

Editorial

We report in this issue the adoption of Africa's Information Society Initiative (AISI) by the African ministers of planning at a meeting held recently in Addis Ababa, Ethiopia. We hope this Initiative will be the required impetus for leapfrogging the continent into an information conscious society in the next millennium.

Most of the articles in this issue are devoted to the new information technology of Internet, electronic mail etc. The lead paper provides a comprehensive treatment of the potentials of Internet in libraries in developing countries and most especially Nigeria. Chisenga discussed the establishment, use and constraints of te electronic mail in a developing environment such as Lesotho. Related to the first two papers, is the paper by Dina in which she examined the use of modern information technology in sourcing legal information. Adeniran in his paper discussed the state of computerisation in Botswana libraries. A paper on Internet, its use, versatility and constraints to its use in developing countries is presented in the Short Communications section. Mnjama discussed the politics involved in managing the records of Kenya Railways. Akintunde and Adelusi highlighted the state of local history collection in some selected academic and research libraries in Nigeria.

We are happy to report that the three different national library associations that were established along racial lines during the apartheid era in South Africa merged into one single national association of library and information workers last July. We congratulate the people who made this possible. A comprehensive report of the merger will be given in the next issue.

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The Potentials of Internet for Library Services in Nigeria

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Abstract

The paper provides a historical development of Internet and discusses the mode for its implementation in Nigeria both as users and providers. The paper advocates the need for Internet in libraries given its versatility in information provision and dissemination. The paper focuses on Internet in Nigeria and advises developing countries to put their acts together and get linked up to Internet. The role of librarians and other information specialists in the use of Internet is discussed.

Introduction

Welcome to Cyberspace. According to Morrison (1995), Internet is one of the constituencies of Cyberspace. Imagine Cyberspace as a mansion of many rooms. Internet is just one "room" in Cyberspace.

What is Cyberspace? Current dictionaries, general and specific, are unhelpful. Even with a dictionary in a computer which is a handy electronic tool, no listing about it was made. Perhaps the word is too new to have entered dictionaries. Cyberspace is a name for the place where words, pictures, relationships and other data reside. It is also used to describe all information available over the Internet. In Cyberspace there are several windows (information networks) through which one gets information. Internet is one of such windows.

We are all part of the world. But the world is so small now that it is called "a global village". Internet will make that village smaller still. But what is Internet? The USIS Information Systems Unit (1995) says that it started in the late 1960s as a network for the US Defence Department. The United States education and research institutes became involved and a thriving electronic community evolved. In the 1980's other academic networks around the world became connected to the Internet including the British Joint Academic Net-work (JANET) which links UK universities and research institutes. Now governments and big business users have joined to take advantage of the sales, marketing, support and publishing opportunities a global network offers. Internet will restructure society. In it are most of the scientists, engineers and academics of the

Western World. It is one of the greatest resources available to libraries today.

Internet is a worldwide network of networks of millions of computers linked together by telephone lines worldwide. It links thousands of universities, governments, and corporate networks including CompuServe and America Online which hosts hundreds of databases. It is the largest system serving electronic mail (E-mail), messages - an essentially a "store and forward system". As stated by Rutkowsky (1993) the Internet grew at the rate of 12% per month, spread to 91 nations with gateways (computers that connect two systems) for E-mail in 126 countries. It links together 20 million computers in more than 60 countries with over 70 million computer users. Statistically, 48% of them are in the research sector, 7% in the government, 6% in education, 10% in defence and the other 29% in the commercial sector. According to Aragba Akpore (1995a), there are over 70 million people (computer users) worldwide connected to the Internet. The number is growing continuously, at an estimated 10% per month. But no one knows the actual number because there is no superintendent authority. It is an unregulated computer-communications network. Electronic mail is a system by which persons belonging to a network can use their computers to send and receive messages. It has many advantages in a library setting.

Internet connectivity

Anyone with a desktop computer and a fast modem which connect to a phone line can find a way into the Internet. There are three ways to communicate on Internet, i.e. online (real time): send a private letter to another person once you know his or her computer address, posting a message on a Bulletin Board where anyone who signs on (log in) will see it and may respond; and corresponding in "real time". This occurs in a "room" with others logged on to the computer system. You type the conversation - usually limited to one line per message - into the computer and it shows up on everyone's screen. Before you can have this facility, you must have paid a service provider. It is then that you can reach the world for the price of a local phone call or fax. For a cheap service you must have a service provider as near to you as possible. The address name is just a computer telephone number. McNamara (1995) defines Bulletin Boards as online meeting places where individuals with similar interests chat or debate electronically on all subjects under the sun through key-in messages.

Internet in Africa

In the second half of 1993, at least two African countries joined the Internet every month. At the last count in December 1993, as pointed out by Fadeyi (1995a), twelve African countries had enlisted on the Net. These countries are Tunisia, South Africa, Algeria, Egypt, Mozambique, Zambia, Ghana, Uganda, Namibia, Zimbabwe, Morocco and Kenya, all of which have over 30,000 Internet users. All the regions of the world are

currently connected to the Internet, directly or through networks such as BINET (an academic network that covers over 30 countries and offers E-mail and file transfer). E-mail is not new to Africa. But the service which is mostly available in the commercial sector and hardly in the public domain, is disjointed. There is no link to one another and therefore the computers cannot talk with themselves without passing through metropolitan countries.

Nigeria for Internet

Nigeria can join Internet as end-users or as providers. One should suggest both. As end-users we possess our equipment and dial up. Being a provider is more complicated. There are many reasons for participating as providers. As stated by Hobohm (1995:28) the experience of the British ESRC (Economic and Social Research Council) Data Archive shows that it can be a productive task for a data-centred social science (or other disciplines) infrastructure service to make use of the new facilities of computer networking. Since ESRC established new consultative services based on the E-mail feature, they noted that the figures of usage of their basic services and products grew further. You can use E-mail distribution for public relations activities and most of your pursuits with Gopher or World Wide Web (WWW) may influence the image of your institutions on the information market.

Participating in it means that the country or institution is at the very top of technological development. The other compelling reason is that the scientific community is about to change its communication behaviour in this direction. When one joins, one is not only able to filter relevant information/materials but also to guarantee the quality of the information we would offer ourselves. Traditional information services - like libraries - should assume gate keeper functions in this overwhelming and nearly unstructured communication flow between experts.

Internet connectivity is an expensive undertaking. But it is a worthwhile venture for reasons adduced previously. It follows that the country cannot afford from its own resources to mount the infrastructures for Internet. As information providers, Nigeria can provide for fee databases on corporate information and profiles of such major Nigerian companies as National Petroleum Corporation, Nigeria Telecommunications, UTC, Leventis, NICON, Coca-Cola, 7-Up and many others which are tagged and classified as Fortune 1000. There are other small to medium size businesses concerns. This creation of a local wide web will link all business together for easy access in the NG domain, Nigeria Internet address. Thus, Nigeria can provide databases about the country for a fee for which information seekers can benefit. For example, Aragba-Akpore (1995a) states that a concern like the Corporate Affairs Commission (CAC) could have a database on all corporate firms and small scale business registered in Nigeria for easy verification, e.g. of the company names available. Others for which corporate information should be published on the Net include Airways flights' schedules, banking

and financial institutions with regard to their branches, sizes; Stock Exchanges, Share positions, etc.

There are potentials for publishing on the World Wide Web (WWW) which has over 70 million users. Moreover, the Web is open for 24 hours a day and 365 days in the year. There is, therefore potentially a big pay off for companies that help to put Nigeria on the super-highway that is Internet.

Preparing for Internet in Nigeria

Nigeria has a developing communications infrastructure. The country already possesses E-mail capabilities which rely on dial-up systems, using ordinary POTS (plain old telephone system) telephone to link up through metropolitan countries, usually Europe or United States. The POTS has opened a partial Internet opportunity to many Nigerians including Government and non-government organizations and multinational companies with offices in Nigeria. The POTS is antiquated and its charges are high. But long distance telephone costs are high. Therefore, the country cannot achieve real-time interactive communications. To gain access to the Internet on individual basis, one must possess a server to link a host, personal computer (PC), online and the software. For a direct link, one subscribes to a local carrier such as CompuServe or InforCommunications both of which have direct circuit links with British Telecoms, MCC and Systems Worldwide, a data communication firm licensed by the Nigerian Communications Commission (NCC) to facilitate Internet connectivity in Nigeria that operates in other African countries. Either of these firms will link one to the international gateway.

In 1992, Unesco organized a training programme in Pisa, Italy as part of the activities of Regional Information Network for Africa (RINAF) in Nigeria. RINAF was conceived by the Inter-governmental Information Programme (IPP) of Unesco in 1985 with funding from the Italian government and contribution from the Republic of Korea. The aims of the programme include reviewing the status of telecommunications infrastructure in participating African countries, developing appropriate electronic systems and the training of systems operators. It also aims to enhance the interconnection of academic and research institutions in Africa and with the international research community through Internet. Accordingly, it established nodes in Algeria and Egypt and others were planned for Nigeria, Kenya, Swaziland, Zambia, Guinea and Senegal. As summarised by Onajobi (1995:12) two Nigerians were sponsored and trained under the programme. A follow-up regional training programme was held in Ile-Ife in April 1993. These programmes were for the training of prospective systems operators for African countries. After the training a trial pilot system was connected as a point to point link for exchange of E-mail.

In October 1993 Yaba College of Technology was linked up with the gateway at Pisa, Italy with a UUCP (Unit to Unit Copy Protocol) node which provided a connection to the Internet. This node has used a DOS (Disk Operating System)-based software SNUUPM with a UNDP interface. This was only an access to and not a full Internet connectivity which involves a leased circuit option or the use of the satellite option.

In April 1995 the USIS, Lagos organised a two-day Internet lecture for librarians from all over Nigeria during the Annual General Conference of the Nigerian Library Association held at the University of Lagos, Lagos. Also in March and again in September 1995, a national workshop, tagged "Lagos Internet Expo '95, was held on the importance of Internet to Nigeria. These lectures, seminar and workshops resulted in a greater degree of the awareness among information workers of the importance of Internet and have heightened interests in its use.

Aragba-Akpore (1995a) stated that those commercial computer services such as CompuServe, have been serving the needs of Nigerians who have had access to the Internet via E-mail. Recently, InfoCommunications, which is popularising UUCP which has a Sprint node in Nigeria through which it has a direct circuit link with British Telecoms, MCC and Systems Worldwide has been providing a link with Internet.

A Nigerian Internet Group (NIG) with NCC as one of the sponsors, has been formed, according to Fadeyi (1995b) with the aims of securing or creating enabling environment, and creating awareness and the training of systems operators. It aims to popularise Internet and link Nigeria with Internet. Their activities have been stymied through the lack of funds or sponsorship or both. Now there exist commercial Internet service providers in major towns in Africa. The government is aware of the economic and social benefit of Internet but has been short in its promises.

Nigeria can be an information provider at three levels. The first is at the national level in which databases about the nation, e.g. National Data Bank, are provided by the governments. NCC, NITEL as well as parastatals and ministries responsible for communications and the external telecommunications providers in African countries can combine with others to provide a node for Internet in their various countries. These organizations should review downwards telecom charges.

Not only should they reduce telecom charges, they should improve infrastructural support for online connection. The NITEL current infrastructure has too low a capacity for Internet. Its standard analogue voice line has a maximum of only 19.2 kbps (kilo bytes per second). Its leased digital lines has only 64 kbps. At these speed rates not more than four persons can use the line simultaneously. Local telephone systems are very important for the widespread use of the Internet. NITEL therefore requires several 64 kbps to cope with database access tools like WWW. In addition, Non-Governmental Organisations (NGOs) activities should result in the establishment of nodes, such as the

like of PeaceNET (USA) and the GeoNET (UK). They can establish networks to exchange messages and run conferences between member networks and the Internet.

The second level is for the traditional providers of information such as librarians and information specialists to form consortia in the mould of OCLC. They will be able to provide all manners of databases like, for example, academic, scientific and special libraries catalogues, etc to produce the database(s) NIGLIBSIS - The Nigerian Library Infrastructural Services. Other services that could be provided should include: university library catalogues, databases of scientific and technical organisations, National Library of Nigeria catalogues and other databases produced by, e.g. NIDOC - National Information and Documentation Centre.

Similarly, a faculty or faculties or a group of disciplines in the university(ies), e.g. social sciences could combine to produce the database(s) NIGESIS - the Nigerian Social Science Infrastructural Services. These activities will be announced through Gopher Server. The NIGLIBSIS and the NIGESIS will answer all professional information demand by supplying all empirical data or by consulting on methodological questions. This is quite feasible now that most of the academic and special libraries have developed computer Networks. These services can be replicated throughout Africa. These databases - NIGLIBSIS and NIGESIS are to publish books, journals and newsletters, produce several other databases, documentation and archives, conduct social surveys, research on libraries as well as social science methodology and in scientometrics. The end product will be NIGLIBSIS Information Server and NIGESIS Information Server on the Internet. Finally, and as stated by Cabezas (1995:12), one of the parameters for measuring the quality of service will be the ability of these organizations to deliver original documents and to select databases to be mounted locally. This is where libraries, especially university libraries, should closely follow developments in the area of copyright, contractual negotiations and down sizing phenomena in the area of OPAC software.

The third level is for the commercial community to develop its own proprietary networks to make use of X.25 networks to connect commercial databases, facilitate corporate E-mail, or to participate in the network as a private node. Such networks can be integrated into the Internet.

Similarly, consortia involving universities, government bodies responsible for science and technology, other scientific and technical organisations and banks could join in establishing TCP/IP - Transmission Control Protocol/Internet Protocol - connection in the establishment of Nigerian Academic, Scientific and Technology Network, NASTNET, or NIGERNET. These networks should be able to connect foreign universities with Nigerian universities or other countries with Nigeria.

Nigeria can be a gateway to other African countries by initiating regional networks focusing on Nigeria. This should be possible through bilateral agreements. All these should have FTP-Server or can be ordered through the Gopher System, should be searchable. What is said about Nigeria is also applicable to every African country in the quest of Internet connectivity and as provider of information to the NET. These are only a few examples of databases that could be generated. That these propositions are not in the realm of dreams have been amply demonstrated by Cabezas (1995:12) as having been implemented in Latin America - a developing area like Africa.

But obstacles to a successful usage of the Net in Nigeria are formidable. These obstacles include the unstable and costly electricity supply which needs to be regulated. The huge cost of telecoms charges and the epileptic telephone systems are some of the others. The equipment - the software and the hardware including the computers are expensive and are not manufactured locally. These are problems which could defeat the laudable advantages of Internet to the average Nigerian. One possible solution to this will be the local manufacture of computers' components so as drive down costs.

The job of a provider is daunting. Since it is yet such an undefined area, it will be an add-on service for the institutions and an extra load for the chosen collaborators, e.g. National Library of Nigeria and all the databases under its umbrella. For the implementation there are some organizational requirements. McClure, *et al* (1993:7) report on the need for key people as a major factor in the success of establishing net-oriented services. There is the fact that Internet is mainly an English-speaking domain.

Sources of Technical Assistance

To source the equipment needed for Internet will require more than \$500,000 dollars in costs. There is also the cost of operation payable to NITEL to access the International Gateway from Nigeria. Between the Satellite and the downlink is another cost. Together, these amount to some \$200,000 per annum. The cost to the operator is therefore very high in terms of capital equipment and operating cost. A recourse to the Nigerian business community to facilitate the country's link-up with Internet by contributing the cost will not be a misplaced one. Elsewhere, the commercial sector being the greatest consumer of Internet products has always contributed the cost of the link-up for a regular and direct Internet transmission.

There are other sources of aid which should be approached. Such donors as the British Overseas Development Agency (ODA) and the US National Science Foundation (US-NSF) are good sources to request technical assistance which they have extended to other parts of Africa. Another source of aid is Unesco which has previously rendered aid in linking Africa with Internet. A last resort would be to invite world telecoms giants like American Telecommunications, AT&P or the German Siemens both of which are not new to Africa. Any of these methods will enable Nigeria to avoid the costly mistakes

made in the development of similar facilities in the Western World.

Impacts and Consequences of Being Information Providers

Entering the Internet as information provider has consequences which may alter deeply the normal library and information business. In several aspects, as summarized by Hobohm (1995:29) it can be compared with the new domain of electronic publishing in general. In the same way as establishing a Gopher-Server is taking part in the scientific communication process, the bits and pieces, offered by that server become part of the scientific publishing industry. As conceived by Schaunder (1994:73) the new roles for libraries being "literary agents" and a "document supply agent" could materialize in forms of Gopher-Server or WWW pages. It has often been said that university libraries are best prepared to take over substantial functions in academic electronic publishing together with the university presses and the computing centres. Decisions have to be taken on the fundamental question of commercialising library and information services. Some libraries (like the British Library) and library consortia (like OCLC) have already entered a more commercialized market and took over services from other players of the market. In doing so libraries have already passed the borderline which has separated so far the document supply oriented libraries from information centres and databases producers. Library services, like Internet connection, is a scarce resource and should attract fees.

