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Library Networking and Consortia Initiatives in Africa

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Abstract

Resource sharing holds a strong potential for libraries in developing countries, especially those in Africa. The information explosion and the increased cost of information has forced libraries to work together while technological advancement (especially electronic networking) presents the library profession with a platform for cooperation. Resource sharing, however, requires efficient communication structures. A number of projects focusing on the establishment of such structures are either already existing or underway in some African countries and are being discussed here. As is always the case, the technologically advanced Republic of South Africa takes the lion's share of these initiatives. The country, apart from its strong and viable economy, also has well-established library, telecommunication and Internet infrastructures. The paper concludes by highlighting the benefits associated with networking.

Introduction

A library network is a cooperative arrangement between several libraries, for example, for loaning books, or an electronic network within a library or interconnecting different libraries. In other words, when two or more libraries engage formally in a common pattern of information exchange through telecommunication links, for some functionally interdependent purpose, we have a library network. Networks arise because individual libraries realise that they can no longer be self-sufficient in respect of their information resources. The underlying assumption of a library network is that all members will share their resources and use the network. Networking is a joint venture and needs the cooperation of everyone involved. The areas for cooperation are:

- development of an interlibrary loan or document delivery network;
- development of shared databases;
- cooperative sharing of expertise in answering user's reference questions;

- actual sharing of staff;
- cooperative cataloguing and building of bibliographic standards and tools;
- cooperative book and journal acquisitions programmes; and
- cooperation in the exchange of duplicate materials (Groen, 1991).

According to Rowley (1993) the central objectives of networking are to:

- reveal the contents of a large number of libraries or a large number of publications, especially through accessibility of catalogue databases using OPAC interfaces;
- make the resources shown in these catalogue databases available to individual libraries and users when and where they need them;
- share the expense and work involved in creating catalogue databases through the exchange of records and associated activities.

Ancillary functions that might also be fulfilled by networks include:

- distribution and publication of electronic journals and other electronic documents;
- end-user access to other databases, such as those available on the online hosts and CD-ROM;
- value added services such as electronic mail, directory services and file transfer; and
- exchange of bibliographic records (Rowley, 1993).

Why Do Libraries Participate in Networks?

According to Simpson (1990) there are essentially three reasons why libraries participate in library networks or consortia. First, is that networks can enhance the quality of services that a library provides its clientele. They can offer a number of effective resource sharing services to their libraries, ranging, for example, from national, regional or statewide distribution of shared cataloguing systems to online searching of information retrieval databases, document delivery, preservation, microfilming and cooperative collection development. In addition, participation in a particular library network/consortium may confer prestige upon the library or its librarians. Clearly, then, libraries participate in cooperatives for the actual and perceived value of the programmes and services they provide.

The second reason relates to the altruistic nature of the library profession. Sharing is good and working together seems to be the professionally right thing to do.

Participating in a library network/consortium can be seen as one's contribution to the profession. Thirdly, despite the many local pressures on libraries to be self sufficient, librarians strongly believe in resource sharing as a means of reducing their costs. Library networks or cooperatives do have a potential to reduce costs through the economy of scale phenomenon, through resource sharing, and through a state management of the cooperative organisation (Simpson, 1990).

Components of Library Networks

Computer technology, communication technology and information technology are necessary for the existence of library networks. The library network itself can be seen to have three dimensions: the network topology, the governing models, and the resource-sharing modules (Khalid, 1996). The topology or configuration of library networks as classified by Kent (1979) can be of the following categories: star (centralised), distributed (decentralised), hierarchical, and ring (composed-centralised). The star network entails one network member holding substantially all resources, with other members utilising these resources. The distributed network is composed of members with equal but different sources, with all members able to call directly on the resources of all other members. The hierarchical network entails members sharing resources locally; passing unsatisfied needs along to the next greater resource centre. The ring model is similar to the distributed network, but it has no control processing mode.

The models for governing library networks can be of the following types: (i) governmental, (ii) quasi-governmental, (iii) membership under legal charter, and (iv) unincorporated associations and cooperatives (Carlile, 1980). The essence of library network lies in resource sharing through cooperative collection development, interlibrary loan and document delivery policies.

In the beginning, networks were established with defined objectives. Nowadays however, as the use of networking becomes more pervasive, and as the infrastructure becomes available, which makes data transfer more common, it is increasingly difficult to distinguish one network from another. The end-user is able to choose more than one route through the maze of networks in order to locate a document. In fact, networks are linked to one another. Library networking uses the array of telecommunication networks for communication between libraries and other organisations, and between libraries and their users (Rowley, 1993).

Background and Objective

The limitation of financial resources coupled with the proliferation of information has placed library managers on the horns of a dilemma. This situation has forced many libraries throughout the world to look toward cooperative resource sharing through networking (Khalid, 1996). A large number of library networks such as OCLC, RLIN, WLN, BLCMP, LASER, SupaJANET, etc. have been developed in many countries in the past decade or two. African countries are no exception to this trend as a number of library networks/consortia are already in existence or currently being established in South Africa, Ghana, Kenya, Zimbabwe, Namibia, Malawi, Swaziland, etc. The purpose of this article is to briefly describe some of these initiatives or projects in order to bring to light aspects of their activities and discern some trends in their operations. It will also have an impact, especially with regard to plans for obtaining or soliciting funds from governments, international donor agencies or other philanthropic organisations.

Literature Review

Libraries have shared resources for many decades through formal and informal agreements. Traditional cooperative efforts such as interlibrary loans, document delivery, collection development and shared databases have a long history and are well-documented in the literature. A survey of more recent works will most likely include those of the likes of Kohl (1997), Potter (1997), Khalid (1996), Simpson (1990), Reed-Scott (1995), Siddiqui (1996), etc. In the article included in an issue devoted to the theme, resource sharing in a changing environment, Kohl (1997) started from the assumption that significantly expanded resource sharing will be a dominant feature of all twenty-first century libraries and identified five milestones or landmarks which can be used to identify key tasks and chart progress. Joining a consortium, integrating intellectual access, providing for both physical and electronic delivery of materials, and integrating the collection development process are steps illustrated with reference to the Ohio Library and Information Network (OhioLINK) experience in the United States. The article focused on clearly identifying major issues in resource sharing and illustrated possible solutions with critical examples.

Similarly, according to Potter (1997), even though historically academic libraries formed consortia for the primary purpose of sharing printed material, recently, they are forming them to provide common access to electronic sources on the Internet. Reed-Scott (1995) asserts that resource sharing in the electronic environment will fundamentally change how libraries operate internally and externally. For users, the promise of gaining timely research sources is a powerful force for changing their patterns of information use. A continuing concern will be how to fund the costs of

networked information but information technology is a powerful catalyst for improved resource sharing amongst an ever-widening circle of libraries. Khalid (1996) highlights both the benefits and problems associated with networking in libraries and discusses the circumstances that are forcing information centres in the Arabian Gulf region to begin thinking about library networking.

Simpson (1990) discusses libraries' participation in consortia, cooperatives or networks to help cope with the financial pressures created by more available materials and less money. Reasons for participating are examined, factors to determine the value of belonging are suggested, cost factors considered and cooperative collection development is described. Siddiqui (1996) presents a model plan of an interlibrary loan network among academic libraries of Saudi Arabia and discusses its organisational structure, governance, operational requirements, finances, etc. The proposed network, according to him, will be formal, regular and systematic to provide greater cooperation, coordination, efficiency, cost effectiveness, and will ensure comprehensive sharing of available resources.

The literature on resource sharing and networking initiatives in Africa however, is very sparse. Notable amongst the few are Odini (1991) on problems of resource sharing in the developing world; Ike (1991) on resource sharing among university libraries in developing countries; Ubogu et al (1992) on library networks and resource sharing in Nigeria; Lor (1992) on information resource sharing in Southern Africa; Rosenberg (1993) on resource sharing - is it the answer for Africa?; Edwards (1994) on library co-operation and resource sharing in South Africa: considerations for the future; Darch (1994) on the Western Cape Library Cooperative Project: levelling the playing field in the 1990s; Coetzee (1996) on CALICO and the Western Cape Libraries; Kemp (1996) on networking in South Africa; De Kock (1997) on an information technology infrastructure for resource sharing in South African academic information services; van der Walt (1997) on professional education for networked library cooperatives: a case study of CALICO; etc. Nearly all of the above, however, have a particular focus on either a particular project, country or subregion and do not treat the continent as a whole. It is hoped that this treatise will bring to light some new aspects of library networking in the continent and thus contribute to the literature.

Experience Gained by Libraries/Projects in Several African Countries

Background information on the network initiatives or library projects was obtained by means of a literature study or survey of published and unpublished documents (e.g. newsletters, brochures, signed memoranda of understanding or agreement, project proposals, technical consultant briefs, etc.) on the cooperatives, networks or consortia as well as through personal discussion (either by letters or through e-mail) or interviews

with some of the heads or senior staff members of the libraries involved, network managers and chairpersons of steering committees. Browsing through the Internet web pages of the more established projects, consortia or networks; or paging through the African Libraries Listserv gave a further insight into their activities.

The trend of libraries forming networks or consortia to combat the problems of rising costs and diminishing budgets is no new phenomenon. In fact a much more favourable environment to cooperative ventures in the last decade or two is the possibility offered by information technology, especially electronic networking (van der Watt (1996). The concept of access to remote resources which supplement or substitute for items owned locally has become more acceptable due to the availability of worldwide telecommunication networks, appropriate hardware and software, and machine readable databases. The electronic or virtual library allows a user at a computer terminal to search bibliographic citations, databases, electronic publications and other types of information in digital format.

The key agencies normally involved in networking are large national libraries, or centralised cataloguing services and cooperatives set up by a group of libraries (Rowley, 1993). Worldwide, the United States is in the forefront of the world in library networking. Important agencies or networks are OCLC (Online Computer Library Center), RLIN (Research Libraries Information Network), OHIOLINK, etc. In the UK, the notable cooperatives or consortia are BLCMP (British Library Catalogue Mechanisation Project), LASER (London Area and South East Region), Supa-JANET (the Joint Academic Network) and the M25 Consortium - the consortium of higher education libraries defined by the London motor orbital.

The Republic of South Africa has the highest number of academic and research libraries with full Internet services in the whole of the SCECSAL region. The reasons are obvious - strong economy, well-developed telecommunication infrastructure and library and information services. Most libraries have access to WWW, gopher, telenet and e-mail facilities (Chisenga, 1996). Consequently, there exists the largest number of developed library networks or consortia in Africa. The notable ones for example are: SABINET (South African Bibliographic and Information Network), CALICO (Cape Library Cooperative), GAELIC (Gauteng and Environs Library Consortium), CATNIP (Cataloguing Network in Pietermaritzburg), FRELICO (Free State Library Cooperative), the South African Interlending Scheme (SAIS).

South African Interlending Scheme

The South African Interlending Scheme is run and managed by the State Library in Pretoria. It started as South Africa's national interlending scheme, but over the years libraries in other Southern African countries have joined (Lor, 1996). (See Table 1).

Table 1: Membership of the SAIS

Country	Members	%
Botswana	7	1.0
Lesotho	1	0.1
Mozambique	1	0.1
Namibia	14	2.0
South Africa	658	93.5
Swaziland	4	0.6
Zimbabwe	19	2.7
Total	704	100.0

Source: Lor, P.J. 1996. Document Supply and Interlending in Southern Africa, NIWA Info. 6 (2-4) 5-9.

The two main union catalogues of the SAIS are Periodicals in Southern African Libraries (PISAL) for periodicals and the Southern African Joint Catalogue of Monographs (JC) for books. PISAL is available on microfiche and can be accessed online on SABINET. Regrettably, as from the end of April, 1998, all work on the JC at the State Library ceased due to financial constraints. Contributions are no longer accepted from libraries for adding to the SACat. Libraries wanting to add their collections to the South African national cooperative database have to contact SABINET Online.

South African Bibliographic and Information Network (SABINET)

SABINET was established in 1983 as a not-for-profit membership organisation to provide bibliographic utility for South Africa. It has since then developed into a full-fledged online information network. It is responsible for the compilation of the SACat, the catalogue of books, journals and other materials in Southern African libraries. The

SACat currently contains approximately 2.5 million bibliographic references with more than seven million holdings (Kemp, 1996).

SABINET supports the cataloguing and acquisition processes in libraries, with access to the Library of Congress, British National Bibliography, South African National Bibliography (SANB), Book Data and similar databases. Access to OCLC's PRISM service is also provided. Resource sharing is promoted through the interlending systems, with more than 90 per cent of the interlending requests in South Africa being processed through the SABINET system.

Other unique South African information sources hosted by SABINET include:

- Index to South African Periodicals (ISAP)
- Research at S.A. Universities (UCTD)
- Research at S.A. Technikons (NAVTECH)
- The S.A. Cooperative Indexing Database, and
- Fulltext of S.A. Government and Provincial Gazettes (Kemp, 1996).

SABINET is also South Africa distributor to OCLC services a gateway, to UnCover, the US-based electronic table of contents service, founder of ELSA, in cooperation with Silver Platter and their local agents. ELSA provides access to Silver Platter's CD-ROM databases through wide-area networks.

All the universities, technikons, research institutions, government departments, public libraries as well as companies, legal firms engineers, medical practitioners and other professional bodies are using the SABINET services. Institutions in Namibia and Botswana are accessing SABINET and SABINET itself is linked to all major networks (such as UNINET, SANGONET) in South Africa.

Gauteng and Environs Library Consortium (GAELIC)

GAELIC, a major project of the umbrella consortium FOTIM (Foundation of Tertiary Institutions in the Northern Metropolis), was initiated in February 1996, when representatives of the Andrew W. Mellon Foundation visited South Africa and expressed willingness to support a cooperative venture among tertiary libraries in Gauteng - the Johannesburg-Pretoria metropolitan area of South Africa. This is the most populous and industrialised part of the country and it is the economic heartland. Within this area, there are a considerable number of tertiary institutions.

Members of Gaelic currently are the University of Witwatersrand, University of South Africa, Rand Afrikaans University, Pretoria University, Medical University of South Africa, Potchefstroom University for Higher Christian Education, Vista University, Technikon South Africa, Technikon Witwatersrand, Technikon Pretoria, Technikon Northern Gauteng and Vaal Triangle Technikon. At present the State Library participates as an observer (INASP, 1997).

Gaelic's main objectives are:

- to support the information needs of clients through cooperation
- to promote resource sharing and enhance access to information
- to facilitate this access through shared computer systems and networks
- to improve information literacy among clients and to share training resources and expertise
- to build links with other libraries in the region as appropriate (INASP, 1997).

The major focus of Gaelic has been on resource sharing, and task groups have undertaken responsibility for document delivery and joint serials acquisitions. All GAELIC libraries will eventually use INNOPAC as the common library software, and ARIEL for document transfer. The GAELIC's union database is expected to greatly enhance resource sharing amongst members. It is envisaged that the GAELIC Union Catalogue will form the basis of a new, upgraded national union database.

Cape Library Co-operative (CALICO)

CALICO is the first library cooperative of its kind in South Africa and was officially established in 1993. It consists of the three universities and two technikons of the Western Cape Province of South Africa, namely, the University of Cape Town, the University of Stellenbosch, the University of Western Cape, the Cape Technikon and the Peninsula Technikon. It forms part of a group of projects undertaken under the auspices of an umbrella body, the Western Cape Tertiary Institutions Trust, recently renamed as the Adamastor Trust (van der Walt, 1997).

The aim of the consortium is to improve access to information whilst reducing overall costs and this has been adopted by academic libraries in many countries. The policies will include access to collections by all alumni, harmonisation of procedures and pooling of resources (Underwood, 1997). Projects or activities underway or being implemented include a common electronic catalogue (which will form the core of a shared system), an electronic delivery system for short documents, a physical document delivery system, an investigation into bringing full-text electronic serials online, information literacy and user training programmes.

The cooperative itself hopes to expand and include other institutions in the Western Cape, such as schools, colleges, community libraries, state institutions, national depository libraries, and libraries in commerce, industry, NGOs and community advice bureaux.

Cataloguing Network in Pietermaritzburg (CATNIP)

CATNIP is a group of libraries in the Pietermaritzburg area which are building up a joint catalogue on the University of Natal (Pietermaritzburg) Library computer, the reasoning being similar to CALICO's; i.e. shared resources and organisation in the face of budget constraints, and a need to extend library services beyond the locality. The initiative encompasses eleven libraries in all, including the Natal Society Library and Umgeni Water (a private company and second largest bulk water supplier in South Africa). A "theological cluster" of five religious libraries - all of them Christian - completes the grouping. The holdings (excluding Natal University) total about 130,000 records and most of the institutions are accessed online (*CALICO News*, 1996). Another cooperative underway in KwaZulu/Natal Province of South Africa is the Eastern Seaboard Initiative comprising the libraries of the University of Natal (both campuses), University of Zululand, and Natal, ML Sultan and Mangosuthu Technikons. The initiative has been operative for a little over two years and cooperation is in the areas of user education standards and electronic information sharing.

Also in South Africa, a library grouping called SEALS (South Eastern Academic Library System) has existed since 1988 in the Eastern Cape Province. Initially, the members were the Universities of Rhodes, Port Elizabeth and Fort-Hare were members, but the group has since expanded to include Vista University's Port Elizabeth Campus, the University of Transkei, Port Elizabeth Technikon, Border Technician and Eastern Cape Technician. Cooperation is limited to periodicals and CD-ROM integration (*CALICO News*, 1996).

In Ghana and Kenya, at the initiative of the International Federation of Library Associations (IFLA) Section on Document Delivery and Interlibrary Lending, two simultaneous projects have electronically linked up the main university libraries in these countries since 1993. Funding is being provided by Danish and Norwegian agencies. The projects are now in full swing with librarians visiting the UK and Scandinavian countries, and European experts visiting Ghana and Kenya to help in establishing connectivity and training of staff. In Ghana, Danish and UK partners teamed up to assist the Ghanaians with the exercise since 1995. The project is supported by DANIDA, the Danish International Development Agency, with about \$ 400,000 for a three year trial. The project focuses on the following institutions and their libraries:

- The University of Ghana, Legon, Accra
- The University of Science and Technology, Kumasi
- The University of Cape Coast, Cape Coast
- The University College of Education, Winneba
- The University of Development Studies, Tamale, and
- The National Science and Technology Library and Information Centre, Accra.

