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The Paper

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The Paperless Society: Farce or Reality?

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Abstract

There is hardly a human endeavour that has not been affected by the digital technologies. For over five centuries since Gutenberg invented the printing press, paper has maintained a quasi-monopoly as the medium of transmission and storage of information. This role is being seriously challenged by new audiovisual and information media, and the debate still rages as to whether computers, and in particular the Internet, will lead to a paperless society. Statistics reveal that demand for writing and printing paper has gone up more than sixfold in societies with a high growth rate of literacy. Despite this rising paper consumption, it is said that demand will start falling off in some parts of the world in 10 to 20 years when computer-literate children become old enough for the workforce. As today's children will be more comfortable with electronically stored information, they will not automatically reach for the printer when they see something interesting online. Paper has been supplanted by digital media as a means of providing secondary information sources including abstracts, indexes, reviews, and reference volumes such as encyclopaedias and dictionaries.

Introduction

In a report in Anderson's column, "How do you manage?" in *Library Journal*, depicting the expectations of users in the digital age, a student sitting and staring for a long time at a terminal was approached by a reference librarian to ask if she (it was a she!) could be of any help. The student said he was trying to find out when Iraq severed diplomatic relations with Great Britain and the United States. In response to a question from the reference librarian as to where he had looked he said he didn't know as he had seen so many things. It was estimated that he had been there half an hour. The reference librarian told him he could find the answer in *The Statesman's Year-Book*. He asked if

The panel saw editors using video conferencing techniques to call up stories, discuss issues and eventually entering decisions reached in the computer. However, Bagdikian pointed out that print was neither dead nor dying:

It is being forced to make a place in the family of human communication for a new way of transferring information and emotion, the electronic reproduction of scenes and sensations. The new medium is disrupting and even revolutionary, but it leaves the alphabet and document still indispensable to the efficient use of eye and brain and to the demands of human rationality.

Paper Versus Electronic: The Arguments

Even with the new millennium, the debate on whether electronic will replace print has not ceased. The popular clichés "toilet without paper" and "myth of the paperless society" are still very much used. I agree with Lancaster's sentiment when he says that the fact that he has written about an electronic future does not necessarily mean he endorses such a future or that he enthusiastically looks forward to it. Furthermore, he adds that a new technology may improve an existing situation but bring with it its own set of problems; and the technology can be used to benefit society or to impair it (Lancaster, 1985).

Hsu and Mitchell (1987) pointed out that "print hasn't vanished, and is not likely to do so for the foreseeable future ... because the printed word is, for many purposes a better technology". They further went on to compare print and electronic "head to head" giving the superiority of print on, ergonomics, contrast, pixels, resolution, weight, viewing angle, durability, cost, life expectancy, electrical power requirements, editorial quality and search capability, as well as intangibles. They point out that "electronic data, particularly on the web, is nebulous, ephemeral, and prone to unexpected editing or complete disappearance". They did not think much of the hypertext link that is often touted as a great advantage of electronic. Also, they mentioned that users would rather print materials than read them on the screen.

At a conference on the global digital library, the Vice-Chancellor of Thames Valley University, UK, Fitzgerald (1998) observed that there was phenomenal increase in the use of paper in institutions, and that:

We emphatically are not heading towards a paperless way of operation. Far from eliminating paper, information technologies have combined to produce a renaissance in printing allowing DTP for all. One issue this raises is the variety of reactions which digital documents still produce. While many students will find it difficult to read on screen (or may be unwilling to), others (especially younger learners) will accept and look for screen presentation. We have to find ways to cater for the different constituencies making up this range.

When asked how far down the road he sees us being a paperless society, Gates (1997) had this to say:

Paper will not vanish entirely, but in the years ahead the role of paper will decline dramatically in both the office and home. Short or structured documents will be the first to move away from paper. You will use your computer to review and pay bills or fill out forms. Who will lament a reduction in paperwork? Not me. Many longer documents will move to computer screens once technology improves sufficiently that a screen is as pleasant and easy to use as paper. We are still a few years away from lightweight screens that offer the resolution of high-quality printing, but that day will come.

He went on to discuss how society is moving away from at least certain kinds of paper in the travel industry, for billboards and photography. He concluded his interview by saying that:

We will never see paper eliminated entirely, but a society in which paper has a much-diminished role is clearly on its way.

Indeed, in many sectors the role of paper has diminished. In South Africa, most big players in the commercial sector have a presence on the web. Recently, Parliament approved legislation providing for dematerialisation of all share certificates listed on the Johannesburg Stock Exchange, thus replacing paper share certificates with electronic entries in the Central Securities Depository. The system is expected to reduce fraud and speed up settlement times (Sunday Times, 1998). E-commerce is transforming many service industries including education, medical services, travel and entertainment.

In the United States, for example, the Senate and House of Representatives enacted the Paperwork Elimination Act of 1995. The act basically makes it mandatory for Federal Agencies to substitute paper with electronic media. This act has generated much discussion among librarians and archivists, and caused a lot of disquiet. To many, "paper is meant to be forever". The implementation of this Act has begun and most agencies have ceased the production of printed materials. It would seem that the network-to-desktop information resources concept has taken a firm place.

Developments in Publishing

Easy access to information started with the introduction of printing and has steadily improved with the development of the computer and electronic communications systems of today. More and more full-text magazines, newspapers, encyclopaedia, dictionaries, directories and scholarly journals are available online, making it easy to access an information source without actually owning it. The Internet now makes it possible for the user to have easy and rapid access to vast amounts of information. The user can manipulate this information in various ways to create new syntheses of knowledge. In effect, the Internet is changing the role of printed information, since the web, not the information, is becoming the medium of research communication.

Publishing is presently between two ages (print and electronic), and many publishers are striving to cross the divide by embarking on ambitious electronic publication plans. Most people can publish on the web with little effort. The wizardry of existing word processing packages has made this a fairly easy exercise. Denning and Rous (1998) observed that:

Ubiquitous networks, storage servers, printers, and document and graphics software are transforming the world from one in which only a few publishing houses print and disseminate works, to one in which any individual can print or offer for dissemination any work at low cost and in short order. This poses major challenges for publishers of scientific works and for the standard practices of scientific peer review.

The world has thus become awash with electronic text (e-text) and this probably constitutes more than 90 percent of the World Wide Web. The e-text is in articles on usenet news groups, e-mail messages on list serve, in electronic journals and other electronic text sources (Barter, 1996). In under 20 years, paper has been supplanted by digital media as a means of conveying secondary information sources including abstracts, indexes, reviews, and reference volumes such as encyclopaedia and dictionaries. The digital media have lessened to a great extent the burden of previously having to wade through numerous volumes of printed materials in order to locate potentially useful information on a given topic. While Hsu and Mitchell (1987) do not think much of the hypertext link that is often touted as a great advantage of electronic, anybody who has used *Encyclopaedia Britannica* would have observed the transformation of that valuable resource from a book to a digital directory with hot links that guide you to other useful sources of information around the world.

The combination of images, sound, text, and graphics - in what is referred to as multimedia - conveys knowledge in a highly synthetic and powerful manner, collapsing into one medium the library, the museum, the gallery, the film, the photograph, the sense of place and sound. Rada (1994) says:

Suddenly, learning and perceiving become much closer to the daily experience of living, and by doing so, have a much higher pedagogical and retention impact. The difference is that the process is sensorial in nature, the language is that of the subjective, and perceptive, of the senses, and thus not simply conceptual or reflective in the meaning of the world of the literate.

In 1979, J. William Baker, president of Macmillan of Canada, predicted that scientific journals and certain types of reference works will be the first to disappear, but could not imagine the physical book being supplanted by a TV screen or a "computer-driven on-

site printer" (Baker, 1979). It has also been pointed out that the rise of computers and the Internet has resulted in the proliferation of magazine and book titles targeted at users of the new media.

How far has the transition gone from paper to digital? Most publishers now have a presence on the Internet through their web sites. Publishers are involved in:

- Building databases that can serve as online libraries of their entire literature, with a view to offering various services from the databases, including ability to search full text by keywords, phrases, in combination or in close proximity (Boolean logic), and with hypertext links to other information sources. Consequently, all information is being captured in digital form stored in several formats, including SGML (Standard Generalized Markup Language), PostScript, PDF (Portable Document Format) and Lectern format files.
- Deployment of distribution and access services; including establishing a network of servers.
- Development of authentication services which are used to control access to a database and its functions.
- Implementation of new functions, notably access licences for institutions, short-term licenses for non-members, promotional licences, and triggered functions such as intelligent agents that collect copyright release fees from non-members accessing copyright works.
- Retrospectively converting their resources in order to make them accessible to anyone with a PC.
- Experimentation with new practices.

It seems that the long-term objectives of publishers is the transition of most journals, as well as other publications, to on-line distribution. Denning and Rous (1998) say that they see a number of benefits arising from this:

Articles are available sooner; costs of printing and binding can be shifted to local sites where they become optional; postage and warehousing costs can be eliminated; individuals can gain access to articles without subscribing to a whole journal; and preliminary versions of papers can be posted for public comment. Print versions will be phased out as the demand for them becomes too small, an outcome that may happen for some journals as early as 1998.

In reality print versions are beginning to be phased out, and online publications are available weeks or even months before the printed versions are available. Peter J. Denning, Chair, ACM Publications Board, said that they envisage a diminishing role for print journals:

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Printed research journals will be replaced with dissemination from a database, which we are calling the ACM Digital Library (ACMDL). The ACMDL is the centerpiece of the ACM strategy. It will contain documents and their components, cross references, links, citation records, commentary, reviews, criticisms, and the like. It will support alert, brokerage, and repackaging services (Denning, 1996).

Other scientific societies are imitating the ACM policy in various degrees. They, however, intend to continue offering print and CD-ROM versions of journals as long as there is a market for them.

The most used electronic publishing formats are the PDF (Portable Document Format), and SGML (Standard Generalized Markup Language). PDF is a proprietary format controlled by Adobe while SGML, an encoding language, became a standard of the International Organisation for Standardisation (ISO 8879) in October 1986. In most cases, SGML files are converted and displayed as HTML (Hypertext Markup Language) - a subset of SGML - on the fly. This allows a user to view contents - including maths - with standard web browsers without any helper applications or plug-ins. PDF is a nice publishing format and allows for the storage of text, audio, and images. Barber (1996) submits that:

...PDF is not seen as a very good format for long term preservation and for structured access to documents. While it is a good way to distribute electronic text now, it is not a good investment for the long term..... The way to reconcile the desirability and utility of PDF with its shortcomings is to try to acquire the text of image content in a form that can be kept over the long term, ASCII, SGML, TIFF files, etc., and to convert this information into PDF. The other formats can be used for other purposes, or they can just be kept for preservation purposes. It is possible to "print" SGML texts to create a PDF file, or to bundle images together into a PDF file. This may be done at once, or on demand. In either case, the benefits of PDF can be received without the long-term risks.

PDF is generally said to be better for usage while SGML is better for archival storage. Barber further says that:

SGML prevails as the chief format for library electronic text collections, preferred because it permits structured searching and is a format that can be migrated to new formats in the future. These are not perceived to be attributes of PDF.

SGML is the leading encoding scheme (followed by HTML) for e-text mark-up today. Encoding with SGML requires an electronic document, Document Type Definition (DTD), and SGML editing software. A DTD tells the computer what to expect in a document. SGML tools are becoming more readily available, and more and more publishers are shifting to its use. Some publishers print SGML into postscript form and convert it to PDF. Corel WordPerfect 8, for example, supports SGML Markup. However, many other publishers create WWW sites with HTML versions of their word-processed documents. Publishing is indeed entering a period of rapid change. And there is a paramount need for education to enable people function in the online environment. It is important to understand the function and design of web sites. Martin (1996) says that "HTML knowledge in the hands of employees is the equivalent of the first copies of Lotus 1-2-3 in the hands of accountants and chief financial officers". I presume that similar knowledge is required of techno-industrial editors, as well as knowledge of technologies that allow for easy manipulation of text, sound and still moving images.

Many of the existing electronic resources are digital versions of materials currently in every library. They have evolved in one of three ways: produced by scanning the printed copy, produced from the electronic artefacts of the printing process, or exist in only electronic form from inception. Barber (1996) is of the view that the electronic-only production is the future as it offers "lower production costs and the ability to take advantage of multimedia that make them inherently superior to print for many areas of publishing".

The print version of many journals and many other publications are being dropped by publishers, and in some instances the publishers are providing access directly to users and not through libraries or agents. Publishers are building structured databases containing their published works. Many database vendors and publishers want to be in the business of selling access to electronic resources, but Getz (1997) is of the opinion that the publishers might find that they need to work with agents for electronic distribution because of the economies of scale necessary in managing access to electronic services. He points out that there are potential advantages of integrating individual journals into a wider database of academic information.

Costs

The issue of cost has also received some attention. While some say that electronic-only publications offer lower production costs, in addition to the ability to take advantage of multimedia, others have argued otherwise. Hearst (1996) notes that it costs huge sums of money to establish a mainstream magazine which might fail before it breaks even, whereas real for-profit online publication could be in the black within a year, and with attractive start-up costs. He, however, cautions that while some publishing pioneers

have had such successes on the web, which encouraged them to launch other magazines, "start-up Web publications, despite their low overhead, are not going to have an easy time turning profit". Fisher (1997) points out, however, that from the comparison between the electronic *Chicago Journal of Theoretical Computer Science* (CJTCS), and print *Neural Computation* (NC), it seems that the direct costs of publishing an electronic journal are substantially below that of a print journal with comparable pages -- 291%. The overhead costs, however, are much higher -- 1240% higher in this case -- but that is adversely affected by the small amount of content published in CJTCS over the course of 18 months of overhead costs compared with NC which published 12 issues over the same period of time. The disparity in the markets for electronic products and print products is, at this point in time, a very big obstacle to their financial viability, as is also the conservatism of the author community.

For now, commercial publishers offer access to electronic files of their journals for a fee higher than the price for the printed copy, whereas association and institutional publishers do the reverse.

We can all attest to the ever-increasing cost of printing and distributing physical artefacts - books printed on paper. While the cost of producing physical artefacts is going up, the cost of computers and communications has been declining steadily. At the same time, the capacity to transmit electronic information continues to increase.

Copyright

Knowledge and intellectual property right is controlled through the international copyright system which is universally accepted by governments and those involved in the book trade worldwide. The current attitude seems to be "No pay, no play" (Altbach, 1995). Technology now poses a challenge to traditional copyright, and there is a great deal of concern about protection of intellectual property in digital form. Authors of works stored in the web increasingly use active hypertext links to other works rather than the traditional citation. Clicking on the link invokes a process that copies the referenced work from a remote site. Such a link, when used, becomes a way of incorporating another work on demand into a document. Link-use is not contemplated in existing copyright policy. How should a "link trades" be regulated?

The overwhelming views of a number of library associations is that many of the existing national/international copyright laws are adequate to take care of the interests and rights of copyright owners and users and that these remain balanced in the digital environment. They say that copyright protection for purely economic reasons seems to be in conflict with the original aims of copyright to promote the progress of science and arts. The

extreme view of some is that there is no room for the concept of "fair use" in the digital world and that a user should pay each time a document is viewed or accessed. I think the law is still lagging behind technological developments.

For now, most non-commercial publishers of digital works are giving as much free access as possible to users. The emerging trend, however, is that increasingly, users will be requested to pay to access documents that they need, especially when it becomes safer to pay electronically. As yet, there is no way for non-commercial publishers to charge people for the documents they access over the Internet, and there is no way to keep people from making copies of digital documents once they have received them. Some institutions provide partial access to their documents and only provide full access when a user takes out a subscription or orders the document. It is generally accepted that online materials, like all other materials, are copyrighted simply by the fact of their existence. An author establishes copyright automatically by creating a work, and the copyright notice is regarded as being a courtesy and a convenience.

Opportunity

Rather than revel in the demise of paper, the issue that should be addressed is whether digital media present us with any opportunity. The rapid development of the Internet, and in particular the World Wide Web, coupled with the commercialisation of very advanced information technology to exploit it, opens avenues for an organisation to make more effective use of its resources.