But not only on this frontier has one to be aware of the increasing competition among all the actors in the information and publishing market: database producers, information brokers, learned societies, journals and reviews, libraries, editors, etc. Now, they all have the brave new facilities of micro-publishing on academic networks at their finger-tips. As Schaunder (1994:95) summarizes the development: "The scholarly communication industry is entering a phase of intense new competition where in at-source subsidized electronic publishing of professional articles competes with fee-for-service publishing and republishing".

Status of Libraries on Internet

Cabezas (1995:13) contributing to this, points out that libraries all over the world have taken a passive role in the construction of the national networks, especially from developing countries which libraries have been relatively unenthusiastic in embracing new technologies. Their support has been the "possibility" of placing their resources on the Net and as users of the networks. The resources to be available to the public will include academic catalogues, catalogues of special libraries and various local databases of scientific and technological nature and that of the National Library, including the National Bibliography. Cabezas states that the Internet phenomenon allows its universe of users to know what is being published or produced in a certain field, at least, at the level of books or catalogues of periodical publications. For a general access to these,

there is the necessity to reinforce the philosophy of library cooperation.

When libraries provide a FTP-Server with a text or software, they are potentially communicating this text (piece of information) to a far greater audience than they can ever imagine or reach through books. For example, the reference librarian can ask special LISTSERV - discussion lists - to solve "Stumpers" questions for his customers. While searching for special items, you can find WAIS - databases leading you to the archives of academic debates on the Net. It follows that the satellite dish, as a means of communication, will soon be a common feature of the roof tops of library buildings. Elsewhere in the developed world, libraries have become community gateways to the world of Internet.

Internet is a new information tool in which information seeking behaviour is no longer unidirectional but bidirectional. There is a challenge for libraries to adopt the culture of the Internet and use it to guide users in beginning the search for information. Tools such as Gopher, WAIS, and MOSAIC will be the keys, not only for teaching how to use the networks but also to give clues as to which resources might be pertinent among the hundreds of servers on the Net.

Library uses of Internet

Onajobi (1995:12) contributing to this, points out that the library uses Internet in three major ways, namely Electronic mail, File Transfer and Remote log on (Telnet). Electronic mail (E-mail) is used for personal communication and electronic discussion. With Internet connectivity you can send E-mail to anyone else who is connected to the network provided you know the correct E-mail address. Delivery takes only seconds. These communication channels provide global communication environment that is facilitating easy sharing of technological and cultural experiences. Part of the major components of these channels are computerised library systems: database, full text databases, on-line information services; regional and international networks; electronic mail systems and electronic publishing. With on-line services and electronic messaging it became possible for the formal submission of papers for publication or discussion, refereeing, editing, publishing of scholarly papers and posting of notices on electronic bulletin boards. This provides a widened access to professional colleagues and friends world wide and also for tele-ordering and teleconferencing. Therefore the electronic libraries of the future will have integrated bibliographic files and full-text documents to be accessed by just pressing an appropriate key, editing, publishing of scholarly papers and posting of notices on electronic bulletin boards. Therefore, the electronic libraries of the future will have integrated bibliographic files and full-text documents to be accessed by just pressing an appropriate key on the PC.

This will be possible because the electronic library with bibliographic files and full-text databases will become a common feature in libraries and homes, since the technologies,

e.g. CD-ROM, are designed to be cheap and easy to use. The CD-ROM itself has enhanced the possible arrival of the electronic library and the paperless society in the next few decades. The rudiments of all these are already on the Internet. Also with such on-line services as On-line Public Access Catalogue (OPAC) libraries can be accessed from the classroom, office or home. Similarly, electronic journals or e-journals can be delivered on the Internet with the full-texts issue of the journals delivered electronically to subscribers of E-mail list (LISTSERVS).

According to Onajobi (1995:8) a number of information retrieval software has been developed to facilitate easy access to Internet. Such information retrieval software includes Gopher (a way of publishing information and accessing it through a hierarchical menu-based interface) and World Wide Web (WWW). The Web is the inter-linking of sites, ideas, libraries, companies and cultures. A computer's mouse button pointing and clicking bring out the desired site and information. The Gopher, a menu-driven system that enables Internet users to navigate between the many services available on the Internet was developed at the University of Minnesota. The WWW Developed by European Organisation for Nuclear Research (CERN), organises its content by subject matter. The WWW is often used in conjunction with a front-end tool such as MOSAIC (a popular WWW browser) which enables the Internet users to drive through the web. Less than 40% of the users of Internet have text-oriented access and less than 20% have graphic-oriented access. These privileged few can drive their way though the WWW with programs like MOSAIC to view colourful pictures listen to sound, read postscript files and get access to other multimedia elements - texts, sound, images - embodied in the Web documents.

In both the commercial and public domains, people searching for products and services on the Net have cited the speed at which transactions can occur. Convenience, and selection in information and the immediate and interactive delivery of information and digital products that could be sourced from home, work, or on the road from all over the world.

Other very successful services are interactive, and end-user oriented, that allows the user to "navigate" hundreds of computers. Gopher for example, is a service which functions under the client-server architecture, and World Wide Web (WWW) another tool based on hypertext, facilitates the retrieval of texts, images, sounds, and provides graphic interfaces for the consultation of the databases.

There are also systems for current awareness such as E-mail lists (LISTSERVS) or news distribution (Usenet News). Finally, there are tools for discovery and retrieval of information: Archie - indexing tool for FTP Sites - (for Software) - Wide Area Information Service - WAIS (distributed databases), Veronica - Very Easy Rodent-Oriented Netwide Index to Computer Archives - a search tool for gopherspace - (to search Gopher directories) and also, on-line library catalogues (OPACS) - On-line Public

Access Catalogues.

E-mails are the greatest service provided by Internet. Typed documents by word processors are routinely transmitted electronically via the Internet without having to print the document. Using the Internet eliminates most paper-based A4 format and about 50% of the routine uses of fax machines. In 1993 subscribers to CompuServe (Service), the largest provider of electronic commercial service, sent more than 55 million electronic messages to one another. Everyday, American On-line, another electronic messenger, transmits 1.5 million E-mail communications. The cost of this service is generally low - \$9.95 per month plus \$2.95 per hour. In Africa, charges are generally higher. In Ghana, for example, the service provider, Digital Net-work Computer Systems charges \$100 per month.

Another successful service on the Internet is the reduction of the cost of international telephone calls. Both libraries and commercial concerns have exploited this method in reducing their costs by using the Internet for voice communication between sites in both the public sector including libraries and the commercial domain.

Media organisations in Africa and in Nigeria, in particular, can put their publications on the Net for both political and economic purposes. Economically, they have a lot to reap from the ability to publish an unlimited amount of information, unlimited duration of advertising and the prestige of joining the global information superhighway. Politically, in an era of a negative image about Africa in general and about Nigeria, in particular, being on the Net can be very useful. The media can feed the correct image of the continent and of the country into the Internet where nearly all the information on Africa and Nigeria on the Net are supplied by Western sources, e.g. CIA, UN, CNN, etc. In Malawi the draft constitution was mailed round the world for instant comment from constitutional experts. Such a process would have taken months or years in the past. For open democracy, South Africa puts everything about its government on the Net: constitution, statistics, press information, cabinet papers, etc.

Similarly being on the Net can provide Nigeria with sources of technological news about new developments which would otherwise take days, or even weeks to reach Nigeria.

Conclusion

It should be obvious from the above that the invention and use of microchips have reduced drastically the initial cost of the computer. The lack of infrastructures in African countries is no longer an excuse for not embracing the new technology. The erratic power supply situation is easily rectified by the uninterrupted power supply (UPS) system. The telephone which is unreliable can now be dispensed with the use of CD-ROM in accessing databases in physically remote places as also with Internet. The packet radio technology which has been supplanted by the X-25 packet switch is a

modem with which to receive transmissions over long distances via a satellite which has the capacity to transcribe such electronically transmitted messages into readable texts. The Internet has made organizations and individuals, even those without the benefit of good information services to begin, to see the advantages and opportunities that the creative and rapid utilization of information in decision-making and production will be bring to their survival and effectiveness. Any wonder then that weak economies in Africa are all rushing to embrace Internet.

The cost of connectivity is high but not unaffordable. The President of the Association of Telecommunications Companies of Nigeria (ATCON) asserts that the private sector can easily provide the funds if the government can provide the political will and stable regulatory environment (for investors) which will attract private funds for infrastructural development (Aragba-Akpore 1995b). African countries should quickly join the Internet to take advantage of all the opportunities offered by Internet especially in the fields of education and health care - areas which lack governments' adequate funding.

The effect of Internet connectivity in Nigeria will be like a hundred times the effect of the World Bank Loan Facility to the stock of libraries of federal universities in Nigeria. There will be a need for training and education for the managers of the facilities on a continuing basis. There will be a need for the organisations to produce original databases and documents to be mounted for the Internet. The world is in inter-connectivity via Internet and there is a unique opportunity now for Nigeria to take advantage of these infrastructures.

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Implementing and Using Electronic Mail at the National University of Lesotho

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Abstract

The paper examines the introduction and use of electronic mail (E-mail) at the National University of Lesotho (NUL), in the small Mountain Kingdom of Lesotho. It gives an overview of two E-mail systems introduced in the University in 1993 at the Institute of Southern African Studies and the Institute of Education. A detailed examination of the University Computer Services Unit (CSU) E-mail system introduced in 1994 is made looking at the type of equipment used, communication software, qualifications and training of the system operator. The paper also examines the use of E-mail by university academic, research, library and documentation staff. Electronic mail facilities at the University are under-utilised and there is an urgent need to intensify the use of the facilities. Lecturers, researchers, library and documentation staff should make use of the facilities and integrate them into their work programmes. The University Computer Services Unit should also provide adequate training to the University staff in the use of electronic communication facilities. Serious considerations should also be given to the introduction of full Internet access in the University.

Introduction

Electronic networking has transformed the conduct of research and teaching in research and academic institutions around the world. Electronic networks are offering researchers and lecturers a wide range of opportunities in the creation, processing, transmission and dissemination of information. Researchers are able to obtain and exchange information for research, collaborate on research projects, co-author research papers, and disseminate the results of their research to a wider audience in the shortest possible time. Obtaining information to enhance academic teaching programmes has also been made very easy through the use of electronic networks. A large number of academic and research institutions in the developed world have become part of a large electronic information highway, producing and sharing large amounts of information.

Academic institutions in developing countries, especially in Africa, cannot afford to ignore the development of electronic networks. Inadequate funding for the purchase of library books and subscriptions to academic journals, coupled with the general absence of up-to-date information required for research and teaching in most African universities should make electronic communication very attractive to research, teaching and library staff in these institutions. Access to electronic networks, especially the Internet, will make available valuable information at the finger tips of most academic and research staff in Africa.

Acknowledging the important role electronic networks are playing in academic and research institutions, various efforts are under-way in some African countries to establish electronic networks that would facilitate the exchange of information and provide access to the Internet. Introduction of electronic networks in academic and research institutions in Sub-Saharan Africa is slowly gaining ground and is changing the way researchers and teaching staff are interacting with each other. Universities in the Republic of South Africa, the University of Zambia, Eduardo Modlane University (Mozambique), Makerere University (Uganda), University of Namibia, University of Botswana and the National University of Lesotho, are among the academic institutions that have set up or have access to electronic communications networks. Some have full Internet connection and others are using dial-up facilities. Electronic networking and especially the use of electronic mail in Africa, has also

- brought about rapid cultural and social change in research and development. The generation of new information through electronic messages and the exchange of all kinds of electronic files have encouraged broader communication.
- facilitated the exchange of ideas and reference which has resulted in the improved research and technical productivity. Reduction of isolation has improved individual's attitudes towards their jobs and towards computer communication
- joint research projects are beginning to be carried out using E-mail between researchers in Africa and those in developed countries (AAAS, 1993/94)

Electronic Mail

Electronic mail, "a computer-mediated communication system, in which messages in electronic form are exchanged between computers linked in some way, normally through a terrestrial public telephone network. The sending and receiving computers use a suite of computer-based tools (programs or protocols) to compose, edit, modify, forward, store, retrieve or otherwise manipulate messages" (Ochuodho, 1993), is slowly

becoming the most commonly used form of communication in African academic environments. Electronic mail is providing timely, convenient, and inexpensive access to colleagues outside the continent. Research, teaching, library and documentation staff at the National University of Lesotho have also joined in the use of electronic mail for communication purposes.

Information Technology Application at NUL

The National University of Lesotho (NUL) was established as a Catholic University College, the Pius XII College in 1945. It was founded at Roma by the Roman Catholic Hierarchy of Southern Africa. The objective of the College was to provide African Catholic students with post-matriculation and religious education.

In January 1964, the Pius XII College became an integral part of the independent, non-denomination University of Basutholand, Bechuanaland Protectorate, and Swaziland (UBBS), and in 1966, the UBBS became the University of Botswana, Lesotho and Swaziland in conformity with the names chosen after independence of the three countries. On 20th October 1975, the National University of Lesotho (NUL), was established through Act No. 13.

The University has a student population of about 2000, of which between 15 and 30 are postgraduate students and a staff population of around 300. The University has seven faculties and four specialised institutes. The faculties are those of agriculture, humanities, law, science, social science, education and the Faculty of Post-Graduate Studies. The four institutes of the Institute of Extra-Mural studies (IEMS), Institute of Southern African Studies (ISAS), Institute of Education (IE) and the Institute of Labour Studies.

The exact number of computers available on campus is quite difficult to estimate. However, various (brand names and clones) microcomputers are being used in the University. The major users of computers are the Computer Services Unit (CSU), for the development and management of various management information systems; the University Library, for information storage and retrieval and management of an integrated library system; the Department of Mathematics and Computer Science (MACS) for teaching purposes; the Bursar's Department for financial management; and the documentation centres of the Institute of Education and the Institute of Southern African Studies for information storage and retrieval activities. The use of computers for word processing purposes is wide spread in all the university departments. Various applications software products are being used in the University and these include WordPerfect, Microsoft Word, Excel, Lotus 123, Ventura, SPSS PC+ and Harvard Graphics. The University Library is using Styliis Library Management System and Unesco's Micro CDS/ISIS while the Academic Office for its Student Information System is using the Integrated Tertiary Software (ITS). The documentation centres at IE and

ISAS are using Q & A and Micro CDS/ISIS respectively for information storage and retrieval activities.

Local area networks have been set up in the University Library (Novell Netware 4.1), Computer Services Unit (UNIX and Novell Netware 3.12), Institute of Education (Novell Netware 2.1) Institute of Southern African Studies (Novell Netware 4.1), Development Planning Office (Lan Manager) and the Department of Mathematics and Computer Science's Computer Laboratory (Novell Netware 4.1). Plans are on paper to integrate the local area networks into a campus wide area network, funds permitting.

Electronic Connectivity at NUL

The first introduction of electronic mail in the University was done at the Institute of Southern Africa Studies (ISAS), an interdisciplinary research institute specialising in Southern Africa studies, in March 1993. ISAS established a dial-up electronic mail connection to Rhodes University, in Grahamstown, South Africa, using SNUUPM (a combined SNews/UUpC/PMail) as the communication software and a 2400 baud modem. The facility was installed on a stand alone microcomputer for use by internal staff only. It operated as a point of the University Network (UNINET) of South Africa. Each individual user had a personal e-mail address. The system was being administered by a lecturer in the Department of Mathematics and Computer Science (MACS).

Since the ISAS E-mail was exclusively for its staff members, in July 1993, the Institute of Education Documentation Centre, which is also the country's national focal point for the International Environmental Information System (INFOTERRA), decided to introduce its own electronic mail system in the centre. The system was to be used for communication with other national focal points in the sub-region. With the assistance of INFOTERRA Regional Office in Nairobi, Kenya, a number of microcomputers and a 2400 baud modem were purchased for the Documentation Centre. The modem was going to be used to connect the centre to an electronic network, WorkNet in Johannesburg, South Africa, using Marimba communication software. Unfortunately, the Centre had no external telephone lines that could be used for dialling into the host machine and so E-mail system could not be installed at the Institute. As an alternative, the modem and marimba software were installed at the Thomas Mofolo Library on a computer used by the University Librarian's Secretary. This arrangement and the system never worked.