A steering committee established in 1996 with representatives from all the above institutions formed the management structure of the cooperative project.

The project aims to:

- improve access to information by establishing electronic network links at participating universities
- improve the competence of library personnel in handling interlibrary loan and document delivery systems nationally, regionally and globally
- support negotiations with the main European documentation centres and libraries to obtain favourable bulk treaties for database searches and document services to participating countries (INASP, 1997).

The University Library in Aarhus, Denmark, the OCLC and the British Library have also accepted to support the project.

It is anticipated that the IFLA voucher scheme will be used as payment for document delivery when ILL and DD start in early 1998. In Namibia, a grant from UNESCO has enabled the National Library, National Archives and Ministry of Education head office to set up a network for mutual direct access to their computer databases and to the Internet (NIWA Info, 1996). The University of Namibia Library is also working on a five year project (named COMLIB) sponsored by the Belgian and Namibian Governments. The intention is to link up the library at the main campus, the library of the Faculty of Medical and Health Science at Katatura, the library of the Faculty of Agriculture and Conservation at Newdham, the Polytechnic of Namibia Library and the nine distance teaching centres scattered all over country. The project is already underway and there is already a link between the Polytechnic library and the University library. The main objective is to develop a more efficient and effective means of accessing and sharing resources within a networked multi-campus institution.

At the moment, the University of Namibia Library (main campus) is using the Internet for accessing the URICA Integrated System (UIS) web page on their OPAC interfaces. UIS is the supplier of the URICA system which is installed in the library. The page is used for reporting systems problems and requesting technical support and maintenance. The Internet is also being used to access SABINET databases and services. Searching of various publishers catalogues is also sometimes being done on the Internet. Electronic mail is being used for reference questions inquiry, transmission of interlibrary loan requests, electronic "documents delivery" and subscription to discussion groups, such as AFRIK-IT (Africa and Information Technology), CDS-ISIS (Micro CDS/ISIS), AFLIB-L (African Libraries Listserv) (Chisenga, 1996).

Likewise in Swaziland, a cross-section of libraries have formed a Steering Committee to formulate a proposal to create a computerised network of all libraries and information centres with the objective of improving access to and delivery of materials and information to users throughout the country. This initiative was led by the National Library, given the title SWALINET and received approval in principle from the Swaziland Government in 1995. However, funding for the project was not available and implementation was deferred. At this point, an approach has been made to the ODA in Botswana for the funding of a feasibility study to assess the viability of the project.

Conclusion

Effective electronic resource sharing is critical to library and information services in Africa now and in the next millennium. Global information explosion, escalating prices of books and journals, fiscal constraints, and above all, demand for faster supply of information through electronic means have forced librarians, worldwide, to share their resources through local, national and regional cooperative networks to fulfil the requirements of their patrons. African libraries are gradually catching up with this trend. The formation of library networks/consortia is justifiable on the following grounds:

- to prevent the emergence of information 'have nots';
- to use technology as a bridge from traditional printed heritage to the electronic world;
- to re-position libraries as the communication backbone of the information society in Africa.
- to increase the use of IT in order to improve all the levels of the education sector; and
- to improve the services and the status of libraries in Africa.

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Abstract

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Introduction

The University of Botswana Library which was started in February 1966, has 274,930 volumes. The library is divided into Reader Services, Technical Services and Special Collections. There is also the Botswana Collection which takes materials and those of Southern Africa in general. The departments of Journals, serials, reference, and book materials are under the Technical Services Division. The Technical Services Division is responsible for the acquisition, processing and maintenance of library materials. This comprises acquisitions and serials and reference services. The Reference Librarian who is responsible to the Library Librarian for the reference service is responsible for the department. The Reference Librarian works closely with the subject librarians.



BRIMAH JALLOH

Traditionally, the library has always been regarded as a major division of technical and reader services. The evolution of these divisions has been on the basis of the functions they perform and the traditional nature of services offered by libraries. The technical services division acquires library materials and processes these materials, while the reader services division provides services to the library users. The reference services division is responsible for the reference service. The Reference Librarian works closely with the subject librarians.

The Impact of Information Technology on the Cataloguing Process at the University of Botswana Library

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Abstract

The paper demonstrates how automation has increased the efficiency of the cataloguing process at the University of Botswana Library, which in turn has resulted in increased productivity. This has considerably reduced the backlog in cataloguing activities. There is now a changing role for the cataloguer, who has now become the coordinator of bibliographic network.

Introduction

The University of Botswana Library which was started in 1971 has a stock of over 274,000 materials. The library is divided into Reader Services and Technical Services divisions. There is also the Botswana Collection which takes care of locally published materials and those of Southern Africa in general. The subject librarians for the disciplines of sciences, social sciences, education and humanities work in both divisions. The Technical Services Division is responsible for the acquisition and processing of materials. This comprises acquisitions and cataloguing units. There is a Technical Services Librarian who is responsible to the Deputy Librarian. The Cataloguing Coordinator is responsible for the data base. The Reference Services Librarian works closely with the subject librarians.

Traditionally, libraries have always been separated into two major divisions of technical and public services. The evolution of these divisions has been on the basis of the functions they perform and the traditional nature of services offered by libraries. The technical services division acquires library materials and processes these materials, which form the bulk of reserves on which the public services division falls, in order to render service to the clientele of the library.

With the advent of automation as an agent of change, librarians expect that organisational change will accompany the introduction of computer technologies. The Technical Services Division has been the most affected by the computer revolution. New organisational structures emerged, affecting staff duties and introducing a revolution in the way things were done in technical services.

Miksa (1989) opines that these days, the emphasis has been not on collection building but on a renewed rationale which emphasises human needs assessment. This requires professional work assignments where the emphasis will be placed primarily on decision-making relating to the ever-changing needs of the clientele. There is a shift in the goal of librarianship to user needs, as opposed to the traditional emphasis on collection development which seemed to elevate technical services. This paper will try to outline traditional technical services organisation with emphasis on cataloguing. It will also outline the same organisation after automation, and the impact on staffing.

Information Technology and the Changing Face of Cataloguing at the University of Botswana Library

The Technical Services Division at the University of Botswana will be used as a basis for the traditional structure, with emphasis on the cataloguing section. The organisational structure of the technical services department involves both the cataloguing and the acquisition coordinators reporting directly to the Deputy University Librarian. The Cataloguing coordinator is assisted by an assistant librarian. In cataloguing documents in the library, the relevant subject librarians are expected to take part in the cataloguing process. They bring in their subject expertise when cataloguing documents relevant to their subjects. These professionals are supported by a large number of cataloguing assistants as well as subject assistants.

The duty of the coordinator and the assistant is mainly to provide authority control measures to all the documents that have been previously catalogued by subject librarians. Books come in with cataloguing slips. The records for the books are searched by assistants in the system where they might have been loaded by the systems librarian. More than 80% are found in the L.C. Marc or the BNB. This leaves about 10% to be treated as original cataloguing. This is taken care of by the subject librarians using the Dewey schedules and L.C. subject headings. The cataloguing process was an elaborate but cumbersome procedure which was labour intensive. The cataloguing section together with the acquisitions section had the largest concentration of staff in the library. These ranged from general assistants, cataloguing assistants, to subject assistants. This process had in its wake a host of accompanying problems. Books awaiting descriptive cataloguing were processed by subject assistants who were responsible to subject librarians. The assistants had the duty to check books with card

sets. They checked for accuracy adhering to AACR2. This caused delays in the process and should more books get in from the acquisitions section, the problems increased.

From that stage, books were given classification marks and subject headings by subject librarians. Subject librarians combined this cataloguing process with other duties. Backlogs occurred at this stage depending on the schedule of the subject librarians and the number of books with card sets or cataloguing-in-publication information. When books eventually got to the cataloguing section for the Cataloguing Coordinator to effect authority control measures, the time wasted between the receipt of the book and when the book finally got to the shelf was about one to six months. According to Jenda (1992), only one typist was available for most part of the year to type catalogue cards. The most unrealistic of the processes was at the Cataloguing Coordinator's stage where he had to deal with the work of eight (8) subject librarians!

Hiring more subject librarians was thought of as a solution to the backlog at that time. Unfortunately, it only shifted the problem to the typists and the cataloguing coordinator's area. If more typists had been hired, they might have helped push the bottleneck to the coordinator. But who will help carry out the authority control work in this manual cataloguing environment? Whereas seven subject librarians in the old system worked on 3908 books with card sets and 1920 original books over an eight month period, 8529 books were processed in three months with 1762 original cataloguing. This shows an over 100% increase with the use of information technology.

In the past few years, many changes have occurred within cataloguing departments in American research libraries. This has been due to reduced budgets, and greater use of library assistants. Standardisation and automation have also had an effect on the professional responsibilities of cataloguers. The amount of original cataloguing has reduced considerably. Cataloguers these days are more concerned with the library's bibliographic control system. It is possible that the professional cataloguer will perform public service duties. (Holley 1981).

This is the line the University of Botswana cataloguing services is taking. This statement sums up the impact of automation on technical services, with special emphasis on cataloguing processes and organisation. He stressed on reduced budgets which is pushing library managers to think twice about keeping very large technical services staff and placing less emphasis on perfection. Again, library managers are making greater use of paraprofessional staff and networking, while original cataloguing is decreasing. This is affecting professional responsibilities. He posed a question as to whether

cataloguers will disappear completely. If cataloguers disappear completely, what will be the future of technical services and cataloguing?

The transition from a basically manual system to an almost full automated cataloguing system at the University of Botswana Library will ultimately end in a 'paperless environment' when cataloguing becomes fully automated. Compared to the situation in the mid-1980s, the changes which have been brought about by automation are tremendous. The prominent role of paraprofessional staff is very glaring, and it might continue to grow, while the number of professional staff continues to dwindle.

Ruth McBride, a serials cataloguer, recounts how automation changed the trend of her career. In her paper entitled "The Past, Present and Future of a Cataloguer", McBride (1983) describes the closing down of card catalogues, the development of online systems, the joining of bibliographic utilities, cataloguing records being standardised, networks being formed with resources being shared and staff being reassigned. Efforts are being made to utilise technology and cut costs without harming the budgets. This affects the individual librarian and the cataloguer. Her own assignments have changed from original serials cataloguing to supervising a copy cataloguing operation (McBride 1983).

By this, McBride is telling the "story" of many technical services librarians and the effects of automation on the trend of their careers. However, automation in cataloguing has enhanced efficiency and productivity and has produced new assignments for copy cataloguers. Rider (1996) argues that cataloguers are not defined solely on the basis of their traditional tasks, such as creating original records, doing authority work, or assigning call numbers. Today, they are seen more holistically as managers, co-ordinators, and automation experts who assume a larger role in planning and directing cataloguing operations, including the creation and maintenance of bibliographic databases (Rider 1996).

All this has been brought about by automation: opacs are replacing card catalogues at an alarming rate; authority work has been made faster and more efficient, and standard records are produced for libraries, and this makes room for copy cataloguing and a more responsible role for paraprofessionals.

The Role of Paraprofessionals in the Cataloguing Process

Paraprofessionals have always been in larger numbers in academic libraries than professional librarians. When cataloguing card sets were supplied by the British Library and the Library of Congress, they were assigned to copy cataloguing units. Their duties included adapting records from major libraries and networks for use in local systems.

This labour-intensive view of cataloguing which requires paraprofessional staff to help ensure the consistency of data is fading. Much has been brought about by dwindling budgets and the tendency of many library administrators to accept without editing, records obtained from commercial institutions downloaded directly into local databases. Rider again says that libraries are enhancing productivity and reducing backlogs by engaging outside vendors to provide some or all of their cataloguing services often at the same or lesser costs (Rider 1996). The jobs traditionally performed by professional cataloguers are taken over by paraprofessionals, with professional cataloguers having to modify the way they operate traditionally or be reassigned.

Rider (1996), citing a paper by Hyslop (1994), reports on progress and advances made in technical services, aided by integrated library systems. These integrated systems are helping libraries to facilitate quick check-in of bibliographic records when the materials are received by the acquisitions section. With PromptCat services, Michigan State University Library discovered that 90% of materials could be processed quickly in the acquisitions section and sent directly for labelling. The editing in the acquisitions section was to change the locations for branches and to complete Cataloguing-in-Publication records. Thus, no more than 10% of the records were sent to copy cataloguing for more extensive review (Hyslop 1994).

At the University of Botswana Library training of paraprofessionals has been made easier by CD-ROMs and other in-house training procedural manuals. Training is made available through interactive electronic means. CD-ROM software training allows staff members to learn at their own pace. Training and procedural manuals which are often developed in-house can be mounted on library system networks to provide tools for staff (Rider 1996). Also, senior paraprofessional staff have been trained and are encouraged to perform authority control work and they sometimes seek help and assistance from senior professional staff. Eventually, what will be left for professional staff to do? It has been suggested that professional cataloguers will be coordinators of bibliographic networks, managers, and even experts in information work. But the question still remains: by playing these roles, what will become of the aims and goals of the library? Will librarians be able to play these roles effectively without losing sight of their primary duty to their patrons?

Automation has taken the "heat" out of the jobs traditionally performed by professional cataloguers. It has also made it possible for an array of duties to be performed by paraprofessionals.

Cataloguers who are doing original cataloguing are to move into departmental libraries sharing with other subject specialists and working with patrons to provide reader services (McBride, 1996). She believes that such reorganisation will enable cataloguers

to use their expertise to serve users. They will again develop their own base of knowledge and activity and become involved in areas of librarianship, an opportunity rarely offered to cataloguers. McBride might have been influenced in some of her statements by the opinions of Holley (1991) and Gorman (1979) who view cataloguers as "endangered species", or as "deprived" members of the library profession.

Holley (1991) was of the opinion that because of reduced budgets, less emphasis on perfection by library administration, and the greater use of paraprofessionals in the cataloguing process (all emanating from the impact of standardisation and automation), the effect on the professional cataloguer would be profound; and the way he carries on his duties would be changed drastically.

He gave examples as in the cases of subject cataloguers with extensive subject knowledge who have no public service experience or collection development duties. He again cited reference librarians who are ignorant of cataloguing, resulting in poor public service. Because of the lack of communication and mistrust between these "factions", it is implied from this that it is the public which suffers. Gorman suggested that until the subject cataloguers are given the chance to help users using their extensive subject knowledge, libraries will continue to underutilise the human potential of their senior staff. This can only be done by eroding the distinction between the two sections. This is very true of the University of Botswana Library.

At the University of Botswana Library, when an item is received, it is recorded, paid for by the acquisitions section which keeps the record on the same database they share with the cataloguing section. It is therefore easy for the Cataloguing section to complete the cataloguing as part of the same set of procedures. This is made possible by the integrated system in use. This has reduced the number of professional staff from six (6) in 1993 to four (4) in 1996, and might still go down.

Younger and Gapen have an idea of reordering technical services, i.e. acquisitions and cataloguing into departments organised by broad disciplinary groupings (e.g. sciences and social sciences) that form the basis of the library as a whole. By this arrangement, each group in technical services acquires catalogues and processes material in all formats relating to specific disciplinary grouping (Younger and Gapen 1990). These writers hope that this will make coordination easier. However, it should be noted that technical and public services librarians complement each other in the traditional setting. It is not always possible to have technical services librarians who will be as effective at the public services area, and vice-versa. However, it has been possible to shift some duties from cataloguing to acquisitions due to the impact of automation and online catalogues. For example, at the University of Botswana Library, because of a reorganisation of duties in a Technical Services Department, authority control has been

experimentally pushed in part to acquisitions. Whatever errors that appear at the ordering stage are cleared so that they are not transferred to cataloguing.

Unfortunately, because of the impact of copy cataloguing practices which have helped to decrease the number of professional cataloguers, there has been the tendency for library administrators to add totally untrained staff to cataloguing sections. This practice affects the organisational structure.

Hicks and Tillin commented that the addition of personnel who do not have the necessary knowledge and skills actually creates an extra drain on the cataloguer's time. Too many unskilled workers on the cataloguer creates the problem of keeping these workers gainfully employed, and may be forced to attempt to create output beyond reasonable capabilities (Hicks and Tillin 1977).

Some Current Trends in Technical Services

Various librarians and scholars have expressed either optimism or doom for cataloguing librarians after the year 2000 because of current trends in library automation. In his novel *Nineteen Eighty-Four*, George Orwell portrayed a savage picture of the future in which speech, thought, and behaviour were strictly controlled. It is possible that Orwell being influenced by his own personal experiences. Unfortunately for Orwell, and fortunately, for the world, the reality of 1984 failed to match the bleakness he predicted.

Similarly, librarians have been postulating about trends in technical services. They believe that computer technology enables them to free various levels of library staff from irksome routines, doing away with the necessity for centralised groups of professional staff by making the information now carried only in centralised files available anywhere there is a terminal. There are many ramifications, and among them is the division between technical and public services (Gorman 1983).

It is more than ten years since the prediction by Gorman. What seemed like utopia is now becoming a reality in the era of dwindling library budgets. Again, Gorman predicted that technical services might change dramatically by the year 2000. However, the aims of technical services will exist as long as there are libraries.

Gorman (1991) further states that the purpose of libraries is and always has been two-fold: (i) to acquire, store, disseminate, and allow access to carriers of knowledge and information in all forms, and (ii) to produce services based on those carriers of knowledge and information (Gorman 1991). He goes on to talk about time of unusually rapid change in technologies and techniques which are not ends in themselves. It reminds us to be alert and resourceful, and respond to the challenges that change

presents. We should not frighten ourselves by becoming information professionals, half-baked computer scientists or peons in a paperless dystopia.

In short, Gorman was cautioning librarians not to pretend to be what they are not in the midst of all the changes, but to use the end results presented by the rapid technological change to fulfil the goals of librarianship.