Opportunities offered by WWW community networks include information sharing through online databases, more efficiently updated than printed sources, and electronic networking, potentially easing communication between organisations and between sectors. Lancaster reported that a firm estimated that 25 percent of its workers' time was spent in creating, storing and distributing paper records and that 80 percent of such records, once stored, were never referred to again. The firm took its employees by surprise and ordered a "paperless day", an experiment that was not very popular. The firm, however, aimed to cut its storage of paper by 75 percent.

Conclusion

We are now in an era that will be dominated by digital information; and the whole fabric of many societies is changing and thus thrusting institutions into a transitional period. Information will continue to be conveyed in analogue and digital media, and the future is not likely to be one or the other but both. The strongest argument for print is the fact that print provides some degree of permanence, while e-information can be highly

transient if not managed properly. However, information gathering and processing is no longer organised around print. For now, the use of paper has increased in tandem with the spread of new technologies. While the promised paperless society is nowhere in sight, what seems certain is that paper will continue to have a much diminished role as a medium of storage and dissemination of information.

There seems little doubt that the cost of producing and distributing publications in electronic form will continue to decline rapidly relative to the costs of publishing and distributing them in print-on-paper form. Presently, it is not very clear whether technology will reduce the cost of scholarly communication. What is clear however is that a great deal of value is added in the digital environment. The future will continue to be influenced by cost, effectiveness and the way the user perceives the medium.

Organisations that do not capitalise on the opportunities provided by the Internet will become irrelevant in the digital age. As we move into the internetworked world, the Internet's World Wide Web provides a host of challenges and opportunities and organisations have to transform themselves for relevance in the digital economy.

Finally, I would like to end with a question. Will the paperless promised land ever be reached?

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Prospects of Digital Libraries in Africa

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Abstract

This paper identifies the challenges facing African governments in the implementation of digital libraries. The challenges include the improvement of information literacy, improvement of information and communications technology (ICT) infrastructures, encouragement of access to and use of information technology, and addressing the shortage of management and technical expertise. As a way forward, the paper suggests that African governments should get involved in development cooperation at all levels of the telecommunications industry with the technologically developed countries (TDCs) in such a way that local ICT skills and know-how acquisition are identified and developed. It also suggests that they create awareness of the changing notion of information literacy; make education a topmost priority of their development programmes through adequate funding; and restructure the learning process to reflect the use of information in the real world.

Introduction

Technology is dramatically transforming libraries. The term "digital library" for example, is a relatively new term (Feldman, 1997; Borgman, 1999), the singular form evolving from the goal of a national and/or international library. But because of contrasting perspectives (research and practice), various definitions of the term now abound (Borgman, 1999). It connotes different meanings to different communities – "electronic library", "virtual library", "universal library", or "future library". The use of the term digital library has become rather confusing and problematic. A digital library is viewed by some, as an electronic database, and by others, as an institution that offers services or service. However, for this discussion, this paper promotes the view of a digital library as including electronic databases on the Internet, the World Wide Web, (WWW), CD-ROMs, and Proprietary Services such as Dialog, Lexis/Nexis, STN, Westlaw, InfoAmerica, CDB Infotek, and IOP-EJ. In this context the word "library" is a collection of full-text and bibliographic information sources rather than buildings, and incorporates human services (such as electronic publishing, personal information management and distance education) and information technology tools (such as those to support browsing, authoring and communication).

Digital libraries have the potential of improving and promoting information-related activities. Sloane (1997) acknowledged that digital libraries, for example, the WWW hold more useful, up-to-date and relevant (to many subjects) information than most university libraries, and certainly other categories of libraries. They also contain a wealth of simple information of direct applicability to everyday subjects. They offer a number of other advantages, one of which is ubiquity. Many simultaneous users can access, from many locations, a single electronic copy. Copies can also be delivered with electronic speed. The copies can be reformatted to the specifications of the reader (e.g. to make the font larger for those with limited sight or to make the page fit a smaller screen). Also because readers get a screen display of the object, rather than carrying away the physical object, loss rates by theft, except for CD-ROMs which are vulnerable, are much reduced. The object can also be copied without error, thus offering preservation advantage (Lesk, 1995). Digital libraries therefore add value and save time, and reduce need for proximity to information resources while still emphasising the quality of the resources.

Because of its growing importance in all aspects of human life, access to information is now considered very vital to development. However, lack of information, particularly those relating to development cooperation with other continents of the world, is a critical constraint in Africa. Every information channel in Africa is partially blocked. Each channel that matters is underdeveloped. There are, according to Wresch (1998), very few television sets, few books, few entries in databases, and few web pages. Although digital library emerged in the technology-only arena in the period from mid-1996 to mid-1997 (Feldman, 1997), it has opened a new forum for global information access. Africa could benefit from the potential it offers, subject, however, to putting in place all the necessary information infrastructures. In view of the above, this paper will discuss the implications and challenges of the introduction of digital libraries in Africa.

Implications for Africa

The introduction of digital libraries in Africa has implications for improving educational standards, library and information services delivery and the creation of an informed society. Information is central to education and training. However books are in short supply in Africa. For example, Africa produces 29 book titles per million per year as against North America's 461 (Wresch, 1998). Libraries in Africa, which are expected to play a major role in improving the quality of education are poorly funded, and hence poorly equipped.

Digital libraries can play a major role in promoting knowledge or enhancing education in Africa. With the integration of digital libraries into traditional libraries, learners as

well as researchers no longer need to concern themselves with location, or format or access method. This is because they can be supplied whatever the appropriate contents turn out to be, and with such immediacy that cannot be found in a traditional library. The goals of digital libraries, according to Hsiang *et al* (1997), cited by Chang and Huang (1999), are to support better research environments, to create self-motivated educational environments, and to satisfy curiosity and life-long learning of general public. In addition to the goals above, they are also meant to improve teaching and assignments through the incorporation of library materials. Digital libraries, which according to Downs and Friedman (1999), contain representations of original works provide opportunities for students and scholars to conduct research from personal computers and workstations located in their homes, offices and laboratories; and at their own pace and convenience. It also promotes scholarly publishing.

Information resources that are important to a class, according to Seamans and McMillan (1998), should be format independent, whether the class is taught in a campus classroom or at a distance to a distributed and synchronous class. Thus, it offers learners unique opportunities that are unconstrained either by the limited resources found in particular physical libraries or by their schedules of operation. It therefore enhances students' learning due to their ability to search for and acquire up-to-date information. A survey carried out by Bao (1998), in fact shows that the Internet has become an important source of information for academic studies. It offers the opportunity for access to up-to-date research and knowledge globally.

Another implication for digital libraries in Africa is the improvement of library and information services delivery. Increases in the prices of publications, in the costs for buildings, storage and preservation, and inadequate funding, are making it harder for traditional libraries in Africa to afford their previous levels of purchases. These have also made it impossible for them to maintain traditional collecting practices beyond the continent of Africa. Many libraries have therefore had to review their subscription and/or purchase policies. Many have also embarked on journal cancellation as a way of making funds available for other areas of need. The consequence is that they can no longer satisfy the demands of their customers in terms of new and improved services.

While digital libraries offer solutions to these problems initial costs associated with creating and operating these libraries may be high. There are the costs of converting paper based books and documents into digital form, computing and communication, personnel, fees to publishers, authors, owners of copy-righted material, and finally the cost of secure transactions and funds transfer (Reddy, 1996). The costs could however be much reduced if the creation is done cooperatively by all the countries in Africa rather than each country creating its own digital library. Notwithstanding these initial

costs, introduction of digital libraries will be of great benefit to library and information services delivery. If integrated into the traditional library and information services, digital libraries will strengthen the base of local information. They will serve as gateway access to the worldwide academic resources extending beyond the resources that are physically available in these libraries. And, as a result, they will not only improve information delivery services in these libraries, but also offer the advantage of eliminating or reducing costs associated with acquisitions, storage and preservation of collections.

Digital libraries will create an informed society. The low volume of publications in Africa is an evidence of information poverty. No meaningful development of a nation can take place unless the citizens, whether they are decision-makers or ordinary citizens or those recruited to work in the country, have access to relevant information (Msiska, 1998). This therefore informs the need for the provision of relevant information services in Africa. One important goal of digital libraries, according to Borgman (1996) cited by Chang and Huang (1999), is to satisfy the information needs or to solve the problems of specific communities. Digital libraries have the ability to make information available, raise its quality, and increase its diversity (Lesk, 1995). Access to digital libraries is not limited to those who go to the library and know how to look up a catalogue. It also does not require travel outside the home to gain access to it. It is, according to Reddy (1996), a library that gives global access to global information, which is a different kind of access to information from what one may conceive of as being the type of access possible in a local library. Access to digital libraries thus has the potential to achieve unprecedented gains in economic and human development in Africa.

The Challenges

Although digital libraries have great potential as a delivery system for information, a very important challenge is how to improve information and communications technology (ICT) infrastructures in Africa. Telecommunications infrastructure, according to Ojedokun (1999), remains the backbone for the application of a wide range of communications and multimedia services such as digital libraries. A national information infrastructure, according to Alemie (1998), consists of a telecommunications network, a strategic information systems network and wide-spread access to communications and information services. Unfortunately however, Africa's telecommunications networks have been found to be inefficient and less reliable than networks in other regions of the world. To Alemie (1998), Africa could be considered as virtually out of the picture as far as telecommunications is concerned with its share of world telephone lines being a meagre 2% (Alemie, 1998; UNDP, 1997) when Europe had 42% in 1992. The consequences of the above are the poor distribution of access, resources and opportunities.

Equally challenging is how to address the shortage of management and technical expertise in Africa. This is important in order to be able to fully exploit the potential of information technology-based systems such as the digital libraries. Except in Egypt and South Africa where IT skills are in abundance (Selim, 1993), Africa generally lacks the capacity to build, operate, manage, and service the technologies involved in the use of digital libraries. Africa, according to Alemie (1998), is the only continent in the world where almost no telecommunications equipment is manufactured and almost all the materials used are completely manufactured elsewhere without local participation.

Another important challenge is how to improve or impart information literacy to Africans. These are the knowledge and skills relating to locating, processing, exchanging, and effectively using information regardless of delivery mechanisms and the type of format in which that information appears. To be information literate, one must not only be literate in print but also in electronic formats. These equip individuals to take advantage of the opportunities inherent in the global information society. In addition, they are not only important in higher education, but are basic to leading a productive life. Unfortunately, however, library and information science training programmes, which should lead to the training of library and information specialists (the eventual trainers), have never attracted adequate funding from African governments. Oladokun and Oyewumi (1999), for example, cited UNESCO 1994 statistical yearbook as revealing that between 1980 and 1992 public annual expenditure per inhabitant on education in Africa (excluding the Arab states) dropped from US\$ 42 to US\$ 28, whereas it rose in Europe from US\$ 336 to US\$ 593 during the same period. Africa therefore faces the challenge of ensuring that her population, particularly the younger generation, possesses the educational, professional, and technical skills to compete globally (Chung, 1999). African countries should harmonise their education and training, especially in information literacy for closer regional collaboration.

Finally, there is the challenge of how to provide affordable access to and encourage the use of information technology in Africa. "Access" as used here is not limited only to the ability to obtain the technology and supplies, but also to access international information flows. According to Wresch (1998), nowhere outside of America is there the ready access to machines that let 18-year-olds create pages in honour of their favourite TV shows or in honour of their academic passions. His paper reported the University of Namibia as having 15 computers for 2000 students. This is a ridiculously low figure for such a population of students. In fact, except for Botswana and South Africa, where IT hardware and software are affordable even by individuals, the situation in many African countries is similar to Namibia's. Aiyepoku *et al.* (1994), cited by Ajiferuke (1999) perhaps summed up the situation in Africa when he stated that the specific use of information technology to address environmental concerns in Africa by African researchers and policy makers is still very low. This situation is however not peculiar

to the area of the environment, but to all areas of development. Africa will certainly have to address this issue.

The Way Forward

Digital libraries have become an important component of electronic services not only in public, academic and research libraries but also in other organisations desirous of gaining competitive advantage over their competitors and also in government agencies desirous of empowering the citizenry. To provide access to, and/or opportunities for access to the wealth of information contained in digital libraries, therefore, it is suggested:

- That African governments be involved in development cooperation at all levels of telecommunications industry with the technologically developed countries (TDCs). This is important in order to build and/or upgrade telecommunications networks and related communications technologies. Such cooperation must however be such that would identify and develop local information and communications technology (ICT) skills and know-how acquisition through an internally generated programme for developing human resources. Information resources may be available through the digital libraries but may not be accessible; they are therefore not only enjoined to create awareness in, but also provide affordable and easy access to ICTs by equipping primary, secondary and tertiary institutions with state-of-the-art ICTs.
- That governments should make education a topmost priority of their development programmes by adequately voting a substantial part of their budget for education. Such a vote must be justifiably spent. African governments must make available educational and training facilities that will equip people to design, build, operate and maintain ICTs. Libraries are also important components of national information resources; they must be adequately supported for them to integrate the digital library services into the traditional library services.
- That government policy makers and, indeed, the general public be made aware of the changing notion of literacy. No longer should it be regarded as the ability to read and write. It now includes a range of technology-based skills as well as information-solving skills.
- That the education systems and institutions in Africa take the challenges of the information age seriously. This must involve a restructuring of the learning process in such a manner as to reflect the use of information in the real world. Teachers must also change their role from teachers of prefabricated facts to facilitators of active

learning. Information literacy must be made a part of every student's educational experience.

The above will require national commitment and a range of information awareness and/or technology related programmes if the knowledge and skills required to stay relevant and/or competitive in the digital library environment are to become commonplace in Africa.

Conclusion

Scholarly and professional interest in digital libraries, according to Borgman (1999), has grown rapidly throughout the 1990s. As ongoing researches also indicate (Gladney and Lotspiech, 1997; Stefik, 1997), services provided by these libraries will continue to be improved upon. It is therefore important that Africa takes steps to harness the opportunities that these libraries offer.

The developed world has made headway in networked and digital library capabilities (Iljon and Pigott, 1996). The United States' determination to harness the benefit of the digital libraries saw them designating these libraries "a national challenge application area" under the High Performance Computing and Communications Initiative (HPCC) and a key component of the National Information Infrastructure (Borgman, 1999). This has helped a lot in enhancing information services delivery. This example is worthy of emulation by Africa. Africa's access to information is vital if Africans are to contribute to finding solutions to their own development problems.

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Changing Trends in Library Automation

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Abstract

The paper reviews the pioneering role of the computer centres and cooperative library schemes in library automation using mainframe computers prior to the evolution of microcomputer technology. With the development of microcomputer technology, cooperative library schemes diversified their business into new market segments by converting their products and started to provide new services such as database conversions, training, consultancy, maintenance, documentation, computer hardware and access to a wide range of full-text electronic journals. Cooperative library schemes, in this way have remained relevant and continue to play an important role in library automation. Computer centres, on the other hand, have found it difficult to shed off the tradition of providing computing services to the library using the mainframe computer of the parent organisation. Libraries have resisted this encroachment on their "sovereignty" by the computer centre. There is however an emerging trend showing the need for the library and computer centre to cooperate with one another. In organisations that do not have computer centres, Information Technology (IT) units are playing a similar role to that played by computer centres. The paper examines areas where the library and the computer centre can co-operate as partners of the organisation wide management information system.

Introduction

The potential of computers to automate library procedures was recognised in the early 1950s in the United States and in the United Kingdom in the early 1960s when library systems were developed locally on the mainframe computers of parent organisations using local programming expertise. Librarians are known to have become early entrants in the use of computers (Martin, 1986). About the same time, database producers such as Chemical Abstracts, National Library of Medicine and the Institute of Scientific Information developed extensive mechanisation program that led to online retrieval systems. The National Library of Medicine in Bethesda in the United States is known

to have used computers as early as 1964 in photo composition or computer typesetting in the production of *Index Medicus*. Computer applications to specialised forms of information processing such as chemical structure handling soon followed (Bawden and Blakeman, 1990). During the 1970s computer use in libraries and information centres expanded as a result of the development in microcomputer technology and emergence of co-operative library automation schemes.