The Computer Services Unit E-Mail System

The National University of Lesotho Computer Services Unit (CSU) is responsible for the development of management information systems in the University. Since late 1993, the CSU has been involved in implementing a computerisation project called the NUL - Micro Project. The main objectives of the project are to introduce management

information systems in the University and facilitate the establishment of a connection of the University Library to the Southern African Bibliographic Information Network (SABINET) in the Republic of South Africa. The NUL - Micro Project is funded by the Netherlands Government through the Netherlands Organisation for International Cooperation in Higher Education and is being implemented within the programme of cooperation between the Vrije Universiteit Amsterdam and the National University of Lesotho. So far, under the Project, a computerised Student Information System (SIS) has been implemented. Other systems to be installed are the Personnel Information System (PIS), Financial Information System (FIS) and the Estates and Maintenance Information System (EMIS). The Library SABINET link is also yet to be established.

In October 1994, following several requests from the teaching and research staff of the University community, the CSU decided to set up an electronic mail system in the University. The decision to implement electronic mail in the University was also later supported by the University Computer Steering Committee, an advisory body on all matters relating to the development and utilisation of information technology in the University. The Committee also mandated the CSU to explore the possibilities of providing e-mail services to other institutions in the country.

E- Mail Hardware and Software

The CSU purchased and installed an IBM, 486SX-66Mhz microcomputer with 16MB main memory and 1GB SCSI hard disk as the mail server. LINUX was installed as the operating systems and UUCP used as the communication program. Around 25 microcomputers and laptops have access to the mail server. These are connected through the use of the University's internal telephone system and modems. SNUUPM and WinMail are the communication software installed on the microcomputers. The mail server uses two US Robotics 14400 modems (one outgoing and one incoming) while various types of modems are used by the system users and these range from 2400 bps to 28000 bps.

The CSU E-mail system was set up as a dial-up node of the South African University Network (UNINET), which is funded by the Foundation for Research and Development (FRD). The Computer Services Unit has no external telephone lines and calls to Rhodes University are made via the University telephone switchboard, using the zero dial. Calls to the host computer are mainly made at night when the telephone lines are said to be quite stable and reliable. Even though this is the case, sometimes 30 or 40 calls in one night are necessary to send and receive all E-mail messages (Van der Heijden 1995).

Financial and Technical Assistance

The setting up of the CSU electronic mail system received some assistance from outside the University. Funds for the purchase of the computer equipment came from the NUL - Micro Project. After the equipment had been purchased, the Pan African Development Information System (PADIS) of the United Nation's Economic Commission for Africa (UNECA) based in Addis Ababa, Ethiopia, sent its electronic networking expert based in South Africa to the CSU. The expert spent four days assisting the Unit in setting up and configuring the system.

System administration

The CSU E-mail system is the largest electronic mail system operating in Lesotho and it requires proper administration for it to run smoothly. After setting up the system, the need to train a system administrator was high on the CSU's agenda. This was unlike in the system that was set up previously at ISAS where administration of the system was being done by a member of staff in the Department of Mathematics and Computer Science. A computer science graduate [B.Sc and Honours (Computer Science)] was recruited and later sent for training in South Africa in the areas of UNIX, UUCP and TCP/IP administration. Funds for training were also provided by the NUL-Micro Project. After training, the person was put in charge of the entire E-mail system and handled all activities from installation of modems and SNUUPM to trouble shooting on the mail server and also provided technical support on all the points on campus.

USING E-MAIL AT NUL

By the end of December 1995, the use of electronic mail among the University teaching, research, library and documentation staff was slowly becoming popular. To find out the extent and purpose of E-mail use on campus, a questionnaire survey, supplemented with personal interviews, was conducted from 1st December 1995 to 31st January 1996. The questionnaire requested information on whether the respondent had access to a computer with electronic mail facilities; was using electronic mail and if so for what purpose; any benefits of E-mail communication; limitations of the CSU E-mail system; and also requested for suggestions (if any) to improve the University e-mail system.

The Computer Services Unit supplied a list of departments in the University that had installed E-mail points. Using the University's internal telephone directory and personal inquiries, a list of 60 teaching, research, library and documentation staff working in departments that had E-mail facilities was prepared. Questionnaires were distributed to five of the faculties, two institutes and the University library, using the internal postal system.

Data Analysis and Discussion

All together, 53 copies of the questionnaire designed were returned representing 88.33% response rate. However, 19 (35.85%) respondents indicated that they were not using E-mail, leaving only 34 (64.15%) copies for inclusion in the data analysis and discussion. Of the 34 e-mail users, 21 (61.8%) worked as lecturers, 5 (14.7%) full-time researchers, while the remaining 8 (23.5%) were library and documentation staff.

Location of E-mail Machine

Except for 2 (5.9%) respondents who had installed SNUUPM on their personal computers at home, all E-mail users at the National University of Lesotho have access to machines located at their work place. Most of them, 19 (55.9%), use machines installed in their faculty or departmental computer rooms, while 13 (38.2%) have access to machines used by their departmental secretarial staff.

The installation of E-mail communication software on computers used by the secretarial staff had a negative impact on the use of the facility by members of staff. In fact a large number of the 19 people not using electronic mail indicated that this was because the computer on which the communication software was installed is located in the Secretary's Office. The machine is usually occupied by the Secretary doing office work and is rarely free. However, they indicated that they would like to have free and unlimited access to E-mail and were exploring the possibility of purchasing computers for use in their offices.

Using E-mail

Sixteen (47%) respondents used E-mail at least twice in a week, while 12 (35.5%) used it occasionally (once or twice in a month). Only 6 (17.6%) indicated using e-mail on a daily basis. About 50% of those using E-mail had used the facilities before, mostly when they were either studying or working abroad. Regarding E-mail traffic, around 86% of the messages sent are destined outside Africa, 13% within Africa and 1% within the University campus.

The large volume of messages destined outside Africa is as a result of a number of factors. The level of electronic connectivity outside Africa is quite high and therefore it is not surprising to note that a large number of e-mail traffic is destined outside Africa. Most e-mail users at the National University of Lesotho appeared to have established contacts with their colleagues working or living abroad, mainly in Europe and the United States of America. Communication within Africa is mainly with institutions and colleagues based in the Republic of South Africa. However, it was also generally indicated that E-mail users have problems trying to locate E-mail addresses of colleagues to communicate with in Africa and they are generally not aware of academic institutions

with access to electronic networks on the continent.

Internal communication within the University campus is still depended on traditional communication methods: the use of telephone and internal memos. This could be attributed to the fact that E-mail facilities are not generally wide spread on campus. While almost every University employee has access to a telephone, very few have access to computers, and worse still to E-mail facilities. E-mail communication within the country is almost non-existent. Very few institutions in the country have access to electronic networks and these are connected to South Africa. In the absence of an E-mail directory, it is very difficult to know who has access to E-mail facilities in the country.

The Use of E-mail

All respondents (100%) indicated that they mostly used E-mail for personal communication. Using the system for official communication purposes received only 62%. Within the personal and official communication activities, E-mail users were asked to indicate the activities for which they used E-mail.

Table: The Use of E-Mail by Respondents
(N= 34)

Activity	No.	Percentage
Day-to-day activities	20	58.82
Exchanging research ideas	15	44.12
Arranging meetings /conferences	11	32.35
Exchanging computer files	6	17.65
Receiving technical advice	5	14.71
Discussion groups(listservs)	4	11.76
Managing projects	3	8.83
Co-authoring papers/books	1	2.94

The figures above indicate that on the overall, there is an under utilisation of electronic mail at the National University of Lesotho. Of the total 34 E-mail users, only 1 (2.94%) indicated using the system or having used it for co-authoring a book. Worth noting is also the fact that only 4 (11.76) respondents indicated using E-mail for accessing discussion groups or mailing lists. Electronic networks provide a large number of discussion groups which are accessed via E-mail. These provide a wealth source of

information to both academic and research staff in universities using dial-up facilities. They also provide an opportunity to researchers to network with their colleagues. Subscriptions to discussion or interest groups is one major use of electronic mail. Unfortunately, it appeared that very few members of staff at the National University of Lesotho are aware of the existence of discussion lists in their specialised or subject areas of interest.

Benefits of Using E-mail

All E-mail users at the National University of Lesotho indicated that electronic mail has improved personal communication, especially when communicating with colleagues in Europe and the United States of America. Users indicated that the time from sending a request for information and receiving the requested information or a response from abroad has been reduced to three days in most cases as opposed to about one month when the postal system is used.

The ability to send computer files using E-mail has also been found to be one of the major benefits and advantages of using the University e-mail system. Abstracts for conference papers and journal articles for publications have been sent using E-mail, and thus meeting the deadlines. In a few cases, some members of staff continuing their education through distance learning have been sending their work assignments via E-mail. A visiting University Professor from the United States of America continued co-authoring a book with his colleague in America using E-mail.

Problems Being Encountered

Among the major problems and limitations being encountered by electronic mail users at the University are frequent telephone breakdown, limited training provided to users, inadequate technical support and the absence of user manuals for the system.

Telephone break downs between the National University of Lesotho and the Maseru exchange are very common and at sometimes it takes close to two weeks to rectify the faults. During telephone break down period, transmission and receiving of E-mail messages to and from the host computer at Rhodes University, in South Africa is interrupted.

With regards to training in the use of SNUUPM software, due to staff limitations the Computer Services Unit is only able to provide very limited training. This is done mainly at installation of the system when basic instructions on how to create and send messages are offered. As a result of this situation, most users do not fully exploit the features provided by the software. Only 7 (20.6%) respondents indicated that they were sure that they were fully exploiting the E-mail system. In addition, most users are also not aware of SNUUPM's online manual. The limited knowledge of the facilities provided by

SNUUPM has made it difficult for most E-mail users to exploit the software fully. Sending of computer files is done by very few users, so is the use E-mail distribution lists and sending of carbon copies (cc). Using E-mail for retrieving files from some anonymous FTP sites is rarely if not, never done. The shortage of staff at the Computer Services Unit has also affected the provision of technical support to E-mail users.

Suggestions for Improvement

Seventeen (50%) respondents suggested a full Internet connection, while 2 (5.9%) suggested appropriate training. One (2.9%) each suggested the installation of a campus wide area network, improved power supply, setting up a campus BBS, and production of an Internal E-mail directory. Twelve (35.3%) respondents did not indicate anything.

Full Internet connection for the University is long overdue. Use of the Internet will provide the university staff with a wide range of information facilities and tools to use in their daily work. Unfortunately, there appears to be a problem with the Lesotho Telecommunications Corporation (LTC), the sole telecommunications services provider in the country. For almost one year, LTC has been unable to provide appropriate telecommunications lines to the University to enable it get a full Internet connection.

Installation of a campus wide network will facilitate the access to Internet facilities by staff. The plans for the campus network are already in place and once funds are made available it will be installed. However, it should be noted that concentration of computers on campus is in very few places. There is an urgent need to encourage the use of computers by members of the teaching and research staff. Only then will the concept of a campus wide network be feasible and appreciated.

The question of the power supply to the whole University, as already indicated above, should also be critically examined. Power supply to the University is very unreliable and not stable. There is always an interruption of power supply whenever there is a strong wind or heavy down pour. The power back-up generator system for the University is very old and also breaks down very often.

Conclusion

There is an urgent need to intensify the use of electronic mail at the National University of Lesotho. Lecturers and researchers should take advantage of the system's capacity to enable them participate in various discussion groups. Information retrieval, exchange of research information and results are some of the facilities that need to be exploited. The library and documentation staff should also exploit the various uses of E-mail in the provision of library and information services. Use of the system for the request of interlibrary loans from libraries in the Republic of South Africa should be enhanced. Serious consideration should also be given to the introduction of full Internet services.

This will provide the teaching, research library and documentation staff with a vast amount of information.

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Modern Trends in Sourcing Legal Information

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Abstract

The advent of the computer and information technologies has now made it possible to have a supplement to printed formats of primary and secondary sources of legal information. This paper identifies and discusses the Internet, commercial on-line databases and CD-ROMs as the modern options of sourcing legal information. The writer provides an overview of the impact of information technology on legal information. The concluding part is a situation report of the usage of these modern technologies for sourcing legal information in Nigeria with suggestions for improvement.

Introduction

Current developments in information technology have affected all spheres of human life not leaving out the legal profession. Law is an information reliant subject, and those in the legal world, more often than not, have to update their knowledge on principle and latest court decisions by consulting law reports, legislation, statutes, Acts etc. In fact, Dada (1989) has referred to the law library as the laboratory of the legal profession. There is therefore the need for those in the legal world namely students, academics/researchers, practitioners, members of the judiciary and law librarians to adapt to latest technological developments.

Modern technology now makes it possible to view and access library collections of universities, law firms and courts, Library of Congress and so on. This no doubt complements the speed at which library users can gain access to information from around the world compared to the manual method of printed works. Obilade (1996) sees a computer as an electronic library and asserts that an ideal law library of the 21st Century is one that uses all the electronic networks for the purpose of the dissemination of information.

This new information revolution no doubt is also aiding the effective administration of justice especially in developed countries of the world. Jegede (1995) during her visit to the United States in December 1992, observed in one of the reports of the National

Centre for State Courts that:

By creating separate workstations for the judge, defence attorney, prosecutor and court clerk and then transferring all files related to a criminal case on to a magnetic disc, all participants will have an instant access to the documents. The clerk will use a scanner to immediately add newly introduced documents to the disc, making exhibits available, to all workstations, thereby speeding legal process.

Furthermore there is a two-way audio-visual microwave link between court houses and confinement facilities to allow court sessions to be transmitted live instead of having to transport prisoners to courthouses. The use of the computer to enhance the administration of justice was further demonstrated recently at the O.J. SIMPSON trial case in the United States of America as attorneys were able to refer to files of information on their personal computers inside the court-room.

It is possible to have access to worldwide law library collections of universities, courts, firms, research institutions and the Library of Congress through the Internet. For legal practitioners, researchers and members of the judiciary, it is possible to view important court sessions and proceedings on the Internet. Since the law is not static and it keeps changing, Internet makes it possible for legal information to be very current.

The Internet has in its files collections of GLIN-Global Legal Information Network. GLIN is a creation of the Library of Congress Law Library. It provides access to laws of foreign countries and the United States to its 10 member countries. Recently an agreement was signed by the Library of Congress and the National Aeronautics and Space Administration's Goddard Space Flight Centre (NASA) to upgrade GLIN and ensure an interactive usage of the database as a digital library anywhere in the world. GLIN was created to improve the services of the Law Library to Congress which often needs information on foreign countries. This in addition to the Internet gives users an instant access to the laws of some other jurisdictions of the world. There is also on the files of Internet, an American databank, DIALOG which contains 19 databases on law and government of different American states.

LEXIS-NEXIS, JUSTIS, LAWTEL are all on-line legal databases. They contain full texts as well as indexes of primary sources of law i.e., statutes and law reports. They cover the following jurisdictions: England & Wales, Scotland, Ireland, Australia, New Zealand, France and the United States of America.

These databases have been in use for over a decade in law schools, lawyer/attorneys chambers in the U.K and U.S. One of the advantages of these modern trend is that they are capable of finding cases and interpreting statutes. They are also updated making it possible to have access to current legal developments such as the day's court decision.

Acts and Orders published or coming in force, thus making it an absolutely reliable source of information. According to the records of CD-ROMS IN PRINT 1993, there are about 203 compact discs commercially available on law. In fact in the United States every state has its statutes and legislation on CD.

In Australia, the Judicial Commission of New South Wales has created SIS-Sentencing Information System, a computerised statistical and legal database designed to assist judicial officers in achieving consistency of approach on similar types of offenders for similar types of offences and it is being made available to other common law jurisdictions.

Situation in Nigeria

To date, Nigeria is not on the list of African countries which are directly linked to the Internet. Recently, Rapide Network was created by Pan -African News Agency (PANA) to give Africa access to Internet, 'Rapide' can be linked in Midrand, South Africa. But the Yaba College of Technology, Lagos is supposed to be the largest Internet centre in Nigeria, linked via South Africa. Similarly the Kenneth Dike Library of the University of Ibadan, the Medical Library of the same institution and the International Institute of Tropical Agriculture are also linked to the Internet from various networks with facilities for E-mail services. A major obstacle to the full connection to the Internet has been funding despite the fact that there are about 80,000 users of computer in Nigeria, with a recent study showing an enthusiastic clamour for sourcing legal information. Much attention is still centered on the printing and acquisition of printed law reports, decrees and other sources of legal information. The most common law report being used in Nigeria law libraries is the Nigerian Weekly Law Report which is yet to be in an electronic format.

Just recently, an indigenous software known as SMARTLAW was introduced. It is made specifically for the Nigerian market. It contains decided cases from the Supreme Court and Appeal Court from 1995 to June 1996, Acts, Law of the Federation 1990, Decrees from 1991 to date, selected foreign Acts, Forms and Precedents. The introduction of SMARTLAW into Nigeria court rooms will ensure speedy and fair trial of cases (Idowu, 1996).