Gellatly (1983) brings together the thoughts and postulations of many writers. Among some of the futuristic ideas are: Some writers believe that the computer is changing the way in which things are done, and will determine what is done (Lancaster 1982).

The best example of this is to use a computer (programmed) to yield more information on itself.

Technical services will be decentralized, i.e., the distinctions drawn between technical and public work will disappear. Everybody will become his or her own cataloger, and work at the public desk will be shared by all alike (Gellatly, 1983).

This perception is shared by many scholars, including Gorman (1991), Holley (1981), and Younger & Gapen (1990). Again, it has been postulated that:

By the year 2000 cross-references will be plentiful, authorities will never be in dispute, a content analysis will be thorough going and incisive, and there will be access to everything by class numbers ISBNs and ISSN and other identifiers (Gellatly 1983).

Conclusion

The widespread view that the number of cataloguing librarians will dwindle has already started to happen in academic libraries. Even the number of paraprofessionals have gone down. At the same time, the paraprofessionals have taken over many responsibilities traditionally handled by professionals. All these are due to the changes brought about by automation. Automation brought in its wake new technologies including the following:

- (i) Opac that has made the card catalogue redundant, and brought efficiency among other benefits into bibliographical searches.
- (ii) Automated authority control work that has been made easier.
- (iii) Marc records which have made it possible to import data into databases with very little human effort, eliminating the large human resources at

- both the professional and paraprofessional levels. Copy cataloguing has brought efficiency and speed into cataloguing processes.
- (iv) CD-ROM technology which has greatly enhanced in-service training, and helped a great deal in self-tuition.

Despite all these technological advancements, professional cataloguing staff are involved in policy decisions in the cataloguing process. They are again involved in some supervision, even though this area has been encroached upon by senior paraprofessional staff and non-professional staff with specific skills in technology.

Preston (1983) contends that the technical services manager will be expected to function as a floor manager who constantly plans to integrate new techniques, consults widely, understands the strengths of the team workers, and tailors positions to match the strengths of the staff with the needs of the library. Managing this department requires patience and maturity which is difficult to teach and learn. It must however be found if library operations are to be productive (Williams 1983).

Through all these changes, some drastic, some barely noticeable, there are some librarians who still have hope that no matter what happens, the goal of the library as an institution that provides service, will not change much. They call for change in tune with the times so as to enable the library deliver its service to suit the times. One such person is Gregor A. Preston who concludes a paper on the warm note:

...I believe we must be aware of the need to change with the times, to reorganize staffing patterns, and to change job content in order to intelligently utilize full-scale automation. We need to investigate new problems which inevitably accompany new technology and to respond to these problems in timely, creative, humanistic ways. If libraries fail to adapt to our changing work environment, they run the risk of creating a tyranny of technology, by focusing on the machine and not on the interaction of human with machine (Preston 1983).

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Information Technology Facilities and Applications in Some Nigerian Research and University Libraries

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Abstract

Research and university libraries are at the forefront in the use of computer and information technologies in Nigeria. In an effort to automate services in the federal universities, the National Universities Commission (NUC) signed a credit facility agreement with the World Bank to supply books and journals, with the understanding that these libraries will automate their services. Many of these federal universities (including some state owned universities) are presently making efforts in this direction. This paper surveyed the application of computers for routine activities in university and research libraries. The results indicate versatile holdings of modern information technologies. Similarly, there is a diverse application of computers to information management with word processing as the most common application. Software programs in use include TINLIB, micro CDS/ISIS and D-BASE. Eighteen (18) of the libraries surveyed had CD-ROM facilities installed for use. Of all the bibliographic databases available on CD-ROM, AGRICOLA was the most used. The study found that funding was the most severe inhibitor to full computerisation of libraries operations.

Introduction

The use of computerised systems cuts across all professions in any society. Librarians, bankers, aviation industry workers, educationists, medical personnel and even farmers have all acquired better control and manipulation of their work environments through

the use of automated information systems. In the library setting, the impact of computers in library automation cannot be quantified. Tedd (1980) and Rowley (1986) itemised the benefits of automation as enhancing productivity, increased output, more productive tasks in documentation and information processing, network enhancement and perfect control of records management and retrieval. In the library, for instance, a computerised cataloguing system enables the use of centrally produced bibliographic records. This saves time and ensures uniformity of cataloguing procedures as well as to standardise cataloguing rules and procedures.

Libraries in Africa have adopted the use of computers and other information technologies for information handling. For instance, Adeniran (1997) reported computerisation efforts in Botswana libraries. Of the nine academic and research libraries he surveyed, six of them were computerised. Kiondo (1997) highlights the challenge of CD-ROM and document delivery services at the University of Dar-es-Salaam Library. Chisenga (1997) also confirms the use of electronic mail at the National University of Lesotho. Horton & Ilcheva (1995) announced the birth of a campus information system connected to the Internet in South Africa. Many libraries in Africa also enjoy Internet connectivity. In Nigeria, major developments and achievements in the use of automated systems have been mainly in the academic and research libraries (Adeniran, Adigun & Okoh, 1993; Ogunleye 1997). A number of libraries in Nigeria had attempted to automate their operations in the early 70s and the 80s. The literature of these efforts are replete with tales of flop and unsuccessful implementation. Nevertheless, a few stories of success have been recorded earlier and this were mainly in the foreign-owned or sponsored libraries like the IITA library, the British Council Library, Ibadan, the United States Information Service (USIS) library and a few others.

However, from the early 90s till date, more successful implementation efforts are gradually being recorded. For instance, in 1991, most of the federal university libraries were to be supplied with books and journals under the NUC/World Bank credit facility agreement. One of the conditions in the agreement was that the libraries would automate their services. NUC promised to offer one microcomputer and a 4-LAN version of TINLIB (the information navigator) software to each university library. The Kenneth Dike Library of the University of Ibadan, which had already gone beyond the initial stages of TINLIB installation, was given an updated version of TINLIB capable of driving 20 workstations in a network (Ogunleye, 1997). It installed the TINLIB library software in 1992. Presently, the circulation and cataloguing modules of the package are in use. Other services include the use of CD-ROM database for bibliographic services. The library is a pacesetter in many respects as the electronic mail (e-mail) service is now available for users, while the library already has a single-user Internet connectivity via a local service provider.

At the University of Ilorin library, automation procedure started in 1980. The initial approach to computerisation was to develop a customised program for library operations with the assistance of the computer centre of the university. However, this was not very successful. Later, the NUC supplied the library with a 4-LAN TINLIB version. Presently, the modules have been installed. Full computerisation of the library is under way. The library is also planning to link all the branch libraries within the university with the central computer located in the main library. Other university libraries that use the TINLIB software are the Ladoke Akintola University of Technology (LAUTECH), Ogbomoso; University of Agriculture, Abeokuta; University of Nigeria, Nsukka; Tafawa Balewa University, Bauchi; Bayero University, Kano; University of Maiduguri; Ahmadu Bello University, Zaria; Federal University of Technology, Minna and Lagos State University (LASU), Lagos. Apart from these libraries many others would have made significant progress in this direction.

In research libraries, considerable progress has been reported by Lawani, Azubuike and Ibekwe (1992); Tamuno (1992); Adeniran, Adigun and Okoh (1993). The International Institute of Tropical Agriculture (IITA) library had computerised its operations since 1985; the Federal Agriculture Coordinating Unit (FACU) since 1992, Nigerian Institute of International Affairs (NIIA) library since 1986; and the Raw Materials Research and Development Council (RMRDC) library in 1987. Adeniran (1992) reported the use of TINLIB modules for reference service, the catalogue production and the online catalogue at the NIIA.

Methodology

This study aims to document information technology facilities and applications in research and university libraries in Nigeria. Twenty-two libraries were purposively surveyed for this study. The data were collected in 1996. Nine (9) of these are research institute libraries while the remaining thirteen (13) are university libraries. These libraries were purposely selected for the study because they all had access to computers and other information technologies. Sampling was restricted to only the Nigerian government funded libraries. Thus, libraries of the International Institute for Tropical Agriculture (IITA), United States Information Services (USIS), United States Aid for International Development (USAID) and the British Council were excluded because they are not funded by the Federal Government of Nigeria. The researchers mailed out two sets of questionnaires to heads of libraries and librarians respectively, to investigate the types of hardware and software available for use in the libraries.

Findings

All the research libraries (100%) had computers and telephones installed for use in their libraries as reported in Table 1. Electronic databases on CD-ROM were available in about two-thirds of the libraries. There were forty-four (44) microcomputers in the nine research libraries. The NIIA library and the FIRO library had substantial number of PCS. The laptops were not widely used as there were only four (4) in use and only one-third (33.3%) of the libraries reported using them. FIRO library was well-equipped technologically when compared with the other eight research libraries.

Table 1: Distribution of IT Facilities in Research Libraries

Computer and other Resources	No. of Libraries	Percentage
Computers	9	100
Telephone	9	100
Microforms	8	88.9
CD-ROM	6	66.7
Electric Typewriter	6	66.7
Telex	3	33.3
Fax	2	22.2
LAN	2	22.2

Table 2 shows that 10 (76.9%) of university libraries had CD-ROM databases. Interestingly, the Local Area Network (LAN), telex machine and fax facilities are not available for use, as only 23%, 15.4% and 23% of the libraries use them respectively. A possible reason why these technologies are not so popular may be due to their relative recency in the Nigerian library environment. Among forty-eight (48) PCS within the university libraries, the University of Ibadan library alone had twenty (20). The minicomputers were four in number and all these four were concentrated at Ahmadu Bello University library, a first generation university library. The software available in the libraries were varied.

Table 2: Distribution of IT Libraries in University Libraries

Computer and other Resources	No. of Libraries	Percentage
Computer	13	100
Telephone	13	100
CD-ROM	10	76.9
Electric Typewriter	9	69.2
Microform	8	61.5
Fax	3	23
LAN	3	23
Telex	2	15.4

Figure 1 shows the distribution of computer software in the research and university libraries. The figure shows that the MS-DOS, a utility software, is the most popular as all (100%) libraries have it and WordPerfect installed in their systems. The TINLIB software was used by the university libraries (92.3% of the libraries used it) for database management. The TINLIB integrated software package has been made available to all federal universities by the National Universities Commission (NUC). This is to enhance uniformity of the operations. D-BASE seems to be widely used in both types of libraries, as 66.6% research libraries and 84.6% university libraries indicate using it. Other software in these libraries include Micro CDS-ISIS, LOTUS and PAGE MAKER. SAMNA IV (1 research library), PROCITE, TUTOR and SPRINT (1 university library each). The libraries surveyed performed various data processing functions with the computers. By contrast, computers were reportedly used for interlibrary loan transactions by one library. Other functions were library database (72.7%), acquisition (50%), circulation (36.6%), reference and library management (27.2%), SDI and serial management (22.7%) and budgeting (18.0). Two libraries also indicated the use of their computers for desktop publishing and one for documentation.

Inhibitors to Full Computerisation

The survey results show that the most severe inhibitor to complete computerised systems was inadequate funding by the government. Other inhibitors were low manpower, irregular supply of electricity, poor maintenance culture, lack of basic

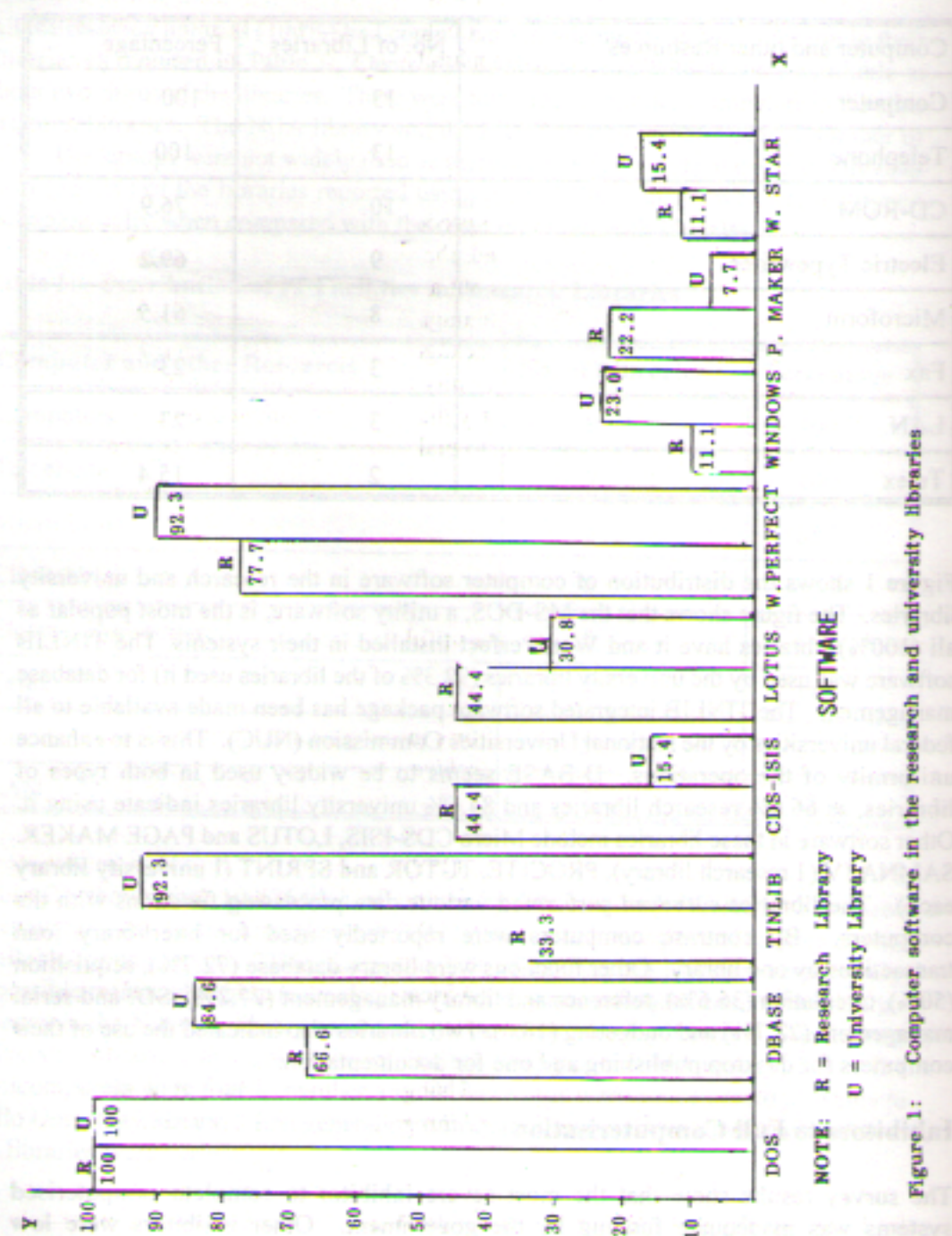


Figure 1: Computer software in the research and university libraries

infrastructures and lack of spare parts. The reason why funds have been rated as the most severe inhibitor may not be unconnected with the cost of equipment, software and systems support. They are quite expensive in Nigeria. Eres (1981) and Ehikhamenor (1990) both identified economic factor as an inhibitor to successful information transfer and implementation.

Conclusion

The application of computers to information processing in the university and research libraries in Nigeria looks promising. Indeed, there is no alternative. All the libraries surveyed have access to computer facilities but at varying degrees. The compact disc is also becoming popular in the libraries. Although most of the libraries use computers for word processing, the TINLIB software package is used by all the federal university libraries. This will facilitate and ensure uniformity in database management networking and resource sharing. It is however necessary that the government provides adequate funding for complete computerisation so as to make the Nigerian scene comparable to what pertains in the rest of the continent.

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APPENDIX A

LIBRARIES CHOSEN FOR THE STUDY

University Libraries		Research Libraries	
1.	University of Ibadan (UI)	16	Nig. Inst. of Soc. & Econ. Research, Ibadan (NISER)
2.	University of Lagos (UNILAG)	17	Raw Mat. Research Dev. Council, Lagos (RMRDC)
3.	University of Ilorin (ILORIN)	18.	Fed. Inst. Of Industrial Research, Lagos (FIIRO)
4.	Obafemi Awolowo University Ife (OAU)	19	National Fresh Water Res. Institute Kainji
5.	University of Benin (UNIBEN)	20.	Nig. Inst. Of International Affairs, Lagos (NIIA)
6.	Ladoke Akintola University of Technology Ogbomosho (LAUTECH)	21	National Mathematical Centre, Abuja (NMC)
7.	Abubakar Tafawa Balewa University Bauchi (BAUCHI)	22.	Fed. Agric Coordinating Unit Abuja (FACU)
8.	Ahmadu Bello University Zaria (ABU)	23.	Inst. Of Agric. Research ABU, Zaria (IAR)
9.	University of Nigeria, Nsukka (UNN)	24.	Nig. Inst. For Oil Palm Research, Benin (NIFOR)
10.	University of Maiduguri (UNIMAID)		
11	Federal University of Technology Minna (FUTA)		
12.	University of Port-Harcourt (UNIPORT)		
13.	University of Agriculture Abeokuta (UNAAB)		
14.	Bayero University Kano (BAYERO)		
15.	Lagos State University (LASU)		

Faculty Status in Nigerian University Libraries: A Case Study

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Abstract

A study of the extent of academic status of librarians in Nigerian university libraries was carried out using stratified random sampling. A 45-item questionnaire administered in five libraries with a response rate of 60% was used to generate data. Respondents fared well in research, publications, seminar presentations and attendance, just as majority had postgraduate qualifications with few Ph.Ds. Though professional or subject specialisation is common, few respondents taught credit courses outside General Studies and Use of Library. Beside the membership of the local professional association and academic union, most of the respondents hardly belonged to other bodies, neither did they contribute much in community service. Though they were not paid some of the academic allowances enjoyed by their faculty colleagues, majority of the respondents were accepted on equal terms by these colleagues.

Introduction

Academic status as enjoyed by librarians in Nigerian universities started from the days of John Harris when the University College (now University of Ibadan) was set up in 1948. Most of the universities that were set up subsequently in the 1960s at Lagos, Benin, Ife and Zaria also accorded academic status to their professional librarians, though with varying rights and privileges (Akhidime *et al*, 1983).

