Technology for Information Management and Service

Modern Libraries and Information Centres in Developing Countries

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Academic Libraries: The State of the Art

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Introduction

Libraries form a vital part of the world's systems of education and information storage and retrieval. They make books, films, recordings and other media of knowledge available to people in an organized manner. Since information is a very important tool to any individual, wherever the information can be got is a power home.

Qualities of Libraries

Any good Library should have the following qualities. It should:

- Have relevant resources. The Library collection should be appropriate for work in the field of study or subject area chosen by the management of the library. A library collection relevant to the needs of users is essential.
- Ensure that adequate storage is provided for the collection. There must be space for the materials, proper arrangement of these, and adequate security measures adopted.
- Provide access to the collection. This should be facilitated through classification, cataloguing and other arrangements that will make access and retrieval easy for the user.
- Develop strategies for access to grey literature, that is, documents and other formats of information that are unpublished. These are in form of annual reports, technical reports, conference reports and others not available through the book trade and other established channels.
- Put in place mechanisms to make documents, information or materials not in the library's collection available through inter-library loans, telephone calls and other means.
- Facilitate retrieval of resources available in the collection. Retrieval may be through self-help of the researcher or through assistance by an intermediary who may be a

librarian or other information expert. This retrieval is through the use of catalogues of in-house collections while information from other collections can be retrieved through networks, databases and so on.

- Have trained staff to organize the services in the widest possible sense.
- Make sure there are strategies and provisions for evaluation of the information service. Users' information needs should be determined and ways of satisfying such needs should be devised.

What are Academic Libraries?

The above are the basic qualities of good libraries. Academic libraries however, possess all these qualities with a little more added in certain areas, and they differ from other types of libraries in their focus, size and objectives.

Ifidon and Okoli (2002) define Academic libraries as "libraries that are attached to tertiary institutions" and which include universities, polytechnics and colleges of education. They posit that there are over 211 academic libraries in Nigeria (as at the year 2002) excluding colleges of agriculture and of technology (see Table 1).

They distinguish research libraries as libraries "which form an integral part of organisations that are primarily engaged in systematic and scientific investigations with a view to discovering new facts."

They are quick to point out that a University library can also be a research library since it has as one of its objectives, the provision of materials in support of postgraduate, faculty, external and collaborative researches.

College and University libraries come under the umbrella of Academic libraries. They are libraries that maintain large collections of detailed research materials for advanced students and scholars. Research libraries extend library services beyond just making materials available. They offer other assistance to users, such assistance as Reference Services, Current Awareness Services (CAS), Reprographic Services, Selective Dissemination of Information (SDI), Document delivery, Inter-library loan services and others.

Table 1: Academic and Research Libraries in Nigeria

S/N	Institutions	NATURE			Total
		Federal	State	Private	
1.	Universities	24	18	4	46
2.	Polytechnics	18	23	7	48
3.	Colleges of Education	20	39	3	62
4	Other Non-University Degree awarding Institutions	6	5	-	11
5.	Research Institutes	44	-	-	44
	Total	112	85	14	211

Culled from Ifidon and Okoli (2002; 23)

Some research libraries are not directly connected to any particular institutions as run of the mill academic libraries are, neither are they attached to any tertiary institutions. These types are privately controlled. An example is the Heritage Research Library and the Ogunsheye Foundation Libraries in Ibadan. They are privately owned.

Other libraries that have resources for research are National Libraries, such as the National Library of Nigeria, the British Library and the United States Library of Congress. These libraries have facilities to provide research materials to their clientele. Thus, academic libraries can be broadly divided into two as follows:

(1)   College and University libraries.
(2)   Research libraries.

Academic libraries are complex institutions. They occupy a significant place in the life at colleges and universities. They serve as workshops for the entire university or college community.

Basic Functions of Academic Research Libraries

The basic functions of Academic libraries are:

(a)   Provision of materials for undergraduate instruction, term papers and projects as well as for supplementary reading.
(b)   Provision of materials in support of faculty, external and collaborating researches.
(c)   Provision of materials in support of post graduate research.

(d) Provision of expensive standard works especially in the professional disciplines.

(e) Provision of materials for self development.

(f) Provision of specialized information on the region within which the university is situated.

(g) Cooperation with other academic libraries with a view to developing a network of academic library resources that are at the disposal of all scholars.

(Ifidon and Nkoli, 2002; 24)

The services listed above, include the traditional ones of loan transactions, reading facilities within the library and other ancillary services such as binding and reprography.