At Ibadan, in the south west of Nigeria, there are over two hundred legal practitioners' chambers. Out of the twenty visited, only 10 of them can be said to have a library as they had extensive collections of primary and secondary legal materials. Only two out of these 10 had computers. One of the legal practitioner's chambers belongs to a Senior Advocate of Nigeria (a very senior member of the Nigerian Bar) and the computer documents library material only.

The reasons given by most of the lawyers whose chambers were visited for the non-use of modern technology in sourcing legal information is the state of the economy which has affected their practice and their ability to purchase necessary materials. It is worth noting that even in the absence of the use of modern technology, lawyers still find it difficult to purchase legal textbooks and law reports which are vital to updating their information level. Some have even resorted to borrowing from senior colleagues since they are unable to purchase their own copies. One is left to wonder how they can afford to buy a computer when they could not even buy the printed formats.

During visits to the various courts, that is customary, magistrate, high courts, courts of appeal and the Supreme Court in the four south-west states, it was observed that none of them has considered the use of electronic formats in sourcing legal information. The various court librarians were still much engrossed in tackling bureaucratic strategies of getting funds to update their libraries.

Out of the 11 databases currently being used at the Kenneth Dike Library of the University of Ibadan, none of them is for law. A study on end user acceptability of information retrieval on CD-ROM showed that a high degree of acceptability of the use of CD-ROMs in the libraries in the future is not totally ruled out if they are adequately funded (Mosuro, 1996). Other university law libraries visited were the Universities of Ilorin, Lagos, Obafemi Awolowo University, Ile-Ife and Ogun State University. No electronic formats were being used in any of them. The libraries were still busy tackling the issue of updating and preserving their print collections.

The Nigerian Institute of Advanced Legal Studies is the only legal research institution in the country. A visit to the Institute showed that even though the library system is rounding up its computer installation for automation, classification and cataloguing and collection development, it is yet to start sourcing information using modern trends such as Internet, CD-ROM or other on-line sources.

The Nigerian Law School, where law graduates undergo a training in practice and procedure, is yet to start using modern technology in information sourcing. In addition to the above, participants at the National Conference of Nigeria Association of Law Libraries in April, 1996 expressed that academic and court libraries are yet to start the use of electronic formats for sourcing legal information. Also, it was observed that the non-use of information technology in law libraries is not as a result of the lack of expertise in using the tools. The problem lies in the cost of purchasing them.

Discussion

The information technology revolution has provided tremendous opportunities for progress and transformation as well as challenges. It has witnessed more significant developments in the United States, where it is being used to effectively administer

justice. Even in education and research, there is a variety of electronic formats to supplement sources of legal information. Also, virtually all the states in America have their own legislation and statutes printed on CD-ROM.

In the United Kingdom, law students enjoy facilities on LEXIS-NEXIS and LAWTEL, donated to their institutions. But it has been observed by Hartley and Williams (1991) that information technology has only affected the daily operations of the legal professionals only in large city firms and not "in an area such as rural Wales". This, according to him, may be partly due to the innate conservatism of the legal profession". Whatever the excuse advanced, there seems to be alternative to meeting up with the rest of the world.

Various arguments have been advanced on the use of electronic format in Nigeria. The advantages range from reduction in costs of having to buy extra copies, binding and rebinding for larger number of users, drastic reduction of physical handling and theft of documents, original copies of casebooks, precedents and law journals. In addition to this, sourcing legal information, using modern technology, encourages the user to be more engaging. Imagine having to write a brief or finding out cases for a legal research in a modern library! Anyone who is familiar with the computer would admit that it is faster and more interesting than having to walk round locating law reports and books and looking through the pages.

Modern technology on the contrary has been put down as being too expensive, to make initial purchase and to maintain, coupled with the erratic electricity supply in the country. It is worthy of note that economic recession is a global issue which is being tackled. As a developing country, it is an inevitable hurdle to development; and it has to be crossed. Undoubtedly, many more people and institutions will buy computers and hook on to internet in the near future.

Conclusions and Recommendations

Having observed that law is a heavily information reliant subject and noting that most universities, research institutions and courts lack adequate funding, there is a need to find other means of sustenance besides the government. The legal profession is often referred to as a "noble" one and there are a number of well meaning people in the profession. From the discussion, it is obvious that the profession is yet to take advantage of the modern sourcing of legal information using information technology, nevertheless the legal profession in Nigeria cannot afford to be outside this revolution. This writer is suggesting that they set up functioning foundations, and endowments that will aid the installation and maintenance of modern technology in libraries in the universities, the Nigerian Law School, Nigerian Institute of Advanced Legal Studies and in all levels of courts. This will further enhance the image of the profession and also serve as a form of encouragement for students and lecturers/ researchers. Recently at a donation of a

complete computer by the Modern Business Machines (MBM) to the College of Medicine, University of Lagos, the chief executive of the company noted that:

Nigeria's research centres and tertiary institutions are still locked in the mould of manual information sharing and dissemination even now that their counterparts all over the world are hooked to the Internet. (Guardian Newspaper May 19, 1996.)

Furthermore, there is a need for all alumni associations of law faculties to help their various institutions, and for the Nigeria Universities Commission to mandate academic law libraries to have in their libraries computers with CD-ROMs.

The cost of installing and maintaining on-line databases might be expensive in the first instance, yet it is absolutely becoming a necessity as it will reduce the cost to be spent in updating foreign collections in any law library considering the cost of shipping, clearing or even agent's fees if that be the case. It is therefore being suggested that an on-line facility be made available at the Nigeria Institute of Advanced Legal Studies where law libraries can have access to necessary information and possibly download.

Efforts are being made to compile printed indexes and abstracts on Nigerian legal materials. Notwithstanding, the Nigerian Association of Law Libraries should also address the possibility of creating a Nigerian legal database. African academic communities have often been criticised for not sharing their research resources. Adams (1995) identified two factors that contribute to the general weakness of the academic community in using electronic networks and other computing tools to process and share information as lack of a culture for sharing information and resources and inadequate appreciation of technology.

No doubt, these factors have slowed down a lot of research work. But events of these past two years show an appreciation of the new technology for sharing information. It is suggested that faculties of law in Nigerian universities, together with court libraries should form a joint network, making the Nigerian Institute of Advanced Legal Studies as a base to form a local network.

Lastly the Federal Government of Nigeria should add in the provisions of the Telecommunications Decree that university libraries and research institutions enjoy electronic technology facilities at very reduced and subsidized rates. This will ensure accessibility to information to all.

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YEMISI DINA

Computerisation Efforts in Botswana Libraries: A State of the Art Review.

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Abstract.

Much has been reported on many cooperative efforts in Botswana, but little or nothing has been done in the area of computerisation. Of the nine academic & research libraries surveyed, six of them are computerised. The others are seriously considering the idea to automate. There are three library packages in use namely, Micro CDS/ISIS, TINLIB and BIBELATION. One library used dBASE to develop its database. All libraries used IBM compatible PCS with one having an HP 9000 Unix minicomputer also. Services provided from local databases, CD-ROM, and the Internet include SDI, accession lists, reading lists, OPAC, and information skills training for users. The study also revealed that the issue of getting the appropriate library systems expert is a problem.

Introduction

Water is known to be a scarce commodity in most desert areas of the world and is therefore treated as such. In Botswana, the judicious use of scarce commodities is not only restricted to water but to all resources available to it. The general watch word is to share, with a view to avoid unnecessary wastes. Library and information resources are not excluded. Long before the actualization of automation in libraries services, efforts have been in place not only to share information resources within the country, but also within the region. According to Namponya (1993), this gave birth to projects like the Southern African Centre for Cooperation in Agricultural Research (SACCAR) located in Botswana and which Qobose (1990) reported led to some strong interlibrary lending practices within libraries in Botswana and with other libraries in the region.

Most libraries and information centres in Botswana which are largely located in one city Gaborone, are highly specialized. The need not to duplicate efforts is therefore highly appreciated. Apart from SACCAR, Kwafo-Akoto (1994) revealed that there is the Development Sciences Information System (DEVSIS) located at the National Institute

of Development Research and Documentation (NIR) of the University, which caters for the information needs of planners and decision makers responsible for economic and social development. Other specialised libraries are those of Botswana College of Agriculture, the Department of Agriculture, the National Productivity Centre, the Botswana Polytechnic now the Faculty of Engineering and Technology of the University.

The three main libraries in the country, the Botswana National Library Service (BNLS), the Botswana National Archives and the main library of the University of Botswana also cater for their own special clientelles. Almost all the above named libraries are already computerised or seriously considering going that way.

Computerisation, if well planned and coordinated should enhance resource sharing for greater benefit to all. Information on the ground seems to reveal that libraries are not comparing notes. Some are keeping their automation efforts too close to their chests which might lead to unnecessary wastes. Nobody seems to know what the other library is doing. This could lead to avoidable mistakes made in other developing countries. Studies have been carried out on what is on the scene in library administration (Thapisa, 1993), interlibrary loan (Qobose, 1990) and CD-ROM (Sison, 1988) but nothing seems to have been done on automation efforts in Botswana. This survey covers only research and academic libraries in tertiary institutions in Botswana. All the seven libraries listed in the IL Manual for the Southern African Interlending Scheme (except one) were covered in this survey. The author however included some three other libraries which were not listed.

Data for this work was collected through visits and interviews in 1995 and 1996. Other information was also gleaned from documents issued by relevant bodies and professional journals.

Findings.

The Botswana Polytechnic Library

As at the end of 1995, the law merging the Polytechnic with the University of Botswana as the Faculty of Engineering and Technology was not in place. It was only formally merged in January 1996. Therefore, a separate report would be given on the Polytechnic.

The Polytechnic started off in 1962 as the Botswana Training Centre and a small book collection was initiated in 1979. With an annual budget of about P50,000.00 (about \$19531.25) the library presently has about 12,500 volumes, including books and journals (Mavudzi, 1993; Kazembe, 1992).

The library has four PCS namely Compaq Deskpro, Compaq Prolinea 4/255, NEC Powermate 1 plus and Epson PCS. It also has one Sony CD-ROM drive, a Mountain Filesafe 400 external hard disk drive (120Mb) and a Hewlett Packard LaserJet 41 printer. Software in use includes Word Perfect versions 5.1 and 6.0, and DBASE IV.

Using DBASE IV, the current librarian developed an acquisition database which has been used to process more than 4000 books in the last one year. All orders since 1990 have been keyed into the database with a view to monitor the performances of the eight vendors currently supplying the library's book orders. The database provides detailed information on numbers of orders made, received, claimed, still outstanding, by each vendor. It also calculates each vendor's response rate on orders given to them over a period of time. This has helped the library management to scientifically justify the need to continue to use or withdraw, the services of book suppliers. The database is also used to alert the Polytechnic staff about the arrival of new books on a regular basis.

More than 280 records of serial titles held (1995 subscriptions) in the library are kept in another database. Another database of more than 20,000 book titles is also in place. These records also include records of books in the present card catalogue. A circulation control database is being developed. In addition to its local database, the library provides about 12 CD titles on science and technology which are currently held by the library. Some of the titles include: CITIS on Civil Engineering/construction from 1972 to date, Construction Criteria Base (CCB), DIALOG ONDISC, Environment Abstracts CD-ROM 1975 to date, and EMVIRO/ENERGYLINE Abstracts - plus, 1971 to date. Others are ERIC on Silver platter, LISA Plus 1969 to date, CTI Plus 1981 to date, McGraw-Hill Science and Technical Reference Set, ISAP on CD-ROM 1987 to date, Elsevier Science Catalogue 1994, and Book find CD-ROM World Edition.

The Department of Agricultural Research

The library began with a small reference book collection in the 1930s, about the same time the Department of Agricultural Research Station also started near a town called Mahalapye. The station which was shifted to Sebele, a few kilometres outside the capital city of Gaborone was set up to carry out research in the development of improved varieties on grains, sustainable farming systems and livestock in semi-arid regions.

As at the end of 1994, the collection had grown to more than 10,000 volumes of books. The library subscribes to 100 journals and another 60 serial titles on exchange programme basis. The library can also boast of 733 slides and 2867 microfiche collections. It is also a depository of all publications of the station's supervising ministry, the Ministry of Agriculture and other related ministries.

In order to be able to give the best service to more than 200 technical and 60 professional staff of the Ministry of Agriculture and also serve the neighbouring College of

Agriculture, the library acquired some computer equipment and adopted the use of some machine readable journal and abstracting services. Its computer hardware includes a Compaq Deskpro PC, a Hewlett Packard LaserJet III printer and an LMS CM223 CD-ROM drive. Software in use includes Micro CDS/ISIS and Word Perfect. Full text and abstracting services on CD-ROM and diskettes in use in the library include: Livestock Research for Rural Development Journal on diskettes, published by the University of Guelph; Ontario Agricultural College, Department of Animal and Poultry Science from 1989 up till 1993; TROPAG and RURAL on CD-ROM; AGRIS on CD-ROM; CAB Abstracts on CD-ROM; and CABPEST CD.

The current awareness services of the library have been improved by providing alert services on new acquisitions to researchers. This is produced from an in-house database and from the Journal of Livestock Research for Rural Development. Profiles of researchers have also been compiled and an SDI service provided using the library database. An on-going research database has been developed using the CARIS input worksheets on Micro CDS/ISIS database. Plans are on not only to capture data on-going research from researchers in the Ministry, but also from all researchers working on Botswana Agriculture. A directory of current agricultural research in Botswana would be published from such gathered data. Efforts would also be put in place to ensure the data from the database are made available to FAO's CARIS database in Rome for a world wide uses. Products from the in house database include:

- * Acquisition List.
- * Serial Holdings.
- * Theses and Dissertation List.

National Institute of Development Research and Documentation (NIR) Library.

Set up in 1975 as a documentation centre of the University of Botswana, the Institute became a research centre in 1978 to coordinate and carry out research on socio-economic development, women and environmental issues that concern Botswana. The Institute also publishes, documents and disseminates information in its area of mandates.

The Library houses more than 12,000 documents consisting mainly of unpublished materials on research reports, conference and seminar papers, and government publications. Newspaper clippings are also kept. Probably the first library to computerise its operations (which was started in 1986) in Botswana, since then a few land marks have been recorded. Starting with a PC, the hardware resources of the library have grown to three PCs and two printers. Four separate databases using micro CDS/ISIS software are now in place namely: Libra (1752), Newdoc (1206), Newarv (2848) and Energy (1030).

These databases contain records of documents acquired from 1985 to date. Plans are on to integrate these databases into a single database as soon as the right expertise and hardware are in place. Services automated to date include:

- * Selective Dissemination of Information (SDI).
- * Research Directory Database (RESDIR) developed to store records on completed and ongoing research (Moahi).
- * Circulation system developed in 1989 using DBASE III.
- * DEVINDEX - BOTSWANA SERIES.

The major problem is not having enough expertise on Micro CDS/ISIS to integrate the databases into one single database.

Botswana National Library Services (BNLS).

The BNLS with its headquarters in Gaborone started in 1968 and is made up of three types of libraries namely, academic, special and public. Administratively, there are seven divisions in the BNLS namely, Public Library Services, Bibliographic Support Services, National Reference and Special Libraries Services, Educational Library Services, Training Unit, and Research and Publications.

According to the Botswana National Library Service Statistical Bulletin, the BNLS has about 22 branch and two mobile libraries spread over the country. As at 1992, the total collection was 221931. Of their 125 serial titles, 50 are professional journals. Registered members of the BNLS as at September 1993 stood at 106102 with 972 being postal members. A total of 39871 books were issued in the 3rd quarter of 1993. The budget of BNLS has grown five times (Mulindwa) between 1985/86 and 1989/90 financial year to P275,000 (about \$107421.88).

The level of transactions and the recommendation of a consultant funded by Unesco, made the supervising ministry, the Ministry of Labour and Home Affairs, to approve the computerisation of BNLS Services. Another important factor in deciding to computerise is the fact that staffing levels have been very thin on the ground and even difficult to retain. This is probably due to the relatively poor level of conditions of service for librarians in the BNLS.

A need analysis has been carried out with the assistance of the Government Computer Bureau (GCB), the organ of government that oversees all computerisation efforts in government service. The computerisation efforts have been estimated to cost three million Pula (\$1,171,875). Plans are at an advance stage to call for tenders from computer and library software vendors that have support services in the region. The hiring of a systems librarian to oversee the automation effort is also on.

As at the end of 1995, efforts were intensified to bring a private consulting firm on board the computerisation project.

The University of Botswana Library and Information System(UBLIS).

Although the University had existed since 1964, the University became full fledged in 1982. The University library only came into existence in 1971 as a constituent college library of the University of Botswana, Lesotho and Swaziland. It is the largest library in the country and it is the most computerised, having computerised most of its services. As at the end of the 1994/95 period the UBLIS had an annual budget of over P4 million (about \$1428571) on books, journals and binding. The library had 204218 volumes of books, 12821 pamphlets, and 1475 journal subscriptions, and serves a patron's population of more than 5160.