Cooperative Library Schemes

In the later part of the 1960s cooperative library schemes such as Online Computer Library Centre (OCLC) in the United States and Birmingham Libraries Cataloguing Mechanisation Project (BLCMP) in the United Kingdom respectively, emerged and started designing large-scale systems that were meant to run online to serve several libraries within neighbourhoods. BLCMP was established in 1969 as the first cooperative automated cataloguing service in Britain. BLCMP was started by the libraries of Aston University, Birmingham University and Birmingham Public Libraries (Rowley, 1980). BLCMP was one of the most successful cooperatives in the United Kingdom that by 1988, it had a membership of 43 libraries (Stubley, 1988). On the African continent, South African Bibliographic Network (SABINET) was established in 1983 drawing membership from all sectors of the library community in Southern Africa to provide online-shared access to databases, retrospective conversion, document delivery services and access to journal literature. Cooperative library schemes at the time offered libraries opportunities for library automation, sharing cataloguing data, online cataloguing, acquisitions, and information retrieval and creating or amending orders. Cooperative library schemes owned mainframe computers and provided a cheaper option for libraries to computerise and gain shared access to databases such as union catalogues via wide area networks such as the Joint Academic Network (JANET) in the UK. During this period, microcomputer technology had not evolved significantly and mainframe computer systems that were state-of-the-art were very expensive that many libraries and organisations alike could not afford to purchase them.

Serious evolution of library automation systems began during the 1970s and reached maturity in the later part of the 1980s when cheaper microcomputer technology evolved. Microcomputer technology put the use of computers into the public domain heralding the era of distributed and personal computing. During this period, cooperative library schemes had reached their apex and had started to decline while others ventured into new markets segments to survive as libraries and organisations alike opted to migrate to using personal computers that were cheap, user friendly and easy to learn and use. Consequently, Birmingham Libraries Cataloguing Mechanisation Project developed two turnkey systems namely BLCMP Circulation Control System (CIRCO) for circulation

and BLCMP Online Support Service (BOSS) for both online-shared access to acquisition and cataloguing. OCLC also developed Library System 2000, LS2000 (Lovecy, 1980).

Though the use of the cooperative library schemes to automate library procedures has really declined because of the shift by libraries to using microcomputer technology for local as well as distributed computing, the idea of the library consortia synonymous to co-operative library schemes, seems to be re-emerging through electronic resource sharing as a result of the influence of the Internet and pressure from funding agencies for libraries to form consortia in order to gain access to donor funds. In South Africa, for example, a number of university libraries have conglomerated to use INNOPAC Millennium Library system from Innovative Interfaces, Inc. in the United States of America. These libraries have formed consortia partly to benefit from funding that is available to consortia rather than to individual libraries and also to make it possible for individual libraries to share the cost of INNOPAC which otherwise is an expensive software for individual libraries.

Shift from using Mainframe Computers

For the last two decades most libraries have not been tied to using parent organisation mainframe computer to automate library procedures for a number of reasons. Development of local library systems on mainframe computers required enormous resources and resulted into systems that were proprietary, making them to function on particular platforms. The local systems produced reflected more of the idiosyncrasies of programmers and less of the needs of library users. The systems were unfriendly and difficult to learn and use. Computer programmers at the same time were scarce to come by and those organisations that were lucky to hire them found it difficult to pay them enough salaries to retain them. Programmer turnover was high. This had serious implications for system maintenance and sustainability. The systems produced did not conform to industry standards and tended to be limited to institutional use.

The pioneering role of computer centres in various organisations in the development of local library systems owed much to chance than choice for librarians. Computer centres used mainframe computers to develop applications. The mainframe computers were large, very expensive, multi-user and largely under-utilised. To justify, successfully, the purchase of such expensive computer systems depended on the number of users, and the functionalities that were provided by the system. The library with its many functions and central role in the organisation had to be cited to management as one of the major users of the system to win budgets for the purchase of the computer system. Libraries at the time had not also ventured into training of their staff in computing nor

had they started using computers on a significant scale. Libraries therefore did not have any expertise in the area of computing. The market for library automation systems was also generally limited and libraries that wanted to automate had little choices. When the library happened to be linked to the mainframe computer by a wide area network, the down time was often significant because of unreliable telecommunication systems at the time. Organisational policies therefore dictated that libraries be automated using the parent organisation's mainframe computer.

Today, microcomputer technology offers libraries a cheaper approach to library automation while ensuring efficiency. Secondly, mainframe computers have many disadvantages for library use; for example mainframe computers operate on limited platforms, they offer unfriendly user interface, are difficult to learn and use and require specialised environment to function effectively. In addition, the nature of library operations dictates that the system for the library should be dedicated to its functions rather than being shared. Computer centres using mainframe computers have been known to time slice library access to the mainframe resources, thus, holding the library to ransom. Software development process takes long and for the computer centre with other business to perform, the delays for developing library system are costly for both the library and the organisation. Users are kept waiting for so long if the computer centre is mandated to develop library system. Expectations are raised then diluted resulting in user frustration and loss of interest to use new technology. Mainframe computer technology has not been developing as fast as microcomputer technology and so mainframe computers have not responded quickly to take advantage of opportunities offered by new technology. Library professionals have also voiced their displeasure at being forced to use the mainframe computer of the parent organisation and have successfully justified dedicated systems. Today many library packages are microcomputer or minicomputer-based, rendering the use of the mainframe unattractive.

Despite problems associated with mainframe computers in the development of local systems, early initiatives of computer centres sensitised librarians to the essence of using computers in information management and laid the foundation for the development of user-friendly systems when microcomputer technology evolved.

Emerging Partnerships of the Library with Computer Centre

Despite the development in computer technology that makes the use of mainframe computers less attractive to libraries, computer centres and IT units in many organisations have continued to assume a patronising role to the library by wanting to have a major say in the way libraries implement their automation plans. This has not gone down well with librarians who believe that approaches to automation using

computer centres are no longer viable in the new technological dispensation. Libraries are today acquiring off-the-shelf packages and running them on mini or microcomputers that are under their complete control. IT departments that use microcomputer technology to develop library systems for institution libraries still do not produce systems that efficiently run the complex library functions. This is understandable as pure IT professionals are not familiar with library procedures and very often do not involve librarians in the system development process as indicated by a survey carried out in libraries in Kenya (Mutula, 1998).

However, both the library and the computer centre are important components of the organisation's management information system that can cooperate in many ways including the promulgation of IT policy for the organisation to ensure that systems and policies that are developed are cognizant of both technical and user standards. The library can collaborate with the computer centre to build a working political relationship in the organisation through various committees to push through their demands for technological development without one looking at the other as the junior partner. The library can liaise with the computer centre in the area of curriculum design and planning of IT resources to support academic programmes and teaching. In Kenya, for example, the introduction of parallel academic programmes by various faculties including the computer centre at the University of Nairobi put pressure on the library and faculties alike for more computer facilities, Internet services and books. The computer centre found itself working closely with the library to lobby for more funds and plan for resources to meet the demands for new programmes.

In designing and developing communication infrastructure, the library can work with the computer centre or the IT department in defining general requirements, requirements for access to the Internet, requirements for telephone lines and deciding whether the library needs its own leased line or dialup line for Internet access. The University of Nairobi Computer Centre has set up Internet Service Provision Services (ISP) and the library will find itself inevitably using the centre's facilities for Internet access. This could further enhance the relationship between the two.

Computer centres often tend to have more expertise in the area of technology than the library in such areas as website design and publishing. The library can therefore benefit from the centre's expertise to develop its own local skills. The library can assist the computer centre to process, classify and archive electronic materials. The computer centre on the other hand, can assist the library in training library staff in computer literacy programmes to improve their IT awareness. The computer centre can also be approached to assist the library in the area of determining training needs, identifying suitable training opportunities and demonstrating emerging technologies.

Sharing and exchanging experiences and expertise is another area where collaboration is needed. Naturally the computer centre may be of use where the library requires small applications to be developed, such as mailing lists and selective dissemination of information (SDI) applications, especially if such applications are not part of the library automated system. The library may also involve the computer centre in evaluating library systems. The two can also cooperate in the area of proposal writing, developing systems specifications and training.

Maintenance of hardware and software usually tends to form part of the procurement cost when libraries acquire automated systems. However, from time to time there has to be somebody on the ground to address minor problems such as system downtime, backups, apportioning access rights, maintaining the database, creating users or liaising with the system vendors. Usually, the library may have some staff trained to look after the system, but where the library has no expertise, it may rely on the computer centre to assist in this regard. Even when the library has somebody to look after the system, there is usually need to consult with other experts from within or outside the organisation. The computer centre happens to be the nearest place one can turn to. Good neighbourliness between the library and computer centre is therefore desirable.

Networking is an organisation wide-concern that requires the involvement of many stakeholders. In many organisations libraries may not justify the position of network specialist. Many IT departments will most often have such specialists who could be utilised by the libraries for example during cabling and subsequent support of the network system. Many organisations are giving the computer centre or IT unit the responsibility of providing organisation-wide Internet and E-mail services. In this situation the library will possibly rely on the computer centre in such areas as apportioning IP (Internet Protocol) addresses, maintaining the network, upgrading the network, liaising with ISPs (Internet Service Providers) and developing the network infrastructure.

Standardisation of equipment, software and procedures is another area that the computer centres or IT departments and the library need to collaborate with each other. They can also work together in developing procedures of procurement, defining responsibilities of individuals or committees, defining compatibility requirement, identifying suitable software and hardware vendors, connectivity requirements, security and operational procedures. Development in technology is quite rapid and it is difficult to keep track of these developments as a single department or individual. Shared approach to keeping abreast with technological development should be the way forward through collaboration and cooperation.

There is an emerging trend especially in the United States where the divisions of information technology in many organisations are taking on the responsibility of managing all IT related resources within the organisation including library computer facilities and automation programmes. If this trend becomes widespread and entrenched in organisations, though unpopular as it may be with librarians, libraries will have no choice or reason not to collaborate closely with IT or computer centres in matters relating to library automation and provision of computer services. United States International University, San Diego in the United States has moved in this direction and her sister university in Kenya is considering following suit though the library has resisted attempts by the university administration to bring the automation section under the management of the IT unit of the university.

In public universities in Kenya, a major international donor agency has been funding the purchase of equipment and software. IT departments or computer centres in these universities were responsible for coordinating this initiative. When equipment was received and shared among departments, university libraries were relegated to the periphery and did not receive much consideration. The only chance that the university libraries could have used to computerise eluded them. Except for Moi University and United States International University, the rest of ten university libraries in Kenya still employ manual procedures.

A survey carried out on 14 institutions in Kenya (Mutula, 1998) to assess IT use in libraries revealed that the working relationship between computer centres and the library was suspect. Librarians expressed the concern that they had often not been involved in the selection of the library systems they were using, but instead, IT departments or computer centres were given the role of choosing the system for the library. Librarians reported that the proposals they prepared and submitted to IT departments for systems requirements were always disregarded and what they got in terms of systems was not what they had proposed. Many librarians expressed desire to migrate to new systems citing inability of the systems given to them to meet user requirements. Ubogu (1998), reporting on the situation at Rhodes University in South Africa, notes that the IT Division and the Library have forged a very close working relationship. He however regrets that the situation in many parts of Africa calls for closer and more effective working relationships between the library and IT department.

Current Trends and Practices in Library Automation

Current trends in library automation have focused on off-the-shelf packages, which are bought to run on hardware available locally, or hardware purchased from different sources. There is also turnkey package approach where both software and hardware are

bought from the same source. Turnkey approach to library automation has the advantages of simplicity, accessibility to new developments, the library being part of large user group that is good for mutual assistance and bringing pressure to bear on suppliers to effect desirable changes. Turnkey systems are cheaper, user-friendly and easy to maintain. Off-the-shelf systems on the other hand are commercial, proven and shorten the turnaround times to library automation. Off-the-shelf systems have been developed and tested over a long period of time. They have therefore a proven track record. They have the cost of development shared among many users and are therefore cheap. The systems have well-established support team, active user group and stable vendors. Some of the brand names can be sourced from directories and systems journals such as *Cibbarelli's Directory of Library Automation Software, Systems and Services* (1996); *Leeves' Library Systems in Europe: a directory and guide* (1994). Other sources include *Bibliotech Review*, *Library Technology reports*, *Program* and a number of library automation websites.

Libraries in many organisations are now able to go it alone in computerising their procedures using off-the-shelf packages and having hardware under their complete control. Automation of libraries has also taken on an integrated approach with a move from automating the traditional functions of cataloguing, acquisitions, circulation and online public access to include Internet access, access to external databases and full-text electronic journals. Library software are being developed to take advantage of new technology with many system vendors offering products with web-based HTML (Hypertext Markup Language) interface to online public access catalogue, acquisitions, serials control and interface to other vendors. Some library systems such as INNOPAC Millennium are coming with Web access Management Module that allows a library to set up patron authentication for remote databases. Support library systems are now carried out on the Internet. In this way, libraries are increasingly contributing to the globalisation of knowledge by offering services through the web pages. Library catalogues are becoming increasingly offered on the Internet and many library software have Internet capabilities that make it possible for libraries to market library services far and wide to improve document delivery services.

Libraries are facing stiff competition in the provision of information because technology has in a way liberalised the information industry bringing into play many participants. Players in the market providing automated services include publishers, online information services, software developers and bibliographic utility services. Similarly, integrated library systems are facing competition from websites that point to a variety of electronic resources that are both local and remote. Websites are providing interfaces to library resources with links to the library's holdings. To compete effectively, integrated library systems are being designed to include capabilities for interfacing with electronic databases, web-based applications, network infrastructures, Desk Top

Publishing software and integration features combining systems with external resources to offer access to information from outside the library. In addition, many integrated library software are being designed with individual modules that can be purchased singly depending on the need of the library. This makes it possible for libraries with budget constraints to automate at their own pace in a phased approach. This change is making libraries to assume new roles in training, support and consultancy in IT use. These developments are making libraries to have new areas where they can work closely with computer centres to enhance meaningful use of IT resources in the organisation. The new technology is making it possible for libraries to rely increasingly on resources outside their collections to enrich services to users.

Proprietary systems have declined and there is a general move towards systems that can run on diversity of platforms. Unix is becoming the most widely used platform for large server-based systems while Windows NT is popular among medium-sized systems and is continually becoming predominant as server system. This is necessitated by competition and the need to remain competitive in a market that is quite volatile. Library automation is now characterised by downsizing of systems from mainframe to minis and robust microcomputer technology, which has occasioned distributed computing through networking. The library automation market is so unstable with new systems developing, mergers of vendors occurring, other vendors going under or converting their products. There is much emphasis in libraries on client server computing characterised by remote data presentation, remote data management and online processing. There is increasing use of the Internet to supplement traditional library resources and services. Vendors are no longer confining themselves to single market segments but are producing systems that cover a wide range of market segments such as schools, colleges, universities, public libraries and special libraries. In addition, vendors are venturing into new business areas such as maintenance, hardware sales, training, consultancy and database conversion to ward off stiff competition and remain afloat in a volatile market.

There is increased demand for Graphical User Interface (GUI) and web-based products though a significant number of library automation systems are text-based. In some systems, for example, erudite library systems, both GUI and text-based interfaces co-exist. This may be something to consider especially given preferences of users and the fact that GUI-based systems are still in the process of maturing. The role of a systems librarian is changing from being purely a professional in charge of the system to include training, database administration, trouble shooting, system support, web design and development and being the contact person for the library with vendors and IT units within the organisation.

Conclusion

Nurturing collaboration between the computer centre /IT units and the library may be easier said than done. Though there are indications that efforts of collaboration are emerging, there exist a suspicious relationship between the computer centre and the library. This suspicion is mainly historical. Computer centres have for a long time played the role of developing systems for the library and have found it difficult to shed off this tradition. The librarians on the other hand think that they can operate more independently than before in this new technological dispensation where the technology is well-developed, tested and proven. Libraries believe they have skills to operate independently of computer centres and where necessary they can work with vendors to maintain their systems. However, as demonstrated in this paper, the library and the computer centre need each other. Men and women of vision in the organisation must work together to bridge the boundary between the library and the IT unit in order for the organisation to take advantage of opportunities occasioned by technology for the benefit of all in the organisation.

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Africa's historical glory in the information and communication sector is highlighted from the perspective of her previous contribution in the development of information age. Africa is a world importer of information technology and her consequences and its place in the information age. Information technology is a key resource that should be maximised by African nations in order to achieve modernisation in the current dynamic world economy. Africa is now in the forefront of technology diffusion and technologically marginalised, enjoying only one percent of the world's growth in the 1990s. 50 million internet web-tweeters connect to a computer for a single day. The new era is being ushered through science and technology, becoming a new era of indication of the new global times and defining the new century in the information society. The paper queries the role of Africa in the global information efforts in helping to create a global information society for the future.

