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ACADEMIC LIBRARIES IN INFORMATION COMMUNICATION TECHNOLOGY: THE RECENT DEVELOPMENT

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ABSTRACT

Computer application in libraries is discussed. It was discovered, that research libraries were the first to embrace automation before the other libraries. The situation poses great challenge to libraries and librarians in areas of infrastructure, ICT policies, staff development and funding. The paper concluded that librarians and libraries should accept the challenge ahead, since libraries and Information Communication Technology (ICT) go hand in hand.

INTRODUCTION

The need for the library arose when the number of records grew and there was need to arrange and preserve them for use. Though libraries exist to provide information services to users, certain considerable overleaf have been discerned in the services they offer of which there are remarkable variations in the extent and intensity of the services they provide. Thus these variations now provide the measure for placing libraries in different categories. Grouping them into types on the basis of similarity of functions, which gave rise to Academic and other libraries.

Information age has witnessed a sudden change from ordinary information provision to access to information. The change was made manifest with the advent of computer.

Falaye, (2002) also added that major computer applications to the processing of bibliographic information began around the early 60s when the chemical Abstracts Services first presented machine - generated alphabetical subject index to 600 influential journals produced by Chemical Abstracts. As well as the Machine Readable Catalogue (MARC) produced by the United States Library of Congress within the same period. In this vein, library automation has indeed become a necessity of which most libraries in general and academic libraries in particular, the world over have either become automated or are in the process of doing so.

Academic libraries in Nigeria made its efforts towards computerization as far back as 30 years ago.

This was in 1973, when they first generated serials listings on computers. Other attempts followed suit, and in July 1984, the International Institute for Tropical Agriculture (IITA), embraced full automation when it converted its library's catalogue to the Online Public Access Catalogue (OPAC), by creating an information system named ALISTRA (Automated Library and Information Service for Tropical Agriculture). The ALISTRA system based on an integrated database, developed with BASIC software, has all catalogue, circulation and acquisition records integrated so that they can be searched at the same time. Adedigba et al, (1995) Other research libraries like Nigerian Institute of International Affairs (NIIA) Lagos, and the Raw Materials Research and Development Council (RMRDC) soon after followed suit.

However, Academic libraries owing to their size and complex nature were slower in adopting automation.

OBJECTIVE OF THE STUDY

The study will examine various library functions including services, which have so far been improved with computerization, and the impact so far of information communication technology in Academic library operations coupled with inherent challenges surrounding it. In order to achieve the stated objective, the following terms were used interchangeably:

Information Communication Technology (ICT), computerization, Automation, globalization, digitalization, information age, knowledge age etc.

Computer Application to Academic Libraries.

Computer application in library will be discussed under eight major headings Vis a Vis the distinct areas in library operation.

Acquisitions.

This is a section of the library that is concerned with the selection and acquisition of books and other information materials through purchase, gift exchange and other means. In this case the computer could be used in keeping record of the books acquired as well as do other performance analysis of various book dealers that the library patronizes. Automation can also help in fund control, as well as generate and disseminate reports.

Accessioning which is a very important aspect of acquisitions can be achieved with the computer, and stored electronically.

Cataloguing

Simply put, is the preparation of cataloguing entries and other processes connected with the maintenance of the catalogue. Its automation will therefore facilitate the following:

- Establish and maintain catalogue data base
- Names authority file, subjects file and local authority list.
- On-line Public Access Catalogue (OPAC).
- Inventory control establishment of shelf list control record, added copy control and inventory statistics.

Where the catalogue is automated, the processes therefore is simplified and this facilitates the process by eliminating data redundancy. In other words only one catalogue entry is needed out of the three added entries catalogue, thus reducing the inherent space problems. This is made possible by among other facilities, the Relational Data Base Management System (RDBMS), associated with data base management, as regards indexing for instance.

Lasisi (2004) opined that the process of automated catalogue has thus revolutionized cataloguing procedures in the library. Presently, catalogue records have been made more accurate, as well as quick computation and production of records.

Automation has revealed the limitations of the shelf list catalogue which maintenance now is seen as very cumbersome. Given the new development, the shelf list is thrown open to public access. In other words, the shelf list could be accessed through the Online Public Access Catalogue (OPAC).

Circulation.