The computerisation efforts of the library got off the ground in May 1991 when TINLIB library software was installed. Functions automated to date include acquisitions, cataloguing, serials, and OPAC. As at the beginning of the 1996/97 session, the acquisition, cataloguing, serial, and OPAC and circulation functions on the database were already in operation. Records of all materials received since May 1993 are now available on the OPAC.

There exist three OPAC Terminals on the ground floor and two each on other two floors of the library. Personalised OPAC tutorials are conducted for staff and students on demand. Information skills' instructions are also conducted for students as part of a regular university course. The skills' instruction course was first designed and implemented for students in the Department of Biological Sciences in the 1994/95 year. Library staff have been given training since the automation project started.

A CD-ROM network has also been in place since 1994. From four OPAC PC workstations, one can search the following CD titles: ECONLIT, ERIC, Information Science Abstracts, MLA International Bibliography, Nursing Allied Health, Social Work Abstracts, and SOCIOFILE. Other titles on the network include: Social Science Citation Index, CITIS, British National Bibliography, Science Citation Index, and Engineering and Applied Science. There are other 22 titles on CD which are available for searches on two stand alone CD workstations in the library.

The retroconversion exercise took sometime before it actually took off the ground. Right from the onset, the idea not to reinvent the wheel approach was adopted. Therefore IME, the supplier of TINLIB was commissioned to write import profiles to import machines readable records of the library's collection. Specifications were produced for IME for the development of import profiles on Blackwell(LCMARC & UKMARC), SABINET (and for export), Borrowers' Records from ITS personnel database, and LCMARC Names & Subject terms. IME did not provide these import profiles on time, therefore

this led to delays in records importation which in turn led to backlogs of materials to be catalogued and indexed. The 65,643 and 24,000 bibliographic records bought from SABINET and Blackwell respectively were finally imported in 1993/94 year. Records on new materials were also imported. As at the end of 1993/94 year, a total of 103652 records were imported into the database. The full automation of cataloguing procedures in this same year resulted in more than 120% increase in materials accessioned and catalogued.

Raising of orders in the acquisition module started in 1993 with the two terminals stationed in the section. In 1994, a decision was reached to only acquire materials in their machine readable form. Since then, major book suppliers now supply materials along with their respective records.

The library database was started off on a UNIX DRS 6000 but since March 1995, it has been sitting on a Hewlett Parkard 9000 minicomputer. TINLIB was also upgraded from eight to 60 simultaneous user system during in 1994. In 1994, a UPS system was introduced to cater for all the computer hardware in the library for about one hour. This helped to solve the problem of frequent power cuts which not only wasted library staff time, but enabled the library OPAC system to be available most of the time. The E-mail facility available in the University is also in use in the library.

Services provided from the database include the production of monthly faculty newsletters, accessions list, bibliographic instruction, compilation of special reading lists or bibliographies, and SDI.

The library also has had its own problems, the most important one being the recruitment and retention of a systems librarian. This problem resulted in the library not being able to articulate its needs at the onset. This in turn led the library to search for a library software which could work on the hardware (UNIX based) available at the computer centre, thus restricting their software search range. The first systems librarian who was recruited in 1989 had resigned shortly thereafter. After a long search, a systems librarian was recruited in 1993. Before then, efforts were made to employ library staff with computer experience. These measures resulted in the success stories recorded to date. Tender for expanding the library network which was scheduled to be completed in July 1993 did not go through until a year later. IME help desk response rate to queries from the library was not one of the best. This led to a total breakdown of some of the modules of the library database in the 1993/94 year. Before the coming of the HP 9000, acquisition and cataloguing modules were very slow thus a lot of time was wasted. The testing of the TINLIB software which was started in 1991 continued right on to February 1993. This delay in the implementation of the system was due to some technical problems. A lot of efforts and resources were put into place to overcome most of these problems which have finally led to the current success story as told in the University of Botswana 1994/95 Annual Report.

The National Archives Library.

The collection has existed since 1967 when the National Archives came into being. However, the materials were actually organised as a library in 1990. Although the actual collection's size is estimated to be between 20,000 and 30,000, only 13,650 titles have been accessioned as at 1991/92. The automation of the library started off in 1995 and there are about 3040 records in the database. The software in use is Micro CDS/ISIS version 3.07 sitting on an AcerPower 486 PC. From this database the first accession list was published in 1996.

The Botswana Institute for Development Policy Analysis (BIDPA) Library.

Started in March 1995, BIDPA being a non-governmental organisation, is charged with the responsibility to conduct and promote research and monitor the performance of Botswana's economy and management of public policy. According to BIDPA Internet home page window (address <http://web.idirect.com/~bidpa>), the library now has a collection of 7500 volumes, 108 periodicals, 10 newspapers, and 400 pamphlets.

The computerisation effort of the library took off in the middle of 1995 when the first librarian was hired. The software in use, BIBELATION, sits on a Compaq PC.

BIDPA library subscribes to some indexing and abstracting services on CD-ROM and diskettes. The materials on CD include: ECONLIT, Encyclopaedia Britannica, The Index to International Economics, Development and Finance, World Bank Data Indicators, and Growlia Encyclopaedia. African Development Indicators, Social Indicators for Development, and World Tables '95 are products on diskettes. BIDPA library is also connected to a dial-up Internet facility in either Johannesburg or CIS in Pretoria.

To date, BIDPA Library has its cataloguing, circulation and serial functions computerised. The catalogue is available on their OPAC. Other modules implemented in their database include management information services.

Some of the services it provides include UMI document delivery services via the E-mail, accession list compilation, and inter library services with the Southern African Development Community (SADC), South African Political Economic Series, and the University of Botswana inter library loans.

BIDPA however has some problems with dial-up facility available from Pretoria and Johannesburg. Connecting with the Internet when needed is not always possible. This therefore frustrates its efforts in getting important information on the Internet at the time they are needed. Their researchers need very current information, even on-going research by contemporaries world over, to enable them deal with the consultancy role it plays to the Government and other important organs in Botswana.

Botswana College of Agriculture Library.

Although the college started way back in 1967 at a content farm in Sebele, it only became a full fledged parastatal/institution of the Ministry of Agriculture by the Botswana Act of Parliament No. 9 on the 31st of May 1991. The college is also an associate of the University of Botswana. The college offers certificate, diploma and degree programmes in Agriculture.

Founded at the same time as the college, the library now holds more than 21 000 volumes of books, 200 periodical titles, and ten newsletters. The audiovisual stock of the library includes 250 films, 200 film strips, 126 slides and about 50 photograph collections. Appropriate staffing of the library has always been a problem. There are plans for computerisation but it has to wait until the library is fully settled down in its new building. Attempts are currently on to recruit staff with computer experience to help start abstracting and indexing of documents, provide current awareness services and also assist in its computerisation efforts.

Botswana Institute of Administration and Commerce Library.

The Institute is the oldest Botswana government training organ offering ordinary diplomas and higher national diploma in public administration and management for both the public and private sectors of the economy. The Institute Library probably had existed from 1962 but a professional librarian was only appointed in 1991 (Ntebela, 1994).

The library which has a stock of 5377 books, 25 serials and magazines, serves a population of about 70 staff and 700 students. The inability to secure a stable librarian has made the library to suffer. Thus, the idea of computerisation has not been considered.

Conclusion and Recommendations.

Of the nine libraries surveyed, six of them are computerised. Three libraries are using Micro CDS/ISIS software while the other three use TINLIB, BIBELATION, and DBASE. All these software (except DBASE & TINLIB) have Unesco ISO record import and export profiles. Special arrangement can be made with IME for such a profile to be created for TINLIB. This could facilitate record sharing among libraries in Botswana.

The hardware in use is mainly IBM compatible PCS with the University having a UNIX machine as well. With the NIR moving to the same campus with the University, three of the libraries now have access to E-mail and the Internet. The Botswana Telecommunication Corporation had full Internet facility for the country in 1996. Thus the libraries can join the information super high way and share their databases' resources online. Records of bibliographic searches can be FTPed across the Internet from each

specialised database. This option would eliminate the need to share or copy records of materials from other libraries, thus keeping the size of each library's database at the barest minimum. This would also make invaluable materials generated in Botswana available to the international community case.

The author noticed that most libraries had no standard format of record creation. For a meaningful local and international resource sharing, there is need for bibliographic records to be created in SAMARC and LCMARC. At least all the entries on each record should have full LCMARC entries. Another common problem area is having the right computer software expertise in libraries. This has greatly affected the speed at which libraries automate their functions. This problem is not peculiar to Botswana. This is a problem world over. From the author's experience, this can be overcome if libraries go out of their way to employ fresh computer graduates and send them to library schools. By "going out of their way", incentives need to be given to such graduates to attract them to the library.

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Managing Railway Records in Kenya: Development, Politics and Other Issues

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Abstract

The paper presents the efforts of the East African Railways Corporation and its successor organisations, the Kenya and Uganda Railways, to establish an effective way of managing their non-current records. It suggests that the lack of a strong archival service in the region, which could have provided guidance and direction in managing records, has been a contributing factor in the failure of the railways to implement such a service. The lack of well defined policies from the East African High Commission and later the East African Common Services Organisation was also a factor which contributed to the failure to develop an efficient records management system. It further examines the role of the Kenya National Archives in the management of records in Kenya. It argues that the Kenya National Archives has for a long time been unable to manage records generated by parastatal organisations especially the so called strategic organisations.

Introduction

Of all public organisations in Kenya, public or private, the Kenya Railways is the oldest. In fact Sir Edward Grigg who served in Kenya as Governor once remarked that the history of Kenya is closely linked to the railways. He went on to say that "it was the railways that created Kenya as a crown colony (Hill, 1949). Without the railways the history of Kenya could have taken a totally different course. It was for this reason that the management of railway records has generated considerable debate and controversy between the Railway authorities and the Kenya National Archives.

Early attempts to manage railway records and archives

When, in 1948, the East African High Commission was established as a regional body to coordinate certain common services in East Africa, the Kenya and Uganda Railways were amalgamated with the Tanganyika Railways and Port Services to form the East African Railways and Harbours Administration (Leverette, 1957). Even before this

time, the Railway authorities had shown interest in the management of railway records. For example, in 1903 Major Pringle wrote to the Foreign Office stating that:

the much needed record room for storing original drawings, record plans etc of the railway is in course of construction, but building operations had ceased on account of shortness of cement. I think the completion of this concrete building is of first importance for the risk from destruction by fire of these valuable records is considerable (Pringle, 1903).

It is also interesting to note that in 1909, the Chief Accountant warned that office space in Nairobi was becoming an issue of concern. He reported that the offices, which were made of iron sheets, were not only hot and unhealthy but that they were a security risk to the many records there. He went further to stress that if a calamity should occur, such as an outbreak of fire, "the loss sustained by the Railways would be incalculable in the destruction of its books and records (Uganda Railways, 1909). Fortunately, no disaster of that nature struck the railways. However, calamity did strike the secretariat which was gutted by fire in 1939. As a result of this fire, many valuable books and official records were lost. Except for records held at Provincial and District offices, the bulk of the records documenting Kenya's early history including those which contained official communication between London and Nairobi were lost. This meant that the only complete set of documents held locally in the colony covering the early period of colonisation and development of Kenya were those created and retained by the railways.

The management of personnel records is another area that generated considerable interest to the Kenya and Uganda railway authorities. As early as 1921, His Majesty's Special Commissioner for Railways in East Africa Lt. Col. F D Hammond noted that:

The establishment branch keeps a file for every man on the railway, except locally engaged artisans who are few in number, and native unskilled labour. At the same time, each department keeps a file for every man in that department with the same exceptions and the General Manager keeps a third file. Thus for every man above a certain grade, three distinct files are kept and none of them is usually complete. The department's file may contain information which the Chief Accountant's does not, and the General Manager's usually contains less than the two. And in the case of the Engineering Locomotive and Traffic Departments all three files are kept in the same block of buildings. In addition to this file, the Chief Accountant enters upon an establishment register full details of every man's case (Hammond, 1921).

Hammond came to the conclusion that there was need to discontinue the practice of retaining three files arguing that "the Chief Accountant has all the information he can require in his establishment register and the General Manager can always obtain any information he requires from the Department or the Chief Accountant. As will be seen

later, the problem of managing personnel records still remains unsolved.

Within the Kenya and Uganda Railways and Harbours, efforts to manage records were being made. In 1936, the organisation introduced regulations governing the disposal of records. A records disposal schedule was prepared and approved. The regulations were revised in 1948, 1952 and in 1962. Thereafter they were not revised.

By 1932, the storage and retrieval of maps and plans held by the organisation were becoming a major area of concern. This led to the introduction of a new filing system.

An East African Community archives service or a railways archives service

As noted above, the question of managing railway records began to receive attention in 1903. However, until 1948, the question as to whether railway records and archives should be managed on their own or as part of the community archives did not arise. As will be seen in the discussion below, the railways maintained a clear intention to develop its own separate archival service, but for various reasons it had not been able to do so by the time the East African Community collapsed in 1977.

The concept of a regional archives was first raised by the Governor of Uganda Sir John Hall when he wrote to the Governor of Kenya Sir Philip Mitchell proposing the establishment of an East African Archival Service. This was either to be an off-shoot of the Central African Archives or a common service under the newly established East African High Commission (Hall, 1948). Kenya was not in favour of this proposal and even refused to contribute funds towards the proposed visit by a public record official who was to advise the East African territories on the preservation of records (Kenya National Archives, 1949).

However, in 1951 Tanganyika and Uganda went ahead and invited W Hiller, Chief Archivist of the Central African Archives, to advise them on record keeping practices. Hiller, submitted a report to the Governor of Tanganyika in which he proposed the establishment of a central archives service for East Africa based on the Central African model. Hiller argued that to create an establishment for Tanganyika alone would be costly and not wholly effective. In the light of these limitations, Hiller proposed that there were many advantages to be gained by pooling materials and finances towards a centralised archive (Hiller, 1951).

There is every possibility that Hiller was in contact with D A Low, an assistant lecturer in history at Makerere University, for during this same period Low wrote to the Government of Zanzibar and raised the possibility of a regional archives based at Makerere University. In his letter to P T Miller, an Assistant Secretary in the Zanzibar

Secretariat, Low proposed that "If an East African archives scheme is not possible from Zanzibar's point of view I would urge that technical advice should be sought once again if only for a considerably modified scheme"(Low, 1953). It must be remembered that at that time Makerere University College was the only institution of higher learning in the region operating under the East African High Commission, and the proposal of transferring Zanzibar's archives to Makerere would have brought Zanzibar archives closer to potential users. It was also argued that Makerere provided a better climate for the storage of manuscript materials than the humid coast.

The proposal to establish a regional archives also became a subject of consideration in the Colonial Office in London. In 1953 Rodgers of the Colonial Office wrote to Brown, a lecturer from the Department of Sociology at Boston University who was also a member of the Ford Foundation and who was preparing to visit East Africa. Rodgers asked him to discuss the issue of an East African archives with officials in Kenya, Uganda and Zanzibar and academics at Makerere. Rodger supported the idea of establishing an East African archives under the umbrella of the East African High Commission "but with some degree of decentralisation of archives to the appropriate regions"(Rodgers, 1953).

It is difficult to imagine how Rodgers' proposal would have worked in practice. However, it might have been possible to bring all the records from the regional services including those of the railways together to form a regional archives, while leaving the records of the territorial governments within the respective territories.

The proposed East African archives failed to materialise partly due to Zanzibar's refusal to have any of its archives transferred to Entebbe and partly due to a lack of commitment from the East African High Commission to develop such a service. In a letter to Margery Perham, Sir Milner Gray lamented that his efforts "to transfer the Zanzibar archives to a central East Africa Archives to be started at Makerere" had not been successful. "The local attitude was that of a dog in a manger," he wrote, "and none of the people I approached in Uganda showed much enthusiasm about the matter." He concluded his letter by saying, "I fully realise that *ceteris paribus* the best place for preserving archives is the place where they are, but their rapid deterioration was worrying me considerably" (Gray, 1963).

The idea of an East African archive service was not totally lost. In a 1962 letter to the Vice-Chancellor Designate of the University of East Africa, Cherry Gertzel, made the following recommendations:

- The University of East Africa should concern itself directly with the problems arising out of the preservation of archives in East Africa.
- It should offer to assume responsibility for this problem by assisting each government, but most immediately Kenya, where the situation was most

- acute, to finance an archives survey in that territory.
- The university should employ a suitable person with experience of the country and knowledge of its history, to locate and collect together all existing government records.
- Such an officer might come under the History Department of the Royal College or the Institute of Social and Economic Research.
- He should have the status of a research fellow.
- The time period envisaged should in the first place be two years.
- If the Royal College was agreeable the secretariat records in Kenya should be stored immediately in the Library (Gertzel, 1962).