Introduction

It is fully acknowledged the historical role Africa played in global information and communication. This is evident in the past spectrum of information technologies and other aspects of information systems. The cuneiform, writings and the Egyptian hieroglyphics were all evidence of the African experiences and contribution in the area of information and communication. The Gutenberg printing invention in Germany revolutionised works in terms of publishing and reading, but only after the early century. All these inventions that witnessed early civilisation in the history of mankind. Even with the Gutenberg printing, knowledge in Western Europe, Africa was still Africa, preserved and has not waiting for the 19th century. States including the Congo, Angola, Liberia and the Moroccan, Africa were all involved in the information and communication revolution during that time.

Managing and Strategising Africa's Information in Global Computerisation

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Abstract

Africa's historical glory in the information and communication sector is highlighted from the perspective of her previous contribution in the development of information age. Africa is now a net importer of information technology and has consequently lost its place in the information age. Information technology is a key resource that should be maximised by African nations in order to achieve competitiveness in the current dynamic world economy. Africa is now in the limelight as economically stagnant and technologically marginalised, enjoying only one per cent of the internet connectivity out of over 50 million intended worldwide users with one telephone for every 200 people. The current scene is analysed through selected literature reviews which give an indication of the fundamental issues and ills facing African countries in this era of information society. The participatory roles Africa need to play as her contributory efforts in helping to create a global information society are highlighted.

Introduction

It is only fair to appreciate the historical role Africa played in global information and communication. This is mirrored in the past spectrum of information technologies and other aspects of communication growth. The cave paintings, writings and the Egyptian hieroglyphics bear witness to the African past experience and contribution in the area of information and communication. The Gutenberg printing invention in Germany revolutionised works in terms of publishing and printing, but only after the early century African centre-stage that offered viable communication in the history of mankind. Even with the Gutenberg printing invention in Western Europe, Africa was still able to preserve and use her writing systems in various places including the Congo, Angola, Ndebeleland and Mozambique. A countdown of Africa's contribution in communication revolution shows that:

It is in Africa that the first separation between the sender and receiver of a message took place through cave paintings. The major break in communication history was represented by the advent of writing through thousands of years of Egyptian hieroglyphics.

The communication revolution in world's history was initiated by the early African kingdom of Ashanti and earlier on by the ancient Egyptians.

Both communities were able to relay the first coded signals over considerable distances using "talking" drums and a sophisticated telegraphic language before Morse's invention in the 19th century.

The year 2500 B.C saw the Egyptian pioneer the African thinking machine marking the advent of computer technology. While Alexandria in Egypt produced scholars like Phaedo and Plato who expressed ideas several millennia before the invention of computer that are relevant and reflective of the modern dilemmas regarding human thought and its relationship to the mechanics of the machine. Of course, it is known Plato founded the Academy for pursuits of science and philosophy that resulted in the development of mathematical theory by 387 B.C.

Unfortunately, the historical pace set by Africa in the information and communication field has been lost and Africa is seen now as a net consumer and therefore importer of information technologies. This obviously gives way to a fundamental question. This paper therefore discusses the participatory roles Africa need play towards the creation of an African information society.

Situational Analysis through Literature Review

Timberlake (1988) sees Africa as a continent on the brink and explains her plight as unique in that whereas the rest of the world is moving forward with accepted indicators of progress, Africa is moving backwards. He laments that features of modern society to which many Africans have been exposed are withering with lack of spare parts, power supply, smooth communication infrastructure and many institutions deteriorating both in physical capacity and their technical and financial ability to perform efficiently. He argues for the change of policies, otherwise development in Africa will continue to be frustrated leading to political, social and economic nightmares by the turn of the century.

Sy (1994) contends that the principles and ideals of popular democracy are taking place slowly but decisively throughout Africa. He sees the signs of criers selling diversified products of the press in the streets of African cities. But he laments that the media is still ruled to a great extent by selfish, arrogant, greedy elites, false prophets and megalomaniacs. He prays for a time for change in Africa. He observes that Africa is still in the darkest ages of communication and information. Karikari (1994) feels that optimism for democratic political reforms across Africa seems to be giving way to despondency and cynicism, reviving authoritarianism and restrictive laws, intimidation by ultra-sensitive politicians, harsh economic constraints and state of insensitivity and monopoly of information and communication. Karikari thinks that the potential of using the electronic media to promote democratic and progressive social-political development has never been urgent as today, when all over Africa people strive for structural reforms and a new order of liberalism, openness and participation. He argues that the potential of the communication technology as an instrument to promote social change through education is under-utilised and observes the problem as inadequate and improper use of the technologies.

Klee (1997), while deliberating on the information technology commented that if the global information system is defined merely by market interests, it cannot do justice to the importance of an epochal, radical, worldwide change in social systems. He adds that it is easy to say that everywhere across the world we are embarking upon the information society, yet the reality is that the social, economic and political stages of development are much too different and the cultural standpoint much too controversial for them to fit the picture of a global village. He poses the question whether the gap between North - South will widen rather than close. He quotes South African President Nelson Mandela declaration in TELECOM '95 that:

This is a special moment in the world's potential for transition to a truly democratic information age... If we cannot ensure that this global revolution creates a worldwide information society in which everyone has a stake and can play a part, then it will not have been a revolution at all.

Klee highlights the vision of the International Telecommunications Union (ITU) which pleads for and projects a speedier improvement of infrastructure for telecoms in developing countries as an indispensable prerequisite for global networking to enhance global dialogue. He therefore urges governments to bring themselves to accept trail-blazing technologies and limit or scrap controls and censorship mechanisms. Quoting Mali's President Alpha Oumar Konare on the new information technologies, Boldt (1997) indicated, "if we Africans do not join the debate on its development, we will be overwhelmed by the evolution of this technology and will be increasingly marginalised." He noted that the word information poverty is already going round

showing less than 80 per cent of the world population lacking the most basic telecoms facilities, pointing to an important prerequisite for participating in the information superhighway. By statistics, he proves that access to multimedia indicates how far the poorer developing countries lag behind the rest of the world with the lowest main telephone connections, TV sets and PCs for every serving very high population having only two per cent of the world telephone connections - South Africa. He concludes by arguing that besides the political fears of some African governments over introduction of modern information technology, the main problem is financing it, a fact, he laments, leaves African countries dependent on the dominance of western technologies, values, content on the Internet and in online services. He however cautions that this situation will degenerate into a new gap of information have and have-not-information poor and information rich countries, but also a two-class society of the knowledgeable and ignorant within a country must be prevented.

From the selected literature review above, the African information technology situation can be summarised as: lack of sound legislation and policy guidelines, financial inadequacy for investment in IT, official insecurity and bureaucracy against IT, need for education, research and IT development structure, lack of manpower resources, poverty and illiteracy prevalent in African society, curtailed freedom of information due to political interference, need for regional integration and cooperation, need for IT cultural ethics, and reduced access to knowledge and information.

Conceptualising Global Information Technology

Global information technology is usually described in terms of a number of concepts: information society, information superhighway, cyberspace, information age, digital information age, virtual world, computer age, network computer systems, information revolution, Internet age, global information village. However, the common understanding of global information village is simply the era of telecommunications worldwide. The euphoria of faster information communication and transfer now provides a menu of Internet and e-mail facilitated communications. Given the present magnitude of the economic, social and political crises, Africa is indeed at the crossroads and lags far behind in information and communication fields. Africa has no alternative choice but to join and link up with the rest of the world for today's development. Of course, for many Africans, the concept of global information village can be seen as a hoax given that communication within and across villages is unattainable whether by roads or telecommunications. It therefore takes as much to eradicate poverty and ignorance as tel-networking the villages and urban centres. Whichever the route and whatever the choice Africa makes in relation to IT, the bottom-line remains that Africa must embrace the concept of information society in order to compete and survive in the present age.

African Dilemma and Stigma

If the understanding is that it will take Africa as much to provide information and telecommunication infrastructure as to eradicate its poverty, the choice for Africa, then, is between directing resources toward providing basic needs for its poverty-stricken citizens or joining the developed countries by investing her resources in high technology at the expense of the former. Indeed it is a tall order for Africa to attempt to run first before walking as a young economy would dictate. The African governments' belief is that information is power. Therefore in order not to defeat their propaganda machinery, the rulers always resort to curtailing free access of information among the ruled. This has given in to an information and communication sector ruled to a greater extent by selfish, arrogant and greedy rulers, politicians, managers, prophets of doom and megalomaniacs. What is seen now is a perpetual situation of information have (minority) and information have nots (majority). Talking about the information provision in the era of authoritarianism in Africa, what creeps in is the African despondency, cynicism and apprehension evidenced by restrictive laws, intimidation by ultra-sensitive politicians and harsh facts of economic constraints. Yet talking about democratic reforms and pluralism across Africa today brings in the euphoria pointing towards promotion of social change, reorientation of organization of information and communication sector from despotic controls to a new order characterised by openness, accessibility and participation. It is apparent that Africa is economically stagnant and technologically marginalised. The obvious choice for people is striving to meet their basic needs of life. Certainly, information and telecommunications technology provides impetus for growth at all levels of development. If African countries then fail to embrace this wave of great worldwide digital technology, they may as well help to sink themselves by it. The information revolution is here to stay, ushering in global data highways for people to have greater access to information and knowledge and develop a common bond of oneness. Africa must therefore identify itself with this era of information technology by investing and providing the enabling environment through positive legislation and rules in this sector accordingly. By so doing, Africa will ensure a sort of partnership in the global information revolution and its sustainability. The existing fear and resistance posed by authoritarian governments on the right to communicate, access to information and exchange of experiences and ideas via the Internet connectivity need not be tolerated within the context of African democratisation processes.

Survival Strategies

The vision is to make Africa part of the worldwide information society. Africa therefore needs to come up with meaningful programmes that will surely support and activate the

use of information and communication technology. Indeed, such initiatives should harmonise other international programmes ensuring Africa a partnership role in the information revolution. The following simply outlines the route for Africa as a means of embracing information technologies. The African information society initiative need be reflected on:

- Sectoral-National- Regional information infrastructure. This will avail an information and communication system that targets the connection of libraries, and information centres. Such initiative actually provides for the establishment of access through Internet among libraries and information centres.
- Promoting the use of online communication. This can be achieved by ensuring a functional system as outlined above.
- Developing national information strategy. Ideally, there has to be a consideration on the implication of information technology and finally making a choice to participate as partners in the worldwide information superhighways.
- Incorporating a research and development system for assessment of viable trends and lines of action to ensure that Africa exploits the opportunities availed by cyberspace technologies.
- Formulating of possible programmes of action through national/ regional information technology fund, policy and resource committees, information task force, network programmes, information technology promotion groups and government information technology committee.

Conclusion and Recommendations

Information Technology is a key resource that should be maximised by African nations in order to achieve competitiveness in the current dynamic world economy. However, the situation presently suggests the contrary. The problem is more pronounced in the area of IT for structured applications that support management in strategic level problem solving and decision making tasks. Africa is economically stagnant and technologically marginalised. It is the time to embrace information technology as a priority area and extend the democratisation process into the information and communication fields. Of course Africa needs to have a vision for information technology and evolve information society in partnership with the rest of the world.

Unfortunately, Africa enjoys only 1 per cent of Internet connectivity out of the growing total of 50 million intended worldwide users with one telephone for every 200 people or 2 per cent of the world telephone connections. The result is that Africa has very low telephone, television, and personal computers connection per 100 people. Indeed, information and communication technologies need be treated as a basic human right that will facilitate exchange of ideas, information, experiences and bring together the common bond and understanding of people within or across national borders. Therefore, this era of African democratisation should see restrictive legislations and policies completely sidelined. A situation that leaves Africa spinning outside the global village can be assessed through her socio-economic and political will, a reflected cultural stigma that certainly may not allow Africa place itself in the very picture of democratic information age. When this continue to happen, Africa will continue to watch a one-way flow of information North-South, thus, ushering in another dimension of foreign domination whether in programmes or Internet by the North.

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Freedom of Information Legislation in Esarbica States and its Implication on Records Management Practices

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Abstract

This paper addresses the question of freedom of information (Fol). It begins by arguing that although all citizens have the right of access to information, each citizen is entitled to enjoy certain rights that must be protected and must be enshrined in a freedom of information legislation. The paper identifies the major elements that should be contained in an ideal freedom of information legislation, explains the major procedures to be followed when requesting for information under Fol and finally assesses the impact Fol is likely to have on record keeping requirements particularly in the Eastern and Southern African region.

Introduction

All over the world, there is a new realisation that information and particularly government held information is a public resource created, assembled and maintained by public servants and paid for by the taxpayers. As a result, the general public is making greater demands for access to the vast quantities of information held by government agencies, archival institutions and whenever possible, the private sector. As the citizens become aware of their rights to information they are now demanding greater accountability, transparency and good governance. To a large extent, the demand for public accountability, transparency and good governance calls for changes in the manner archivists and records managers collect, store, manipulate and retrieve information. Traditionally, archivists and records managers have been passive custodians of information, limiting their role to the selection, storage, preservation and control of access to records. This they have been able to do with great success. For several years now, they have been able to operate under the privacy acts, official secret acts and other regulations to deny the general public access to certain fundamental information. This situation is now changing and calls for a re-examination of all laws

governing access to information. In the West, this challenge has been met through the enactment of Freedom of Legislation Acts and revision of the Privacy Acts.

A good example of the public's increased awareness of their right to government information can be seen in Kenya where the government was recently taken to task by the public seeking to establish how a portion of the forest near the city of Nairobi had been illegally allocated to private developers. As pressure mounted on the government to disclose the names of the beneficiaries, the only way out was for the government to hide the files containing this information (Daily Nation, 1998). As the public become increasingly aware of their "rights to know" there is a new requirement on the part of archivists and records managers (or custodians of government information holdings) to try and find solutions which will enable them to maintain the right balance between the public's "right to know", and the public's "right to privacy". Every citizen has the right to know what kind of information his government has which is likely to affect his well being, but, at the same time, the government has a moral obligation to protect its citizens from unnecessary disclosure of information which might affect their individual private rights.

This paper seeks to identify the major elements that should be contained in a Freedom of Information Legislation (hereafter referred to as Fol), assesses the impact Fol is likely to have on record keeping requirements particularly in developing countries, and how best an Fol legislation can be administered. The basic assumption made in this paper is that archivists and records managers in ESARBICA (Eastern and Southern African Regional Branch of the International Council on Archives) region can no longer afford to uphold the mandatory 25 or 30 year closed period to all information in their custody. By upholding the 20 or 30 year rule, will they not be seen as being anti-development, too much pro-establishment and operating against the new principles of public accountability, transparency and good governance? All these developments require well-maintained records that are easily accessible when required by their creators and members of the public who have a genuine interest in examining them. Faced with such situations, what kind of regulations should archivists and records managers develop in order to maintain the right mix between "the public's right to information" and "the public's right to privacy" bearing in mind that the right to information must be balanced against several legitimate restrictions on access? This paper proposes some changes in the administration of the rules and regulations so as to be able to accommodate the new requirements in the move towards the freedom of information.

Towards the Freedom of Information

As discussed elsewhere in this paper, the author is unaware of any ESARBICA member state where a Fol legislation is in operation. In South Africa, there is a move towards the enactment of a bill on Open Democracy, but their Constitution does recognise both the right of access to information and the right to privacy. A review of the literature from those countries where Fol legislation exist indicates that an ideal Fol legislation should make provision for the following areas:

Definition of Terms

An ideal Fol Act should clearly define the categories of records that should be subject to the Act. In the first instance, the Act should define the term "documents" and explain the institutions that are likely to possess these records. The term document should be broadly defined to include :

- any paper or other material on which there is writing or a map, plan, drawing or photograph, or, any paper or other material on which there are marks, figures, symbols or perforations having a meaning for persons qualified to interpret them, or
- any article or material from which sounds, images or writings capable of being reproduced with or without the aid of any other article or device, or
- any article on which information has been stored or recorded, either mechanically or electronically, or
- any other record or information, or
- any copy or reproduction or duplicate of such a thing, or
- any part of stencil, a copy, reproduction or duplicate (Campbell, 1994).