A large university library may have various branch libraries. That is, it may have small libraries in the various departments or faculties in the university apart from the main library. In this regard, the management of the academic library (whether it has branches or not) is a complex issue. The size of the academic library for one, contributes to this. It is large, therefore will have a larger number of staff than most, and also it serves a large number of users. Management of academic libraries will now be considered.

Organizational Management in Academic and Research Libraries

Management styles in academic libraries may differ depending on the set-up of the library or the organizational pattern chosen by the head or the Governing Council of the Institution. However, the following elements of management have to be present in an academic library.

(1) *Goal definition*

The goals of the organisation have to be defined and objectives formulated. The library is service-oriented but at the same time its objectives have to be tailored to meet the goals of the parent body. Both the library staff and users should know the library's objectives, in relation to the institution, and the library's internal objectives for each section and unit within the library.

(2) *Planning*

The objectives of the library are interpreted and policies formulated. These should be written so that there is a guide as to what to do, who does it, and how. A plan is developed, strategies for implementing are laid out, and budgets are made. This is an essential part of planning.

(3) *Organisation*

The activities and services in academic libraries have to be divided into sections and units. These units have to be organized in such a way as to make good the objectives of the library. Staff members are put in places where they will be most useful.

(4) *Communication*

The organized structure is made known to all staff members, library users and the library authorities. Communication has to flow in formal and informal ways among staff members and to and from the University Librarian. This is very important so that administration is made easy. Everyone has to be well-informed.

(5) *Measurement and Evaluation*

The performance of the library has to be measured. This is to ensure that improvement is constantly made. Feedback from staff and library users is considered. Measurement and evaluation is done through user satisfaction, qualitative and quantitative assessment of the adequacy of the library collection and staff performance.

(6) *Reporting*

The academic library has to make reports to the governing authorities. This is done through the Library Committee to the Senate and Council and from there to the body responsible for Universities, the National Universities Commission (NUC) and the Ministry of Education. This report is done annually stating the achievements of the library, the problems encountered and the future prospects.

In all, it is important that there be adequate information flow. Major changes in library policy should be well advertised and all the stakeholders i.e. the staff, the users and the library management
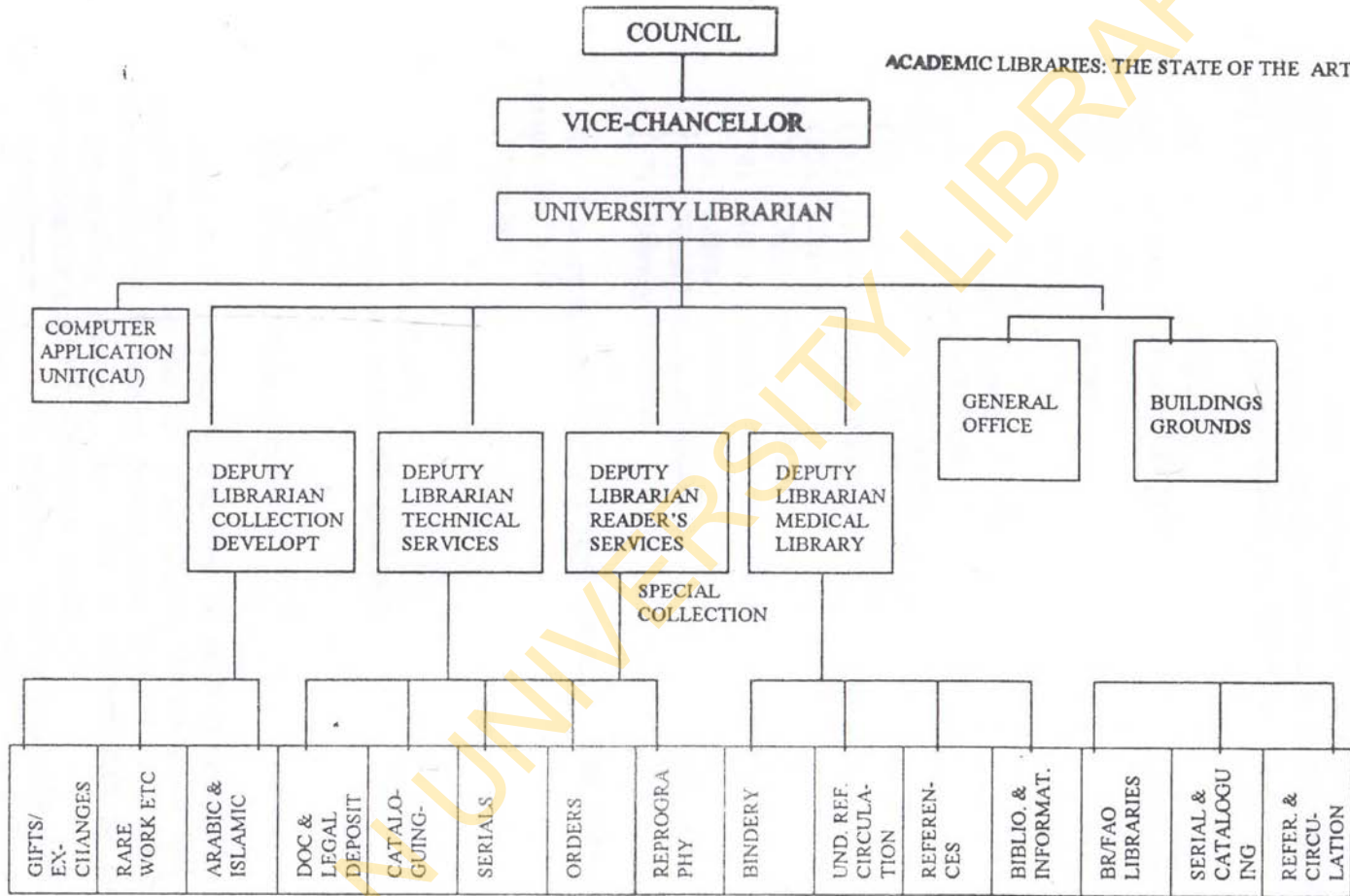
should work hand in hand to be able to provide the needed environment for academic work. An organizational chart needs to be drawn to show the relationships and the hierarchy in Academic libraries. This gives an overview of how the library is run, and clearly defines jobs, duties, responsibilities and maps out how each unit or section stands in relation to the whole. The idea is for each to see itself as part of the whole – an important segment that must flow in with others to make administration complete. A chart of the organogram for the University of Ibadan as an example is produced below.