Meanwhile, in Kenya, T R Cashmore a former district commissioner, was involved in research on the evolution of district administration in Kenya as well as in transferring records from district offices to Nairobi. In a report to the Kenya Government, he expressed his concern as to whether Kenya was in a position to establish an effective archival service. He went on to say:

I respectfully recommend that the Kenya Government seriously consider the following for the preservation of records. If it is considered that the country cannot afford a proper archival organization, the alternative is one based on the three East African territories - archives as part of the common services

(Cashmore, 1963).

According to Musembi (1988) despite these various initiatives, a central archives service for East Africa never materialised and the individual territorial governments embarked on separate programmes to develop their own archival institutions. In Zanzibar, a professional archivist was appointed in 1955 and plans for an archives building were developed. These culminated in the opening of a purpose-built archives building in 1964.

Elsewhere in the region, attempts were also being made to establish national archival institutions. In Uganda, an archivist was appointed and attempts were made to introduce some form of archival legislation, although these plans were not very fruitful and a strong archival service did not develop. In Kenya, an archival service was established in 1956 in the basement of the new central government offices. An archivist was appointed and archival regulations passed in 1956.

In Tanganyika, nothing much really happened with regard to records until after independence in 1961 (Cooke and Charman, 1968). The establishment of archival institutions in Kenya and Tanganyika was followed by the appointment of professional archivists - Michael Cook as Government Archivist for Tanganyika and Derek Charman as Chief Archivist in Kenya.

While archival services were being established in Kenya, Uganda and Tanzania, officials of the East African Common Services Organisation [EACSO] which had replaced the East African High Commission in 1961, explored the possibility of establishing a centralised archival service for its records. They had the support and encouragement of Charman in Kenya and Cook in Tanzania (Nyirenda, 1993).

These two professionals took it upon themselves to pursue the question of an archive service for records generated by the common services organisations. During a meeting between them and officials of EACSO, the question of an archives service was discussed fully. It was generally felt that Tanganyika and Kenya should "act as agents for EACSO records." The plan was that records created by regional bodies should be deposited within the territory where the organisation was based. However, the East African Railways and Harbours and the East African Posts and Telecommunications Departments were opposed to the idea of a centralised archive service, preferring to establish their own separate archival services.

The question of whether to establish a centralised archive service for all East African common services organisations continued to be a subject of considerable interest and was raised again by Charman in a letter dated 15 February 1965 to Mr W I Kasera, the Secretary General of EACSO. In his letter Charman pointed out that:-

EACSO Departments themselves have varying opinions of what is needed but with the possible exception of Posts and Telegraphs in Nairobi all would appear to welcome some assistance from the centre. On the other hand, it is not clear what degree of decentralisation of the older material would either be advisable or acceptable(Charman, 1965).

Despite varying opinions as to whether to have a centralised or decentralised archive service, one thing was certain. All the EACSO departments experienced problems although of varying magnitude, for instance the lack of competent staff and of adequate storage space. There was considerable scope, therefore, for an archives organisation within EACSO. "The only problem," wrote Charman, "and it is a big one - is to decide what form such an organisation should take." Charman went further to make recommendations on the nature of such an archives service and on the appointment of an expert archivist. However, he felt it should be left to the departments "to consider whether such accommodation for archives should be provided centrally by EACSO, locally by departments or regionally in cooperation with the territorial governments."

At another meeting, held on 16 March 1965, at which most of the EACSO departments were represented, it was unanimously agreed that "it was desirable to establish an EACSO archive." It was further agreed that financial aid was required from outside organisations such as the British Ministry of Overseas Development, so that EACSO

would not be placed in a difficult financial position. The meeting also resolved that the question of scope and nature of the service to be provided was to be left to the consideration of an expert archivist whenever he would be appointed (Musembi, 1988). As will be discussed later in this article, an archivist was appointed eventually but never took up the post.

While discussions continued within EACSO, Charman and Cook carried out surveys of all EACSO departments. In a 1965 report to EACSO, they observed that "a great deal of coordination is essential and without prejudice to the outcome of any future investigations we feel that every careful consideration to the economies likely to be effected by central provision of both staff and accommodation for the archives should be given consideration" (Musembi, 1988).

The momentum for establishing a records service for EACSO, which Charman and Cook had generated, was lost soon after their departure from East Africa. In the years that followed, there was an era of stagnation on the whole issue of community archives. As Musembi notes, perhaps Derek Charman's shoes were too big for Nathan Fedha, who had succeeded him as the Chief Archivist in Kenya. Although Fedha did make serious attempts to continue the good work that Charman had started, he experienced considerable professional problems. He lacked training and experience in archives and records management and professional staff to assist him. As a result there was little that he could do to create an impact within EACSO.

The idea of establishing a centralised archives service to cater for East African Community records was not totally abandoned, for the thrust to establish a Community archives was now coming from the East African Community itself. During the inaugural meeting of the East African Branch of the International Council on Archives (ECARBICA) in Nairobi in 1969, it was reported that the Community was eagerly awaiting the arrival of the appointed archivist. The report went on to outline the duties and responsibilities of the appointed archivist. It was reported that:-

First of all he is going to start with what we have, the General Fund Services. That is the Headquarters in Arusha, coordinating these activities that are directly under the East Africa Community proper. After that he will get involved and coordinate with the East African Community Corporations, like the Railways, Harbours, Airways and to see what we can share. Of course there will be resistance as to whether they will agree to let their records come to us (ECARBICA, 1969).

Nevertheless, when the East African Community collapsed in 1977 neither the community itself nor the Railways Corporation had established an archives and records management programme.

The Railway Archives and the Kenya National Archives

The problems caused by the lack of a definite policy and guidance on record-keeping from any of the three East African archival services in the period up to 1977 continued after the establishment of the Kenya Railways Corporation in 1978. As the Kenya Railways Corporation was created as a public corporation the role expected of the Kenya National Archives and Documentation Service has become more significant.

The relationship between the Kenya National Archives and Documentation Service (hereafter referred to as the Kenya National Archives) and the Kenya Railways Corporation has always been characterised by hostility, misunderstanding and mistrust. In the period up to 1977, railway records were outside the domain of the Public Archives Act Cap.19 of the Laws of Kenya, and as such the Kenya National Archives had no legal basis for investigating or even advising on how they were managed. With the creation of the Kenya Railways Corporation as a Kenya Government parastatal in 1978, its records became public records.

As noted elsewhere in this article, Nathan Fedha, who succeeded Derek Charman as Chief Archivist in Kenya, was unable to pursue the issue of establishing either a separate Railway archives or a centralised archives service within the East African Community. Fedha was replaced by Dr Maina Kagombe in 1974. During Kagombe's period, the Kenya National Archives underwent a period of uncontrolled growth, and its responsibilities came to include a wide range of non-archival functions (Walford, 1982). Ian Maclean, an Australian records management expert who spent six months in Kenya as a Unesco consultant in 1978, was "astonished at the number and range of objectives and programmes postulated by the Chief Archivist for the Kenya National Archives (Maclean, 1978). He further noted that, apart from conventionally accepted public archives and records management functions, the Chief Archivist had envisaged programmes for the retrieval of migrated archives, collection of oral traditions, the preservation of the freedom tree, establishment of a documentation centre, a programme for the preservation of sites and monuments and the establishment of an audio-visual archives. Moreover, he observed that, "the only caveat to be made is that the original and essential but less publicity catching activities in the records and archives management field must not be starved of their necessary share of resources of space, finance and management support. Ian Maclean came to the conclusion that no records management programme would succeed in Kenya without proper emphasis being placed on the responsibilities of the various arms and offices of Government

Maclean's fears proved correct. As a result of the proliferation of these non-archival and records management functions, the Kenya National Archives was unable to assist in the development of records management programmes, not only within the Government but also in other Government agencies including the Railways. This period of uncontrolled

growth came to an end in 1981 following the dismissal of Kagombe from the service. The Government then invited John Walford, a Unesco consultant from U.K to visit Kenya. Walford recommended that the functions of the Kenya National Archives be limited to those dealing directly with the management of archives and records management. Walford came to the conclusion that:

Partly as a result of the proliferation of functions and resources which have diverted attention and resources away from essential functions and partly because methods for dealing with archives as opposed to the storage of non-current records have never been adequately developed, the Kenya National Archives is failing to carry out its essential and non-essential functions effectively (Walford, 1982).

Following the acceptance by the Government of Walford's report, Kagombe who had been seen by many as Kenya National Archives empire builder was relieved of his duties. David Lyle a documentalist from Britain was appointed to act as Chief Archivist, but was soon replaced by Musila Musembi. With Kagombe's departure, it was hoped that relations between the Kenya Railways and the Kenya National Archives would improve. However, as will be seen later this was not to be the case.

By 1981, the differences between the Railways and Kenya National Archives had been sorted out, although Railway authorities continued to neglect their records. As a result of this, Railway authorities granted the Kenya National Archives the right to inspect and process railway records. In its 1981 report to the Acting Chief Archivist, the Records Management Section of the Archives proudly reported that:

We managed to appraise and list records dealing with works, traffic, organization and operations. A copy of the list was forwarded to the Railway authorities so that they could approve our recommendations for destruction and preservation or make alterations where necessary (Kenya National Archives, 1981).

However, by 1983, the relationship between the Kenya National Archives and the Kenya Railways Corporation had once more gone sour. In a 1983 report to the Acting Chief Archivist, a Kenya National Archives Records Management Survey Team reporting on the former East Africa Community records expressed dissatisfaction with the manner in which a railway official had denied the team access to the records. The Team called upon the Chief Archivist to invoke section 4 (2) of the Public Archives Act which states:

It shall be the duty of every person responsible for or having custody of any public records to afford to the Director or any officer of the service authorised by him reasonable access to such public records and appropriate facilities for the examination and selection thereof and comply without any undue delay with any lawful directions concerning assemblage, safe keeping and preservation of public

records, or the transfer of such public records to the National Archives to form part of the National Archives (Kenya Laws, 1965).

It was left to the Acting Chief Archivist to review and decide whether an infringement of the Act had taken place.

The reasons for this reluctance to allow the Kenya National Archives Team to inspect the railway records may be explained partly by historical factors. The Railways is a much older organisation than the Kenya National Archives and its staff might have felt that their records had nothing to do with the Archives. Moreover, the Railways had established a Railway Museum in Nairobi and there may have been a misunderstanding about what constituted museum objects. This is clearly illustrated by the fact that once the Railway Museum had been established in the early 1970's, one of its tasks was to undertake the processing of historical records held by the Corporation. In a 1973 annual report by the East African Railways and Harbours Corporation it was noted that:

Work continued on the preparation of exhibits including a large display case containing old cutlery from restaurant cars and "dak" bungalows and many historical photographs were mounted. Progress was made in the archives section, classifying and tabulating various records and documents (East African Railways, 1973).

The reluctance may have been partly due to the fact that the railways cherishes its records and did not even want the records temporarily transferred to the National Archives Records Centre in Nairobi for processing (Kenya National Archives, 1982).

However, new evidence indicates that the real reason for the Corporation's reluctance to cooperate with the Kenya National Archives was aroused by events that had been initiated by David Lyle, the Acting Chief Archivist. At the request of the Kenya National Archives Records Management Team, Lyle decided to inspect the environmental working conditions at the Corporation's basements in Nairobi. He was disappointed with the working conditions for the archives staff and decided to seek the views of the Ministry of Health on this matter (Kenya Railways, 1981a). A Ministry of Health official inspected the basements of Block A and Block B of the headquarters' building and made several recommendations to the Kenya Railways Corporation (Kenya Railways, 1981b). Work on the records was immediately abandoned with the hope that it would be completed when the working conditions had either been improved or the records transferred to a new storage area.

The senior officers of the Corporation held meetings with a view to identifying new storage areas for the records. While the Corporation was still attempting to implement the recommendations of the Health Officer, the Records Management Team was pressing for the resumption of work. Fearing that the resumption of the work without

having improved on the environmental working conditions might lead to more reprisals from the Ministry of Health, the Corporation chose not to cooperate with Records Management Team. The Team viewed this act as a breach of the Public Archives Act and called upon the Chief Archivist to invoke the Public Archives Act against the Corporation.

Although this analysis partly explains the experience by the Kenya National Archives in trying to manage railway records, the National Archives, approach to managing records had its own inherent problems. Notably the Public Archives Act was inadequate. This had first been noticed in 1978 by Maclean, who recommended that Section 6 which deals with the responsibilities of public offices should be amended arguing that:

The main act though quite admirable is an act for a conservative Public Archives organization obviously needs broadening to cover the wider objectives of the National Archives. In particular no records management programme will succeed without proper emphasis being placed on the responsibilities of the various arms and offices of Government (Maclean, 1978).

Five years later, the Kenya National Archives own Records Management Team in a report to the Chief Archivist, highlighted the same issues pointing out that:

Most of the creators of these records are extremely ignorant of the role played by the Kenya National Archives in respect of the non-current records. They are totally uninformed about the Public Archives Act and the need to properly organise and maintain the closed records. They either regard Archives as a mere dumping ground or else they are quite suspicious about the survey team's intentions and, therefore, very cautious at the time of contact... As a matter of urgency it is now suggested that an educative archival workshop or seminar should be organised by the Kenya National Archives to embrace all the creators of the public records with particular reference to corporations under review ... It is therefore imperative that the Kenya National Archives devises effective methods of eradicating the general ignorance, laxity and carelessness by the creators of the records and instill into them the necessity of proper management of non-current records for posterity (Kenya National Archives, 1983).

It would, however, be wrong to lay too much blame on the Kenya National Archives. Many of the problems which the Kenya National Archives was being called upon to solve were not unique to Kenya only. Most developing countries face similar problems. It might even be argued that most of the professionals in Kenya were ill-trained for the tasks they were expected to perform.

Conclusion

The above discussion has pointed out that initially the Kenya Railways did make attempts to manage its records. For example, it provided secure accommodation for its records, introduced some retention schedules and to a large extent made sure that its records survived. The Corporation deserves credit for these efforts which have ensured that its records remain intact, albeit under poor storage conditions and in spite of the records being inaccessible to its administrators and researchers.

The article has further revealed that past efforts by the Kenya National Archives to influence the manner in which railway records are managed have had very little impact. There is no doubt that there is a need for greater cooperation between the Kenya Railways and the Kenya National Archives if an effective records management programme is to succeed. Should this not happen, the present procedures adopted by the Kenya National Archives which involves conducting records surveys, sorting out records, compiling lists and leaving the records in the same stores will have to be repeated again and again. This piecemeal bottom up approach needs to be changed. The "diplomatic procedure" which the Kenya National Archives has been using to solve records management problems at the Kenya Railways does not work. The programme has failed simply because the Kenya National Archives has attempted to manage records without ensuring that all the necessary elements for an effective programme were in place. It is for this reason that this study proposes that the Kenya National Archives should be responsible for the management of records as they pass through their entire life.

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A Survey of Local History Collections in Nigerian Academic and Research Libraries

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Abstract

A survey of local history collections in a sample of Nigerian academic and research libraries was carried out using the mailed questionnaire. The findings reveal that local history collections are highly underdeveloped and had apparently been neglected in the libraries. There is a dearth of qualified librarians and bibliographic control is more or less absent. Yet a local history collection with its potentially rich database was found to be necessary and sufficient in carrying out credible historical, sociological, geographical and economic studies of the locales of libraries. Suggestions proffered for an active collection development and good bibliographic control include an effective and sustained library cooperation for acquisitions and cataloguing, twinning between libraries, recruitment of librarians with background in local studies as local history librarians, and, an emphasis on local history librarianship in the country's library schools.

Introduction

Libraries have always had an assumed or natural responsibility to their environments, that is. service to the people in their immediate community. This social responsibility has almost always defined their service orientations, culminating in their nomenclature e.g academic library (for an academic community), special library (for researchers) etc. However, social responsibility includes and transcends the narrow service responsibility of which, in the particular case of libraries, irrespective of their orientations, makes them

accountable for the collection, collation, organization, preservation and dissemination of cultural histories and relics which is more or less what a local history collection stands for.

According to Harrod (1971) a local collection is "a collection of books, maps, prints, illustrations and other material relating to a specific locality usually that in which the library housing the collection is located." It can be added that this is within space and social dimensions. In spite of its importance, 'local history collection' appears as a neglected theme in library and information literature especially by African writers. The present effort is therefore an attempt to bridge that gap.

The study of local histories is also influenced by the trend in librarianship and information science. And, in an environment such as Nigeria in which collection development is severely curtailed by severe budget cuts and a prevalent difficult foreign exchange regime, the need to develop the "local collection" should gain prominence in libraries. Moreover, local collections development would, ordinarily not cost as much as having to order books abroad. But how have Nigerian libraries fared in the collection development of local history materials? This is one of the major research questions for this study.