Librarians' academic status was threatened in Nigerian universities with the release of the Udoji Report in 1975 which did not only categorise them as non-academic but also reduced them in rank as against the parity they hitherto enjoyed with their faculty counterparts (Unomah, 1990). The Udoji Report notwithstanding, most of the second

generation universities that were set up in the mid-70s went ahead to accord academic status to their librarians. The hope of librarians in Nigerian universities that the Cookey Commission which was set up in 1981 to look into the salary and conditions of service of university staff would rectify the misclassification of librarians as done in the Udoji Report was dampened. This was because the latter Report still categorised librarians as non-academic because according to Unomah (1990), the commission insisted that they were not directly involved in teaching and research.

The above two reports and the so-called government's non-recognition of librarians in Nigerian universities and academic staff had agitated librarians, many of whom had produced much literature, among which are those of Oluwakuyide (1971), Onyechi (1975) and Olanlokun (1982) on what librarians could do to assert their academic status.

In the literature now, attention is less focused on the status problem of librarians in Nigerian universities because virtually all universities have accorded academic status to their librarians. In being accorded this status, what are librarians doing to prove to skeptics that they rightly deserve it? Others like Ogunrombi (1991) and Unomah (1990) have attempted to address this question albeit inadequately, as their studies were limited to more or less the publication and research requirements of academic librarians in Nigerian universities.

In a related work from outside Nigeria, Lungu (1995) reported that libraries in Copperbelt University, Zambia justify the academic status bestowed on them by "adopting a proactive approach to their responsibilities". They do this by undertaking annual stock review; existence of a functional collection development committee representing all shades of interest in the institution; offering of user education and bibliographic instruction, including reference service tailored towards imparting independent learning skill; intensified research and publications activities which placed the library ahead of other departments with regard to the number of papers per academic staff in the period 1990-1995, and resulting also in the university librarian being conferred the rank of professor; and a proposal for the offering of consultancy services.

Objectives

Going by the annual evaluation form of academic staff (librarians inclusive) in Nigerian universities, academic status carries with it such responsibilities as teaching, research and publications, membership of learned societies, community service, etc. Now that the issue of academic status for librarians in Nigerian universities has been settled in favour of the librarians, this study seeks to find out the extent of the academic activities they (librarians) engage in to justify their calling as academics.

Methodology

Five federal government owned university libraries with a total of 59 librarians were selected for the study using stratified random sampling. The selected university libraries included one first generation, and two each of second and third generation university libraries. The first generation universities were those established before 1975. The second generation universities were established in the late 1970s, while the third generation universities were those established in the 1980s and beyond. A 45-item questionnaire which was distributed to all the academic librarians in the universities selected for the study in March 1996 sought to know the personal profiles; publications, research and teaching activities; community service; and acceptance of respondents as academics by their teaching colleagues. The study could not cover more than the five selected universities because of lack of fund since the study was self-funded.

Findings and Interpretation

Out of the five university libraries selected for the study, librarians from only three or 60% of the libraries responded to the questionnaire. The libraries that responded included those of the University of Jos (UNIJOS), a second generation university; Abubakar Tafawa Balewa University (ATBU), Bauchi, a third generation university; and Federal University of Technology (FUT), Minna, also a third generation university. Though the only first generation university selected for the study did not respond, the University of Jos can, to some extent, fill the gap by the non-response because it started as a campus of the University of Ibadan (Nigeria's premier university) in 1972 before it became a full-fledged university in 1975. Abubakar Tafawa Balewa University, Bauchi and the Federal University of Technology, Minna started in 1981 and 1983 respectively. The three universities, at the time of study, had 39 professional librarians with ATBU having 17, Jos 15 and Minna 7.

Table 1 gives the distribution of respondents by university libraries. Though the three libraries have among them a total of 39 librarians, 27 (or 69.257%) returned completed copies of the questionnaire.

Table 1: Distribution of Respondents by University Libraries

Name of Library	No. of Respondents	Percentage
Abubakar Tafawa Balewa University (ATBU) Library, Bauchi	13	48.2
Federal University of Technology (FUT) Library, Minna	4	14.8
University of Jos (UNIJOS) Library, Jos	10	37.0
Total	27	100.00

Profile of the Respondents

The respondents included all cadre of professional librarians from assistant librarians to university librarians. Table 2 gives the extent of professional experience of respondents, and their highest qualifications are shown in Table 3.

Table 2: The Length of Professional Experience of Respondents

Length of Experience	No. of Respondents	Percentage
0 - 5 Years	7	25.9
6 - 10 years	7	25.9
11 - 15 "	6	22.2
16 - 20 "	4	14.8
21 - 25 "	3	11.1
Total	27	99.9

Table 3: Qualifications of Respondents

Qualifications	No. Of Respondents	Percentage
B.A., B.SC., B. Tech., BLS, etc	11	40.7
M.A., M.SC., M.ED., PGCE, MLS, etc	14	51.9
Ph.D	2	7.4
Total	27	100

Among academics, it is expected, as indeed is the practice, that they should specialise in specific areas of their subject disciplines. From this study, 19 or 70.4% of the respondents had specific area(s) of professional specialisation and/or competence in librarianship while eight or 29.6% did not have. In terms of subject knowledge or subject specialisation on the job, 16 or 59.3% of the respondents had specialised in one subject area or the other such as law, education, sociology, arts, history, chemistry, etc. and could thus function as subject librarians. Eleven or 40.8% of the respondents could not function as subject librarians.

Publications and Research Activities

One of the major yardsticks for determining academic status, according to Alemna (1993), is research and publications. The total number of publications by the respondents in this study amounted to 99 which gave an average of 3.6 papers per respondent. Additional analysis showed that 11 respondents had zero publications each, while nine respondents had between 1-5 publications, three respondents had between 6-10 publications and four respondents had 10 publications and above. The highest number of publications by any single respondent was 20 while the second and third highest were 18 and 16 publications respectively. The 11 respondents with zero publications each were all in the grades of assistant librarian and librarian II whose promotion from the former to the latter position required mainly evidence of publication. Table 4 shows the publications output of respondents.

Table 4: Publications of Respondents

No. of Publications	No. of Respondents	Percentage
0	11	40.7
1-5	9	33.3
6-10	3	11.1
10+	4	14.8
Total	27	99.9

From among the respondents that had publications, twelve had published papers in their area(s) of subject specialisation. Out of these 12, four each had one paper, one respondent had two publications, three had four papers apiece, while one each had 5, 6, 7 and 10 publications respectively.

As part of their academic requirements, librarians, like their faculty counterparts in Nigerian universities, are expected to attend seminars and conferences as either observers or make presentations. From this study however, 11 or 41.75% of the respondents had never made any seminar or conference presentations. In contrast, 16 or 59.25% of the respondents had made between 1-23 seminar and conference presentations. The breakdown of those who had made presentations as given also in Table 5 showed that 14 had presented between 1-5 papers, one each presented 6 and 23 papers respectively. In terms of seminar, conference and workshop attendance, only five respondents representing 18.51% indicated that they had never done so, while 22 respondents or 81.49% indicated that they had variously attended between 1-25 seminars, conferences and workshops. Further breakdown showed that 15 respondents had attended between 1-5, five had attended between 6-10, one attended 25 while one other person had attended so many that he had lost count of the number he attended.

The seminars, conferences, etc which respondents attend and present papers include those organised by professional and academic bodies, such as the Nigerian Library Association, general university seminars, university library academic staff seminars etc. In general terms, this study probably suggests that libraries lag behind the teaching faculty with regard to attendance and presentation of papers at seminars, conferences etc.

Table 5: Seminar Presentations

No. of Papers	No. of Respondents	Percentage
0	11	40.7
1 - 5	14	51.9
6	1	3.7
23	1	3.7
Total	27	99.6

Training and Development

The practice in Nigerian universities is that the teaching faculty have unrestricted access to training and development opportunities. Thus a graduate assistant with a first degree may read up to Ph.D, apart from attending shorter courses on the job as and when the need arises. Ike (1996) envisions these same opportunities for librarians in Nigerian universities whom she said should be "encouraged to go for higher education... graduates for masters and doctorate degrees..."

In seeking to know whether the librarians in this study enjoyed the above privileges, the following responses were got. Fourteen respondents, i.e. 51.9% had never enjoyed study leave on the job to read for higher qualifications. Twelve of the 14 respondents were graduate assistants and assistant librarians with between 1-5 years working experience, with only two others, a principal librarian and an acting university librarian, being the senior professionals. These two both joined the profession with graduate qualifications, but why they had not registered for Ph.D until now, considering that they had 18 and 13 years work experience respectively, is unknown.

Like the teaching faculty, librarians as academic staff also enjoy study leave and/or fellowship. Thirteen respondents, i.e. 48.15% had enjoyed study leave on the job. These 13 are between the ranks of librarian II and university librarian. Out of the 13, six had each enjoyed study leave twice, while seven enjoyed it only once. Three of the 13 respondents pursued the Ph.D degree while 10 took leave for postgraduate qualifications such as MLS, M.Sc., M.Ed., etc.. All the 13 respondents had their study leave with full pay. Table 6 shows those who had enjoyed study leave, including at what levels, and those who had not.

Table 6: Frequency Distribution of Respondents on Study Leave

Level of Training	No. of Respondents	Percentage
MLS, M.Sc., M.Ed., etc	10	37.0
Ph. D	3	11.1
None	14	51.9
Total	27	100

Only 11.1% of the respondents had enjoyed sabbatical leave. That 88.9% had not enjoyed this leave was because they were either not due to take it, or had tried unsuccessfully to get placements, or had not attempted it at all even when they were due.

Fifteen respondents, i.e. 55.6% had taken research and research related leaves. Of the remaining 44.5% who had never taken it, it is so because they had never applied or they were ignorant that they were entitled to such privileges. Like their teaching counterparts, academic librarians are entitled to 26 days research leave in a year apart from their 30 days annual leave.

Unlike their faculty counterparts, most of the respondents, i.e., 85.2% were not given permission to interrupt their working schedules to attend classes in pursuance of higher

degrees that were available in their universities. All the four respondents or 14.8% who reported that they were allowed this permission were from the University of Jos Library, which goes to show that enjoying this privilege depends on the goodwill or benevolence of library chief executives and the respective university managements. Most of the academic librarians, i.e. 70.4% in the universities studied were not given the atmosphere to utilise time with freedom and discretion as their faculty colleagues had. Only eight or 29.6% of the respondents enjoyed this freedom.

Most of the respondents, i.e. 74.1% reported that they would be allowed by their employers to read up to Ph.D level should they ask for this at the appropriate time. For the remaining 25.9%, they reported that they would not be given this opportunity either because of lack of staff, or that the Ph.D was not necessary, or that they had not bothered to ask to be allowed the opportunity, or as one of them put it, he was "Not Sure" he would need it.

Teaching and Related Activities

The findings here indicated that 77.8% of the respondents teach *Use of Library and General Studies* which is a credit course. Two respondents, i.e. 7.4% taught credit courses outside the *Use of Library and General Studies*. They taught part-time B.Ed students *Communication Skills and Research Methodology*. Twenty-two respondents or 81.5% were involved in the education of student librarians while on attachment. Only 40.7% of the respondents prepared teaching and research aids, while only 37% held individual conferences with students. Two respondents or 7.4% engaged in other reader's advisory programmes: one did counselling and the second taught *Advanced Use of Library Instruction* to postgraduate students and undergraduates in their last two years.

Membership of Learned Societies and Academic Boards

Academics are expected to be versatile and one way of measuring versatility is through membership of professional and learned societies, associations, etc. Though all the respondents belonged to the Academic Staff Union of Universities (ASUU), only few belonged to more than one professional or learned association or society. Two respondents or 7.4% did not belong to any society or association at all, not even to the Nigerian Library Association (NLA).

Seventeen respondents or 63% belonged to only the NLA; five or 18.5% belonged to two associations or societies each, i.e. the NLA and one other; while one respondent each, i.e. 3.70% belonged to three, four and six associations or societies, including the NLA, respectively. Apart from the NLA, the other societies and associations

respondents belonged to included the International Federation for Information and Documentation, the Library Association (London), Round-Table on Research in Reading (IFLA), Reading Association of Nigeria, Transcultural Section of the World Psychiatric Association, American Library Association and African Council on Communication Education. The others were Nigerian Society of International Affairs, Nigerian Institute of Public Relations, Nigerian Institute of Management, Royal Society of Chemistry, Institute of Data Processing Management, Counselling Association of Nigeria and National Association of Nurses and Midwives, etc.

As far as the membership of academic or faculty boards/committees was concerned, 17 respondents or 63% belonged to one or more, leaving 37% who did not belong to any committee at all. Further breakdown showed that seven respondents belonged to one academic or faculty board or university committee each, another seven respondents belonged to two each, while three respondents belonged to between 4-7 boards or committees each. The boards or committees the respondents belonged to included boards of studies of various faculties or schools, curriculum development committee, bookshop management committee, research and publications committee, housing committee, university health management services committee, senate, etc.

Community Service

Academic staff in Nigerian universities are expected to render community services and they are appropriately assessed for such services. The community services they are expected to render include research extension work, service on public bodies, membership of socio-cultural groups, public lectures/radio and television talks, service to learned and professional bodies or associations or unions, other intellectual or creative activities outside the candidate's discipline, writing newspaper articles in reaction to happenings in the society, etc.

Among the respondents, only nine or 33.3% held or had held positions in their staff union- Academic Staff Union of Universities (ASUU) and professional association- Nigerian Library Association (NLA). Between these nine, five held or had held positions in ASUU while four held or had held positions in the NLA. Only four respondents, i.e. 14.8% had been or were involved in community-based service or programme/project by virtue of their academic status. These involvements included chairmanship of a Youth Literary Festival, production of Comskit syllabus, establishment of a library in a church, and chairmanship of a credit, thrift and cooperative society.

Seven respondents representing 25.9% had written newspaper articles in reaction to happenings in the larger society. The distribution showed that three respondents wrote

one newspaper article each; two wrote two articles apiece; the remaining two wrote six and twenty articles respectively.

Equality With Faculty Colleagues

Apart from two respondents (a university librarian and an acting university librarian) who were paid responsibility allowance, none of the remaining respondents was paid responsibility allowance even if he or she headed a division or section. This is unlike in the faculty or school, the equivalent of a university library, where heads of departments or programmes are paid responsibility allowance.

Sixteen respondents or 59.3% reported that they were paid the appropriately approved academic allowances enjoyed by their teaching colleagues but 40.8% reported that they were not paid. The allowances which these 40.8%, as indeed all librarians, did not enjoy included project supervision, hazard, industrial training supervision and excess workload.

Most of the respondents, i.e. 63% reported that their faculty colleagues accepted them as academic staff on equal terms. On their part, eight respondents or 29.63% reported that their teaching colleagues did not accept them as academics on equal terms while two or 7.40 were not sure whether or not they were accepted as academic staff. Contrary to Awogbami's (1995) survey which indicated that only 12% of Nigeria's universities faculty members categorised librarians as academic staff, the majority of the respondents (63%) in this study did not only perceive themselves but are actually accepted as academic staff.

Twenty of the respondents or 74.1% agreed that they were content with their status as academic staff. The reason(s) given by the remaining 25.9% for their discontent included the non-payment of certain academic allowances enjoyed by faculty members; discriminatory practices like not allowing assistant librarians and graduate assistants in the library to proceed on study leave immediately after appointment as is the case with these categories of staff in the faculties; and what one respondent termed as librarians being seen as "second class citizens". All the respondents enjoyed membership of convocation and like their teaching counterparts, could vote or be voted for.

Conclusion

Respondents numbered 27 and included all cadre of professional librarians in the three universities surveyed, among whom 16 (or 59.3%) had postgraduate qualifications of which two were Ph.Ds. Nineteen (or 70.4%) respondents had specific areas of professional specialisation and or competence in librarianship, while 16 (or 59.3%) had

subject knowledge or subject specialisation on the job, such as law, education, sociology, arts, history, chemistry, etc.

The total number of publications amounted to 99 at an average of 3.6 papers per respondent, but the highest number of publications by respondent was 20 while the second and third highest were 18 and 16 respectively. Sixteen (or 59.3%) respondents had presented papers at seminars, conferences, etc and these amounted to between 1-23 per respondent. Thirteen respondents on their part had enjoyed study leave, ten for MLS, M.Sc. and M.Ed. qualifications and three for Ph.D but only three (i.e. 11.1%) had enjoyed sabbatical leave. The majority of respondents (15 or 55.6%) had access to research leave but not that many had the opportunity to interrupt their working schedules to attend classes in pursuance of higher qualifications available in their universities.

All respondents belonged to the Academic Staff Union of Universities but few belonged to professional or learned associations outside the Nigerian Library Association. The majority of respondents also enjoyed membership of academic or faculty boards/committees in their universities. Respondents' involvement in community service is not satisfactory, but the majority are accepted by their teaching counterparts as equals, in addition to being paid most of the appropriately approved academic allowances.

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Photocopying and the Awareness of Copyright in Tertiary Institutions in Bauchi State, Nigeria

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Abstract

The photocopying practices in higher institutions in Bauchi town as they relate to existing copyright laws were investigated. The findings reveal that the principal reasons for photocopying are book scarcity and the cheapness of the services. Over 70% of the respondents photocopied text materials owned by libraries. Interestingly, over 40% of the respondents were unaware of the copyright law. Recommendations aimed at ensuring compliance with copyright laws are made.