Personnel

The success of an academic library is in the competence and quality of the personnel manning it. The University Librarian is the chief personnel officer of the library. Along with deputies, departmental heads and other members of the library management team, the personnel activities in the academic library are carried out. Personnel activities include:

(i)   Recruitment,
(ii)   Training
(iii)   Motivation
(iv)   Employer relations and
(v)   Services

It is important to recruit qualified staff for the various positions in an academic library. Training and re-training of staff is essential even while on the job. Workers need to be motivated to work. Benefits like health care, pension schemes, savings and loans schemes, sponsorship to professional conferences, seminars and workshops help in this regard. Establishing good relationship between the employers, management and the employee is of utmost importance in academic libraries. Professional, Para-professional and support staff have to maintain good human relations. Harmony should prevail for good quality services to be rendered to the users.

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                          │    COUNCIL      │
                          └────────┬────────┘
                          ┌────────┴────────┐
                          │ VICE-CHANCELLOR │
                          └────────┬────────┘
                          ┌────────┴────────┐
                          │ UNIVERSITY      │
                          │ LIBRARIAN       │
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| COMPUTER APPLICATION UNIT (CAU) | | | | | | GENERAL OFFICE | BUILDINGS GROUNDS |

| DEPUTY LIBRARIAN COLLECTION DEVELOPT | DEPUTY LIBRARIAN TECHNICAL SERVICES | DEPUTY LIBRARIAN READER'S SERVICES | DEPUTY LIBRARIAN MEDICAL LIBRARY |

SPECIAL COLLECTION

| GIFTS/EX-CHANGES | RARE WORK ETC | ARABIC & ISLAMIC | DOC & LEGAL DEPOSIT | CATALO-GUING- | SERIALS | ORDERS | REPROGRA-PHY | BINDERY | UND. REF. CIRCULA-TION | REFEREN-CES | BIBLIO. & INFORMAT. | BR/FAO LIBRARIES | SERIAL & CATALOGUING | REFER. & CIRCU-LATION |

UNIVERSITY OF IBADAN LIBRARY ORGANISATIONAL CHART 2003

An academic library is large. This is a feature that distinguishes it from other types of libraries. It also serves a large number of users. The personnel needed are usually the following:

(1)   University Librarian
(2)   Deputy University Librarian
(3)   Principal Librarian
(4)   Senior Librarian
(5)   Librarian I
(6)   Librarian II
(7)   Assistant Librarian
(8)   Chief Library Officer
(9)   Principal Library Officer
(10) Senor Library Officer
(11) Higher Library Officer
(12) Library Officer
(13) Chief Library Assistant
(14) Senior Library Assistant
(15) Library Assistant
(16) Head Library Attendant
(17) Library Attendant

Nos. 1-6 are Academic/Professional Librarians. Nos. 7-17 are paraprofessionals.
Others are:

(1)   Secretary
(2)   Clerical Officers
(3)   Computer Operator/Programmer
(4)   Typists
(5)   Binders
(6)   Cleaners/Messengers

Apart from the Head, the number of each category of staff needed depends on the size of the library, the collection and the -services offered. Branch or departmental libraries also contribute to the staffing situation. The ratio of professionals to para-professionals in academic libraries is usually 1:3.