Also, in all tertiary institutions in the country there is a current emphasis on research into the respective geographical locales. Centres of development studies have been set up in the institutions with a clear objective to research into the locality. In the universities, this is even reflected in the curriculum as a General Studies programme where aspects of local cultures and technology are taught to all fresh students as a compulsory course. A good local studies collection in such libraries would therefore be a perfect fit in the fulfilment of goals of the institutions. Moreover, teachers can always draw data from the collection for the dissemination of knowledge or to serve as illustrations or make their lessons more meaningful (York, 1992). So, the volume and scope of local history collections were also of concern in carrying out this study.

Scope of Local Studies Collections

In order to avoid working with an undue assumption, it was found necessary to attempt a definition of the scope of local history collections. From Harrod's definition earlier cited, it is imperative that a local collection would be all-embracing of knowledge and ideas emanating from a locality. For present purposes, a modification of the scope provided in the *Encyclopaedia of Library and Information Science* (1975) has been applied. It includes:

1. Publications and manuscripts of individuals including dairies, letters, memoirs, reminiscences, sermons, theses, dissertations, interviews, recordings, films, machine readable files, plans and maps.

2. Publications and records of corporate bodies e.g churches, businesses, governments, schools, societies, labour unions, and political parties such as minutes, reports, recordings, account books, pictures and plans.
3. Local materials published or in printed forms such as books, ephemeral, film, machine readable files, maps and atlases, newspapers, periodicals, annual reports, magazines, pictures, recordings, tapes and discs

Attempts at local history collection development in Nigerian libraries have been made in some of the higher institutions, in the country but the scope of their collections may not be as comprehensive as that defined above. A recent study merely identified the following local history collections among other special collections in Nigeria's university libraries, viz:- Bauchiana in Abubakar Tafawa Balewa University, Bauchi, Bauchi, Benue, Plateau Special Collection in the University of Jos; Bishop Kale Collection in the University of Lagos; Civil War Collection in the University of Nigeria, Nsukka; Gongoliana in the Federal University of Technology, Yola and; Usmanu Dan Fodio Arabic Manuscripts in the Usmanu Danfodio University, Sokoto. (Akintunde, 1994)

Methodology

A survey research using a mailed questionnaire and observation as research instruments was carried out. The questionnaire was administered to the whole population of academic and research libraries in Bauchi and Plateau States in Central Nigeria. The libraries are:

Bauchi State:

1. Abubakar Tafawa Balewa University, Bauchi (ATBU)
2. Federal Polytechnic, Bauchi (Fed. Poly, Bauchi)
3. Bauchi State Polytechnic, Bauchi (Bauchi St. Poly).
4. Federal College of Education (Technical), Gombe (FCE (Tech)
5. College of Education, Azare (COE, Azare)

Plateau State:

6. University of Jos, Jos (UNIJOS)
7. National Institute for Policy and Strategic Studies, Kuru (NIPSS)
8. National Veterinary Research Institute, Vom (NVRI)
9. Federal Polytechnic, Nassarawa (Fed. Poly, Nassarawa)
10. Federal College of Education Library, Pankshin (FCOE)
11. Plateau State Polytechnic, Barkin Ladi (PSP)
12. College of Education, Gindiri (COE, Gindiri)

The questionnaire was designed to elicit information on the development of local history collection and it addressed such issues as date local history collection started, volume of local history collection, personnel, scope of materials in local history, their organization, among others. The observation method involved the physical examination of the collections.

The scope of study was limited to academic and research libraries to determine emphasis placed on local history collection in these libraries and to explore possibilities for resource sharing especially in the middle of dwindling funding for libraries in the country. These libraries were established primarily to provide information materials for learning and research programmes. It was assumed that much of their research will centre on the local area.

Of the 12 copies of the designed questionnaire distributed, 8 were returned and properly completed representing 66.7 percentage response. There were four from each of the states, viz:

Bauchi State

ATBU, Bauchi

Fed. Poly. Bauchi

Bauchi St. Poly. Bauchi

FCE (Tech), Gombe

Plateau State

Unijos, Jos

NIPSS, Kuru

NVRI, Vom

COE, Gindiri

Results and Interpretation

An interpretive analysis of responses is done under the following sub-headings: establishment and volume of collection, personnel, space, collection building and bibliographic control.

Establishment and volume of collection

The need to verify the status of the collection arose while trying to discover the growing pattern of the local history collection within general library development and growth. The hypothesis is that the growth of a local history collection would be directly related to the general growth of the library, so that libraries that were established earlier, should have a bigger collection than the latest.

Table 1 shows clearly that local history collection in the libraries are underdeveloped. Whereas it was expected that libraries that were long established would naturally have more collections, findings from this research have shown that the size of collection is not a function of age of library, at least from this sample. This can be seen in the figures returned for both local history and total library volumes respectively. Another interesting finding is that there is no linear correlation between total library volumes and size of

local history collection, such that libraries with the largest total collections such as Unijos and Federal Polytechnic Bauchi are not necessarily those with the highest local history collection. This pattern of growth tends to suggest that development of local history collections in academic and research libraries in Nigeria has, hitherto, never been vigorously pursued. This is attributed largely to ignorance of the potential uses of a local history collection, or, mere inertia on the part of librarians.

Table 1: Local History Collection

Library	Year established	Year local collection was established	Volume of local collection	Total library volumes	% of local collection
NVRI	1924	1924	116	24,000	0.48
UNIJOS	1972	1978	277	145,000	0.19
BAUCHI POLY	1976	1983	195	15,980	1.22
FCE	1977	1985	152	8305	1.83
NIPPS	1979	1979	587	22,000	2.67
FEDERAL POLY.	1979	1981	254	35,000	0.73
COE	1980	1985	97	19,300	0.5
ATBU	1981	1984	665	40,000	1.66

Categories of Collection

Perhaps more interesting is the categorization of the local history collection in the libraries as presented in Table 2, which shows that books, ephemerals, pictures and periodicals are in the majority. This is not surprising for a largely oral-literate society, albeit audio-visuals would have been expected to receive the highest count. Nevertheless, the distribution reveals a rising awareness of the written word in the preservation of local history and culture. The collection of ephemerals - largely memorabilia, is a very strategic method of preserving the 'linking pins' in local area studies as programmes, circulars, annual reports, etc., do contain some useful details which otherwise might be missing in textbooks and periodicals.

Table 2: Categorization of Collection

TYPE	NVRI	UNI JOS	BAU. POLY	FCE	NIPS	FED. POLY	COE	ATB	TOTAL	%
Book.	2	163	85	60	553	102	4	325	1294	55.23
Ephe	1	16	45	23	5	35	-	175	300	12.80
Film	-	49	2	-	-	-	-	-	51	2.18
Maps	2	-	12	3	-	25	-	20	62	2.65
Gazr	1	1	16	10	1	32	-	65	126	5.38
News	-	2	13	12	-	25	-	45	97	4.14
Perid	20	40	10	36	28	20	-	25	179	7.64
Pict	90	6	12	8	-	15	93	10	234	9.99
Total.	116	277	195	152	587	254	97	665	2343	100.0

Personnel

Another factor that was considered as important in the building of a local history collection is personnel. According to Nichols (1979) a local history librarian "is expected to have a first degree or a post-graduate diploma in librarianship which included courses relevant to local studies."

Response to a question on personnel for local history collection shows that whereas ATBU and Unijos libraries had one professional, one paraprofessional and two other staff; and two professionals, one para-professional and three others respectively, the others did not have. However, it was interesting to discover that two of the three professionals in the study did have some academic background in local history studies - one has a B.A. in History while another has a B.Sc. in Sociology and Anthropology. This background knowledge has been found to be highly instrumental in developing and managing their respective collections.

Space

Recognizing the importance of space, the researchers found it necessary to inquire about its provision in the libraries. Only two libraries - ATBU and Unijos had created space of 48.5 square metres, and 93.5 square metres respectively for their local history collections. On a closer study, the space in both libraries was found to embrace special collections

generally, which included government publications (federal and state), United Nations publications, university archives, etc. Other libraries did not create a special space for their local studies collections; rather, the collections were inter-shelved with the general library stock. This situation only confirms an earlier finding (under Establishment and Volume of Collection) that there is a handicapped development of local history collections in academic libraries in the country.

Collection Building

Since library collections do not emerge from a phantom, an investigation into the mode of collection building of local history materials was also carried out. It was found that four modes of collection building existed - legal deposit, acquisition trips, benefactors, gifts and exchanges, as displayed in Table 3

Table 3: Mode of collection building

Mode	NVRI	UNI JOS	BAU. POL	FCE	NIPS	FED POL	COE	ATB	TOTAL	%
Trip	-	213	85	66	582	80	97	290	1413	60.31
Bene	-	64	53	58	5	70	-	108	358	15.28
Gifts	-	-	42	15	-	84	-	252	393	16.77
Depos	116	-	15	13	-	20	-	15	179	7.64
Total	116	277	195	152	587	254	97	685	2343	100.0

Acquisition Trips

From the table, it is evident that all the libraries but one have found this as an essential means of building up their local history collections. It is therefore not surprising that more than half of the collections in all the libraries were gathered through acquisition trips. This is significant because it involved the local history librarian going into the nooks and crannies of his locality in order to 'dig' up relevant materials which were acquired for free or for a fee. However, it was discovered that even though most of the libraries had indicated 'acquisition trips' as one of their means of collection building, only one of them-Unijos, was current in this. The others had their trips delayed or cancelled because of lack of transportation and general library budget cuts. Indeed, the average latest date for collection recorded by 75 per cent of the libraries through acquisition trips was five years ago.

Benefactors

Seventy-five per cent of the libraries built up their local history collections through benevolence from wills or gifts within their localities. But, even so, only few items have been acquired through this mode as many people are yet to appreciate the importance of being benefactors. Also, the largely oral-literate communities in which the libraries are situated are generally not disposed to keeping written records, the type that libraries would receive as donations.

Gifts and Exchanges

Whereas 'gifts and exchanges' is a conventional avenue for collection building in libraries, which is even more relevant in these times of austerity, only 50 per cent of the libraries acquired their local history materials through it. It was, apparently, the most profitable source for Federal Polytechnic Bauchi, while it was the second for ATBU, also in Bauchi. However, it is quite interesting to discover that only libraries in Bauchi State acquired materials through this source. This is attributable to the homogeneous social constitution of Bauchi (Akintunde, 1995), and, possibly, some form of loose or informal cooperation among the libraries in Bauchi, which, probably, has not been tested in Plateau.

Legal deposit

This is the least means by which materials were acquired for local history collections in the libraries. Although 63 per cent of the libraries acquired materials through this means, it was the only source by which the National Veterinary Research Institute, Vom, acquired its materials. It is rather difficult to explain the situation of Vom since it is not the only research institution in the sample. However, it does indicate that academic and research libraries can build up their collections substantially from the locality.

Bibliographic Control

The twin purpose of bibliographic control is documentation and access which is achievable through the preparation of bibliographic lists, catalogues, indexes, abstracts, and, a good classification scheme. In this study, none of the responding libraries had produced any separate list of their local history collections. One - ATBU, had published it as part of its special collections; while another - Unijos, had its publication hampered by some administrative inconvenience.

However, both ATBU and Unijos did maintain separate card catalogues for local history collections while other libraries in the survey merely interfiled the cards in their general card catalogues. Thus, while it might be easy to identify the scope of, and, access the collection in the two university libraries, it is presently difficult in the other libraries.

None of the libraries has prepared indexes and abstracts to their collections. Access to local history materials in most of the libraries is, therefore, rather cumbersome. For classification of materials, 50 per cent of the libraries use the Library of Congress Classification Scheme, 38 per cent use Dewey Decimal Classification, while one uses Barnard Scheme. These are also the schemes applied in their respective library general collections.

Nevertheless, the bad financial situation of Nigerian libraries had not helped in arriving at a good bibliographic control of library holdings. And, since funds are not available to purchase relevant and current bibliographic tools and to publish accessions/bibliographic lists, bibliographic control is doubtful. The purchase of a catalogue cabinet is even problematic to most of the libraries for the same reason of under funding.

Conclusion and Recommendations

Results from this study have thrown up a challenge to librarians in Nigeria, especially, on the development of local history collections. The highly underdeveloped state of the collections, resulting from apparent neglect, in some of the country's highest centres of learning and research, has been exposed. If the research sample is a fair representation of academic and research libraries, which it appears to be; i.e a sampling of federally and state funded institutions, viz: universities, polytechnics, colleges of education, and, research institutes, then librarians in these institutions need to review their collection development policies and practices. The importance of a local history collection cannot be over-emphasized. Where the collection is well developed, it serves as a very rich resource base for carrying out historical, sociological, economic, and geographical studies of the area.

One way of coping with the dearth of local collections is for libraries in a locality, for instance, Bauchi or Jos towns, to join together in a collaborative development of local history collections instead of the present independent approaches. This calls for an effective bibliographic control of materials in order for each of the libraries to know what other libraries have and the development of a system such as cooperative cataloguing, to enhance access. This is presently lacking in the research population.

Also, the possibilities of twinning between towns or areas that have similar historical or geographical backgrounds such as Calabar and Uyo, Jos and Bauchi, and, Ogbomoso and Oyo, could be explored for purposes of collection development. This has been found feasible and profitable elsewhere especially for purposes of comparative studies (Maxted, 1994). Thus, a good number of libraries in Northern Nigeria, for instance, could benefit from the arabic manuscript collections of the area presently located in as far distant places as Kenneth Dike Library (University of Ibadan), Ibadan; National Museum Library, Jos; Lugard Hall Memorial Library, Kaduna; Sokoto State History Bureau,

Sokoto; Centre for Islamic Documentation (Bayero University), Kano; and, Institute of Trans-Saharan Studies (University of Maiduguri), Maiduguri, through cooperative acquisition and cataloguing (Balarabe, 1991). Such an arrangement has the potential of facilitating the emerging electronic network of the country's universities which is being initiated by the National Universities Commission (Abdulkadir, 1995).

Another strategy for the development of a local history collection which is yet to be exploited in the survey sample is the mounting of an aggressive public relations programme with local radio programmes, a regular newspaper column on items in the collection, talks to local groups such as older people, and, exhibitions. This requires dynamic and enthusiastic librarians and does not necessarily cost much if carefully done (Cooke, 1994; Petty, 1994; Stielow, 1994). It is expected that library schools in Nigeria will emphasise local history collection in their curricula. Libraries should also see the need of recruiting librarians to develop local studies collections as a priority. Local history collection as a significant part of library collections certainly deserves a better status than the present. What this study has established is the need for a reorientation by librarians on the important role of local history collections in fulfilling both library and academic/research institutional goals. But, who will pick up the gauntlet?

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SHORT COMMUNICATIONS

Internet in the Library: Potentials

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Abstract

The Internet has become one of the most important media of communication of our times. Its impact on information providers and seekers is tremendous. The library being one of the key players in the provision of information from ancient times has not remained unaffected by Internet. The paper briefly looks at the potentials offered by Internet and why libraries, information centres and research institutions in Africa should have Internet connectivity. It further highlights constraints to Internet access in an African setting.

Introduction

The Internet is a powerful tool to search for, retrieve and disseminate information. It is indeed offering unprecedented access to information in all kinds of formats (multimedia). It has to some extent transcended the barrier of space and time because information resources such as library collections in various parts of the world can be accessed almost instantaneously. As the Internet has become more commercialized, it is increasingly being used by all sectors of society as opposed to its origins when it was the domain of academics and researchers. It has made the information resources of the world more accessible to ordinary people all over the world. Since Libraries are providers of information, they have not been by passed by the advent of Internet.

The Internet has its origins in the United States Defence Department in the 1970's. It was a computer network designed to survive all sorts of man-made and natural disasters. In the 1980s scientists in the universities and research centres developed it further by creating a high-speed network called National Science Foundation NETWORK (NSFNET). In the 1990's, companies started creating and setting software and hardware that allow private business and institutions to connect to this network and this gave rise to what is called the Internet today (Alspach, 1995)

What is Internet?

Internet is a large computer network formed out of some thousands of interconnected networks, and it supports a whole range of services such as electronic mail, file transfer protocol, database access etc (Cawkell, 1993).

Services Supported by Internet

Internet E-mail- This refers to mail created and sent electronically. Each person who uses E-mail receives an E-mail address which they use to send and receive messages on a computer. The E-mail is far less expensive than the fax and by far faster than the regular mail.

Listserv- E-mail is also used as a tool to share information swiftly and on a wide scale by using listserv. These are groups that share a broad subject area. Every message sent to the listserv is distributed to all members of the listserv. This could mean thousands of people. Each listserv has an address where its users send requests and questions and search the archives. Discussions, jobs and conference announcements are posted on the listserv.