Introduction

The developing countries of the world, including Nigeria, are suffering from "book hunger". Books and other library materials are in short supply, with a high proportion of books needed to promote scholarship and research at the tertiary level of education being imported at prohibitive costs from Europe and the United States of America. Institutional funding for textbooks and journals has been reduced by the heavy yoke of economic burden that Nigeria has been experiencing since the mid-1990s. There is no doubt that textbook shortage is critical in Nigerian universities. The Nigeria Book Sector Study of 1990 revealed that only a maximum of 5% of undergraduates can afford to purchase their own copies of textbooks, if available. The study further confirmed that the textbook availability situation is worse in polytechnics than in federally owned universities and even worst in colleges of education. Book shortage is further fuelled by the recent introduction of import duty report (IDR), a big clog in book importation. The scenario painted above is the harbinger for the recourse to photocopying of documents by students. Consequently, commercial photocopying is thriving today in tertiary

institutions in Nigeria. With the high demand for photocopying services, commercial photocopiers are found in and around most tertiary institutions in Nigeria, including those run by libraries in the various institutions.

Though the provision of efficient and high quality photocopying services help libraries to serve their clientele better, it has however created copyright problems. At this juncture, it is pertinent to briefly discuss what copyright is all about. Simply put, copyright is the exclusive legal right of an author, artist, composer, or photographer, to generate multiple copies of a printed or written composition or work of art. From a legal perspective, all these are classified as "intellectual properties". The main thrust of copyright is to ensure that an author receives both adequate financial boost and prestige from those who exploit his intellectual property. It is therefore an infringement of the law to reproduce any intellectual property without the permission of the original author(s). Through national laws and the establishment of national copyright boards to enforce copyrights, copyright problems have been minimised the world over. In Nigeria, the copyright decree of 1970 was the first law to curb illegal reproduction. However, to support scholarship, the concept of "fair dealing or fair use" is allowed in copyright. This allows researchers or students to reprint or quote portions of intellectual property if they are compatible with "fair practice".

Libraries find photocopiers very useful both in the preservation of library materials and in replacement of mutilated pages or the outright reproduction of fragile materials. Libraries encourage the mass production of library materials which are fewer in number to meet research and study needs of users to reduce the incidence of mutilation and/or theft.

On the other hand, because a preponderance of undergraduates cannot afford the prohibitive cost of books, which are imported mainly from the United States of America and Europe, they find willing allies in operators of photocopiers who are out to make quick profit. The operators therefore facilitate wanton violation of the copyright decree by students through the xeroxing of whole books and/or journals. This symbiotic relationship between photocopier operators and students go a long way in defrauding copyright owners of books/journals while students get such books/journals at about one-fifth of their original (cost) prices and operators remain in business. The fact that operators of copiers have limited education, usually secondary school level, might have accounted for their ignorance of provisions of copyright laws in most cases. Therefore, instead of discouraging copyright abuse by students through copying of whole books/journals, they give full support, especially in view of the enormous financial benefits that will accrue to them. The students on their own part, may be infringing copyright laws either because they are ignorant of such laws or are deliberately ignoring the laws.

Purpose of the Study

This study is aimed at determining the extent of students' utilisation of photocopying facilities in the three tertiary institutions in Bauchi metropolises of Bauchi State of Nigeria and their awareness of the requirements of copyright laws. In Nigeria, we have had reasonably consistent effort in legislative development of our copyright. The British copyright act of 1911 was made applicable to Nigeria in 1912 with a view to ensuring copyright protection in this colony (Uvieghara, 1991). This Act which was the first copyright law in Nigeria, lasted till 1970 when the first post-independence copyright law was promulgated. Due to the growth, sophistication and complexity of the Nigerian society, the 1970 law soon became ineffective and this led to the promulgation of a more potent and effective copyright decree in 1988 which was amended in 1992. The 1992 amended copyright decree which, today, is the operative statute on copyright and allied rights in Nigeria, guarantees a better protection for the authors of creative works, in addition to entrenching a virile administrative structure for the copyright industry. The latter was made possible by section 30 of the decree which established the Nigerian Copyright Commission.

The International Bureau of World Intellectual Property Organisation (1991) attributed the high incidence of piracy in Nigeria to the dearth of books at all levels, as well as the prohibitive cost of books when available.

About 80% of tertiary level texts originate from overseas and so do virtually all scholarly journals. Book shortage is further compounded by the recently introduced Import Duty Report (IDR), a big clog in the wheel of book importation in Nigeria. Furthermore, prices of locally available titles, book acquisition and collection development become problematic for most university libraries. The low purchasing power of students and the undersupply of books are major factors which cannot be ignored. Underfunding for collection development is heightening the conflict between undergraduate and postgraduate needs, with the latter being hardest hit (Ogunrombi and Adio, 1993). Libraries in Nigeria are therefore battling with how to make their sparse collections available to their ever-increasing users.

Though copyright allows the concept of "fair use" and "fair dealing" in the reproduction of publications for research and private studies, however, Ojiji (1991) noted that the scale and extent of photocopying in Nigeria is so alarming that it is threatening the economic and moral rights of authors. The dearth of scholarly textbooks and journals should not continue to be used as excuses by both libraries and commercial photocopying outfits to defraud authors of the sweat of their labour. Ogunmoyela (1995) noted that libraries have an important role to play in the implementation of copyright laws. This he said could be achieved by including lectures on copyright laws

during students' orientation programmes and as part of the credit user education programme. This will assist students to appreciate both the reason for and the socio-economic and moral implications of copyright. Benneth (1993) and Adrienne and Sharlot (1993) stated that some publishers do not recognise fair dealing in photocopying. For such publishers one frequently encounters false assertions such as: "this book or parts thereof may not be reproduced in any form whatever." Such notices ignore the copyright that is expressly provided for in the copyright law.

Methodology

The target population for this study were students and operators. Three methods were used to collect relevant data. These methods were: questionnaire, interview and observation. A short questionnaire totalling 300 were distributed randomly to students at the photocopying centres in each of the three tertiary institutions in Bauchi metropolis over a period of two weeks in January 1997. The major criterion used in sharing out questionnaires was the rate of photocopying. Consequently, the ratio is as follows: ATBU - 150, Federal Polytechnic - 100 and Tatari Ali Polytechnic - 50. (See the profile of the institutions in Table 1).

Table 1: Profile of Tertiary Institutions Surveyed

Names	Ownership	Year	Book Stock (vols)	No. of Reg. Users	Library Staff Strength
Abubakar T/Balewa Univ.(ATBU),Bauchi	Federal	1980	45,500	2,623	65
Fed. Polytechnic, Bauchi.	Federal	1979	23,316	1,625	8
Tatari Ali Polytechnic, Bauchi.	State	1976	13,027	781	11

Result and Discussion

Table 2 shows that the total number of respondents for each of the three tertiary institutions surveyed was above 20% based on the questionnaires returned. The background of the respondents showed that a preponderance of the respondents, 158 or 73.5% were males while 57 (26.5%) were females. This gender distribution is not surprising as there are more males than females in most tertiary institutions in Nigeria. Consequently, more males patronised the photocopying centres surveyed. A large number of the respondents, 120 (55.89%), were degree students while 44.2% were diploma students. Majority of the respondents (59.1%) were living on campus, while the rest were not on campus.

Table 2: Summary of Profile of Respondents

Distribution of Respondents by Institution	ATBU	FED. POLYTECHNIC	T/ALI POLYTECHNIC	TOTAL
	113 (52.5%)	55 (25.6%)	47 (21.9%)	215
Gender Distribution: Male	92 (42.8%)	34 (15.8%)	32 (14.9%)	158 (73.4)
Female	21 (9.8%)	21 (9.8%)	15 (6.9%)	57 (26.5)
Educational Level: Diploma	8 (13.7%)	50 (23.3%)	37 (17.2%)	95 (44.2)
Degree	105 (48.8%)	5 (2.3%)	10 (4.7%)	120 (55.8)
Residential Status: On Campus	73 (34.0%)	26 (12.1%)	28 (13.0%)	127 (59.1)
Off Campus	40 (18.6%)	29 (13.5%)	19 (8.8%)	88 (40.9)
Awareness of Copyright: Yes	65 (30.2%)	31 (14.4%)	25 (11.6%)	121 (56.3)
No	48 (22.3%)	24 (11.2%)	22 (10.2%)	94 (43.7)

Note: Figures in parentheses are relative frequencies (%). Responses are multiple.

Of the 215 respondents, 121 or 56.3% are aware of copyright laws on the three campuses. This number can be mobilised by the institutional libraries to spread the gospel of copyright not only on their campuses but also in Bauchi metropolis.

Motivation for Photocopying

Table 3 presents the frequency distribution of the motivating factors (reasons) for photocopying. Book scarcity predominates, accounting for 121 or (56.3%) of responses, followed by the fact that xeroxing is cheaper than the actual purchase of textbooks with 50 or 23.3% response rate.

Table 3: Reasons for Photocopying

	Number	Relative Frequency (%)
Scarcity of textbooks	121	56.2
Cheaper than textbooks	50	23.3
Convenience	47	21.9
Reference books	37	17.2
Not allowed to borrow reserved books	33	15.4

Restricted loan policy which does not allow borrowing by students was not considered a major reason for photocopying, being an accepted library practice. Some of the respondents (21%) claimed that it was more convenient for them to xerox relevant pages of books than to loan them for home use. Finally, 15.4% resorted to photocopying of scarce books placed on two hourly reservation to allow as many users as possible to gain access to them.

Materials Photocopied

Table 4 shows the different materials photocopied by the respondents. Library books form the single highest material photocopied (110 or 51.2%) while lecture notes rank second with 81 respondents or 37.3%. It is not surprising that over one-third of the respondents xerox lecture notes as the need to attend lectures physically diminishes for students who can readily afford photocopying cost, especially under the off-campus system while lecturers are unable to monitor attendance usually because classes are large for each course level. About one-fourth (51 or 24.7%) of the total sample photocopy library journals to keep abreast of the development in their subject disciplines and to execute research projects.

Table 4: Photocopying Habits of Respondents

Materials Photocopied	No. of Respondents	Relative Frequency (%)
Library Books	110	51.2
Library notes	81	37.7
Library journals	53	24.7
Personal books	32	14.9
Architectural/Eng. Design	16	7.4

Volume of Photocopy Requests

Table 5 further shows that whereas 8 or 3.7% respondents claimed to have photocopied whole textbooks and journals, 26 or 12.1% and 169 or 78.6% respectively photocopied chapters of books/journals and relevant pages only. The study also revealed that a preponderance of the students (107 or 49.8%) required only 1 - 10 pages of materials while 78.65% were only interested in the relevant pages of books and journals as a result of the dearth of books.

Table 5: Extent/Volume of Photocopying Requests

Extent of Photocopy Requests	Number	Relative Frequency (%)
Whole textbooks and journals	8	3.7
Chapters in books	26	12.1
Relevant pages only	169	78.6
Total Number of pages		
1-10	107	49.8
11-20	31	14.4
21-30	13	6.1
31-40	9	4.2
41-50	3	1.4
51 and above	11	5.1

Awareness of Copyright Laws by Operators

Most of the photocopier operators interviewed confirmed their ignorance of copyright laws in relation to photocopying services. They claimed that photocopying services are being provided to fill the vacuum created at the tertiary level of the Nigerian education enterprise and to serve as a means of livelihood for them.

Selected Comments

The comments of the respondents interviewed are both illuminating and frustrating. These comments were grouped into three categories, depicting:

1. Ignorance of copyright laws.
2. Dearth of literary materials for scholarly needs.
3. Deliberate abuse of copyright laws.

The underlined comments exposed respondents' ignorance of copyrights laws:

"I am not used to photocopying of documents, neither am I aware of the implications of contravening copyright laws"

"If any of such laws exist, the regulations should be made public especially within the academic community".

As for the availability of scholarly materials to meet their needs for quantitative education and research, the following comments are apt:

"Copyright laws cannot be strictly absorbed in this country as long as textbooks are not enough to satisfy demands"

"In order to minimise the violation of copyright laws, more copies of relevant texts should be available in our libraries"

"Generally, people photocopy not because it is cheaper but because of the scarcity of relevant texts and the restriction on borrowing privilege."

For the deliberate abuse of copyright laws, the following comments are succinct:

"Although copyright laws are there, but as far as I am concerned, they are as good as non-existent".

"It is not my wish to break copyright laws but I am compelled by circumstances to do so".

"Copyright laws will continue to be abused as long as economic hardship persists, coupled with the dearth of relevant textbooks".

Conclusion and Recommendations

Librarians and libraries have major roles to play in the enforcement of copyright laws. This can be achieved by incorporating lectures on copyright laws with students' orientation programmes to raise students' awareness of copyright laws and consequently motivate compliance. In addition, libraries should display copyright captions in conspicuous locations in the library, including reading areas and photocopying laboratories/centres, as constant reminders to both library users and photocopier operators of copyright requirements. Moreover, as a prerequisite for the operation of private commercial photocopying service, operators should be compelled to display copyright statements within their business premises on campuses.

As a deliberate policy to motivate greater compliance with copyright laws, government should make more relevant books available for tertiary education in Nigeria. Local publishing of books to oil the Nigerian educational system should be encouraged by the government through generous funding of the Nigerian Book Development Council. In addition, experienced academics should be commissioned to write textbooks with relevant local examples while our fledgling paper industries should be reactivated through massive injection of funds to ensure uninterrupted supply of pulp to support the book industry. Moreover, government should assist authors to claim their royalties from greedy publishers.

Finally, book importation, especially for tertiary education, should be exempted from Input Duty Report (IDR) as a solution to the exorbitant prices of foreign imprints.

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Strategy for Marketing Information Services in Botswana Special Libraries and Information Centres

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Abstract

A case for marketing special library and information services in Botswana is made. The paper also suggests how marketing can be implemented in the information service in Botswana. The need for marketing becomes imperative given the fact that IT has improved accessibility to information which is really challenging not only the role, but also the survival of special libraries and information centres in Botswana. The paper argues that if carefully planned and executed, marketing has the potential to both increase the special library's survival and help it flourish.

Introduction

Special library and information services marketing have come of age. So much has been written and said about the need for library services to adopt marketing principles and practices that it might be assumed that marketing has by now become the common feature for library and information services management in Botswana and other places. This paper advances the reasons why special libraries and information centres in Gaborone (Botswana) should market themselves.

Special libraries and information centres are facilities that exist to serve a specialised body of users within a definite subject. These information facilities are designed to provide access to specialised information within reach, and established to meet the needs of a specialised clientele. In Botswana, some of the major special libraries include the National Institute of Research and Documentation (NIR) Library, the University of Botswana, Botswana National Productivity Centre (BNPC) Library, Bank of Botswana (BOB) Library, the Botswana Institute of Development Policy Analysis (BIDPA) Library, the Botswana Development Corporation (BDC) Library, Princess Marina Hospital Library, Central Statistics Office (CSO) Library, the Ministry of Local Government, Lands and Housing Library, National Parliament Library, Radio Botswana

(RB) Library, among others.

Special libraries in Gaborone are mostly found in government departments. They are also found in research institutions. These research institutions are either private or parastatal organisations. They are also found in the United Nations agencies, for example the UNDP (United Nations Development Program) and UNICEF (United Nations International Children Educational Fund). Regional institutions, for example, Southern African Development Community (SADC) and embassies also account for some of the special libraries in Gaborone. Development finance, management consultancy, church institutions, among others, also have special libraries. Special libraries in Botswana are therefore found in government departments, private sector and parastatal organisations.

These libraries are important because they are developed in response to a need for specific information and the emerging recognition that an organisation with quick access to appropriate information may have a competitive advantage. Strategic marketing, and therefore formal/planned marketing, becomes important in the special library environment in that it focuses the library toward organisational strategic thinking and planning and offers the opportunity to develop more effective library service which could lead to overall improved organisational decisions.

However, the need to address marketing in the special library environment arises due to the diverse avenues to information that are rapidly emerging and challenging the role and the very survival of special libraries. Information seekers who once turned to their corporate or agency library for help may now be prompted to use electronic or commercial document delivery services, to purchase individualised access rights in the form of database subscriptions or purchased books, or to accept abbreviated abstracts instead of retrieving full text articles (White and Abels, 1995). Special libraries, therefore, are not only competing for customers within this changing information delivery marketplace, but they are re-examining their management, their manner of justifying budget, and their very existence. It is in view of the foregoing that special libraries in Botswana have to address marketing because if carefully planned and executed, marketing has the potential to both increase the special library's chances of survival and help it to flourish.

Background Details of Botswana

Botswana is a landlocked country in Southern Africa, which covers an area of 581,730 square kilometres. The total population of Botswana is 1,348,000 (Ministry of Finance 1994:323). Major towns are Gaborone, Francistown, Lobatse, Jwaneng and Selibe Phikwe. The capital, Gaborone, has a population of 133,468 (Ministry of Finance

1994:323), this is about 10% of the whole country's population. Botswana has a literacy rate of 74%, which is composed of 84% male and 63% female (Turmbull, 1995).

At independence, Botswana was regarded as one of the poorest countries in Africa. Since independence, in 1966, the country has developed at a remarkable pace owing, in large part, to rapid expansion in the production and export of minerals. In real terms, the growth of gross domestic product (GDP) has averaged around 13% per annum over the entire post-independence period. Real GDP per capita was about nine times higher in 1990 than in 1966 (Hope, 1995).

Botswana has been able to achieve such rapid economic development and progress through what has been described by Good (1992) as "the supportive interrelations between an open market economy and a system of elite democracy, successfully blending 'traditional' and modern elements, and offering a range of fairly free and meaningful political choices". In addition, there is a close relationship between the government and the public service in the management and development policy that is agreed through a legitimate political process.

Both the government and the private sector play pivotal roles in the management of development policy. This has resulted from the nature of the economy, in which sustained national development is heavily dependent on the efficient channelling of mineral revenues, through the public finance process, into public programmes and projects designed to support the private sector to create employment and to facilitate the expansion and diversification of the economy. Throughout the post-independence period this partnership between the government and the private sector service worked remarkably well, and the country justifiably acquired an international reputation as a steady democracy with sound and prudent development management and an efficient, accountable public bureaucracy.