Recruitment exercise in academic libraries is usually done by the Establishment unit of the parent organisation in conjunction with the library. It follows this process: Applications are called for, and based on candidates' resume, a shortlisting is done. Those

shortlisted are invited for interview. The interview panel is selected from a mixture of library professionals and Establishment personnel. This helps to reduce bias in individual panelists as the candidates each face the panel as a group.

Ifidon (1999) suggests attributes for scoring candidates on the basis of ability to communicate, personality and appearance, depth of knowledge of librarianship and current affairs, proposed innovations, academic and professional qualifications, personal philosophy of librarianship in general and experience. The scores given by each panelist for each candidate are totaled and this influences the decision to employ or not.

The candidate employed is given an orientation period and is received and instructed in how the library functions to ensure a smooth settling down to work. This orientation often has to be done in a milder form if the worker is deployed to another section in the library different from that originally started with.

Academic Library Buildings and Seating Plans

Academic library buildings is one aspect of the library set-up that needs to be well taken care of. If the library is one taking off with structures existing already, the building chosen for the library has to be looked over for functionality. It has to be one with adequate security, enough space, good ventilation and lighting facilities. The seating capacity of the academic library should aim at serving about 25% of the total population of users in the academic community (Ifidon, 1999).

If the library is a new one, the minimum standards for designing and constructing library buildings should be adhered to. The University Librarian and the architect should work hand in hand in this regard so that the best is achieved. It is ideal to leave room for expansion of the library facilities especially where the land is available and the future budget can accommodate this.

Libraries used by researchers, academics and other professionals should provide private seating space called carrels. This is in form of separate rooms or cubicles. The researchers can work in a quiet environment without undue disturbance from other users. Tables that give partial seclusion can also be provided. Library users e.g. postgraduate students or lecturers who need carrels have to make requests for such in advance by filling forms at the reference or circulation desk. The carrels are allocated for a period of about three months, on a first come first served basis. Shortly before the period lapses, a reminder is sent to the user to vacate the

carrel. If an extension of this period is needed, it can be requested for provided no other user is waiting.

The general reading room should be located in an area where much movement or noise e.g. a typing pool is absent. This is to provide quiet areas for the users. The photocopying facilities should also be located in a fairly restricted area to avoid noise and unnecessary disturbance.

The building should be designed to keep out noise, but at the same time should not be too silent as too much silence could also lull the reader to sleep. The library building and seating plan go a long way in ensuring the desired patronage and appropriate use of the academic library – Function, Aesthetics and Relative Comfort have to blend.

Budgeting and Fiscal Management

A budget is a formal expression of an organisation's plans and objectives expressed in financial terms, for a specified period of time. The purposes of budgeting according to Mbiduka (1988) are:

(a) To start the firm's expectations (goals) in clear formal terms to avoid confusion and to facilitate their attainability.

(b) To communicate expectations to all concerned with the management of the firm so that they are understood, supported and implemented

(c) To provide a detailed plan of action for reducing uncertainty and for the proper direction of individual and group efforts to achieve goals.

(d) To co-ordinate the activities and efforts in such a way that the use of resources is maximized.

(e) To provide a means of measuring and controlling the performance of individuals and units and supply information on the basis of which the necessary corrective action can be taken.

Since a budget is the mechanism by which funds are granted, in putting forward a proposal for funding, it is important to spell out the overall role of the information service in supporting the goals of the host organisation, and to specify in some detail exactly how this role will be translated into practice.

In academic libraries budgeting can sometimes be difficult. This is because academic libraries are more service oriented than

others and the cost of providing these services is often beyond what has been provided by management.

As Moran (1984) pointed out,

> the fiscal management of libraries has always been difficult because of the inbalance between the costs of services that libraries would like to provide and the resources they have available to meet these costs.

Nonetheless, the budget has to be drawn up. The most commonly accepted budget for libraries is the line or formula budget. This is a budget form in which the budget is divided into "lines" of accounts each one covering a general or specific expense. Evans (1976) calls it "operating expenses". The operating expense usually covers the following items: Books (20-30%), Salaries (60-70%), Utilities (1-2% if included), Maintenance (4-5% if included), (Maintenance (4-5% if included)), Supplies (4-5%), Travel (1-2%) and Insurance (1-2%) if included). Each of the items takes a percentage of the budget for the year.