The lending process and location of library's books, documents and other collections could be managed with the computer. Users records, instant status information on loan items, output generation, customized reports as well as notices for overdue items, reservations, usage statistics, preparation of printed circulation list etc., could all be handled by the computer.

Serials

This is where publications issued in successive parts at regular and irregular intervals are handled. Some of the functions performed here are as follows: selection, ordering, receipt accession and renewal of subscription. With automaton, the following functions in Serials would be facilitated:

- subscription control, procurement procedures, preparation of orders, fund analysis and accounting.

- Bibliographic file control, cataloguing of new Serials, preparation of serial record entries; transaction control, additions, changes and deletions.
- Collection control, servicing request for Serials publications, maintenance and binding control file, missing issues holdings, accession of want list.
- Output generation and dissemination. Preparation of serial holdings, accession lists as well as Union lists.
- Information storage and retrieval, which entails Selective Dissemination of Information (SDI) services.
- Management of work performance or user habits.

Electro-copying

The recent development in information technology has offered new approaches to certain problems like indexing, storing, searching and retrieving newspaper clippings.

Electro copying, notwithstanding, has been coined for certain activities which have been embraced in the new technologies, that can be used for archival purposes and records management in particular. The electro-copying process involves copying printed materials by scanning into an electronic database, of which the text is stored in either 'image' or 'character-encoded' form, from which the text could be reproduced either on a screen or a printer.

Its application in the library requires a personal computer scanner and electro-copying application software.

CD-Rom Searching

In developing countries, that information gap has always been there owing to the fact that most information seekers have little or no access to large computerized information sources. Therefore database producers cashed in on this anomaly and generally distributed their information products, either on paper or through an online connection, which gave rise to the offer of the products, CD-Rom.

It only takes a microcomputer, a printer and a CD-Rom drive to run a CD-Rom in a library. The human resources cost should not be left out. Database subscriptions and document delivery should also be included in the library budget. The CD-Rom database holds text, pictures and sound.

Large number of titles are made available with bibliographic data. This offers researchers and other library clientele their choice of CD-Rom products, which holds secondary information of relevance to their discipline.

Networks

Since libraries have similar functions, structure and as well operate in similar patterns, there is need to introduce some elements of telecommunications (network). This will eventually bring a place of a dial-up communication network which will connect all libraries. The accruing services from this arrangement will include full text searching capabilities, of which these libraries can search, access and retrieve information stored in the network.

Internet Connectivity.

Internet connectivity is seen as the highest level of computer-based information network.

It is a global network of networks of a large number of computers connected together by telephone lines using standardized Transmission control Protocols.

Adeogun (2003) is of the opinion that should there be availability of full Internet access in libraries it will facilitate on-line access to the world of information. Quite a number of countries have access to the Internet. Nigeria has also joined with cyber cafes springing up everywhere. It could be suggested that libraries in Nigeria could access information via the electronic route owing to the fact that it is cheaper than the traditional print. Given the high cost of infrastructure needed for access to electronic information, individual libraries might not make it except if they possibly resort to forming a consortium as opined by Air (2003).

The ICT Challenges

The under-listed features represent libraries that are still operating outside the ICT:

- A library that uses all its operations, procedures and services carried out manually.
- Inability to provide access to the resources of other libraries electronically.
- Inability to access information resources available from database on CD-ROMs.
- Computerization/Automation is being slated for the future.
- Facilities/infrastructure not readily available.
- Greater number of staff are not computer literate.
- Power supply not constant.
- Authority files not in skills but in offices.
- Staff not versatile
- Training of staff not given priority
- Limited Resource sharing.

- Charges and adjustment feared by staff.

For librarians to actualize the dreams of the digital age, the opposite of the above stated characteristics will serve as a parameter to assist librarians to know the state of their libraries.

Nigeria should adhere to the following:

- Be computer literate and proficient
- Acquire multiple skills, qualifications in various discipline.
- Be able to and capable of working in networked environment.
- Versatile with information technologies.

In addition, libraries' major challenge is that without actually destroying the structures, they can still move away from the traditional library buildings. In other words, provision of access points for computer networks online resources and telecommunication facilities should be taken into consideration.

CONCLUSION

Automated libraries with minimum human effort can offer fascinating services. The relationship between the library and ICT is such that any ICT development will accelerate the library development, on the other hand library development can only be through with the ICT deployment.

Thus librarians and libraries would have to accept the challenges posed by ICT.

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