Newsgroups- This is similar to listserv. The difference is that unlike listserv, newsgroup does not send messages to members' E-mail addresses. They have to go to the newsgroup to read the mail or message. These newsgroups, like the listserv, centre around a broad subject area.

E-mail, listserv and mail groups may provide a link for solving reference problems, learning about reference sources, sharing information etc.

Remote Login- This allows users to connect from their system to a remote system. This is achieved by a software called Telnet. Hundreds of institutions and libraries have their databases and catalogues available on the Internet and can be accessed by remote login.

File Transfer Protocol (FTP)- This allows to move (download and upload) files and programs from computers all over the Internet to your computer. This is one of the big advantages of Internet connectivity.

Worldwide Web. Commonly referred to as WWW or the web page is the latest search tool on the Internet and has become the most popular way of locating and retrieving information. It has the ability to browse through a list of subject headings to get an idea of what is available on the net. WWW is enabling reference librarians to answer questions for which they had virtually no background and the information is usually more up to date than printed resources. One librarian points out that with Internet, you

can have a growing information database without data collection and maintenance responsibilities (Freedman, 1996).

Besides being a search and retrieval tool, the web page can also be used to disseminate information. Libraries and research institutions can create a web page where they can publicise all sorts of information. This can include putting the catalogue, electronic journals, services offered, on-going research etc. on the web page. It also facilitates peer review for academic publishing and research which can strengthen the quality of research and publications. This is where information on African research can be disseminated. This to a great extent can reverse the trend of less coverage of African research in international journals and other publications.

In summary, Internet access provides the following benefits:

- Access to colleagues through nearly instantaneous transmission/receipt of E-mail messages and files.
- Powerful search utilities to locate information stored on millions of computers around the world.
- Access to a large and growing array of online journals and databases on various subjects.
- Use of remote computer resources and instrumentation.
- Distance education and other cooperative projects.
- Facilitation of peer review, thereby strengthening research and journal publication.
- Dissemination of all kind of data and information.

Implications of Internet in the African Library and Research Centres

In this section we would like to point out three important implications of lack of Internet connectivity to the library and research centres and one that comes with Internet access.

Firstly is the issue of Africa's effort to contribute to world's scientific, technical and academic information. Much has been written on marginalization of African's effort in this regard. Surveys of abstracting and indexing, reference sources, journals and books generated in the development world show little coverage of African contribution. Much of the information generated in Africa has remained in grey form for various reasons. Internet connectivity can be used to disseminate much of the grey literature. Lack of

Internet access will mean greater marginalization. Thus, Internet access offers Africa an alternative towards ending this isolation. (AAAS, 1996).

Secondly, Internet, looked from a positive angle, is a cost-effective way of providing access to world information vis-a-vis resource scarcity which results in failure to maintain journal subscription and the capacity to buy new books. Journals are increasingly being made available on the Internet, thus making it possible for African academics and researchers to get instant access to the latest published research in their disciplines.

Thirdly, the use of new Information Technology (IT) has become part of economic development activity of the developed world. It is changing the world within which African countries are struggling for survival and growth. These changes and their means cannot be ignored by Africa if they are to survive as the world moves into the information age. For example, the capacity to generate over 90% of economic, scientific and technological information rests with western countries and a major proportion of this information is in demand in Africa. Such information is increasingly being produced in non-conventional formats i.e. the CD-ROM. Here again it is evidently clear that lack of Internet connectivity in Africa will mean widening the gap between information rich western world and information poor Africa. Efforts to develop information systems and services in Africa should as a necessity include IT.

The fourth implication deals with controversial materials on the Internet. This is with regard to pornography and state security. One can access all sorts of information on the Internet. Government authorities would obviously want people to see some but not all the information following through the Internet. This is an area that needs serious consideration when considering Internet connectivity.

Constraints to Internet In the Africa Setting

The major factors militating against the effective application of IT in Africa have been cited by a number of authors Inganji (1990), Kaul (1988), UNECA (1992) and Zwangobani (1988). This section highlights some of the constraints.

The initial cost to set up Internet facilities is a problem to many libraries and research institutions. Almost all African countries are experiencing the scarcity of foreign exchange to purchase/import IT from other countries. IT imports have to compete with other pressing needs such as food, medicine and other capital goods.

Development of broad based IT infrastructure is dependent upon an efficient telecommunication infrastructure as it facilitates transmission and exchange of data and information over networks. Generally these facilities are underdeveloped in Africa. Associated with telecommunication is the expensive rate that companies charge for

dedicated lease lines. The lack of Internet service providers (ISP) is another constraint.

The shortage of IT specialists is increasingly being experienced as more and more IT is introduced in the library and information centres. This shortage is compounded by the lack of local training facilities locally in most of the African countries.

Conclusion

Internet is a means of communication that cannot be ignored by information providers wherever they may be located in the world. Doing so would mean increasing the gap between the information rich and the information poor. The potential to use Internet to share Africa's economic, social and scientific information widely and in a cost effective way is great. Although Internet has not, and will not replace printed formats in the foreseeable future, it provides a wealth of information that is hard to acquire in printed format, given the state of the economy in most of African countries. As the world is moving into the information age, Africa cannot afford to lag behind in the use of new IT. Therefore policies that seek to encourage development of IT infrastructure should be formulated in order to keep abreast with new development in information dissemination and provision.

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Information and Library Support for Sustainable Development: Some Research Findings on the Kwazulu Natal Situation, South Africa.

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Six key areas of the African National Congress's Reconstruction and Development Programme to which Library and Information Services (LIS) could contribute were identified in the libraries and information services section of the Report of the Arts and Culture Task group, presented to the Minister of Arts, Culture, Science and Technology on 31 July 1995. Among these was information for lifelong learning, for community development, for nation-building, for a competitive economy, for democracy, for cultural enrichment and for education. The report suggested that:

A healthy LIS system is therefore essential for the implementation of the RDP, but to play this role the South African LIS system is itself in need of reconstruction and development (Arts and Culture Task Group 1995:69).

A recent doctoral research project conducted in the Department of Information Studies by Stilwell (1995) has laid fundamental groundwork for the restructuring of the LIS system with regard to the provincial and public library sector. As with many other sectors the provincial library services are having to justify themselves in the light of social and political changes in the "new" South Africa. These services are themselves looking at the best ways of restructuring their organisations and adapting to change. They are going through change, structurally and regarding the form of services provided.

Although individual provincial library services had commenced restructuring in response to change in the late 1980s the study suggests that in the eyes of the formally qualified staff, as tested in April 1994, the process of change had not been sufficient and neither was it complete. The study found that the changes required are far more fundamental than what Human and Horwitz (1992:1) have called adapting and fine-tuning old norms to suit new conditions. A radical strategy is needed to rework the mission collaboratively, to address organisational restructuring, financial planning,

cost control, leadership, and, above all, management with a view to improving communication and maximising the very real human resource potential of these organisations.

Countrywide old norms which saw compartmentalisation and fragmentation as answers to tensions and difference are giving way to norms which embrace tension and difference (Human and Horwitz 1992:1). For the provincial library services the management of diversity and complexity is a challenge for management endeavour. Achieving a genuine non-racial organisational culture built on tolerance and respect is yet to be achieved. The building of capacity within the provincial library organisational structures, as well as within communities and their fora are identified as crucial areas of impact.

Relations with local authorities emerge as a critical area in terms of promoting the role of the library in the development of the whole community and providing a service to local authority staff. A course work Master's project currently under way in the Department of Information Studies is pertinent. Thembi Mini, Acting Regional Librarian in the Midlands Region of the KwaZulu Natal Provincial Library Service (KZNPLS), is investigating, as a case study, the role played by community participation in the establishment of the Georgetown Community Library which was opened in 1995 in the Edendale area of Pietermaritzburg (Mini, 1995). In an earlier research into reading, information and library use in the Edendale area, Mini (1990) argues that the failure of many development planners to involve the local community in the planning of community projects has resulted in a lack of acceptance of these projects by the community. In the past, under apartheid, libraries for black people tended to be badly located, inappropriately stocked in terms of materials and had little relevance to local needs and aspirations. The Georgetown library provides a recent local example of a library which to some extent is the outcome of community participation, the investigation of which could, by example or default, generate guidelines for similar efforts.

Stilwell's study revealed that in terms of the selection of materials, structures which enhanced greater input by communities and community librarians should be addressed. There was support for the kind of study being conducted for the (KZNPLS) by course work in the master's programme, Joan Gallagher (1995) and Patricia Rowan (1995), into fiction needs analysis in KwaZulu Natal public libraries affiliated to the provincial library services. The reading of fiction is seen to play a role in literacy acquisition and retention and in nurturing a culture of reading. The recent Joint Education Trust (JET) report (Harley 1996), for instance, commented on the supportive role played by the provincial library services in literacy work. Studies such as those of Gallagher and Rowan could play a vital role in targeting materials acquisition to fit local use patterns more precisely, thereby increasing the cost effectiveness of provision.

The addition to the regional boundaries of former Natal of KwaZulu has meant that library membership which had reached 25% of the population, has become 5.6% with a backlog of 500 public libraries alone (Centre for Education Policy Development, 1994). KwaZulu Natal Provincial Library Service emerged as the only provincial library service to have no research unit and in terms of access to scarce resources this was seen as a particular disadvantage. Research emerged in the study as a strong need, particularly research into local areas in terms of existing resources, what is required and what can be supplied in the short and long term.

The study demonstrates that the provincial library services are indeed an enormous resource for sustainable development in the southern African region. KwaZulu Natal has become the largest province in terms of population. Its library service has been upgraded to a full directorate. The current challenge is to integrate former KwaZulu and former Natal into a cohesive system of library and information provision, in spite of the governance difficulties raised by the transition period.

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Book Review

Publishing in Africa: One man's perspective, by Henry Chakava. [Oxford]: Bellagio Publishing Network, 1996, 182p.

This book is the sixth in the Bellagio Publishing Series. The book consists of eight chapters and appendixes. The foreword is written by Chinua Achebe. It is a collection of papers written by Henry Chakava over a period of ten years. The collection consists of papers presented at conferences and seminars and chapters in books.

Henry Chakava discusses a wide range of issues pertaining to the development of the publishing industry in Africa with particular reference to issues such as obstacles to reading, copyright, state censorship, problems of book marketing, distribution, promotion and sale of materials written by Africans in the indigenous language. In addition to the already mentioned problems, Chakava cites lack of foreign exchange and high printing costs as being the other problems that publishers in Africa have to contend with.

In relating the history of the publishing in Kenya, the writer also examines the weaknesses and strengths of the publishing industry as well as the possible solutions. The author suggests that most of the problems pertaining to the marketing of books by African publishers have arisen because of lack of advertising and promotional strategies. Publishers often fail to produce leaflets and catalogues are often produced very late when the book had been on the market for several months. Moreover, the information on such catalogues is usually riddled with mistakes.

In chapter four the author gives what he perceives as a model publishing house in Africa free from foreign control and influence. He also points out some of the problems likely to be faced by such an organisation as lack of suitable manpower, lack of finance, competition from international publishing firms, illiteracy, censorship and lack of reading culture.

The author alludes to the establishment of policies governing the publishing industry and government intervention by persuading money lending institutions to come to the aid of the publishing industry.

The book is informative. Readers will learn a lot from the experiences of the author. It is written in simple English and easy to understand.

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New Publications

25 Years of Library, Archives, Publishing and Information Science Research: Index/ Abstracts of Articles in Selected Nigerian Journals and Books (1972-1996).
 Edited by Ranti Oshunfowora. Ibadan: Options Book and Information Services, 1996.
 Vol. 1: 50p.
 Vol. 2: 41p.

This two-volume publication provides a comprehensive coverage of research papers published between 1972 and 1996. Seven Nigerian journals including the *African Journal of Library and Archives and Information Science* are covered. There are also sixty-five books and monographs covered in the publication. The index/abstracts are arranged alphabetically first by subject and then by author. Author and subject indexes are provided. A brief description of the seven journals covered are described including the year of establishment, ordering information and addresses of the publishers.

Uganda Directory of Library/Information and Related Institutions (UDLIRI).
 Compiled by I.M.N. Kigongo-Bukenya. Kampala : East African School of Librarianship, Makerere University. 68p.

This is a guide to information institutions, information workers, publishers, printers, binders and booksellers in Uganda. It also features national and international library organisations, professional publications, computer dealers, courier services in Uganda. There is a brief description of training programmes in library and information studies in Eastern and Southern Africa. There is a comprehensive index.

Who's Who in Library and Information Science Training Institutions in Africa. 2nd edition. Edited by L.O. Aina. Ibadan : Archlib Information Services Ltd, 1995. 66p US\$15.

The book contains biographical information of lecturers teaching in library, information science and archival schools throughout Africa. One hundred and seventy-two lecturers are listed. The entries are arranged alphabetically. It also provides information on training programmes, and addresses of 34 schools located in the continent, including South Africa and Francophone countries. Expertise and institutional indexes are provided.

Agricultural Information in Africa. Edited by L.O. Aina, A.M. Kaniki and J. B. Ojiambo. Ibadan: Third World Information Services, 1995. 221p. US\$ 50

The book contains fifteen chapters on different aspects of agricultural information in Africa, contributed by fourteen agricultural information specialists in Africa. The first two chapters are devoted to information and agriculture in Africa including user populations and critical tasks. The next four chapters discuss agricultural information on a regional basis. Two chapters are devoted to agricultural information networking in Africa. A chapter provides a curriculum for the education and training of agricultural information personnel in Africa. The activities of two standard agricultural information centres in Africa are treated in two separate chapters. The role of CTA in the dissemination of agricultural information in Africa is also covered in the book. The last chapter provides a comprehensive bibliography of agricultural information in Africa..

Dewey Decimal Classification: Edition 21 and International Perspectives. Papers from a workshop presented at the general conference of the International Federation of Library Associations and Associated Institutions (IFLA) Beijing, China, August 29, 1996. Edited by Lois Mai Chan and Joan S. Mitchell. Albany New York: OCLC Press. 1997. 98p. US\$20

The monograph is a collection of papers from a workshop on revisions and expansions in both the print and electronic versions of the 21st edition; the international use of Dewey; its use in national bibliographies; and inherent challenges of translation, as exemplified by the Spanish translation of the 20th edition. The contributors are specialists based in the United States of America, China, Australia and Canada.

Professional News and Events

Botswana produces its first set of Masters graduates

Eight students completed the two-year master of library and information studies programme at the University of Botswana in 1996. Three of the students are from Botswana, two from Tanzania and one each from Canada, Nigeria and Swaziland. Meanwhile, a diploma programme in archives and records management commenced at the beginning of the 1997/98 session.

African Ministers adopt Africa's Information Society Initiative

The conference of Ministers responsible for economic and social planning, adopted Africa's Information Society Initiative (AISI), during the 31st session of the 22nd meeting held recently in Addis Ababa, Ethiopia. It is an action of a framework to build Africa's information and communication infrastructure. The Initiative highlights the role of information, communication and knowledge in shaping African information society to accelerate socio-economic development. The objective is for all countries in Africa to formulate and develop a national information and communication infrastructure plan.

The Initiative is expected to enable African leaders, policy makers and decision makers to take advantage of the global economic system. It is hoped that by the year 2010, Africa would have achieved a sustainable information society where among other things information decision support systems are used to support decision making in all the major sectors of the economy, in line with each country's national development priorities.

It is expected that the implementation of AISI on a regional basis will involve the United Nations Economic Commission for Africa (ECA), Organisation of African Unity and other regional bodies in the continent. ECA is expected to act as the regional executing agency.

REPORT OF A CONFERENCE

12th Standing Conference of Eastern, Central and Southern African Librarians, Maseru Lesotho, 9-13 December, 1996.

The one week conference attracted over 250 participants from 18 countries including Botswana, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia, Netherlands, Sierra Leone, South Africa, Sudan, Swaziland, Tanzania, Uganda, United Kingdom, Zambia and Zimbabwe. The theme of the conference was "Libraries and Information Services in the 21st Century".

Many resolutions were passed at the end of the meeting, among which are, the need for members to organise workshops on research and writing skills, the need for a library in each member country to identify one library that will stock a core collection of library and information science and the need for library schools in the region to ensure that their curricula reflect the changing trends in the profession. Kenya was chosen to host the next conference in 1998. Participants were very pleased with the Lesotho Library Association for organising a successful conference.

REPORT OF A CONFERENCE

The 1998 Conference of Eastern, Central and Southern African Librarians Association
1-10 June 1998, Durban, South Africa

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AIMS AND SCOPE

African Journal of Library, Archives and Information Science is established 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 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 manuscripts typed double space on one side should be submitted. Ample margins should be provided. The title, author's name, position and place of work should appear on the first page. Subsequent pages of not more than 15, should 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 eg.

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, Dr. 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 @ noka.ub.bw