This budget is somewhat unrealistic as the focus should be on the collection. Much as salaries are important, a balance should be found between the percentage allocated to books and journals and that for salaries. With automation, equipment would take up some percentage, maintenance will increase a little, and salaries could have a reduced percentage.

The important factor in budgeting for libraries generally is to make sure that the expenditure does not exceed the receipts. Again, efforts can be made to cut down on some expenses and re-use some items instead of throwing away or wasting. resources. Maintenance of the collection, the building, and regular servicing of equipment can ensure that expenses are cut down to the barest minimum. This is not to say that new equipment or materials should not be bought when necessary.

In actual fact, the World Bank recommends that Universities should

> Become more proactive in guiding budgetary resources towards areas and activities of the greatest importance. Budgeting based on appeasement extracts an enormous cost in terms of lost educational quality and missed opportunities to advance national develop-ment. The provision of block grants by governments to

universities is a necessary condition for pro-active budgeting (World Bank 1997;20).

In this wise, budgeting in academic libraries depends a lot on the parent body. This does not let the library off the hook of raising funds for itself to support the efforts of the institution.

The level of financial support to libraries in developing countries is low and the main source of funding is government. Other sources are internally-generated revenue from sales of commercial products, consultancy services and yet another source is from gifts and endowments. Ifidon's (1992) study of agricultural research libraries showed that bindery and photocopying services were sources unexplored by the heads of the libraries every year, are more often than not, left unexecuted. The central budget of the Institution overrides it. This is the case in most Academic libraries and it affects overall development of the library and the collection. This happens even when there is a cordial relationship between the Head librarian and the Chief Executive of the Institution, in this case, the University Librarian and the Vice-Chancellor.

It is recommended that the head of an academic library should try to get funding for the library not only in cash, but also in kind. The librarian can go out to solicit for money and materials from individuals, corporations and organisations. The University librarian should be made to prepare and *execute* the library's budget. Inability to implement what has been prepared can be demoralizing.

Development and Organisation of Information Resources in Academic Libraries

The mode of acquiring information resources, and organizing them for easy access of academic library users will be discussed here.

It is pertinent first to state that academic libraries in an ideal situation should have a written acquisitions policy. This policy depends on the objectives of the institution. The acquisitions librarian has a mandate on what to acquire and as such goes ahead to order for what is needed, or source for it from agencies that are ready to give such either free of charge, on an exchange basis, or for a fee.

Acquisition is a process whereby information resources are selected, ordered and purchased. It is simply the process of acquiring library materials – this includes all tasks related to

obtaining all library materials, and is part of what is referred to as the collection development cycle. (See Figure 2).

In the past, acquired materials were, mainly books, serials and a few audiovisual materials. Today, acquired materials include books, serials, audio books, CD-ROMS, Music CDs, access to electronic books and journals or even direct document delivery of the full text of an article from a supplier to a user of the library (See Figure 2).

Selection comes first in the collection development process. This process in academic libraries involves the acquisition librarian and a selection committee. This committee consists of subject specialists in the various fields of study of the institution. The imput of Faculty members, and lecturers are requested for. They send their request slips for textbooks, journals, video tapes etc to the acquisitions librarian.

These requests are crosschecked to see if the library already has and if it is necessary to get another, if the edition is different (to avoid unnecessary duplication). Purchase orders are then prepared and sent to the publisher, bookshop or book vendor as the case may be.

When the material arrives it is checked for defects, compared to the order price and finally accepted if no anomalies are detected. Those received are then stamped and accessioned i.e. a number is given to the book. This indicates the number of books the library has acquired in that year. The stamped books are then sent for cataloguing and classification in the Technical Services section of the library.

After the materials have been catalogued, that is, the bibliographic details of Author, title pagination, publication date, publisher, size of book and other such details taken down, they are classified. Classification is the process of putting the material in a group that identifies it with other similar materials in the library. To do this, classification schemes are adopted by libraries. The scheme preferred by the Academic Library e.g. The Library of Congress Classification Scheme (LC), the Dewey Decimal Classification Scheme (DDC) or others can be used. The item i.e. book, journal or cassette is put in the subject area that it belongs to and this is identified by a code or what is termed the class mark. This class mark or call number is important in locating the item in the library. It tells where the item will be found.

The items are then labeled and sent to another section – The circulation section. It is here that the library users can have access

to them. The items are put on the appropriate shelves, drawers, racks and so on depending on what type of items they are. The cards that give information about these items (i.e. the catalogue cards) are filed in the card catalogue cabinets. In automated libraries, these cards are online in the database on computer.