As can be seen from the above definition, the term document, though very broad, excludes all library materials maintained for reference purposes.

Publication of Government-held Information

The right of access to government information as provided for in the legislation is of no value if the public cannot have access to the records. Under the Fol Acts, it is a requirement that each government department publishes detailed indexes, manuals, guides and other retrieval tools which can assist requesters to locate information. It is also a requirement that each agency takes reasonable steps to search and produce the documents sought. What amounts to a reasonable search is difficult to determine. An ideal Fol legislation should, therefore, contain clauses, which compel the government

to inform its citizens of the types of information held. This information might be passed to the citizen through a regular publication, which outlines the main activities of each government agency, how it gathers its information and the type of records it holds. None of these activities are presently taking place in ESARBICA member countries, but once we accept to enact FoI legislation we should be prepared to accept this provision.

Appointment of Officers Responsible for Responding to a Requests

In all the countries surveyed, the FoI legislation provides mechanisms for the government to meet requests for information from the public. Under the FoI Act each government institution is required to appoint among its officers an individual who is responsible for responding to requests for information from the public. Most FoI laws make provision for the requester to decide whether he/she will be satisfied with obtaining copies of the original documents or in having access to the original document. Moreover, it is the responsibility of the office holding the records to provide suitable facilities which the public can use while consulting the records.

Procedures for Requesting Information

A FoI legislation requires that each request for information must meet the following criteria:

- be in writing and signed by the person making the request,
- state that the request is being made pursuant to the FoI Act,
- reasonably describe the records being requested,
- state the category of the requestor for fee purposes (commercial, media, educational, all others),
- contain an agreement to pay all the fees that might be incurred in the searching or reproducing of the information being sought.

Under FoI legislation an applicant may be provided with:

- reasonable opportunity to inspect the document,
- a copy of file document,
- arrangements for viewing a film or videotape or hearing a sound recording, a transcript of a sound recording or shorthand notes.

Retrieval of Documents, Time Limits and Fee Limits

Under FoI legislation, it is not enough to establish that documents being sought exist. The documents must be located, retrieved and decisions made on whether they should be made available to the requester or be subjected to extended closure. The process of

locating and retrieving records can be time consuming especially for those agencies with a limited number of staff or where the records are not well maintained. It is important that effective classification systems be developed, procedures for monitoring the movement of records within the organisation for purging the system of redundant information be put in place. Moreover, it is a requirement that a Fol legislation provides guidelines on how long an institution should take to respond to a request for information and how much it will charge for providing the information sought. Obviously where an institution charges excessive amounts of money for providing information or where it takes too long to respond to a request for information, the objectives of Fol will not have been served at all. In the United Kingdom for example, departments are obliged to respond to a request within twenty-one days. Where information cannot be provided within the stated time limits, the act requires that the requester be informed accordingly and the reasons for the delays explained (HMSO,1993).

Restrictions on Information

As noted elsewhere in this paper, the Fol Act should clearly state the type of records which will normally not be available for inspection by members of the public. Normally, this will be done through exemption clause, which indicates that certain records cannot be inspected even under Fol legislation. The Fol legislation should categorically state the reasons why such records cannot be made available. For instance, in the United Kingdom restrictions are placed on records relating to

- defence and national security,
- international relations,
- internal opinions, discussions and advice,
- to the law enforcement and legal proceedings,
- personnel information,
- confidential commercial information,
- relating to the safety of individuals,
- information which was provided in confidence,
- information relating to public authorities' commercial and negotiating interests (HMSO,1993).

It must however be pointed out that even records that have been withheld under these clauses should not be restricted indefinitely. Provision should be made for these records to be opened when their security classification has been lowered.

Settlement of Disputes

Under FoI legislation, cases are likely to arise from members of the public who might want to challenge a decision denying them access to certain information. Avenues must therefore be made through which aggrieved members of the public might channel their complaints. In those countries where the FoI is in operation, the Act makes provision for avenues through which a requester can appeal when a request for information is not adequately addressed.

FoI and Personal Information

This paper would be incomplete without reference to the management of vast quantities of personal data held by government agencies. In many ESARBICA countries the greatest fear or hindrance to the passing of FoI legislation is the overwhelming fear that personal information held by the government might be disclosed or utilised for purposes other than that for which it was collected. As a result of this fear, those countries which have passed a FoI legislation have had to re-examine their privacy laws in order to safeguard the personal interests of its citizens. The literature reviewed indicates that there is general agreement on how personal information should be collected and utilized. For instance, in Canada, a model code governing the collection, use and disclosure of personal information has been developed and adopted by the Canadian Standards Association working in collaboration with government agencies. The model code requires government institutions holding personal information to adhere to some principles (Kratchnov, 1995).

Collection Limitation Principle

The code requires that there should be limits to the collection of personal data and any such data should be obtained by lawful and fair means, and where appropriate with the consent of the data subject.

Data Quality Principle

This requires that personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes. The code further requires that the data collected should be accurate, complete and kept up-to-date.

Purpose Specification Principle

The code stipulates that the purpose for which personal data are collected should be specified not later than the time of data collection and the subsequent use limited to the fulfilment of those purposes or such others as are compatible with those purposes and as are specified on each occasion of change of purpose.

Use Limitation Principle

The code requires that personal data should not be disclosed, made available or otherwise used for purposes other than those specified initially except with the consent of the data subject or by authority of law.

Security Safeguards Principle

The code requires that personal data should be protected by reasonable security safeguards against such risks as loss or unauthorised access, destruction, use, modification or disclosure of data.

Openness Principle

The code states that there should be a general policy of openness about developments, practices and policies with respect to personal data. Means should be readily available for establishing the existence and nature of personal data and the main purposes of their use, as well as their identity and usual residence of the data controller.

Individual Participation Principle

The code requires that individuals should be:

- a. allowed to obtain from the data controller, or otherwise confirmation of whether or not the data controller has data relating to him,
- b. to have communicated to him data relating to him,
 - i) at a charge, if any, that is not excessive,
 - ii) within a reasonable time,
 - iii) in a reasonable manner, and
 - iv) in a form that is readily intelligible to him.

- c) to be given reasons if a request made under sub-paragraphs (a) and (b) is denied, and to be able to challenge such denial, and
- d) to challenge data relating to him and, if the challenge is successful, to have the data erased, rectified, completed and amended.

Accountability Principle

A data controller should be accountable for complying with measures which give effect to the principles stated above.

Impact of Freedom of Information on Records Management

The main objective of FoI is to make public bodies more open, transparent and accountable for their actions. However, as discussed above, except for the Republic of South Africa where a bill on open democracy is being considered, the author is not aware of the existence of FoI legislation in other ESARBICA member states. For this reason, it is impossible to assess the actual impact of FoI on record keeping practices within the region. The comments made below are therefore based on the literature obtained from the Internet or on the assumptions that are yet to be tested locally. Two clear examples of governments that have worked with FoI have been used to illustrate the impact of FoI on records management. The first case is based on experiences gained in Tasmania while the second case is based on one of the provinces in Canada.

Snell (1993) who has conducted some preliminary studies in Tasmania, Australia is of the opinion that the passing of FoI legislation in Australia is "a mixed bag and certainly changes in records management practices appear to have lessened the potential of any significant impact". He went further to say that:

A study of the literature about the effects of FoI provides strong support for the benefits, which flow to records management. This literature can be separated into three major groupings. The first either briefly refers to other reports which mention the records management benefits of FoI or assume a benefit without any supportive evidence. The second grouping, and the far smaller category presents some tangible evidence for the positive linkages between FoI and improved records management. The third grouping and most informative, consists of the reports of government agencies about their perceptions of the benefits of FoI. Rarely in any of the groupings, are possible negative consequences of FoI on records management canvassed.

Using five different case studies for his study, Snell sought to answer five basic questions: What was the departments system of records management prior to FoI? Has it changed with the advent of FoI? What other factors have contributed to changes in records management, e.g. new managerial policies, updates, staff departmental changes? Has FoI assisted or hindered, other changes to records management e.g. by necessitating a new system of information retrieval?

In response to the above questions, Snell came to the conclusion that some departments had noticed considerable improvements in the management of records while others had not noticed any changes at all. Furthermore, Snell did acknowledge that the passing of FoI legislation is likely to exert pressure in some of the following areas: fear of disclosure, normal demands of good record keeping, the need to justify decisions and lastly the impact of a range of administrative mechanisms such as the ombudsman, auditor general, ministerial or parliamentary requests. Although Snell does not categorically state that FoI is likely to improve record keeping practices in such areas as filing, storage, retrieval and destruction of government records, nonetheless, he does acknowledge that the passing of FoI is likely to lead to improvements and efficiency of these systems. The provisions contained in the legislation if properly implemented should lead to improvements in record keeping requirements. In the first instance, as the law requires that each government agency publish lists, indexes, manuals etc of its information holdings, one would expect that record storage conditions should improve. Moreover, as a requirement under FoI legislation, each agency is expected to appoint an officer who will be responsible for dealing with all requests for information. The appointment of such officers will obviously lead to the establishment of linkages between national archival institutions and records creating institutions. These links should ensure the smooth transfer of records from record creating agencies into the national archives. Furthermore, as agencies will be required to retrieve records while they are still current, it is hoped that current records will be better managed and transferred to national archives in better conditions. Finally, as decisions to deny an individual access to documents held in offices are likely to be challenged before the courts, record-keeping officers will be required to exercise greater care in administering exemption clauses.

Bolton (1996) in his article "Working with Freedom of Information and Protection of Privacy Legislation" describes the impact of the implementation of freedom of information and protection of privacy legislation on the state of records management in the Province of British Columbia in Canada. According to him, the enactment of FoI and Privacy legislation in Canada had impacted records management activities in several areas. He came to the conclusion that:

Generally speaking, the work and status of records/information management has improved and progressed significantly from the pressures of FoI. Significant monies have been spent on classification and retention scheduling work. Many jobs have been created and filled to handle records management, FoI administration and related work. Moreover, the community of professionals dedicated to this work has recognized sizeable benefits. Without a doubt, FoI has made its mark.

Bolton then goes on to analyse specific areas, which have been impacted by FoI, pointing out that under FoI legislation the public must be provided with an index or directory of records typically created and/or collected by the provincial government. The creation of such an index took considerable time to compile, but even then it was not possible to identify all the types of records created or received by the government. Rather, the directory describes the functions of each agency, ministry, department, and branch.

Moreover, as the legislation requires that time limits be established within which requests for information must be met, the provincial government was under considerable pressure to provide avenues for the identification, location and delivery of the records. In his opinion, meeting these time limits is determined by the types of file classification systems developed, adequate indexing, sound records management policies and procedures and the training of records personnel. Other areas where significant changes had to be made was in the management of personal information. Since the FoI act requires that personal information should not be maintained for periods longer than is necessary and that valueless information be destroyed quickly, this demand placed considerable pressure on records managers. Furthermore, as the act requires that once personal information has been collected it must be designated as "Personal Information Bank", this required additional indexing and the training of staff so as to fully understand the requirements imposed in the act. Another area, that had been affected by the enactment of FoI was the disposal of records. Once a request for information has been made under FoI, the records containing that information may not be destroyed even if they were due for destruction under the records retention schedule. Such records would only be destroyed after the request has been dealt with satisfactorily. Will this be the case in ESARBICA member states?

The impact that FoI is likely to exert on archival institutions relates to the increased demand for access to records, which would normally be restricted to public inspection. Experience gained in the West indicates that on the passing of a FoI legislation there has been an initial upsurge in the number of records requested, but this initial increase tends to decrease with the passing of years.

There is every possibility that in some countries the passing of a FoI legislation may have negative effects on records management. For example, one can not rule out the possibility that some departments might destroy records or even fail to document their decision for fear that their actions might be challenged in courts of law under FoI legislation. However, it is hoped that such cases will be few. In the case of the United States, one negative experience gained has been the increase of records added to the list of restricted records, which are now inaccessible to the public (Sykes, 1997). One can only hope that this will not be the case in the ESARBICA region.

Conclusion

Having described the requirements under the FoI legislation, the major provisions that might be included in FoI legislation and the impact FoI legislation is likely to have on record keeping requirements, what role should archivists and records managers play in the formulation and implementation of this legislation? Archivists and records managers, as the official custodians of government information holdings, should be involved at every stage during the formulation and development of FoI legislation. Failure to do so may result in the passing of legislation, which is not well balanced, or one that will exert undue pressure on archivists and records managers. Moreover, as archivists and records managers will ultimately be the officers responsible for the implementation of FoI, it is imperative that they not only be consulted, but that they should play a leading role in the formulation and development of such legislation.

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An Analysis of Out-of-Print Book at a Nigerian University Library

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Abstract

An analysis of out-of-print (OP) from the 5,553 books ordered by the University of Ilorin Library in Nigeria from 1993 through 1996 were carried out with a view to determining any significant variations in the rates of the OP books within different disciplines, and to ascertaining the average in-print life-spans of the books in the disciplines. Results showed that the OP rates of the books in the humanities, the social sciences and the sciences did not vary significantly while the average in-print life-spans of the books in the three major branches of knowledge stood at 11.32; years, 6.19 years and 7.44 years respectively. Libraries are enjoined to order their selections as soon as they are published or at least within the average life-spans for the books to avoid wasting time on possible out-of-print orders.

Introduction

To ensure availability, librarians often consult publishers' catalogues like *British Books In Print (BBIP)*, the *Books In Print (BIP)* before orders are placed. However, studies such as that of Habecker (1988), have shown that not all the books listed in catalogues are actually in print at the time orders are placed. Consequently, it has been suggested that an understanding of the patterns of out-of-print (OP) books might help prevent encumbering funds as well as wasting time on orders that may after all be out-of-print. This study was therefore an attempt made at the University of Ilorin Library in Nigeria to analyse the OP orders recorded over three years in the hope that the results of the analysis would be useful for the development of better strategies for placement of book orders in the library. More specifically, the study has sought:

1. To determine whether or not the rates of OP books vary significantly by disciplines and subject areas.
2. To determine the average in-print life-spans of the books in the different disciplines and subject areas.

Literature Review

Over the years, several attempts have been made to address the problem of OP books vis-a-vis library collection development. For example, Loe (1986) sought some acquisitions librarians' opinions on the extent of their problems with the OP books with a view to determining OP rates. Of the 66 responses, only two could offer proofs of their estimates with their records showing that 10% - 17% of the books ordered at the time of the study were out of print.

In another study, Habecker (1988) selected 800 titles from the *Books in Print* to study the OP rates of the books published before and after 1979. According to him, for the 1973 imprints, 18% were out of print by 1977; for 1977 imprints, 16% were out of print within three years, and for 1984 imprints, 17.5% were also out of print within three years. The 1981 data were particularly notable in that only 12.5% were out of print after three years.

Nisonger (1985), surveyed *Books in Print Plus* and the *Books Out of Print Plus* in order to determine the subject patterns of the in-print and the out-of-print titles. The results of the analysis of the data obtained from the two databases showed that there was little difference in the percentage of the in-print and the out-of-print books among the three major branches of knowledge, namely the sciences, the social sciences and the humanities. Earlier on, Lu (1994) had studied the 467 titles reported out of print (OP) or out-of-stock indefinitely (OSI) from the 26,826 orders placed by the State University of New York at Stony Brook from 1988 through 1990 with a view to determining the OP/OSI rates and the average life-spans of the books in 15 subject areas within the three major branches of knowledge. It was found that there were no significant differences in the OP and the OSI orders for the humanities, the social sciences and the sciences while the average in-print life-span of a book was six years for the humanities, and seven years for both the social sciences and the sciences.

Duchin and Wagner (1996), on the other hand, interviewed some librarians/OP dealers on their strategies for handling OP orders. According to them, the main strategies mentioned by the two groups included advertising, using reference works, vendors and dealers as well as searching Internet and web databases. The article was concluded with a list of the OP dealers favoured by the academic librarians.

Similarly, Marsh (1989), in his contribution to a seminar entitled "If its not in the Books in Print," suggested among others, visiting auction houses, listing library wants in the *AB Bookmans Weekly*, exchanging want lists with other libraries, obtaining reprints, and purchasing microforms as means of obtaining the OP materials.