However, in the past few years, the economy has been in a downturn, with growth rates of only 2% in 1992-94 (Hope, 1995). In order to cope with economic challenges, the government of Botswana has identified the improvement of productivity in both the public sector and private sector as a critical need (Republic of Botswana, 1993). To this end, it has embarked on two strategies to address the problem more effectively. The first is the establishment of the Botswana National Productivity Centre (BNPC), which was created as a parastatal body in 1993. The mission of the BNPC is to work with both the public and private sectors in promoting productivity as a long-term strategy for the creation of employment opportunities and competitiveness. "This is given effect through the national productivity movement intended as an on-going process that fosters productivity consciousness and, thereby, the will of everybody to be productive" (BNPC, 1994). The second direct and related strategy is the creation of the Work

Improvement Teams (WITS). The objectives of WITS are to improve human relations, to create a free flow of communication between the management and employers and facilitate the provision of quality service in both the public and private sectors.

Special libraries and information centres have not escaped the downturn in the economy, the economic challenges facing the nation as a whole and the need to improve productivity which, in turn, means the provision of quality service. The downturn in the economy has resulted in decreased budget, reduced capital expenditure, isolation of information services and little and/or no recognition from management. The diverse avenues to information, in the form of the Internet, that are rapidly emerging, also challenge the role and the existence of the special library and information centres. It is in view of the foregoing economic decline and challenges that special libraries and information centres in Botswana have to address marketing because, as earlier said, if carefully planned and executed, marketing has the potential to both increase the special library and information centre's chances of survival and help it flourish through relevance and productivity among others.

Information Services in Botswana

The challenges facing those information services are due to the fact that the world is changing very rapidly. The innovative nature of man has brought marked improvements in transportation and communications modes, techniques in teaching and learning. These and other endeavours of man have resulted in the generation of more information. Information and population explosions underscore the need for new improved services in the interests of man and his environment. The traditional function of libraries has been acquisition of materials, which are or might be needed by users. But with the changes that are taking place, libraries are becoming less and less places where everything has to be found in books on the library shelves. Increasingly, people come to the library to ask how they themselves can find information to meet their needs. More emphasis on the effectiveness of the library services rests on the reference function of a library providing solutions than placing a particular book on the reader's hands. The interdependence provided by the interlibrary loans can no longer contain the demands of researchers. National and regional networks are being supplanted by globalisation of information in the form of international databases and databanks, which are made available to individual users directly. The emphasis in the next century will be to bring the world closer together in sharing information, but in a more sophisticated manner than at present.

Lack of a separate budget coupled with budget cuts which have been observed in many special libraries and information centres and which in many cases have inhibited growth of these libraries. This has resulted in the lack of space or suitable accommodation,

particularly in government departments, which has also been observed in other special libraries and information centres. Some libraries have stopped acquiring more materials because of lack of space.

The administrators in organisations with special libraries and information centres have shown, and continue to show, little enthusiasm for the libraries. These are the people whose support, financially and administratively, is vital for the management, growth and success of the special libraries and information centres. This is because of rapid competition from telecommunications and other sources of information, and general information explosion is resulting in a great increase in the number of documentary records of various kinds and, more recently, in the rapid development of services using new technology by which access may be obtained to information directly, without resorting to traditional library services.

The advent of the foregoing means that librarians are being faced with an unprecedented set of complex challenges in trying to fit into the emergent information society. The above challenges can be met by developing strategies for survival, growth and managing change so that key stakeholders recognise the role of librarians and their value to society. The challenges can also be met by creating a clear vision and values, defining mission and objectives, with customer focus and quality management for effective and efficient service.

In short therefore, special libraries and information centres in Botswana are facing pressures from decreasing budgets, reduced capital expenditure, inadequate accommodation, competition from telecommunications, information explosion and lack of recognition from management. Special libraries and information centres are finding themselves having to justify and demonstrate their relevance, necessity and value. All these pressures are intensifying and the intensity is likely to increase in the future. These libraries will necessarily have to ensure that services provided reflect the needs and want of their customers and are delivered effectively and efficiently. The best defence against all these pressures is for special libraries and information centres in Botswana to become an indispensable source of information. This they can attain through marketing of their services. Increasingly, marketing of services is being discussed in the context of special library and information services (Kirkup et al, 1989). Consequently, special libraries and information centres in Gaborone, Botswana, should adopt an effective marketing programme. Through marketing, they can reach more users, encourage use of their resources, become indispensable parts of the total organisation, and thereby be in a position to acquire recognition from management, increase resources and services and better understand current and evolving user needs.

Strategy for Marketing Information Services in Botswana

The implementation of marketing information services basis as well as on a formal and adequate planning and evaluation should be adopted in the special library and information service in Botswana. As Smith and Saker (1992) have argued, marketing is a strategic process, and to gain the benefits from it, information managers need to plan their marketing to take account of the entire organisation; its direction over a long period; its resource capabilities; and the relevant marketing mix. Our reading of the literature reveal that what passes for marketing in Botswana is a variety of discrete activities rather than a coherent, planned marketing programme. There is need therefore, to pursue the following:

Ensuring that marketing assumes a clear importance with the organisation. This can be done by separating marketing from the day-to-day operations of the special libraries and information centres and thus giving specific responsibility for marketing to an officer or a team of officers. This has advantage in that marketing assumes a clear importance with the organisation thereby, ensuring that there is a written marketing strategy and more specifically, marketing planning documents. The planning process should begin with the formation of a mission statement, or broad specifications of the information service's role. This is to avoid managing marketing activities without the benefit of a coherent long-term planning statement, and therefore on an informal and personal basis. An appropriate marketing strategy should show how an information service is going to compete successfully in the future.

Ensuring that greater effort is devoted to designing and implementing suitable methods for finding out what people want and expect from the information service and then acting upon the results obtained, rather than concentrating on promotion alone. Information needs of users change over time and information centres have to keep abreast of these changes to maintain the 'customer-first' syndrome, which is the centre pin of marketing.

Conclusion

In conclusion, therefore, the need to address marketing in special libraries and information centres in Botswana is attributed to a number of factors. These include, first, national and regional networks that are being supplanted by the globalisation of information in the form of international databases and databanks, which are or will soon be available to individuals directly. The emphasis in the next century will be to bring the world closer together in information sharing, but in a manner that is more sophisticated than to date. This poses a great challenge to librarians in Botswana. Second, marketing is mandated by the profound changes in the political and social conditions in Southern

Africa which necessitated the re-orientation of strategies to support efficient and productive organisations that can meet the competitive pressures in the international scene.

Special libraries and information centres are part and parcel of organisations facing these changes and must change their management strategies too, or they will remain behind. Third, after many years of unprecedented growth, Botswana has experienced dramatic downturn as a result of the slow-down in the economy. At the same time, the marketplace has become more competitive due to the injection of strong regional competition. Special libraries and information centres have not escaped the slow-down in the economy which has resulted in reduced capital expenditure. Fourth, key management in organisation's view of the library as an expensive venture, which they can easily do without. As a result the library is ignored, marginalised and is viewed as a non-essential entity particularly in hard times. Fifth, funding cutbacks, inflation, staff freezes, increasing competition from telecommunications have created challenges in the environment in which special libraries and information centres operate. Consequently, the concern for public accountability and productivity, coupled with raised user expectations, has focused on the need for effective management in the special library and information centres. In these strained economic conditions, strategic marketing in special libraries and information centres in Botswana requires a concerted effort as a solution to the above management problems. It is against this background that this paper argued for the need to market special libraries and information services in Gaborone, Botswana because if carefully planned, marketing can make the special library and information centre a necessary source of information and convince funders that they cannot do without it.

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Appraisal of Electronic Records: The Path for African Archivists

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Abstract

This article outlines the recent developments in the appraisal of electronic records and discusses the methodological foundations. It then suggests the path the archivists in Africa should take to tackle the challenge posed by appraising electronic records.

Introduction

Fundamental to any definition of appraisal is the act of determining archival value of records in order to decide what should be retained or destroyed. It has been said in various fora that appraisal is an anti-archival concept. The theoretical principles of archival science are:

1. Archives are the indivisible and interrelated whole of actions of their creators.
2. Archival documents are the natural, impartial, authentic, interdependent and unique means, residues and evidence of their creators' activities.
3. Archival bond is the original and necessary link among documents.
4. Archival work is primarily focused on the physical and intellectual integrity of documents to guarantee administrative, legal and historical accountability. (Duranti, 1994; MacNeil, 1994)

While the theory of archival science stems from maintaining these fundamental principles, appraisal works against this. In appraisal, parts of an archival body of documents are selected from the whole, which means that the integrity of the body is affected.

Although the question of appraisal of records has been one debated for a long time in different archival fora, the debate on what to do with electronic records seems to have taken a more prominent position in the past two or three decades than other conventional record formats.

The use of computer generated documents has brought certain challenges to the archival community. Electronic records have changed from the days of mainframe generated and application specific documents to the world of relational databases and electronic formats of text, data, graphics, images and voice (Cook, 1991-1992). There are also "compound" or "smart" multimedia documents that can exist as "virtual" composites on a computer screen, although they are randomly stored, and may be generated by different users, for different purposes and in different organisational contexts. An example is Geographical Information Systems that exist as a virtual composite of spatial data.

The challenge of these uniquely different and increasingly complex electronic records has been subject to divergent opinions on what role and competence modern archivists need to have. Some schools of thought suggest that archivists need to be information managers because the medium has lost its importance to the message it carries. Others believe that computer generated records are of the same generic nature as paper records, therefore, not requiring different treatment (Bailey, 1989-90). The more recent debates have been around the possibility of identifying the qualities that should characterise electronic records. The challenge has been to have a distinctive definition of what constitutes records and non-records, and how they differ from other electronic documents within an electronic environment. Only then can archival concepts be identified easily, providing the conceptual boundaries within which appraisal of electronic records can occur.

History and Trends of Discussion

Luciana Duranti traces the discussion on the appraisal of electronic records from the 1930s (Duranti, 1996). However, it is in the last two decades that articles have appeared in archival journals (such as *The American Archivist*, *Archives and Manuscripts*, and *Archivaria*) reports and institutional policy statements presenting development of methodology and practice in the appraisal of electronic records. These have also been supplemented by archivists re-examining the history of discussion, especially looking at the heritage of appraisal debates from Europe as well as the influence of other disciplines such as data processing.

Archivists have tried to segment the development of appraisal strategies using different criteria. Judging from the survey of the literature, a chronological development emerges that is characterised by emphasis on different aspects of analysis. The pattern is generally from emphasis on technical analysis in the earlier times, to content analysis and lately on context analysis. It is difficult to put time frames to these phases because their development is more evolutionary than revolutionary. In the first phase, technical analysis was considered of highest priority. This analysis comprises "...a detailed

examination of the record's medium with a view to determining the readability of the data, ensuring the availability of proper documentation, and assessing cost factors" (Bailey, 1989-90). This phase is associated with first generation electronic records, which consisted mostly non-textual databases.

Two different circumstances may have resulted, increasing emphasis on content as opposed to technical analysis. First, the technological breakthroughs of the PC revolution of the 1980s which saw the introduction of technology that was more integrated and moving towards hardware and software compatibility. This meant that there was less attention paid on technical issues which the technology industry was now solving through its own developments. The second, which is more of a consequence of the revolution, is the resultant empowerment of individual users to create, accumulate and use records within their own environments probably with individual control. This may have raised archivists' concern about loss of both physical and intellectual control. At the same time, the world was increasingly concerned about legal requirements related to copyright, freedom of information and piracy legislation and admissibility of electronic records in court. This added further impetus to individual examination of records in order to ensure compliance with these legal requirements. It is no wonder therefore, that this phase was characterised by the inventorying and scheduling of all records that consist content analysis.

The next phase draws its strength from the general dissatisfaction with the existing appraisal methodologies to reflect more globally, the society that generates them. Booms (1987), "reacting to the excesses of the traditional archival statist approach, whereby the state's ideological values are imposed on the very definition of records...", asserted that archival records should reflect values that society has been allowed to define on its own. He presented on a philosophical level, theoretical principles to support his assertions and then on a methodological level suggested a documentation model. In practice, this model has two parts: the criteria to assign priority to records, creating structures in society and variables to determine the importance of the citizen's interaction with those structures.

Parallel to this development was the re-examination, by archivists (especially in Canada), of the theory and methodology of archival science. Archival theorists in Canada experienced an awakened interest in European archival theory and specifically "in the centuries-old discipline of diplomatics and (its) posited ... continued relevance for the understanding of modern records" (Cook, 1997). The thrust of this change resulted in the realisation that contextual analysis of records was of greater importance and a necessary prerequisite to understanding the content of records. Cook asserts that "diplomatics has much of value to say to modern archivists ... about the necessity to conduct careful research into the form, structure, authorship of documents, especially

as the "Macro appraisal" approach. In this approach, the focus is first on the context of record generation "through analysing and appraising the importance of government functions, programs, activities and transactions - and citizens interactions with them - that cause the records to be created" (Cook, 1997). After the "macro" evaluation of the functions and business processes has been completed, comes the "micro" appraisal of the records themselves. This context-content path characterises the macro-appraisal integrated approach, which appraises electronic records together with other paper records that have been generated in the activity. The main benefit of this methodology is taking into consideration the context within which records were created within institutions or organisations' normal activities. This not only enables the immediate identification of areas that potentially have records of value, judging from the prioritisation of agencies within organisations and functions within those agencies, it significantly reduces the need to examine all content in an already overwhelming records situation. An added advantage is the concept of appraising electronic records at the same time as other records because they are created within the same environment and hence will have an archival bond.

An assessment on the development of archival ideas on the appraisal of electronic records reveals that methodology is not rigid but evolves as it is challenged by new circumstances in technology development and what opportunities these present. The evolution of theory, methodology and practice does not have to be linear, nor are there exclusive schools of thinkers. As Cook has ingenuously stated, "(a) archival history is ... a rich collage of overlapping layer, of contradictory ideas existing simultaneously or even blended together, of thinking exhibiting differences of emphasis..., of individual thinkers changing their ideas in light of new circumstances, of old ideas appearing in new guises in new places" (Cook, 1997). With this in mind, this methodology should not be seen as a panacea for the future, it is a methodology proposed for this generation's challenges.

Conclusion

Against the backdrop of increasing demand for services and the changing role of archival institution from the "juridical-administrative justification for archives grounded in the concept of the state, to a socio-cultural justification for archives grounded in wider public policy and public use" (Cook 1997), archivists in Africa need to carefully study and understand current theory and methodology and adopt this to their world of practice. It is unnecessary to go through the whole process that the archival world has just as it would be unnecessary to try to reinvent the wheel. However, it is important to understand the history of theoretical and methodological principles and their implication on current practice and future development.

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Studies on Microorganisms Associated with the Deterioration of Some Library Materials in Jos, Nigeria

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Abstract

Investigations on microorganisms associated with the deterioration of library book materials in Jos and its environs revealed the presence of *Bacillus* sp., *Lactobacillus* sp., *Staphylococcus* sp., *Pseudomonas* sp., *Aspergillus Niger* series, *A. Fumigatus*, *Chaetomium thermophile* var. *Coprophile*, *C. Globosum*, *Mucor pusillus*, *Trichoderma viridae*, *Penicillium digitatum*, *Rhizopus oligosporus* and *R. Stolonifer*. The presence of these microorganisms was found to depend largely on the temperature of the environment. Hence, at 25°C, eleven microbial species were isolated, at 37 C, ten microbial species were isolated, and at 45°C, five microbial species were isolated. The implication of these findings to the development of proper preservation techniques for library book materials is discussed.

Introduction and Literature Review

A knowledge of the causes of the deterioration of library materials is essential for all librarians and others who are concerned about the preservation of information stored in book format particularly. Such knowledge allows the practitioner to understand, for example, why some preservative methods are more effective and why certain activities must be carried out on a long term basis to enhance this effectiveness. This concern for proper management of library materials has been constant. In the words of Nzotta (1982) "because of limited financial and other resources, we should be concerned with

the preservation of our collections to the same extent that we are concerned with acquisitions and services".

Deterioration can be defined in this context as a loss of quality in any library material which decreases its ability to carry out its intended function (Wessel, 1972). Such deterioration is the result of two categories of actions on library materials: those caused by some inherent instability of the materials; and those caused by actions external to the material. The first category includes the acidic nature of some kinds of paper and the light-sensitive nature of the silver halide image-bearing layer of a photograph; the main elements of the second category are the actions of heat, humidity, light, biological agents (microorganisms such as moulds, insects and rodents), atmospheric pollutants and human actions.

It was because of these concerns that the researchers embarked upon this investigation. Wessel gives a brief historical survey noting that the earliest expression of concern dates from some 3,000 years ago and relates to Egyptian papyrus (Wessel, 1972). The longevity of paper was questioned in 1145 when Roger of Sicily decreed that all characters made on paper were to be recopied onto parchment. This suspicion was not dispelled in Italy until the fifteenth century (Febvre and Martin, 1976). Our own African continent has been described by Plumbe (1962) as the headquarters of termites. Late John Harris, generally regarded as the "Father of Nigerian Librarianship", even before Plumbe showed concern on this subject (Harris, 1956).

However, Ogbonna and Ejekwu (1990) reported the involvement of Bacillus cereus, staphylococcus aureus, s. Lactis and Mucor pusillus in the deterioration of newspapers manufactured in Nigeria. Ogbonna et al (1986), in their publication, reported the involvement of Aspergillus sp., Chaetomium sp. Trichoderma viride and Fusarium sp. in the deterioration of newsprint and cement papers used as local packaging materials in Jos and the health implication of the microorganisms to human life. Nevertheless, Godd et al (1973) pointed out that bacteria, mould and yeasts may grow in the pulp used in paper manufacturing to sour it, stain it, and reduce the quality of the paper. Godd et al (1973) further claimed that the deterioration of library book materials by microorganisms are mostly encouraged by environmental factors under which the materials are stored. They also stated that spots in the sheet and breaks in the roll of paper are caused by microbial action.

Many of these materials that are destroyed by microorganisms are very expensive to acquire and more importantly, contain vital information which may not be acquired again (in the library) once lost to the microorganisms. As a consequence, this research on studies of microbial deterioration of library book materials in Jos, Nigeria, is considered important. In carrying out the research, researchers were concerned with

identifying microorganisms involved in the deterioration of library book materials in Jos. Possible remedies are suggested.