Resource Sharing in Academic Libraries

Libraries in institutions of higher learning are designed to aid and promote learning and research. Therefore, all their input in form of human (professional, administrative and service staff) and material (funds, books, seating facilities) resources and policies are geared towards giving maximum services to the community they are located in.

As a result, there is a need to ensure a system of interlibrary relationship or cooperation among libraries. The resources they have should be shared. This sharing can only be facilitated by efficient management.

A University librarian or a Director of library services in an academic environment must have good relationship with other libraries because his own library only possesses a fraction of the information his clients need no matter how well equipped.

Networking is about sharing and sharing library resources requires a willingness to be open-minded and having enough confidence in one another for the benefit of others. In modern society, networking is done through the use of computers and telecommunications systems to faciltate and enhance service (Ubogu et al., 1992).

Networking or resource sharing thus makes information available at low cost, reduces frustration of information users who do not have to travel too far to get the needed information, and provides an informal means of achieving set goals.

Resource sharing is done in various ways in academic libraries. The following have been identified and are in use in many libraries, national and international.

(1) Interlibrary loan
(2) Joint Acquisition
(3) Central Cataloguing
(4) Cooperative exchange of library materials
(5) Joint storage of rare and useful titles
(6) Exchange of library materials
(7) Creating Awareness services in some subject fields
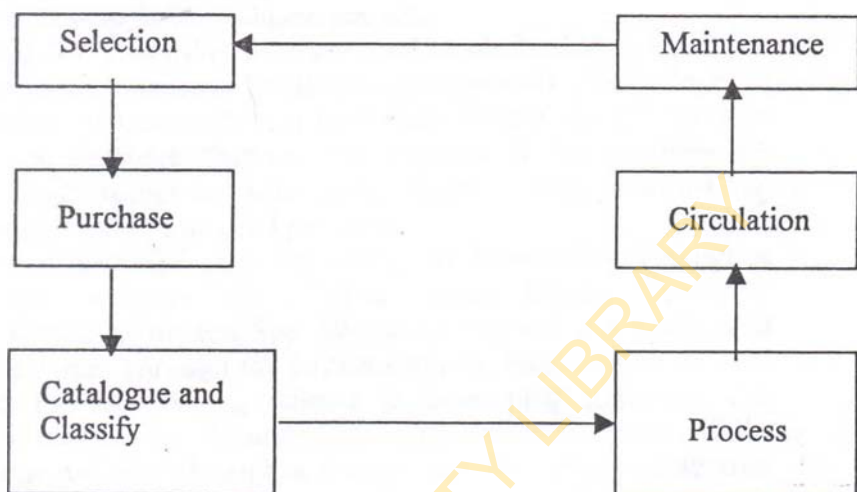(8) Computerised cataloguing schemes

The Collection Development Cycle

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  ┌──────────────┐                    ┌──────────────┐
  │  Selection   │◄───────────────────│ Maintenance  │
  └──────┬───────┘                    └──────▲───────┘
         │                                   │
         ▼                                   │
  ┌──────────────┐                    ┌──────────────┐
  │  Purchase    │                    │ Circulation  │
  └──────┬───────┘                    └──────▲───────┘
         │                                   │
         ▼                                   │
  ┌──────────────┐                    ┌──────────────┐
  │ Catalogue and│───────────────────►│   Process    │
  │  Classify    │                    │              │
  └──────────────┘                    └──────────────┘
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Figure 2: *Culled from Fox B.W. (1990) p. 2.*

Jalloh (1999) says a lot about resource sharing in African libraries especially in South Africa. In Nigeria, the National Library of Nigeria compiles the National Union Catalogue (NUC). Entries are supplied with full bibliographic details including the Library of Congress classmark. The problem with this is lack of standard in cataloguing entries (Ubogu et al 1992).

The Book Aid is another form of resource sharing. Formerly known as the Ranfurly Library, the Book Aid provides books for libraries in Africa. In Nigeria, the books are deposited on a zonal basis in certain libraries. For instance, the Oyo State Library Board provides a storage depot for the books and then Heads of libraries in the zone meet on arranged dates to share out the books to their libraries. This helps collection development in the libraries.

Online Resource Sharing is another means used in libraries. Databases of the other libraries can be searched and abstracts of some can even be downloaded for use. In some cases, full text can be accessed. These resources can be got through the Internet. For example INFOMINE is a world wide web virtual library which provides indexing, annotations and links to Internet resources of scholarly use to the academic community. Thousands of internet resources covering most major disciplines are present. Mitchel and Mooney (1996) describe INFOMINE which is a database

developed by the library of the University of California, Riverside. It is a unique database which uses the custom hypertext database management system with HTML converter and this makes the collection easy to build, maintain and use.