Also significant was Boissannas 1992's experience with searching for OP books through the *Book Quest* as opposed to sending typed lists to the *anti-quarian book sellers*. According to him, the fulfilment rate was 4% from the *Book Quest* as against the 16% fulfilment rate from the *Antiquarian Booksellers/Library Bookseller*. Three years earlier, Elredge and Ludington (1993) had compared three methods of acquiring the out-of-print materials: advertising, dealer searching and online match services with the results indicating that advertisement was the most cost effective method as it affords the acquisitions librarian the opportunity to choose the least expensive from multiple price quotations.

In their contributions to the literature on the OP crisis in libraries, Reinchmann (1970), Lynden and Mayerfeld (1973), Jegede (1977), and Tucker (1980) have each documented the experiences of the US academic libraries, the Stanford University, the University of Lagos, and the newer British university libraries, respectively, with the acquisition of the OP materials in the development of their research collections.

And more recently, Tafuri (1998) has reported on the Core Collection Project at Scranto, whereby a large number of out-of-print titles were acquired through a vendor using the Internet and the World Wide Web to locate the required titles, following the inability of the traditional vendor to supply.

The purpose of the present paper is to report another attempt at the University of Ilorin in Nigeria to address the issue of OP materials vis-a-vis library collection development.

Methodology

The study was based on the 210 titles reported out of print by vendors from the 5,553 titles ordered by the University of Ilorin Library in Nigeria from 1993 through 1996. All the reported OP books were verified in the *Books In Print*, the *British Books in Print*, or the current publishers catalogues before the orders were placed in the first place. And because the study was based on vendors reports, the vendors were presumed to have tried their best to fulfill the orders.

For purposes of the analysis, the OP books were sorted into three disciplines and subsequently into 16 subject areas as follows:

<u>Humanities</u>	<u>Social Sciences</u>	<u>Sciences</u>
English, Librarianship	Economics, Sociology	Biology, Medicine
French, Linguistics	Law, Management	Geology, Mechanical History,
Religions		Engineering of
		Mathematics, Physics

The OP rates for the three disciplines and the sixteen subject areas were calculated using the following formula:

$$\text{OP rate} = \frac{\text{Number of titles reported out-of-print in the discipline/subject}}{\text{Number of titles ordered in the discipline/subject}} \times 100$$

In computing the in-print life-spans in the three disciplines/sixteen subject areas, a frequency distribution was prepared for the year span between the imprint year and the year the books in the three disciplines/sixteen subject areas were reported out-of-print. The average in-print life-span of the books in the discipline and subject areas was then calculated.

Findings and Discussion

OP Rates

Table 1 shows the OP rates obtained in the study by discipline and subject areas: humanities had the highest OP rate of 3.81%, followed by the social science books with the OP rate of 3.48% and the science books with the OP rate of 3.16%. The OP rates for the books in the six sub-divisions of the humanities were more varied than those of the four sub-divisions of the social sciences where OP rates for the books in the subdivisions were less varied than those of the six subdivisions of the sciences, the range for the OP rates for the humanities, the social sciences, and the sciences being 5.22, 1.43 and 4.86 respectively.

Table 1
Rates of OP Book Orders Placed by the University
of Ilorin Library From 1993 Through 1996.

Disciplines/Subjects	No. of titles reported OP	No. of titles ordered	OP/Order Variation rate (%) (Range)
Humanities			5.22
English	30	695	4.32
French	3	250	1.20
History	21	327	6.42
Librarianship	2	80	2.50
Linguistics	2	132	1.52
Religions	10	302	3.31
Total	68	1786	3.81
Social Sciences			1.43
Economics	5	176	2.84
Law	2	53	3.77
Management	14	328	4.27
Sociology	10	333	3.00
Total	31	890	3.48
Sciences			4.86
Biology	3	239	1.26
Geology	1	216	0.46
Mathematics	12	482	2.49
Medicine	70	1316	5.32
Mechanical engr.	20	488	4.10
Physics	5	136	3.68
Total	111	2877	3.16

In-Print Life-Spans

Table 2 presents the computed mean year spans of the OP books studied by discipline and subject areas as well as the range for the mean-year spans for the subject areas within each discipline.

From the table, the social science books with the overall mean span of 6.19 years went out-of-print more quickly than the books in the other two disciplines, followed by the science and the humanities books with the overall mean span of 7.44 years and 11.32 years respectively. The average life-spans of the books in the subdivisions of the humanities were more varied than those of the social sciences, the ranges for the average life span in each case being 6.86, for the humanities, 3.2 for the social sciences and 4.33 for the science.

Within the humanities, French literature/language books with an average life span of 6.67 years were the quickest to go out of print, followed by the linguistics books, the librarianship books, the religious books, the history books and the English Language/Literature books. In the case of the social sciences, the economics books went out-of-print more quickly than the books in the other subjects, followed by the management books, and the law/sociology books while within the sciences the geology books were the quickest to go out of print, followed by the books in biology, physics, medicine, mechanical engineering and mathematics.

Table 2
Calculated Average In-Print Life Spans of the OP Books
In Different Disciplines and Subject Areas

Disciplines/Subjects	(In years)	Variation (Range)
Humanities	11.32	6.86
English	13.53	
French	6.67	
History	10.05	
Librarianship	9.50	
Linguistics	8.00	
Religions	9.80	
Social Sciences	6.19	3.2
Economics	4.80	
Law	8.00	
Management	5.14	
Sociology	8.00	
Sciences	7.44	4.33
Biology	5.33	
Geology	5.00	
Mathematics	9.33	
Medicine	7.00	
Mechanical engineering	8.50	
Physics	6.60	

With respect to the close OP rates of the books in the three disciplines, it was interesting that this finding was similar to the findings earlier reported by some investigators, notably Lu (1994) and Nisonger (1985). It was also interesting that in this study, like in that of Lu (1994), the OP rates of the books in the various subject areas within the three disciplines exhibited, as expected, some degree of variations. Unfortunately, the variations could not be compared helpfully because of the differences in the subject coverage of the OP books investigated in the two cases. Nevertheless, the similarity in the findings should help to debunk the idea of regarding a discipline as an entity with regard to the OP rates of the books in the subject areas comprising the discipline. Surprisingly, the average in-print life-span of 11.32 years for a book in the humanities in this study was high compared to the 6 years earlier reported by Lu (1994). On the other hand, the average in-print life-spans of 6.19 years and 7.44 years obtained for a book in the social sciences and the sciences, respectively, were close to the 7 years each reported by Lu (1994) for the two disciplines, thereby suggesting that there was no significant difference in the in-print life-spans of the social science and the science books. As indicated earlier, there were some variations in the average in-print life span of the books by the subject areas, but for the same reason given above, the variations could not helpfully be compared with any of the previous findings.

Conclusion

This study has shown that there are no significant differences in the OP rates of the books in the three major divisions of knowledge - the humanities, the social sciences and the sciences. However, while placing orders for books, cognizance should be taken of the years of publication since the titles with the publication dates older than eleven years in the humanities, six and eleven years in the social sciences and the sciences respectively have a greater possibility of being out-of-print. The increasing cash-flow problems facing the publishing industry today has made short runs the norm. Therefore, the best way for libraries to forestall OP orders is to order their book requirements as soon as they are published.

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Short Communication

Career Development And Movement Of Librarians in a Nigerian University Library

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Abstract

This paper x-rays the state of affairs of career development of library professionals and their movement in Ogun State University Library (OSUL), Ago-Iwoye. Questionnaire, personal observation and interviews were used to gather the required data. Sixteen out of the eighteen copies of the questionnaire distributed were completed and finally returned - a response rate of 88.9%. The study reveals that topmost priority attention is yet to be given to career development of library professionals in OSUL. This shortcoming is linked to the poor funding of the University by the owner government. The net result is the increased tendency of these professionals to migrate out of the service of OSUL. Some recommendations aimed at reversing the ugly trend, in OSUL and the entire Nigerian university system are listed.

Introduction

Motivational impetus for status enhancement in libraries as well as other organisations is very desirable. Staff career development is supposed to be an important aspect of personnel management which deals with obtaining and retaining the best possible staff for an organisation. Generally, the major ingredients of personnel management include: employment, personnel administration, staff development and movement and staff welfare. The focus of this paper, however, is staff career development and mobility (or turnover), with a reference to library professionals in Ogun State University, Ago-Iwoye.

Library professionals include all persons that have undergone one training or the other with librarianship qualification(s) like diploma in library studies (DLS), bachelor of library science (BLS), higher national diploma in library studies (HND. Lib. studies), post graduate diploma in librarianship (PGDL), master in library studies (MLS). Normally, an employee would want to work and remain in a particular employment if

he receives the necessary motivation and the work climate assures him of advancement. Thus, the role of the university management and especially the university library administration vis-a-vis the relevant policy (if any) on staff career development has been examined in this study.

Ogun State University Library (OSUL) was established in 1983. The Library is a complex of libraries centrally controlled in the main library situated at the mini-campus in Ago-Iwoye. Its branch libraries include the Obafemi Awolowo College of Health Sciences (OACHS) Medical Library, Sagamu; the Law Library (within the mini-campus, Ago-Iwoye); the Faculties of Arts and Social and Management Sciences Library (housed within the Hassan Odukale Building) in the main campus, Ago-Iwoye and the Sopolu Library (bequeathed to the University by late Chief Obafemi Awolowo) at Ikenne-Remo.

Since the founding of the University to date, a total of twenty-five (25) library professionals have been absorbed into the service of the library. Sixteen (16) of these, including the University Librarian are professionals with the minimum of post graduate librarianship qualification. There were a few staff appointed as trainees. The remaining nine (9) were employed as library officers (i.e. professionals with only diploma in library studies) but of non-academic status.

The present study aimed at investigating various professional qualifications of the professionals, and the barriers encountered in improving their career status. The study also investigated the mobility of the staff and the relationship between staff career development and mobility. The period between December 1984 and March 1999 was covered by the present study.

There is an abundance of literature on career prospects and problems among library professionals in developed countries, like the United States of America and the United Kingdom (U.K.). In developing countries, however, especially Nigeria, there have been a few studies which include Luwaji (1997), Barrow (1995), Ifidon (1978) and Akinnusi (1992). Except Ifidon (1979) who was specific about career development in librarianship, all other authors dwelled extensively on job placement, staff satisfaction and stability in general for all professions. The work of Osei (1996) also corroborated that of Ifidon (1979), even though the former placed much emphasis on scarcity of librarians and hence labour mobility among them.

Methodology

Personal observation, questionnaire administration and non-structured interviews were used to collect the required information. The method of research employed is the descriptive survey. The survey comprised the entire population, 11 academic and 7 non-academic library staff of Ogun State University library. Each of them was given a copy of the questionnaire to complete. Six respondents were randomly selected for oral interview. In addition, the investigator independently consulted some public records that contain useful information about the library staff to support other findings. This was to ensure that the true situation in respect of the subject under review was obtained. Moreso, the study sample size was easy to manage.

Findings and Discussions

Twenty-five professionals were employed at the library between 1984 and 1998. At the time of their appointment, 20 or 80% of them were professionally qualified (master in library studies – 12, postgraduate diploma in librarianship – 1, bachelor of library studies – 1 and diploma in library studies – 6). Of the five employees who were not professionally qualified, two had bachelor of science degree, two were secondary school certificate holders and the remaining had a teacher training certificate. The two employees with bachelor degrees obtained master of library studies degrees through self-sponsorship with the permission of their employer, while the other three employees obtained diploma in library studies with institutional sponsorship. The respondents were asked to rate the requirements for improved staff performance of the job, and their responses are presented in Table 1. From the table, one could infer that there is no

Table I: Requirements for Improved Staff Performance on the Job

Parameters for improved performance		Yes		No	
		frequency	%	Frequency	%
a	Seriously motivated to work	8	50.0	8	50.0
b	Attendance of conference(s)	12	75.0	4	25.0
c	Attendance of seminars (external)	4	25.0	12	75.0
d	Attendance of workshops	6	37.5	10	62.5
e	Exposure to orientation course (on assumption of duty)	2	12.5	14	87.5
f	Computer literacy	2	12.5	14	87.5

significant motivation to the library professionals as reflected in equal rating for Yes and No responses. Majority of these respondents (about 90%) had never been exposed to orientation course despite the fact that some of them did not have previous librarianship training as at first appointment. They were also not computer literate.

On an independent investigation, it was revealed that many of the respondents would like to attend seminars, conferences and workshops but were unable to secure sponsorship from their employer. This pitfall is due to lack of financial support for learned conferences by the university management, even this inadequacy is often lamented by the university authority. The respondents were asked to rate the possible factors for staff movement out of OSUA, their responses are presented in Table 2.

Table 2: Causative Factors for Staff Movement out of OSUL

Causative factors of staff movement		RESPONSES				
		Strongly Agree (SA)	Agree (A)	Disagree (D)	Strongly Disagree (SD)	Indifferent (ID)
a.	Expressed fear of unattainment of desired career objectives	5 (31.25%)	4 (25.0%)	2 (12.5%)	3 (18.75%)	2 (12.5%)
b.	Frustration arising from office politics/mentoring	2 (12.5%)	3 (18.75%)	6 (37.5%)	4 (25.0%)	1 (6.25%)
c.	Desperate search for greener pastures	10 (62.5%)	2 (12.5%)	2 (12.5%)	2 (12.5%)	- (0.0%)
d.	Through retirement (due to old age/length of service)	2 (12.5%)	1 (6.25%)	8 (50.0%)	5 (31.25%)	- (0.0%)
e.	Marriage/Family displacement	3 (18.75%)	2 (12.5%)	8 (50.0%)	2 (12.5%)	1 (6.25%)

As reflected in Table 2, retirement by librarians and frustrations arising from office politics and mentoring are not the strongest reasons for movement of librarians out of OSUL. About 56% of the respondents attributed the movement of librarians out of OSUL to the fear of not achieving the desired career goal there. Moreso, a staff could spend up to 6-7 years in same section performing routine tasks, which turn out to be monotonous; whereas it is expected that staff should be deployed to various sections of the library regularly.

During the interview, majority of the respondents decried the dearth of current texts and journals on librarianship - a major barrier to easy attainment of desired level of research and publishing activities. Majority of the respondents (71%) indicated the tendency of librarians to leave the service of OSUL (through securing international fellowships, foreign grants, sabbatical/leave of absence and other means) in a desperate search for greener pastures. Conversely, it has been established in this study that significant movement of librarians out of OSUL has not been caused by marriage/family displacement, perhaps, due to the fact that the spouses of majority of the staff are also in the employment of the University.

The investigator further sampled the views of all the respondents on how to foster career development in OSUL, and hence ensuring their professional fulfilment and therefore stability in their present workplace.

Most of the respondents (above 80%) favoured the need for regular deployment of staff to available units of the library, regular hosting of staff seminars and also adequate provision of standard books and current journals on librarianship, in aid of researches - as impetus for stimulating career development and a further exposure to other opportunities on the job, thereby ensuring stability in the present workplace.

Conclusion and Recommendation

Notwithstanding the state of affairs at OSUL as elucidated in the present study, it is a phenomenon not likely to be peculiar to OSUL. However, a marked vacuum, due to the increasing tendency of library professionals (especially academic) to drift to other places where their skills could be further enhanced and appropriately motivated for improved performance, was observed in OSUL.

It is hereby recommended that attendance of, at least, one each of seminars, workshops and conferences by institutional sponsorship, yearly should be mandatory for all library professionals, and also the need to have sustainable job rotation by way of internal movement (or redeployment) of staff, possibly every 2 to 3 years across different sections/divisions of the library. To ensure sustainability, such deployment must arise in recognition of an identifiable need, readiness to change with enthusiasm on the part of the staff, the movement must cut across all units and, of course, must be restricted to certain cadres. This is afford one, the exposure to all the rudiments of the profession before finally specialising in an area of operation.

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The Problems and Prospects of Acquisition of Government Publications in Ghanaian Libraries

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Abstract

Government documents or publications are very useful to government officials for reference and continuity purposes and to the public as informational sources about the activities of Government. The problems encountered in the process of acquisition are discussed, especially the inadequate lists of such publications; the lack of continuous supply which creates gaps in the collection; the ineffective means of publishing and distributing the documents; and the non-inclusion of government publications in the Legal Deposit Act. Solutions are proffered on how to acquire them easily.