Aims and Objectives

This study was designed to isolate and identify the microorganisms involved in the deterioration of library book materials, determine some ecological factors that encourage the microbial deterioration of book materials and test the antimicrobial activities of two common plants extracts (*vernonia amygdalina* and *Cassia alata*) on the microbial isolates.

The results obtained from this research may suggest possible incorporation of plant extracts as antimicrobial agents during manufacturing of paper to discourage the growth of the microorganisms and consequent deterioration of the materials. Nevertheless, this research was also designed to assist librarians in developing effective preservation techniques. This investigation is not a comparative study. However, samples were collected from different libraries in Jos and analysed for the presence of microorganisms associated with deterioration.

Materials and Methods

Collection of Materials: The study was conducted in the month of July, 1996. During the survey, deteriorating book forms were collected from University of Jos Library; National Library, Jos, Plateau State Library, Jos, and Jos Museum Library. The book materials were classified into textbooks, newspapers, journals, manuscripts, and thesis.

Tables 1 and 2 give background information on the libraries from where the samples were collected and the type of materials collected respectively.

All the microbiological analyses were conducted in the following places:

- i) Postgraduate Applied Microbiology Research Laboratory of the Department of Botany, University of Jos.
- ii) Veterinary Research Institute, Vom (Bacteriology Lab.).

Table 1: Background Information on the Libraries from where the Samples were Collected

Background Information	University of Jos Library	National Library	Plateau State Library	Jos Museum Library
Location	Jos	Jos	Jos	Jos
Type of Library	Research Library	National Library	Public Library	Special Library
Collection Size	148,592	43,000	45,809	5,088
Air-conditioning	Not used in the Library	Not used in the Library -	Not used in the Library -	Not used in the Library -
Types of Shelving Used	Books were classified according to Classification scheme and displayed on steel shelves. Open access to materials on shelves.	Books were classified according to D.D.C. scheme and tightly displayed on steel shelves. Open access to materials on shelves is practised but materials may not be taken out of the library.	Dewey Classification scheme is used. Books displayed on steel and wooden shelves. Open access of materials on shelves practised.	Dewey Classification scheme is used. Books displayed on steel and wooden shelves. Open access of material on shelves is practised but books may not be taken out of the library.

Culturing, Isolation and Characterisation of Microbial Isolates

The book materials were first sorted out and classified into textbook, newspaper, journal, manuscript and thesis. Based on the various growth requirements of several microorganisms, three different types of agar media - Nutrient Agar (N.A), Malt Extract Agar (M.E.A) and Yeast Extract Agar (Y.E.A) - were used in the experiment.

For culturing and isolation of microorganisms from each of sample class (e.g. newspaper), the three media mentioned above were prepared and poured into separate petridishes such that each agar medium type had 30 petridishes. The sample class concerned (newspaper/textbook/journal/manuscript/thesis) was cut into sizes of 1cm x 1cm pieces with the aid of sterilised razor blades and each of the sized material was aseptically placed into each of the petridishes (culture plates). The resultant culture

plates of each medium type was then divided into three portions. The first portion of 10 plates were incubated at 25°C, the second portion of 10 plates at 37°C while the third portion of 10 plates were incubated at 45°C. A control was set up using culture media without any form of the book materials. The whole set-up was examined after 24-48 hours for the presence of bacteria and yeasts and after 7 days for the presence of fungi. The plates were re-examined fourteen days later for the presence of additional microorganisms. This was done to give slow grower a chance to develop. The colour, size, shape texture, surface elevation and margin of the different colonies developing on the plates were observed and representative colonies picked and transferred to fresh media. The pure colonies were cultured on agar slants and stored at 4°C until required.

Characterisation of the Bacterial Isolates

The characterisation tests for the identification of the bacterial isolates were carried out as outlined by Skerman (1967) and Collins and Lyne (1976). The cultures were then tentatively identified from *Bergey's Manual of Determinative Bacteriology* (Buchanan and Gibbons, 1974). The isolates were first subjected to Gram's stain after which biochemical tests were carried out on the organisms.

Characterisation of the Fungal Isolates

Several sources were consulted for the identification of the fungal isolates from the plate cultures (Alexopoulos, 1962; Samson et al, 1984). These references provided useful identifying characteristics such as culture pigmentation, growth diameter on the medium, hyphae size and spore types.

Studies on the Cellulose Degradation by the Isolates

Five fungal and three bacterial species were used as the test organisms. The fungal species included: *Aspergillus niger*, *A. fumigatus*, *Chaetomium globosum*, *Rhizopus oligosporus* and *R. stolonifer*. The bacterial species included: *Bacillus* sp., *Staphylococcus* sp. and *Pseudomonas* sp. These organisms were chosen because they had high frequency of occurrence amongst the test specimens. Using Wilkins and Walker's method (1975), the ability to degrade cellulose of these isolates were investigated.

Anti-Microbial Activity of *Cassia Alata* and *Vernonia Amygdolina* on the Isolates

The plant extracts used in the research include: leaves of *Cassia alata* and *Vernonia amygdolina*. The choice of the above two mentioned plant extracts was based on the

fact that they are widely distributed in the country and their anti-microbial effect is widely documented.

Thirty grams each of *C. alata* and *V. Amygdolina* were collected from the University of Jos Naraguta hostel and cut into small pieces and then extracted with 50ml of hot water. Each plant leaf extract was filtered aseptically with the aid of a membrane filter. Two sets of sterile filter paper disc. (each set containing 22 discs measuring 1 cm in diameter), were then impregnated. Some of the discs were treated with combination of plant extracts. Each set of the extract discs for *C. alata* and *V. amygdolina* were used to carry out susceptibility tests on the isolates. Four discs were employed for each test organism and they were evenly distributed on the culture plates. After inoculation, the plates were incubated for a period of 48 hours in the case of bacteria species, and 9-14 days in the case of fungi. The susceptibility tests were repeated with the discs treated with combination of the plant extracts. The zone of inhibition of the plant extracts on the test organisms were determined.

Results

The condition of the specimens before the survey showed signs of various degrees of deterioration which included colour change, dust, spots, rat and insect attacks, fading of inscriptions and tenderness of the paper materials. Table 2 shows the details of the physical appearances of the experimental specimens before the experiment.

MICROORGANISMS AND DETERIORATION OF LIBRARY MATERIALS

Table 2: Condition of the Test Specimens Before the Experiments

SPECIMEN	PUBLISHER AND DATE OF PUBLICATION	SOURCE OF PUBLICATION	DATE OF COLLECTION	TYPE OF PAPER	PHYSICAL SURVEY	APPEARANCE BEFORE
(JOURNAL) Journal of the Anthropological Institute of Great Britain	Trubner and Co., 57858, Ludgate Hill, London. Published in "1890"	Jos Museum Library	3rd July, 1996	Glossy material	Colour change from white to brown; fading of inscriptions on the journal; and gross spots were observed on the inner pages of the Journal. Rat attack was also very prominent.	
(NEWSPAPER) Standard Newspaper	Standard Publishers, Jos "2nd Dec, 1990"	National Library, Jos	5th July, 1996	Newsprint	Same as above. In addition, it was soft, tender and dusty	
(TEXTBOOK) A reader in Modern Literary Arabic, by Farhat J. Ziadeh	Princeton University Press, Princeton, New Jersey, "1964"	Plateau State Library, Jos	5th July, 1996	Glossy material	Same as in Journal. In addition, it was dusty with insect attack	
(MANUSCRIPT) by Kifah F. Qua yarin	Written by Mohammed Ibn Juzay, "1952"	Jos Museum Library	5th July, 1996	Newsprint	Same as in Journal. In addition, insect attack and dust were very prominent; it also had various coloured spots.	
(THESIS) The Legislative Function under the 1979 Constitution of the Federation of Nigeria	Written by Abigail Ayung Izan June 1984	University of Jos Library	5th July, 1996	Glossy material	Cover page was covered by dust; inside page showed coloured change from white to brown spots; inscriptions were almost off; insect and rat attacks were very prominent	

During the investigation, four genera of bacteria: *Bacillus* sp., *Lactobacillus* sp., *Staphylococcus* sp. and *Pseudomonas* sp. were present. Also present were nine species of fungi: *Aspergillus niger* series, *A. fumigatus*, *Chaetomium thermophile* var. *Coprophile*, *C. Globosum*, *Mucor Pusillus*, *Trichoderma viridae*, *Penicillium digitatum*, *Rhizopus oligosporus* and *R. Stolonifer* (Table 3).

Table 3: Microorganisms Isolated from the Various Deteriorating Book Forms

Bacterial isolates	TB	NP	JN	MS	TS	TOTAL
<i>Bacillus</i> sp.	+	+	+	+	+	5
<i>Lactobacillus</i> sp.	-	+	-	+	+	3
<i>Staphylococcus</i> sp.	+	+	+	+	+	5
<i>Pseudomonas</i> sp.	+	+	+	+	+	5
<i>Aspergillus niger</i> series	+	+	+	+	+	5
<i>Aspergillus fumigatus</i>	+	+	+	+	+	5
<i>Chaetomium thermophile</i>	-	+	-	+	+	3
<i>Chaetomium globosum</i>	+	+	+	+	+	5
<i>Mucor pusillus</i>	-	+	-	+	+	3
<i>Trichoderma viridae</i>	+	+	-	+	-	3
<i>Penicillium digitatum</i>	+	-	-	+	-	2
<i>Phizopus oligosporus</i>	+	+	+	+	+	5
<i>Rhizopus stolonifer</i>	+	+	+	+	+	5
TOTAL ISOLATES	10	12	8	13	11	54

Key

+	= Present	-	= Absent	TB	= Textbook
NP	= Newsprint	JN	= Journal	MS	= Manuscript
TS	= Thesis				

Amongst the isolates were two thermotolerant bacterial species - *Bacillus* sp. and *Lactobacillus* sp. and three thermotolerant fungal species *A. fumigatus*, *Chaetomium thermophile* var. *Coprohile* and *Trichoderma viridae* (Table 4).

It was also observed that temperature had a serious effect on the isolation of the microbial isolates. However, the details of the effects of temperature on the isolation of the microbial isolates is shown in table 4.

Table 4: Microorganisms Isolated at Different Temperatures

MICROORGANISMS	25°C	37°C	45°C
<i>Bacillus</i> sp.	+	+	+
<i>Lactobacillus</i> sp.	+	+	+
<i>Staphylococcus</i> sp.	+	+	-
<i>Pseudomonas</i> sp.	+	+	-
<i>Aspergillus niger</i> series	+	+	-
<i>Aspergillus fumigatus</i>	+	+	+
<i>Chaetomium thermophile</i> var. <i>Coprohile</i>	-	+	+
<i>Chaetomium globosum</i>	+	+	-
<i>Mucor pusillus</i>	+	-	-
<i>Trichoderma viridae</i>	-	+	+
<i>Penicillium digitatum</i>	+	+	-
<i>Rhizopus oligosporus</i>	+	-	-
<i>Rhizopus stolonifer</i>	+	-	-
Total	11	10	5

KEY

+ = Present, - = Absent

Table 4 reveals that temperature had a great effect on the type and number of microorganisms isolated from the specimens. The highest number of microorganisms was closely followed by 37°C with 10 organisms. However, the least number of microorganisms was isolated at 45°C with 5 organisms. Hence, *Aspergillus fumigatus*, and *A. niger* series were found to be strongly cellulolytic. While *Chaetomium globosum* was cellulolytic. However, *Rhizopus oligosporus*, *R. Stolonifer* and all the bacterial species appeared to be moderately cellulolytic (Table 5.)

Table 5: Cellulolytical Activities of the Test Organisms

TEST ORGANISM	Depth of cellhilas	Moderately Cellulolytic	Cellulolytic	Strongly Cellulolytic
<i>Bacillus</i> sp.	0.19cm	+		
<i>Staphylococcus</i> sp.	0.2cm	+		
<i>Pseudomonas</i> sp.	0.10cm	+		
<i>Aspergillus niger</i> series	1.10cm			+
<i>Aspergillus fumigatus</i>	1.15cm			+
<i>Chaetomium</i> <i>globosum</i>	0.80cm		+	
<i>Rhizopus oligosporus</i>	0.30cm	+		
<i>Rhizopus stolonifer</i>	0.35cm	+		

Discussion

Health Implications of the Findings

The findings of this research reveal the presence of many organisms in the deterioration of library books. However, some of these organisms are known disease causing organisms (pathogens). Hence, this work supports the works of Freeman (1985), Slack et al (1978), and Ogbonna and Ejekwu (1990) who, in their separate reports, alerted the involvement of some pathogenic microorganisms like Streptococcus fecalis, Staphylococcus aureus, Clostridium sp., Trichoderma viride, Aspergillus flavus and Chaetomium sp. in the deterioration of book materials.

The involvement of some of these organisms mentioned above in the deterioration of paper materials has a lot of health implications for librarians and other users of books. Nevertheless, Freeman (1985) claimed that, nasal and throat discharges from a book user (who may be a carrier of an infectious disease) may contaminate the book material and the surface of the book later becomes dry. This creates a significant health hazard especially for book users who are fond of putting their hands into their mouth so as to get their hands wet to enable them flip through the pages of books. Joklik (1984), in his publication, reported that Tubercle bacilli have been isolated from the dust on books and cloths used by a carrier. He further pointed out that diphtheria bacilli, salmonella typhi and haemolytic streptococci have been found in the hands of carriers harbouring these pathogenic organisms and since carriers of pathogenic organisms are not easily identified by their looks, users of library book materials and other paper materials (like currency notes) should avoid putting their hands into their mouths, when flipping through the pages of books (or currency notes). The library cleaners are also advised to cover their nostrils and mouths (stop talking) when dusting the books. Cleaners should also wash their hands properly with clean water after the shelving and cleaning exercises.

Implications of the Findings on the Effective Preservation of Library Book Materials

Microbial deterioration of library materials is highest at room temperature (25°C). There is therefore a need for alteration of temperature of the library rooms to temperatures lower or higher than that of the room temperature in order to discourage the microbial growth and subsequent deterioration of books. However, since temperatures above the room temperature (25°C) will not be convenient for library users, lower temperature is suggested. Air-conditioned is therefore recommended for libraries. This will keep the temperature of the library lower than the favourable temperature (25°C) for microbial growth.

Manuscript and newspaper had the highest number of microbial load. This could be because they were stored in rooms with little or no ventilation. This observation agrees with the report of Carpenter (1977), who pointed out that moisture is one of the major factors that encourages microbial colonisation of paper materials. No wonder therefore, that moisture and ventilation are considered crucial elements in the microbial deterioration. In a situation where air-conditioner is not available, it is strongly recommended that the library be well ventilated by using fans instead. The idea behind this is to reduce the moisture content (which is one of the main factors affecting microbial growth) of the rooms, thus discouraging microbial growth.

In the course of the study, other biological agents like insects and rats were observed to be greatly involved in the deterioration of the library materials. These organisms were found to be attracted into the library by the food items dropped on the floor of the library. The remedy here is to clean the floor of the library constantly and properly too. Finally, bringing food items, talk less of eating in the library, should be discouraged.

Antimicrobial Studies

Vernonia amygdalina showed a positive activity against bacillus species while *cassia alata* showed no anti-microbial activity against any of the test organisms. The mixture of the plant-extracts showed no anti-microbial activity against the test organisms. The non-activity of the *cassia alata* extract could stem from the fact that the discs were not treated with the inhibitory concentration. This observation was also reported by Obumselu and Ogbonna (1990) who pointed out that the effect of plant extracts on microorganisms depend to a large extent on the concentration applied.

Conclusion

For effective management of library book collections, therefore, regular cleaning programmes should be designed for libraries. This will reduce damage caused by biological agents, sand and even dust. In addition, library buildings should be designed to meet conservation/preservation requirements of relative humidity, temperature, light and air (ventilation). More plants should be screened for anti-microbial properties with a view to introducing them into paper manufacturing. Further works should be done on the microbial deterioration of other library materials. This will help in designing a comprehensive presentation technique for all the library materials.

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SHORT COMMUNICATIONS

The Professional and Intellectual Breadth of an African Librarian

by

Phillip E. Ephraim

University of Calabar Library

Calabar, Nigeria

Introduction

Nduntuei Otu Ita was born on 22 November, 1936 at Ekim, Oron, in Akwa Ibom State of Nigeria. He married Dr. Jean M. Ita in June, 1965 and has five sons. He attended the Institute of Librarianship, University of Ibadan from 1960-61. He obtained an Associate Membership of the British Library Association (ALA) in 1961, Fellowship of the British Association (FLA) in 1969, Masters of Law (LLM) (London) in 1971, Fellowship of the Nigerian Library Association (FNLA), 1990. Mr. N.O. Ita has had a brilliant career and scholarship in librarianship. One of the uniqueness of the man is that he was one point that law and librarianship met, and Oh, what a good mix!

N.O. Ita's Contribution to Librarianship

He was the University Librarian of the University of Calabar for 20 years, Mr. Ita deservedly acquired erudition, authority and formidable credentials which found ample expression in the scores of books, journal articles, indexes, reviews, conference and position papers authored and edited by him. A review of a few of his most representative literary works under a few subjects would be in order.

Acquisitions

"Collection Development: A General Perspective" was a paper presented by Mr. Ita at the Nigeria Library Association Seminar on Collection Development, held in Calabar in 1981. The paper which was the seminar's keynote address was an overview of the complex activities that consist collection development, such as, selection of materials, their actual acquisition, preservation functions in relation to the existing stock, periodic continuous assessment of existing stock to enhance informed selection and guarantee rational weeding. The paper called for a critical re-examination of our collection

practices to evolve a valid and dependable guideline so that we would confidently use our dwindling funds to get the optimum consistent with the need of our communities.