MEDLINE is another database used by Medical libraries. It is a resource of great value to health care professionals. The colleges of the medicine of Universities of Lagos and Ibadan use it. This is an example of resource sharing. The creators of the database are sharing their resources with other library users, and making information useful to medical personnel.

Another form of resource sharing is interlending through a centralized collection system. The British Library Document Supply Centre at Boston Spa, Wetherby England is a centralized lending service. Through the British Council, they are able to send coupons for this lending scheme to developing countries. The library identifies the documents needed and the copies of the documents are sent through a courier network. Nigerian libraries and among them, the Women's Research and Documentation Centre (WORDOC), University of Ibadan have benefited from this scheme in the past.

Information seekers want instant individual access to information without any mediation. They are expecting to find the resources they want in digital form and accessible electronically, and are beginning to demand a "one-stop shopping in an integrated information environment" (Ubogu, 2000;2). Because of this, digital libraries are fast springing up. The impact of automation, and digitization of libraries cannot be overlooked. Information technology and libraries will be discussed next.

Academic Libraries and Information Technology

The job of providing materials for library users is a challenging one. An academic librarian must stay constantly abreast of new publications and ensure that the user gets them. Thus, in the age of new information and communication technologies, libraries are not left out.

Information for libraries are coming more and more in electronic format – E-books, CD-ROMs etc. abound. The job of academic librarians does not now end in getting and arranging the library materials but the users have to be taught how to use the library resources.

User training in the use of searching tools like the electronic databases is necessary. The use of online catalogues has to be

taught to users. This will make the job of the circulation staff of academic libraries easier.

Information technology use in libraries has been debated for long. The advantages and disadvantages have been weighed against each other by various scholars (Blake, 1992; Formson, 1999; Idowu and Mabawonku, 1999; Omoniwa, 2001).

Libraries, information centers and information specialists are faced with the challenges of having to cope with the organisation of increased information which has come about because of the information "boom" or "explosion". The traditional library tools are limited in their ability to cope with the high degree of information retrieval and dissemination, and this has prompted the efforts to overcome such limitations through the use of versatile devices and equipment such as computers, telephones, and so on.

Okeesan (1993) posits that librarians will have to drastically modify their information handling techniques if they are to live up to expectation in the performance of major functions such as acquisitions, classifications, storage and retrieval of documents for effective information dissemination. In academic libraries particularly, the enormity of this task is brought to bear. The resources that have to be organized are enormous but this is not barrier to progress.

Information storage and retrieval processes are rapidly being automated. One of these is the Online Public Access Catalogue (OPAC). An online catalogue is a system that allows the user to quickly and effectively search the computer-held files of a library/libraries. This online catalogue is often user-oriented or user-friendly. The computer-based retrieval is faster, more flexible, more comprehensive and more up-to-date than manual systems. Online catalogues are easier to control than card catalogues. It is easier to revise and correct online and so the quality of the catalogue is enhanced.

The cataloguing and classification process is made easier with information technology. Software that help in the process abound. There are databases that can be searched to get the details of already catalogued and classified materials by other libraries. This union catalogue online helps a lot. The library resources that are not found online (local publications mostly) can then be catalogued originally. Igbeka (1998) provides a practical guide to original cataloguing. Examples of online cataloguing software are the ITS software and the TINLIB software. (The TINLIB software has now been discontinued).

Computerised circulation systems simplify the circulation procedure. The manual system of keeping files and records of library users is eliminated. Taking of statistics of books borrowed, number of users registered, total number of books consulted in particular subject areas and so on is made faster and accurate with the use of the computer. Overdue notices, "new arrivals" and other such can be printed out with ease. Library accession lists can also be produced easily and this fosters personalized information service to users, and inter-library cooperation can be enhanced through this. Library and Information Networking is promoted. The OCLC (Online Computer Library Centre), BLCMP (British Library Catalogue Mechanisation Project) and in Nigeria, the NUC proposed NUNet (Nigerian Universities Network) are examples of such networks.

Internet, E-mail and scanning facilities are offered in many academic libraries for a fee. This generates income and also helps ensure user satisfaction. The facilities provide the much needed information and the library is able to meet its objective of provision of current and timely information.