Introduction

Government documents or publications, as the name implies, come from government. Marley (1977) sees them as "directives, regulations, reports, technical studies and other informational issuances." These include speeches, government white papers and decrees. They can be printed books, typed or printed single sheets or pamphlets. In effect, they are publications in any form resulting from the activities of government departments at national, regional and district levels and from its executive, legislative and judiciary arms and other agencies. Documents from some government parastatals, and various commissions also fall into this category. These documents deal with all subject areas and most of them contain policies which affect the well-being of the citizenry. Most of them are also specifically published as necessary for legislative and political purposes. The citizenry therefore has a right of access to them in order to be educated and/or enlightened for development. They are not primarily for sale or specifically for libraries, but for free supply and general use. In most cases, however, these documents do not get to the public as expected. Access to them sometimes is so restricted that the very purpose for which they were published, that is to educate and enlighten the citizenry, is defeated.

Government publications are of immense value especially as primary source information. They are accurate in basic and statistical information. They are very useful to the public for general reference, to the academia for research purposes, to the arms of government which produce them for income if they are sold, as publicity for government programmes and policies and also for reference. They also serve continuity purposes especially for researchers pursuing issues of national interest over a long period. They also serve as indicators of government performance and as a means for testing reactions of the public to government policies and programmes.

There are often limited copies and they usually have no reprints. They are also neither published by commercial publishers nor available in bookshops nor listed in the regular trade bibliographies, so they are not easy to come by. More interestingly is the fact that they have corporate authorship and so are difficult to monitor and control.

The presentation and appearance of government documents are also most often unattractive, compared to that of products from commercial publishers. They may have long and clumsy titles, no title pages, no indexes, unattractive covers, low quality paper, poor printing and lack of information on how more copies can be obtained. These affect their acquisition.

Acquisition of Government Publications in Ghana

Government publications are primary information sources. In Ghana, they are acquired through gifts, exchanges, acquisition tours and purchases.

Gifts

Lots of government publications from the Government Printer are normally given out free but are often in short supply. Most times, even libraries do not get copies because they do not know when they are published and the Government Printer does not keep a mailing list of all libraries. For the other departments/agencies who also publish such documents, libraries are put on their mailing lists when they are contacted. They then send their publications as at when published. Sometimes, however, in spite of the blanket order placed, the libraries may not receive all documents from government printers.

Exchanges

Most departments/agencies/research institutes prefer to exchange documents. This means that the library must have publications acceptable to the agency for exchange.

Often the library lists all available publications which are available on exchange and sends them to others for selection. These include discarded books, calendars or research publications of faculty if it is a university library. After selection then the exchange is effected. If the documents are published regularly, then the process continues.

Acquisition Tours

This is carried out in two ways, intra- and inter-city. The librarian visits the offices in the city or town to physically collect or purchase such documents. Then he also organises trips out of town to collect such documents from selected establishments.

Purchases

Some of the government publications for sale like brochures and statistical reports could be purchased directly whenever fund is available.

The methods explained above are used in Ghana, but unfortunately none of them is efficient. For instance, at the University of Science and Technology (UST) Library, Kumasi only a few government documents are acquired periodically, because the library relies greatly on gifts and exchanges which never come as expected, and the aspects of acquisition tours and purchases are neglected because of lack of funds. These have brought about gaps which are difficult if not impossible to fill in government documents collection.

Problems of Acquisition of Government Documents in Ghana

The major problems of acquiring government publications are the lack of working of government documents definition, inadequacy of the legal deposit Act of Ghana, lack of physical access and bibliographical access to government documents (indexes, directories) and, more importantly, lack of finance. The desire of libraries to acquire government publications solely as gifts without considering the options of purchase and exchange is a problem, as it deprives them of the much-needed documents.

Sometimes the ad hoc nature of some government agencies is a problem. Agencies are established with pomp and fade out with little notice. So the collection of publications from such agencies begins well but ends abruptly, sometimes with some published documents not received by the library. At times, the existence, on ground, of such agencies is hard to trace as they exist only on the pages of newspapers, so one cannot collect their publications. Closely related to this is the fact that some government departments have multiple agencies and this sometimes brings about difficulties in tracing them.

Solutions

The problems can be solved if a working definition of government documents is adopted. Secondly, legal depository laws must be effective so as to make the publications easily available. In both developed and developing countries such laws assist in harnessing publications. The current Legal Deposit Act in Ghana needs to be amended to include government publications and then strictly enforced to ensure compliance, with penalties stipulated for non-compliance. Regional administrative offices should be designated as depositories as well as all university libraries.

Also, government and libraries have to come together to devise a long-lasting method of controlling and making government publications easily available to users. There is the need to have a clear information on who publishes what, that is, the Government Printer, departments or commercial publishers. These need to be identified and a list made of them and circulated to depository libraries.

Finally, the production of comprehensive lists, as well as catalogues is of utmost importance. This should be done regularly and effectively distributed. Ghana should learn from the HMSO in Great Britain, which produces several lists and catalogues. It produces the *Daily List of New Publications*. The cumulative monthly catalogue is indexed. An annual catalogue which is a cumulation of the monthly catalogues is also produced. These annual catalogues are cumulated into consolidated indexes every 5 years. In addition to these, it issues a monthly newsheet, *Advance Information on Government Publications* which lists important new publications. Every week, a list of non-parliamentary publications sent for printing in the preceding week, called *List of Non - Parliamentary Publications* sent to the press, is issued. More useful to libraries and booksellers is the *Catalogue Amendment Service*, issued weekly to assist libraries and booksellers to update their catalogues, lists of retrospective publications and several bibliographies on different subjects covered by the British government and its agencies (Smith, 1978).

In order to achieve the above laudable goals, libraries need set aside funds in their annual budgets to cater for purchases of government documents and to undertake tours to acquire such documents. This will ensure that gaps are not created in library collections.

Conclusion

Government publications are primary sources of information and very useful for accurate information transfer and for research. Its acquisition in Ghana is tedious and sometimes impossible especially when one attempts to do a comprehensive collation of government documents. This is because there is no effective system for publication, distribution, indexing or listing. The legal deposit law does not cover government documents, and there is no comprehensive list of departments, offices or agencies that publish such documents.

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The New Information Retrieval Media and the Challenges for Nigerian Libraries

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Abstract

The medium for retrieving information is changing fast. First from the manual method, then electronically. Retrieval is now made from full-text and on-line databases. This paper discusses the transition to these new information retrieval media and the challenges for Nigeria libraries to adopt the two key elements that propel it - computers and telecommunication facilities.

Introduction

Studies in economic research have shown that there is a direct relationship between the economic development of a country and its telephone density (Morant, 1985). Future directions will however reveal a more distinct relationship between economic development and Internet connectivity on one hand, and the ability to harness the vast research potentials of the Internet on the other hand.

Internet is only one, if not the most important of the newer information retrieval media. The printed format which is today's popular medium for storing and retrieving information would be in for a stiff challenge in this century when further potentials of the Internet starts unfolding. The cynosure of all eyes would be diverted to the electronic retrieval medium and the era of the library without books would begin. This is true for the developed countries of the world but the developing countries are still grappling with the traditional printed format even into the next millennium.

This study presents the inhibitions that hinder Nigerian libraries from gaining access to the enormous research potentials of the new information retrieval media, most especially the Internet.

The New Information Retrieval Tools

Today, information storage and retrieval have gone beyond bibliographical databases. We can now store a body of text, which can be searched in response to specific innovations. The new information retrieval media that have and would continue to shape retrieval methods are the full-text databases, (electronic book/journal and CD-ROM) and on-line databases (the Internet).

The full-text databases mainly, the electronic book/journal and the Compact Disk Read only Memory (CD-ROM) or its possible successor, Digital VideoDisk (DVD ROM), are fast replacing the book as a medium of communicating information. The CD-ROM has been found useful in storing information that does not change over a substantial period of time. Databases on CD-ROM are durable, have huge storage capacity, and retrieval is easy, browsable and fast. There is software that helps to access information and present it to users in a human readable form. The database and the access software could exist on the same CD-ROM. The powerful, user friendly search software has the potential for complex searches. One other dimension that has created a distinctive role for CD-ROM is the addition of movies and music to an encyclopedia which cannot be achieved with books. Heppting (1994) reported that more than 90% of libraries have CD-ROM players and that reference and children's titles are the best selling. The CD-ROM technology is just gaining acceptance among researchers in Nigeria and the new millennium offers a promising prospect of increased usage.

The newer on-line information retrieval medium that would be the central focus of information specialist in the next millennium is the Internet. The Internet is an international network of thousands of computer networks. It is a cooperative network of networks that links governments, schools, libraries, corporations and researchers to each other and to vast information resources. Some parts of the Internet are designed for specialist audiences while the other parts are for the general audience. A researcher who has a computer with modem and telephone line can access the Internet through the Internet service providers. The service providers themselves link the outside world through gateways located mostly in Europe and America.

The Electronic mail is the most widely used of the Internet facilities. It is providing timely, convenient and inexpensive access to research colleagues all over the world. Since the Internet's beginning as an academic gateway in the 1980s, researchers have constituted the largest group of users. Ojo-Igbinoba (1997) also stated this when he said that 48% of Internet users are in the research sector. The rest are spread between government (7%), education (6%), defence and others in the commercial sector (29%). The research dominance would even be greater when many publishing companies start

developing their websites, and when more African researchers start linking the Internet to augment the present paucity of resources in African libraries.

The Challenges for Nigerian Libraries

Information processing, storage and retrieval entail a convergence of three technologies - computers, office machines and telecommunications. It is in connection with these three technologies that the challenges and ability of Nigerian librarians and researchers to reap from the enormous advantages of these new media shall be discussed.

The World Bank/NUC credit facility agreement spurred the automation process in most university libraries as micro-computer and a 4-LAN version of TINLIB were given to all federal government owned universities.

Beyond the issue of availability of computers, the ability of Nigerian libraries to link the information super-highway may be hinged on the telecommunications infrastructure that exist in the country. The necessary infrastructure services are not available and computers are still considered as luxury items in libraries.

The telephone system is one of the most serious obstacles inhibiting the realisation of Internet dream in Nigeria and Africa as a whole. The telecommunications problem in Africa is best captured by the report of ITU'S World Telecommunications Development. In 1994, it reported that the average "teledensity" (number of telephone main lines per 100 inhabitants) in Africa was only 1.6 compared to 45 in Europe. The average teledensity outside large cities in Africa was 1.2 and even lower in sub-Saharan Africa (excluding South Africa). It was reported that there are more telephone lines in New York or Tokyo than in the whole of Africa. Specifically, it was reported in the Nigerian Philatelist that in 1993, Nigeria had only 644, 750 main lines. Addison (1998) also confirmed the inadequacy of telephone lines when he said that Nigeria has less than one million lines. And this is serving over 120 million people (0.84%). At a higher level, perhaps the greatest inhibitor will be the unavailability of an Internet gateway. Aboyade (1996) pointed out that these few networking arrangements are backed by different donor agencies who hold fast to their programmes with no coordination in linking the continent directly to the Internet gateway.

Conclusion

The new information retrieval media, mainly like CD-ROM and the Internet application may be the beginning of the advent of the library without books. Libraries in the developed countries are already making adequate use of these for research. But

Nigerian libraries have a lot of hurdles to clear before they can benefit from these media.

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Book Review

Better Information Practices: Improving Records and Information Management in the Public Service by Sam Agere, Victoria Lemieux, and Peter Mazikana, London: Commonwealth Secretariat, 1999 (Managing the Public Service Strategies for Improvements Series, No. 6) ISBN 0 85 092 5827, Price £9.00

The Commonwealth Secretariat has supported several archives and records management initiatives in the Commonwealth. One of the key areas, which the secretariat has identified, is the role played by records and information in underpinning good governance, public accountability and transparency. Records management is gradually being recognised as an essential element in the various administrative reform programmes taking place in many Commonwealth member states. To a large extent, the success of these reforms depends on the management of records. Records are instrumental to understanding past policies and programmes as well planning and budgeting for the future.

This book, which has been written, by two professional record managers including an African and administrator from the Commonwealth, addresses key areas in the management of recorded information. First, the book seeks to address two basic questions: What is records management and why is it important to manage records in the public sector? The book then proceeds to outline basic principles for managing records as they pass through the records life cycle. It proposes effective procedures for managing records at the current, semi-current and non-current stages. Many of the traditional concepts for managing records such as appraisal, retention schedules and records centre management have been clarified and presented in simple clear language with plenty of illustrations. In addition to these, performance indicators for evaluating each stage of the records life cycle are provided. This is something new which traditional archivists and records managers do not always do.

New areas that have hitherto not been covered in traditional archives and records management textbooks have been included in the book. Such areas include organisational, legislative and policy framework, training and human resource development. One advantage with this book is that a considerable portion of the book is devoted to examples, illustrations and appendices, many of them based on a very successful archives and records management programme at the University of the West Indies, Mona Campus in Jamaica where one of the authors is based. Since the book seeks to address problems of managing records within the public sector, one only wishes that some of these appendices were drawn from a national archival records management programme where such a programme has been initiated as part of the broader

administrative reform programme. A bibliography on good governance in the Commonwealth is included at the end of the book. This forms a basis for those interested in pursuing the issue of good governance, transparency and public accountability.

The book is written in simple and clear language and is not shrouded in archives and records management jargon. An ideal book even for those with little or no background in archives and records management. It has succeeded in highlighting the fact that it will be futile for any government body to launch an administrative reform programme without addressing the crucial role played by records. The book is highly recommended for anyone interested in the development of archives and records management in developing countries including African countries.

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New publications

African Publishing Network Directory : Third, Revised and Expanded Edition 1999/2000. Oxford: African Books Collective Ltd, 1999, 66. ISBN 0952126931. Price US\$30.

The book is published primarily for the African book communities. It covers all major publishers in 35 African countries. Three hundred publishers are listed. The book is divided into two parts. Part 1 consists of a list of the publishers with all the necessary details. Part 2 provides a lists of African book trade organisations, African book trade journals and reference sources. The list of African book trade organisations is divided into three sections – international, Pan-African, interregional and national. Forty-seven of these organisations are listed, twenty-one African book trade journals and 31 reference sources are included. There is a complete index to all the organisations listed in the directory.

Education for Librarianship and Information Science in Africa. Edited by Michael Wise. Uppsala: Uppsala University Library, 1999, 302p. (International Federation of Library Associations and Institutions /Advancement of Librarianship in the Third World Programme. Project Report No.14). ISBN 91-85092-53-3

This was the last major book edited by late Michael Wise. It consists of contributions from 15 scholars in Africa with expertise on education and curriculum of librarians. The contributions cover Anglophone, Francophone and Lusophone Africa. Diana Rosenberg (former Dean Faculty of the Information Sciences, Moi University, Kenya) wrote the lead article on an overview of education for librarianship in Anglophone sub-Saharan Africa. Colin Darch's contribution is on problems in the training and education of LIS practitioners in Portuguese-speaking Africa. Antoinette Correa and Oliver Sagna provided a contribution on the education for librarianship and information science in Senegal. Other contributors were Professors Andrew Kaniki, Wilson Aiyepku, Peter Underwood and Christine Kisiedu. Two practising librarians wrote from the employers point of view. Mrs. K. Raseroka of the University of Botswana Library and Jacinta Were of the University of Nairobi. Ian Johnson, a former colleague of late Michael Wise at Aberystwyth, Wales, now at the Robert Gordon University, Aberdeen, Scotland provided a very stimulating foreword.

Michael Wise, African Notes: Journal of the Institute of African Studies, University of London, member editorial board, Nigerian Library and Information Science Association, 1995-1999.

Personality Interview with Mr. Joseph Ezenwani Ikem, University Librarian, Kenneth Dike Library, University of Ibadan, Nigeria



J.E. IKEM

Postgraduate diploma in librarianship at the University of Ibadan, Nigeria and master in librarianship and information science at the University of Technology, Loughborough.

Mr. Ikem won the Nigerian government scholarship, the British Council Scholarship, the inter-university council award and the Association of the Commonwealth Universities Award. He is actively involved in many professional activities. He was at various times Vice-President, Nigerian Library Association (Western States), Regional Editor, *African Bibliography*, member editorial board, *African Notes: Journal of the Institute of African Studies*, University of Ibadan, member editorial board, *Nigerian Library and Information Science Review*.