Library Administration (Management)

In a paper entitled "Some Thoughts on the Administration of Libraries" presented at the Nigerian Library Association Annual Conference held in Calabar from December 2-6, 1979, the author gave a treatise on the modern thinking and trends in the field of management science as it relates to library administration. It first of all defined administration or management as the effective deployment or utilisation of available human and material resources to achieve predetermined objectives. The paper then went on to exhaustively thrash out the key components in library management, to wit, determination of the library objectives, recruitment and development of personnel, budget administration, the psychological and sociological dimensions of leadership, the advantage in granting the librarian a free hand to operate and the place of coordination in the totality of activity to promptly forestall ugly daily scenes in any sector of the library. Undoubtedly, this treatment will serve as a standard reference document to any practising or aspiring library administrator. The following year, he wrote on "Approaches to College Library Administration" and published it in the *Nigerian Libraries*. In this paper, one would readily discover that library administration is a territory where the author is adept. As a library administrator of high repute himself, he handed down the principles and fine skills in goal setting, and human, collection and financial management in college libraries. This well-researched paper will make any college library manager wiser. Then, in 1995, Mr. Ita published in the *African Journal of Academic Librarianship* the article, "Decision Making in Libraries." Here he discussed the nature of decision making and considered descriptive model as the best decision making model for library administration. This was the author's last instalment in his invaluable series of library management.

Bibliographic Control

His work, *Bibliography of Nigeria: A Survey of Anthropological and Linguistic Writings from the Earliest Times to 1966* published in 1971 by Frank Cass, London, conferred on the author a moral justification for what was to become an untiring advocacy in his career for a bibliographic control in Nigeria. He became easily one of the bright stars in the sky of the theory and practice of bibliographic control. By this book, he lived out his firm belief in the urgent need for the compilation of special, national and regional bibliographic reference works, catalogues and subject lists which will aid in the identification and location of information materials for education and research on and in Nigeria. Fifteen years later, he followed this up with "Problems of Bibliographic Control in Nigeria" (1986), a paper he published in the prestigious professional

librarianship journal, *International Library Review*. This area of librarianship has always been very dear to the heart of Mr. Ita. Maybe because the subject of bibliographic control is at the intersection with issues of depository laws and loaded with legal underpinnings. Maybe not. But in his expert analysis of the problems of bibliographic control in Nigeria, he focused on the non-compilation and production of current and retrospective subject bibliographies, national bibliographies and union catalogues, among others. As already observed, he himself had laboured to provide part of the solution to this problem when he completed his seminal work - *Bibliography of Nigeria: A Survey of Anthropological and Linguistic Writings from the Earliest Times to 1966* and in animating the minds of his colleagues in the Committee of the University Librarians of Nigerian Universities (CULNU) as its Chairman then, to birth the *Nigerian Periodicals Index* (NPI) in 1986. Surely, he is one of the most consistent proponents of the importance of bibliographic control of our time.

Documents Librarianship

Mr. Ita's paper, "Government Publications: Their Acquisition, Organization and Use" was the leading paper at the 1976 Annual Conference of the Nigerian Library Association, Northern State Division. The treatment was an exploratory review of this species of library resources known as Government Publication. He defined these documents as publications issued at various departments and agencies of Federal, State and Local Governments. For their organisation, they should be catalogued by entering each document under the issuing agency. In classifying them, international schemes like Dewey, L.C. may be compromised with intelligent locally designed schemes, and that the best approach to their physical disposition in the library is to group them together in a separate collection. He concluded by warning that because of their fragile nature and the difficulty of replacement, they should be kept in a closed access and that the documents librarian needs to be a person with advanced professional skills and strong interest in reference service.

Professional Education

At the 3rd National Conference on Library Education held in Owerri, 15-16 December, 1986, Mr. Ita examined the Bachelors of Library Studies (B.L.S.) Degree and the job market in Nigeria. Wading through the schism of opinions and the comparative situation in major English speaking countries on what should be the educational foundation for professional training of librarians, he proposed a full university education in one or two non-library subject(s). Products with such foundation are always more mature and confident in any client - librarian interaction with added advantage in such professional tasks as indexing, book selection and in searching the literature of the subjects where they already claim authority. This concept has now flowered into a

welcome new phenomenon known as subject specialism in librarianship. His publication in 1991 of the paper, "Education for Librarianship in Nigeria: A Re-assessment" in the *Nigerian Libraries*, which was essentially a synthesis of the above position shows that his well-considered view on the subject matter was well received by the community of Nigerian librarians. This paper looks at the option for undergraduate programmes in library schools found in the sixties and late seventies as a compromise stop-gap. It posits that a more effective and confident librarian is produced from a graduate in some non-library disciplines who then went to the library school to obtain a postgraduate qualification in librarianship. In his career and times as a library administrator, Mr. Ita has courageously implemented this recommendation of his with very good results in his personnel development programme.

School Libraries

Mr. Ita published in *Libri* in 1969, the paper, "Educational Planning and School Library Development in Nigeria." In showing how the educational enterprise in Nigeria should plan for the growth of school libraries, the author enthusiastically recommends that every school - primary, secondary, technical and teachers training should have a functional library. Two years on, he published in the *Northern States Library Notes* another paper in school libraries entitled, "School Library Profession in Nigeria." This paper examined the constitutional provisions for the School Library section of the Nigerian Library Association. Here again, the author threw his weight behind the establishment and proper organisation of library services in Nigerian schools. This is a testimony to the fact that his ambition in improving library services in the country is not limited to the tertiary institutions only. This paper identifies infancy as the right starting point in curing the poor library and reading habits found in the average Nigerian adult.

Subject Indexing

"Indexing: A Review of Theory and Principles" is a paper brimming with indexing systems and benchmarking with best practices anywhere. In it, Mr. Ita fought assiduously to help his reader understand clearly and in every important detail what to watch out for when indexing a material. This paper was published in 1987 in the Nigerian Library Association Monographs Series No. 1 entitled *Indexes and Indexing: Nigerian Perspectives* (ISBN 978-2334-03-0).

Indexing of Nigerian Periodicals, another paper, was a keynote address delivered at the CULNU Workshop on Indexing held in Jos (11-12 November, 1985). As the Chairman of the Committee of the University Libraries of Nigerian Universities (CULNU) at the time, the author characteristically opened his address by defining an index as a key, a

finding aid to the content of anything, which does not only list the content but also indicates the specific position where each content is located. In this regard, he viewed the library catalogue as an index which lists in some order the items within the library and their specific location therein. He then charged the participants to see the Workshop as a training ground for the production of the *Nigerian Periodicals Index* (NPI), which was eventually born in 1986. The index, said he, was intended to cover adequately the rising number of local periodicals, many of which were too obscure or too fugitive to be tracked down by international abstracting and indexing services.

Book Review

Mr. Ita reviewed the book, *Tropical Librarianship* published by Wilfred J. Plumbe in 1987. His identity as a father in the profession easily earned him a role of a reviewer of other people's work. In reviewing Mr. Plumbe's work for instance, he was to exhibit another trait of his - that of forthrightness in praising or disagreeing with issues raised by his colleagues, no matter their calibre. He described Plumbe as a librarian who has travelled widely in far-flung regions with an unrivalled accumulated wealth of experience, and his book as a collection in a single volume of some of his numerous writings produced within the last decades. He judged the book to be necessarily eclectic but a useful reading. Since Mr. Ita's views are generally regarded as a plumbline, his positive recommendation of any book is always taken as a safe guide for the book buying public and libraries in Nigeria.

Conclusion

Since 1969 when his first published work appeared in the librarianship literature, many more works by Mr. Ita have followed; all of which could not be reviewed here for time and space constraints. But it would become obvious from the above review that Mr. Ita was an indefatigable man whose breadth of interest in the professional field seemed to be unlimited. His writings which covered bibliographic control, indexing, collection development, organisation of knowledge, library management, school librarianship, government publications and education for librarianship - have penetrated the soil of librarianship to a great depth. His works bear the stamp of a man who was a master of his subject, a scholar, and a competent library philosopher. He was much interested in policies, procedures, laying down of the ground rules for standard practice which understandably, is the knack of a lawyer. Mr. Ita was able to combine his two-loves: librarianship and law without necessarily serving two masters! Endowed with an analytical mind, rich arsenal of the weapon of English Language and a profound understanding of librarianship, he was better equipped than many of his equals to present succinct, bold and convincing views on just about anything he would choose to examine. He was most brilliant in arguments - neatly tearing down and exposing the

hidden and apparent weaknesses of the opposing viewpoint (mercifully, without being sarcastic) and following up the devastating blow with an unassailable weight of evidence to the contrary - indeed much as a lawyer in his own court! Yes, the whole of the librarianship arena was his court for some 20 years. It sometime amazes me that men of diminutive sizes should be so mightily compensated with great minds!

It is hoped that as Mr. Ita's legal prowess has enriched the practice of librarianship, so will his extraordinary bibliographic virtuosity shoot him to the lead in his new job of full university lecturership in the bookish profession of law.

I recommend that the University of Calabar Library and the Nigerian Library Association should compile, produce and publish Mr. Ita's papers for their unquantifiable reference and research value.

This man has done a good job for the librarianship profession.

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NDUNTUEI O. ITA

New Publications and Products

Dewey for Windows Guide Available in Print

The *Dewey for Windows Guide*, featured in the new Dewey for Windows update disc (version 1.1), is now available in print from OCLC Forest Press.

The *Dewey for Windows Guide* uses a record-oriented approach to explain what is in the Dewey for Windows database. Step-by-step instructions and detailed commentary describe the most effective ways to search and build numbers in Dewey for Windows. More than 230 screens accompany the text to illustrate each activity. The guide was written by Julianne Beall, assistant editor of the Dewey Decimal Classification.

"The print edition of the *Dewey for Windows Guide* provides a quick and easy desk-side reference tool for Dewey for Windows users," said Peter J. Paulson, executive director of OCLC Forest Press. "We encourage the use of the guide as a convenient and effective way to learn how to use Dewey for Windows, and to maximize productivity."

The *Dewey for Windows Guide* can be previewed on the Dewey home page on the World Wide Web at <http://www.purl.oclc.org/oclc/dewey-guide>.

Dewey for Windows Guide. By Julianne Beall.

Paper. ISBN 0-910608-65-2. US\$35.00, UK £20.00

Orders may be placed through the Dewey Web Site <http://www.oclc.org/fp>. For information about Forest Press products, telephone 1-800-848-5878, ext. 6237, or +1-614-764-6237.

OCLC Online Computer Library Center is a non-profit, membership, computer library service and research organisation whose computer network and services link more than 27,000 libraries in 64 countries and territories <http://www.oclc.org/>.

The Electronic African Bookworm: A Web Navigator (Print Version)

Developed by Hans Zell Publishing Consultants in Oxford as part of their Web site <http://www.hanszell.co.uk/navtitl.htm>, *The Electronic African Bookworm* is a quick-access guide and pick-list to some of the best Internet sites on Africa, African and

development studies, and on African publishing and the book trade. It also provides links to the home pages of African and Africanist journals, African newspapers, to Web sites of libraries in Africa and to some of the major Africana libraries in the countries of the North, as well as listings of the major publishers (outside Africa) with African studies lists. Additional links cover a variety of resources for writers, African literary and cultural journals, and a number of African literature sites. There is also a section on ICT and the Internet in Africa and electronic networks for development.

In addition to Africa and African studies-related Internet sites, *The Electronic African Bookworm* offers a substantial number of links to Web sites (not Africa-specific) relating to book and journal publishing and the retail book trade, book professional associations, and societies, publishing services, libraries and library associations, library journals, library and information science resources on the Internet, and links to a number of major networks, and NGOs. There are also links to the best general reference sources and Internet directories and guides, and to some of the major Internet tools and search engines.

Additionally, the print version includes these special features:

- Getting Wired to the Web: A Beginner's Guide to the Internet
- How to Search the Web: Some Search Engine Tips
- A cyber glossary of over 100 of the most frequently used terms and high-profile words as they relate to the Internet and the World Wide Web
- Connecting to the Internet in Africa: An Introductory Essay by Kofi Arthiabah

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Professional News and Events

AJLAIS Goes Electronic

A copyright agreement was signed recently between the *African Journal of Library, Archives and Information Science* and the H.W. Wilson Company to enable the company add the full text of AJLAIS to the electronic version of H.W. Wilson's indexes. This will definitely increase the visibility of our authors.

African Skies Library Foundation to Support Public Libraries in Africa

The foundation, based in the United States of America, plans to establish free public libraries in a number of African countries. It will provide money for acquiring land and building public libraries, and also the ongoing support for staff and utilities. It will provide books in both African and European languages. For further information, contact Charles R. Larson, 4604 Briarwood Drive, Sacramento CA 95821, USA.

African Journals Support and Development Centre (AJSDC) Promotes African Journals

The centre, located in Nairobi, Kenya, was set up in 1997 for the purpose of promoting and supporting scholarly journal publishing in Africa. Its brief covers marketing and distribution, education, training and research. The centre is responsible for the African Periodical Exhibit (APEX) which has been a regular exhibitor of African journals at the Zimbabwe International Book Fair. Its programmes include:

- *African Journals Distribution Programme* which assists university libraries in Africa by sponsoring the purchase of journals published in African countries.
- *Research, Training and Education Programme*. This programme assists in sponsoring workshops and training in upgrading journal publishing skills.

AJSDC programme is managed by the Africa Academy of Sciences, under the auspices of the International African Institute (IAI) and the Southern African Book Development Education Trust (SABDET).

Michael Wise is Dead

Mr. Michael Wise, a pillar of librarianship in Africa died on the 11th November, 1998 in Wales, UK. Until his death, he was the editor of *Focus on International and Comparative Librarianship*. Mr. Wise was born in 1929. He served in many parts of Africa in various capacities. He was an assistant librarian at the University of Nairobi Library: 1957-1961, Deputy Librarian, University of Dar-Es-Salaam Library, Tanzania: 1961-1969. He was a lecturer in the Department of Library Science, Ahmadu Bello University Zaria, Nigeria between 1973 and 1978 and a senior lecturer at Bayero University, Kano, Nigeria in the early 1990s. He was involved in many IFLA activities. Michael Wise was at one time the Chairman of the IFLA Roundtable of Library Science Journal Editors. He has published many books on librarianship in Africa. The last published book by Michael Wise was *Bartholomew Udemmadu Nwafor: 1939-1991. An Appreciation and Annotated Bibliography of his Writings*.

University of Pretoria Offers Honours Degrees via the Internet

The University of Pretoria, South Africa will offer B.Bibl. (Hons) and B.A. (Hons) Information Science via the Internet. The teaching methodology will include electronic discussions and assignments. The quality of tuition will not be different from the on-campus lecture room interaction. Students wishing to enroll on the programme are expected to have access to the Internet and E-mail facilities. For further information, contact Prof Theo Bothma, E-mail: Bothma@libarts.up.ac.za

School of Librarianship, University of Capetown, South Africa Changes Name

The School of Librarianship, University of Capetown has broadened its name to the Department of Information and Library Studies. The department will become part of the Faculty of Humanities. The department offers a range of programmes, including the postgraduate diploma, master degree and the M.Phil/Ph.D in library and information sciences.

Peter Adwork Nyaba Wins 1998 Noma Award

The Politics of Liberation in South Sudan: An Insider's View by Peter Adwork Nyaba and published in 1997 by the Fountain Publishers Ltd, Kampala, Uganda has won the Noma Award for 1998. The \$10,000 award will be presented some time this year.

Ibadan Chosen to Host the *African Journal of Librarianship and Information Science*

The Department of Library, Archival and Information Studies, University of Ibadan, Nigeria has been selected as the host of the *African Journal of Librarianship and Information Science*, the journal sponsored and published by IFLA (Africa). For further information, contact Head, Department of Library, Archival and Information Studies, University of Ibadan, Nigeria.

***African Journal of Information Technology and Educational Media (AJITEM)* Appoints Three Consulting Editors**

The recently launched journal has appointed Prof Kunle Akinyemi, Director of Educational Technology, University of Botswana, Dr. Kwas Ansu-Kyeremeh, University of Ghana and Prof Peter Okebukola of the Lagos State University, Nigeria as the consulting editors of the journal.

M.Phil/Ph.D Programme in Library and Information Studies Commenced at the University of Botswana

The Council of the University of Botswana has approved the commencement of the M.Phil/Ph.D programme in the Department of Library and Information Studies, with effect from the 1998/99 session. The programme is available both part-time and full-time. The areas of specialisation include: information technology, information management, librarianship, archives and records management. For further information, contact Head, Department of Library and Information Studies, University of Botswana.

Forthcoming Conferences, Workshops and Seminars

International Graduate Summer School (IGSS), 19 June - 15 July 1999, Aberystwyth, United Kingdom.

Theme: The Electronic Library.

The theme is divided into two distinct courses. Management will be from 19 June to 3 July while collection management is from 1 July to 15 July, 1999. Full details can be obtained at IGSS Web site <<http://www.dil.aber.ac.uk/IGSS>>

14th Standing Conference of Eastern, Central and Southern African Libraries (SCECSAL), 18-22 April, 2000, Windhoek, Namibia.

Theme: Information 2000: A Vision for the SCECSAL Region.

Subthemes:

- Information services in the SCECSAL region
- SCECSAL in the global village
- Professional development, training and research
- Intellectual property rights in the SCECSAL region
- Marketing of library and information services
- Management of library and information systems
- Sectoral information systems

For further information, contact the Organising Committee, NIWA-SCECSAL 2000, P.O. Box 3060, Windhoek, Namibia.

Report of Conferences and Workshops

13th Standing Conference on Eastern, Central and Southern African Librarians (SCECSAL), 27th - 31st July, 1998, Nairobi, Kenya.

The conference which attracted 254 participants from 16 countries, namely Botswana, Cameroon, Canada, Jamaica, Kenya, Lesotho, Malawi, Namibia, Nigeria, South Africa, Sudan, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe discussed a wide range of issues that concern the profession in Africa. Specifically, papers were presented on theme and the various subthemes of the conference.

A number of resolutions were passed with respect to copyright and intellectual property, information and national development, information technology and communication, education, training and research.

The next biannual conference will be hosted by the Namibian Information Workers Organisation, in Windhoek, Namibia in the year 2000.

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, Prof. L.O. Aina, Department of Library and Information Studies, University of Botswana or to any member of the editorial board nearest to you. E-mail: ainalo@noka.ub.bw.