In actual fact, academic libraries are on the leading edge of Internet developments because of the information resources they provide for research. Distance education degrees and library catalogs available on the Internet provide a global customer base for academic libraries. Academic libraries often distribute academic authors' unpublished documents via the Internet allowing subject experts to be direct sources of information for the user. The roles and responsibilities of librarians, the library, campus computing services, campus administration, publishers, and vendors need redefinition in a networked environment. (McKenna, 1994).

Improving Services in Academic Libraries

It is a fact that libraries are poorly funded and poorly equipped in developing countries. Academic libraries are not left out of this especially as majority depend on government for funding. In spite of this, the three key factors in offering library services have to merge efforts at making the services work – The library user, library management, and Government. For this to be achieved, academic libraries may have to develop an organizational model in order to improve their services. Patrikios and Levey (1994; 27) advocate the following models.

(1)   *Technical and Administrative Model*
- Circulation
- Cataloguing
- Classification
- Production of acquisition lists
- Production, maintenance and circulation of the union catalogues of books and periodicals.

Focal Points
- Basic Library
- Central depository to store specialized materials
- Central bibliographic information to facilitate access to databases.

(2)   *Computerization Model*
- Computerisation of each library function listed above e.g. circulation, cataloguing, serials etc.

The computerization model in particular can help improve services even though the initial costs are high. It also helps to save space which books take up that is, if digitization or creation of a paperless library is adopted. The costs can be minimized if countries, organisations or groups of libraries do the digitization cooperatively. The library collection if well organized increases efficiency in service provision.

Improving Services for the Library User
The objectives of serving the library user can be achieved if Library User Education Workgroups are set up, with the following objectives:

- One-time library orientation for all new users of the library
- On-going library instruction whenever needed
- Advanced bibliographic information provision

These objectives can be achieved if the library can:

- Teach all users about use of library
- Train library staff for library instruction
- Give appropriate library instruction at the right time

- Have a plan for the activities of the Work Group
- Identify the problems and needs of users
- Involve student Faculty Councils and other university constituencies in the planning and implementation of programs.
- Employ various teaching methods and aids in the programmes.
- Hold regular meetings to evaluate work group performance.
- Recommend the inclusion of an elementary course on library skills in the library curriculum
- Educate teaching staff on how to use the library.
- Liaise with other institutions on user education

Subject librarians (i.e. librarians in the academic library who have their subject backgrounds) may also liaise regularly with teaching staff and students by attending faculty meetings and symposia and by meeting Student Faculty Councils or Associations to discuss any library issues raised by the students. The subject librarians are a good link between the library and its users (Patrikios and Levey, 1994).

Improving Services by Library Management
It is also advocated that a Technical Work Group be set up in Academic libraries to help prevent underutilization of I.T. facilities. They should be mandated to:

- Teach library staff about the latest I.T.
- Encourage and instill in staff a culture of computer literacy
- Discourage computer resistance
- Give a series of lectures emphasizing hands-on experience.
- Keep abreast of current advances by reading the latest literature on the subject.

The Working Group should consist of member representative from all sections of the library – Cataloguing, Acquisitions, Readers, Services and so on.

Library Management has to be very sensitive to library personnels' job satisfaction. If the work environment is conducive,

the facilities adequate and remuneration sufficient, library services in academic libraries will definitely improve.

Librarians need to take an active role during the formulation of national policy and legislation to ensure that libraries receive adequate funding to major players in the National Information Infrastructure. They need to have significant influence on the evolution of Internet Services and need to be prepared to share their ideas with administrators and project planners.

Finally, the overall manager of academic libraries have to be addressed as well.

Improving Services by Government

- In Nigeria in particular, the government should be involved in development cooperation at all levels of telecommunications,
- Education should be given topmost priority and libraries adequately supported.
- The Curriculum for Education should be reviewed seriously to reflect the new age technologies.

With these, academic libraries will take their pride of place in the academic setting in which they function and staff and users alike will derive the best that can be achieved and reader development is thus ensured. That is, a situation where the reader is empowered through meeting their needs. They are given "freedom to read what they want, to see a wide range of reading materials, to learn, to be stimulated, to be challenged and to have their potentials released." (Mears 2000; 73).

Academic Libraries, if all discussed here are implemented, will really stand out among other types of libraries as their sheer size and enormity of functions rate them very high. Academic libraries in Nigeria are currently involved in the Virtual Library Project. This is a project of the Federal Government of Nigeria. In it, university libraries will be given facilities to link them up with academic libraries internationally. This will allow them to download required information and build up collections of both printed and electronic books. This project is being done in phases and first generation universities are to benefit from the first phase.

This development is another step in the right direction for academic libraries which remain major information providers to any group of people, community or society.

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