The first personality interview this century is with Mr. Joseph Ezenwani Ikem recently appointed the University Librarian of Kenneth Dike Library, University of Ibadan, Nigeria. He is the fourth University Librarian of the Library since its establishment in 1948, the third Nigerian University Librarian and the first male Nigerian to head the library. Mr. J.E. Ikem was born in 1938 in Nigeria. He is married with four children. He attended the Universities of Ghana, Legon and Ibadan in Nigeria between 1960 & 1963 and 1965 & 1966 respectively. In 1978 he attended the University of Technology, Loughborough United Kingdom. Mr. Ikem read BA English/History at the University of Ghana,

Mr. Ikem started his professional career as an assistant librarian at the Nigerian Institute of International Affairs, Lagos, Nigeria. He joined the Kenneth Dike Library in 1971 and rose to become the University Librarian in 1999. Mr Ikem has attended many conferences, workshops and seminars in Nigeria, USA, UK, and made professional visits to libraries and related institutions in UK, Eastern and Southern Africa. He has many publications to his credit. We asked Mr. Ikem a number of questions on topical professional issues. Here are his views:

Could you provide a brief background of the library. As the University Librarian of the largest university library in Nigeria, what is your vision for Kenneth Dike Library?

The Kenneth Dike Library (KDL) system of the University of Ibadan is the oldest University Library in Nigeria. It was established in 1948, and it now comprises of the main University Library, the medical library known as Latunde Odeku Medical Library and 30 other branch libraries. It has a total collection of over 700,000 volumes of books; 6,000 journal titles and many documentary, archival and audio-visual materials. It has a staff strength of twenty-six graduate librarians, eighteen library officers and over 160 junior and other supportive staff. Up till the late 1970s, it was regarded as one of the best university libraries in Africa with the richest holding of African materials in the continent. However, from the 1980s up till recently, its reputation and facilities have declined remarkably mainly due to inadequate funding arising from a depressed national economy, bad political governance and alienation of Nigeria from the rest of the world. This ugly situation is now gradually changing for good.

As you are aware, I was appointed University Librarian exactly four months ago; so in essence my vision and mission are still being formulated and refined. However, I can state here their main outlines for the next five years. I have a vision of turning around the depressed fortune of Kenneth Dike Library to its former glory, making it a truly living nerve centre of excellence within the global information community. It will be re-engineered to respond more effectively to users' information needs; enabling the university become more productive, and make impact positively on its immediate and wider environments.

We shall pay more attention to the provision of basic infrastructure, speed up library operations through library automation; integrate the library more closely into the global information networks through resource sharing; ensure the security of library materials; tap on local and external assistance to augment government funding; motivate and empower staff through training, welfare and organisational harmony. We intend to establish viable audio-visual collections; develop relevant user education programmes; Africanise our collections and pay attention to the development of the university

archives. Through participatory management and user-based services we shall integrate staff and users in the library development process.

In the 1970s, there was a publication entitled "The major libraries of the world". Ibadan was one of the two major libraries in Africa listed. Do you think that the University of Ibadan can still be ranked as one of the major libraries in the world? If yes, why do you think so? If no, what could be the reason for the decline?

I do not know the criteria which were used in ranking the world's major libraries in the 1970s. They could include the size of buildings, the quantity, quality, and currency of the collections; the funds available to the library, the nature of staff, the quality of the professional traditions; the level of automation, the level of integration with the global information community, resource sharing efforts, user friendliness, and capacity to meet users' needs, etc. Whatever the criteria used, Kenneth Dike Library (KDL) can still be regarded as one of the major libraries in the world; scoring high in some of these criteria but now lower in the others. Our ranking position may have declined due to what I earlier on referred to as inadequate funding arising from depressed national economy, bad governance at political levels and consequent isolation of the country from the rest of the World. But the great professional traditions, the high quality of staff, the richness of its Africana collections, are still here, needing to be resuscitated with great efforts and assistance from the rest of the world. Now that the economic and political situations in the country are gradually improving, the University of Ibadan Alumni Associations, individuals, our former exchange partners and institutional friends, etc are already coming to our aid. We remain resolute in our determination to reconnect with the rest of the world information community.

There is no doubt that the Internet has revolutionised the provision of library and information services to users of university libraries. How far has the University of Ibadan library gone in making its users benefit from the Internet?

As indicated earlier in this interview, Kenneth Dike Library is anxious to re-integrate its services with the rest of the world-wide information community. We are conscious of the importance of the Internet as a global network for sharing information and improving services to our users. However, due to financial difficulties, we have not gone far in the exploration of Internet as we would like.

At the moment, Kenneth Dike Library offers mainly e-mail services to the university community in general. It started this service in 1995 through a project by the Association of African Universities (AAU), until 1998 when we had to switch over to an Ibadan-based Internet service provider (ISP). Our direct link to the Internet is through the ISP and services can be very slow and sometimes erratic, while access and

browsing can often be cumbersome and quite frustrating. However, efforts are now being made at the University level to get the Internet connectivity available to all faculties across the campus. Hopefully, when this is firmly established, the library users would be able to benefit more through the Internet. The library has already formulated its policy on the use of the Internet as a tool for improving its information services. The policy will be pursued more effectively as funds become available.

Some universities in Africa have digitised their theses collections, are you involved in the Association of African Universities (AAU) project entitled "Database of Africa Theses and Distribution (DATAD)" aimed at providing electronic abstracts of theses and dissertations in African universities? If yes, can you provide some information on this?

Right from its inception, Kenneth Dike Library has recognised the importance of theses and dissertations, particularly those produced in Africa, as important sources of information for supporting research activities in the university. Senior professional staff in the library were involved in their bibliographic control. Their efforts resulted in many bibliographic publications.

We have not yet been able to digitise our theses and dissertations collections. We are aware of the "Database of African Theses and Dissertations (DATAD)" produced by AAU; and also of Network of Digital Library of Theses and Dissertations (NDLTD) being pioneered by Rhodes University Library in South Africa. We are now studying these efforts and will join the projects as soon as funds become available.

As a follow-up to the last question, what is the role of the Committee of University Librarians of Nigerian Universities (CULNU) in providing bibliographic access to theses and dissertations submitted to Nigerian universities?

The Committee of University Librarians of Nigerian Universities (CULNU) is in a strategic position to provide bibliographic and physical access to theses and dissertations submitted to Nigerian universities. This has been discussed on a number of occasions at CULNU meetings. But apart from informal general agreement on resource sharing, there had been no concrete formal arrangement on bibliographic control and access among members on this issue. This position may be due to logistic and financial problems. If Kenneth Dike Library's financial position improves, it can take the initiative in such a project, in view of its large collection of theses/dissertations, and long experience in their bibliographic and other controls.

There was a time the University of Ibadan Library subscribed to over 6,000 periodical titles. There is now a considerable decline in current periodical titles held by the library. What could be responsible for this?

Yes, by the 1970s Kenneth Dike Library was subscribing to about 6,000 journal titles; but now our annual subscription is less than one thousand titles. Yet, we now pay more than ten times the amount paid in the 1970s. A number of factors account for this anomaly. The prices of journals have increased by 15-25%. There has been drastic fall in the value of the local currency, the Naira, in exchange with the hard currency areas from where most of the journals are procured. As stated many times already, government funding of the library is very inadequate and allocations are released quarterly if at all; whereas subscriptions are supposed to be pre-paid for the whole year. Many times, we start our subscription exercise very late and we end up paying for a few baskets, which are even more expensive. Our journal subscription needs cannot be met at present without some external assistance.

Kenneth Dike Library is more than fifty years old, the library must have built up a considerable goodwill over the years, what other sources do you use for funding beside the direct subvention from the federal government?

Kenneth Dike Library had resorted to appealing for different forms of assistance over the years to supplement the meagre funding from government. Considerable goodwill built over the past fifty years had yielded some help from government and non-governmental organisations, individuals, professional and academic bodies, such as the British Council, USIS, The European Union, F.A.O., American Association for the Advancement of Science (AAAS), W.H.O., University of Ibadan Alumni Associations, and Dreyfus Health Foundation of New York. However, by the 1990s many of these donors withdrew their assistance from Nigeria due to the unfavourable political environment. Efforts are now being made by the Library to resuscitate this assistance and to contact new ones.

The Alumni of the University of Ibadan are scattered all over the world, especially North America, Europe, Australia, New Zealand, Southern Africa and the Middle East. Have you tried to solicit their support for the library in terms of journal titles, personal computers and books? If yes, what has been the response? If no, why haven't you used this avenue?

By the late 1980s, our library collections and facilities had deteriorated to alarming proportions. That was when we resorted to using the network of University of Ibadan Alumni Associations, groups and individuals to obtain some badly needed materials and equipment. The Alumni are scattered all over the world. Many of them were reached through informal contacts and writing. Many responded to our calls, particularly those in North America, Britain, Europe and the Middle East. Those in Nigeria also responded, but not much assistance came from other parts of Africa, Australia, and New Zealand.

In Nigeria, a few chapters of the Association sent in some books and journals. The National Executive launched the "UIAA Book Support Project 96" led by the National President, Chief (Mrs) F. F. Ogunlade. The aim of the project is to make each alumnus/alumna donate at least a book to this library. Over 2000 volumes of books and about 100 journal titles have so far been received under the programme.

Major donors from abroad include the following: Alumni Association, Canada which donated photocopying machine, some computers, books, audiotapes, and subscription to 33 journal titles running from 1989-1999. Another active group is the Ibadan Medical Specialist Group, U. K. (IMSG). It donated one computer, a photocopying machine and a fax machine, as well as some books. Many individuals also donated some equipment, books and journals. Efforts at sourcing help from Alumnus/alumna, and other groups will continue.

Professional News and Events

First International Editorial Board Meeting of AJLAIS

The first international editorial board meeting of the *African Journal of Library, Archives and Information Science (AJLAIS)* was held between 9 and 10 December 1999 at the Conference Centre, University of Ibadan, Nigeria. The meeting was attended by seven editorial board members from Botswana, Ghana and Nigeria. The opening ceremony which attracted more than 60 information professionals was declared open by Mr. J.E. Ikem, the University Librarian, University of Ibadan, Nigeria. The keynote address was given by Mr. Gboyega Banjo, a former chairman of IFLA (Africa section). The editor-in-chief, Prof. L.O. Aina presented a paper entitled "The Journey so Far." During the business meeting of the board, a draft policy guidelines for AJLAIS was discussed and adopted. The board also agreed to reorganise the editorial management of the journal in the year 2001 with a view to meeting the challenges of the millennium.

Ibadan Library School at 40

A series of activities were held during the 40th anniversary of the Department of Library, Archival and Information Studies, University of Ibadan, Nigeria from 6 to 10 December, 1999. The department was established in 1959. It is the oldest library school in sub-Saharan Africa. It has produced many graduates at all levels – certificate, diploma, bachelor, postgraduate diploma, master in library studies, M.Phil and Ph.D. The highlight of the anniversary was the 40th anniversary symposium, entitled "Multiskilling for the Information Industry". The symposium was moderated by the first African professor of library studies, Prof (Mrs) Adetoun Ogunshye. The panelists included Prof. L.O. Aina of the University of Botswana, a former student and staff of the department, Chief E.N. Adimorah, Director of National Information and Documentation Centre, National Library of Nigeria, also an alumnus. Also in attendance were Dr. M. Tiarniyu, Acting Director, African Regional Centre for Information Science, University of Ibadan, Nigeria and Mr. J. Adeniran, Assistant Director, National Archives of Nigeria.

A New National Library for South Africa

The State Library in Pretoria and the South African Library, Cape Town have merged with effect from 1 November 1999 to form the National Library of South Africa (NLSA), Act, No. 2 of 1998. The Act's Proclamation (No. R.109, 1999) was published

in Government Gazette No. 20562 of 29 October 1999. The acting National Librarian is Professor Peter Lor, previously Director of State Library, Pretoria.

Book Donation for South African Libraries

Vista University, The University of Venda, the University of the North and Technikon Northern Gauteng have been given approximately 2000 books. They are the first set of South African historical black universities and technikons to benefit from a major grant by the Sabre Foundation, which has awarded \$150,000 to support a two-year programme to deliver 80 000 books to the libraries of these institutions. Sabre Foundation is an American non-profit organisation specialising in donation of educational materials internationally.

Library Literature Changes Name

Library Literature, an index to library and information science papers published by H.W. Wilson, has changed its name to *Library Literature and Information Science* with effect from August 1 1999 in order to reflect the increased coverage of information science periodicals.

Database of African Theses Soon to be Launched

A database of theses and dissertations completed at African universities is to be produced by the Association of African Universities (AAU) in partnership with the Project for Information Access and Connectivity (PIAC). The project is entitled Database of African Theses and Distribution (DATAD). It is expected that the project will index, abstract and distribute theses and dissertations completed by African universities. For further information contact DATAD c/o Lisbeth Levey, Director PIAC, P.O. Box 41081, Nairobi, Kenya (e-mail: Llevey@fordfound.org).

African Digital Library On-line

A digital library for the benefit of users throughout Africa started on 3 November 1999. In response to the need for library books in Africa, Technikon SA (TSA) has provided an initial sponsorship of R1million to set up the African digital library. TSA and the Association African Universities (AAU) have established the library in collaboration with Netlibrary, a private American company. The On-line will provides access to African users throughout the continent to a library of full-text books at no cost to the user. It will be available to persons in any country in Africa with a server having an African domain via <http://www.AfricaEducation.org/adl/>. For further information

contact Paul West, director CLL at Technikon SA at Library
admin@AfricaEducation.org.

James Currey Publishers and Hans Zell Team up

A new partnership between James Currey Publishers and Hans Zell has been announced. It is expected that the partnership will ensure the continuity of Hans Zell Publishers list of African Studies reference resources, following the discontinuation of the Hans Zell imprint under Bowker-Saur/Reed Business Information. Hans Zell Publishers have produced a wide range of African studies reference sources just as James Currey is one of the leading academic publishers in the African studies field with more than 300 titles currently in print.

New Officers for IFLA (Africa) Section

Prof. G.O. Alegbeleye, Head of the Department of Library, Archival and Information Studies, University of Ibadan, Nigeria has been elected the new chairman of IFLA (Africa section). Mrs Jacinta Were of the University of Nairobi Library, Kenya is the Secretary.

AIMS AND SCOPE

African Journal of Library, Archives and Information Science is published mainly to provide a forum for librarians, archivists, documentalists, information scientists and other information related professionals in Africa to report their research findings but with emphasis on the African setting. The Journal is refereed by distinguished scholars. Emphasis is on empirical research; however manuscripts of high quality on theoretical aspects of the three information related disciplines will be considered for publication.

NOTES TO CONTRIBUTORS

Three copies of the manuscript typed double space on one side should be submitted. Ample margins should be provided. The title, author's name, position and place of work are to appear on the first page. Subsequent pages of not more than 15, are to include an informative abstract of not more than 100 words. Manuscript will be considered only if it has not been published elsewhere.

References and notes should be indicated in the text by names of authors and date of publication in brackets. The list of references should be listed at the end of the text.

References to journal articles should be in the following order: Author(s), date, title, journal's name, volume number, issue number and inclusive pagination e.g:

Mazikana, P. C. (1987) "Archives and Oral History: Overwhelming Lack of Resources" *Information Development*, 3(1) 13-16.

References to books should be in the following order: Author(s), date, title, place of publication, publisher, pagination e.g:

Aboyade, B. O. (1989). *The Provision of Information for Rural Development*. Ibadan: Fountain Publications, 104p.

References to contributors in collected works should be in the following order: author(s), date, title of contribution, name of the editor, title of the collected works, place of publication, publisher and inclusive pagination e.g.

Neill, J. R. and Kotei, S. I. A. (1981) "Towards a National Information System for Botswana" in Inganji, Francis (ed.). *Use of Information and Documentation for Planning and Decision Making*. Gaborone. NIR, pp. 36-53.

No charge is made for publication. Twenty five copies of reprints of each major article will be supplied to the principal author.

Manuscripts and other editorial materials should be directed to the Editor in Chief, Prof. L. O. Aina. Department of Library and Information Studies, University of Botswana or to any member of the editorial board nearest to you. E-mail: ainalo@mopipi.ub.bw