of the report text from the TRC website. The TRC's webmaster, Steve Crawford, organized a campaign to have this vitally important document for South African democracy placed back in the public domain for free downloading.

Conclusion: Pessimism of the Intelligence

It seems to me that it is unlikely that cheap ICT will "rescue" librarians in Africa or in other less developed regions of the world from their already

existing difficulties in an unproblematic way. As Paul Tiyambe Zeleza has written, "in themselves the advanced technologies offer no magic solution to the challenges of information dissemination and scholarly communication facing Africa…electronic information service in Africa benefits only a small, already privileged elite" (Zeleza 1996, 296).

The question of access to appropriate digital information in an understood language remains inextricably tied up with broader development issues. Information access is both a precondition for development, and an outcome of development. To be effective and to have any kind of transformational impact, library and information workers must be politically aware and politically active. The question of technology transfer remains as problematic as ever, and the need to develop our own models and to validate our own experience as imperative as ever. Our techno-pessimism – perhaps better termed techno-realism – must be tempered by the wisdom of the great Italian Marxist thinker, António Gramsci. Gramsci advocated as a programmatic slogan from at least 1919 until the early 1930s, the darkest days of Mussolini's fascist regime, "pessimismo dell'intelligenza, ottimismo della volontà," or "pessimism of the intelligence, optimism of the will." (1978, 175). It is necessary, wrote Gramsci in 1932, "to direct one's attention violently towards the present as it is, if one wishes to transform it."

<div align="center">WORKS CITED</div>

Agha, Syed Salim and Akhtar, Shahid (1992). The responsibility and the response: sustaining information systems in developing countries, *Journal of Information Science* vol.18, p.283-292.

Boyle, James (1996). *Shamans, software and spleens: law and the construction of the information society*. Cambridge, Mass.: Harvard University Press.

Da Costa, Peter (1996). The Internet: an African perspective. Paper presented to the 27th International Institute for Communications Conference, Munich, 18-20 October 1996.

Dodge, Martin (1999). "An atlas of cyberspaces." <http://www.cybergeography.org/atlas/> [13 July 1999].

EMarketer (1999). eGlobal Report. <http://www.emarketer.com/estats/eglob_sn1.html> [14 July 1999].

Frow, John (1996). Information as gift and commodity, *New Left Review* no.219 (September-October 1996).

Gore, Daniel (1976). *Farewell to Alexandria: solutions to space, growth and performance problems of libraries*. Westport, Conn.: Greenwood Press.

Gramsci, António (1978). *Selections from the Prison Notebooks*. New York: International Publishers.

Harpold, Terry (1999). Dark continents: a critique of Internet metageographies, *Postmodern Culture* vol.9, no.2. <http://muse.jhu.edu/journals/pmc/v009/9.2harpold. html>

ISC 1999. Internet Domain Survey: distribution by top-level domain name by host count, January. <http://www.isc.org/dsview.cgi?domainsurvey/dist-bynum.txt> [13 July 1999].

Jensen, Mike (1998a). African Internet connectivity: summary of international ICT development projects in Africa. October 1998. <http://www3. wn.apc.org/africa/projects.htm> [16 July 1999].

Jensen, Mike (1998b). Where is Africa on the Information Highway? The status of Internet connectivity in Africa. 16 October. <http://www.unesco.org/webworld/build_info/rinaf/docs/cari98.html> [16 July 1999].

Nawe, Julita (1998). Prospects and problems of IT to the info-poor."Paper presented to the Invitational conference on The Electronic Library – Gateway to Information: Resource Sharing and User Services in the Electronic Library, Lund, 2-6 June. <http://www.lub.lu.se/sida/papers / nawe.html> [14 July 1999].

Odlyzko, Andrew (1999). Competition and cooperation: libraries and publishers in the transition to electronic scholarly journals, 27 April. <http://www.research.att.com/~amo/doc/competition. cooperation.txt> [13 July 1999].

Rosenberg, Diana (1994). Can libraries in Africa ever be sustainable? *Information Development* vol.10, p.247-251.

Stewart, Thomas A. (1997). *Intellectual capital: the new wealth of organizations*. London: Nicholas Brealey.

Sturges, Paul (1997). Search for a new librarianship: Azania to Zimbabwe (and other parts of Africa), *Focus on International and Comparative Librarianship* vol.28, no.1, p.3-6.

Sturges, Paul, and Neill, Richard (1998). *The quiet struggle: information and libraries for the people of Africa.* 2nd ed. London: Mansell.

Underwood, Peter (1999). E-mail to the author dated 14 July.

UNDP (1999). *Human development report, 1999.* New York: Oxford University Press. Also available at <http://www.undp.org/hdro/report.html> [13 July 1999].

Zeleza, Paul Tiyambe (1996). Manufacturing and consuming knowledge: African libraries and publishing, *Development in Practice* vol.6, no.4 (November).