

ICT and Transformation of Nigerian Libraries in Enhancing Educational Development in Academic Institutions: Challenges and Solutions.

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ABSTRACT

The paper examines the impact of Information and Communication Technology in transforming Library services and enhancing educational development of higher education in Nigeria. The role of Information and Communication Technology over the manual traditional role of Library services in the 21st Century has been analysed for which Librarians have been identified as being responsible for providing information resources for the development of education in Nigeria. The paper stresses the need to guide students in higher education on using ICT resources for knowledge advancement and National educational development through reading, learning, teaching and research. The paper identifies funding, inadequate material resources, poor and substandard infrastructure, absence of teaching and research facilities, inadequate training of staff, inadequate ICT facilities, low bandwidth, inadequate power supply, lack of review in the educational curriculum as some of the challenges. The paper concludes by recommending actions that need be taken for the survival of higher education in Nigeria. These include regular power supply, sending staff on training, adequate monitoring, provision of ICT infrastructure and resources, provision of sufficient funds, provision of bandwidth as well as regular review of the educational curriculum. With these the education sector can have effective performance as well as political stability that are essential for any meaningful Library services for higher education in Nigeria.

INTRODUCTION

Education is the bedrock of every nation beginning from the primary to higher levels, this means that education that is enterprising and resourced based, brings out graduates that will carry the nation along. For such to be achieved there must be a shift from the traditional way of teaching, learning and research to the modern way, which entails the use of ICT, as a new technology that provides opportunities for improved manpower development (Amnipoor, 2007). In the same view, Simond (2008) asserts that education is a fundamental human process which determines values and actions.

The advent of Information and Communication Technology (ICT) has brought about transformation in different aspects of human endeavour including education. Many libraries today have transformed their manual operations to new ways by using technology. The new technology and communication tools are employed in rendering services to the patrons through the channels for access to information with the cluster of technologies called the internet. The internet has the ability to compliment, reinforce, and enhance educational process in institutions for the benefit of students.

Mwamba (2002), observed that Nigerian Libraries have been found to have shifted their focus of operation from library-centred to information-centred; from the library as an institution to the library as an information provider, and to the librarian as a skilled information specialist functioning in all-related information environment, which require the use of new method known as automation of library functions for the enhancement of information access and delivery not physically contained within the four walls of the library but from library networking for information provision to area networking for all types of information resources provided. It is a known fact that the mental, social and economic development of the individual depends on the individual's access to information through reading which enhances productive approach to improving one's knowledge and understanding.

A CONCEPTUAL FRAMEWORK

It is important to define some key terms in this paper for a better understanding of their concept for knowledge advancement. As librarians, we should be concerned with the application of Information and Communication Technology in transforming library services and enhancing educational development in Nigeria.

The concept of library has many definitions through different scholars. Traditionally a library has been defined as a place, a room or a building, where books, journals and other sources of information are kept and used for study, research and recreation. This concept of a library is one in which hard copies of books, journals and other sources of information are stocked on rows of shelves, such as the ones available in Nigeria universities, polytechnics, and colleges of Education. This is to protect the information sources as well as provide guidance to the users in the interpretation and use of the information sources, where library staff are to attend to users.

Ezennia (1992) defined the library as "an institution or establishment for care of collection of books that make them accessible to prospective users". He went further to say that stocks in the library are audio visual materials (magnetic tapes, phone records, films) arranged in a systematic manner to allow for easy access and location of individual items for loan, reference or research. Dominant among the recorded information materials are books and other printed materials, thus the library contains information materials some of which are in book form and others in non-book form. The non-book library materials are referred to as audio-visual media resources. In the same view, Eziekoli (1992) agreed that non-book materials include the radio, the television, film strips, slides, tapes, video cassettes, records, computers, maps and globes. Audio on the other hand refers to sound or the sound aspects of a system while visual aids are institutional materials which communicate primarily through sight. Examples of such materials are charts, slides, maps, demonstration boards, models, silent films and chalkboards.

Olanlokan (2003) observes that libraries are known to play a very active role in the distribution of publicity materials and publications on various educational programs, those related to primary and higher education in Nigerian libraries generate, organize, evaluate, repackaging information resources and interpret, translate and place information available for easy access. They provide information for decision making and formulation and implementation of policies for national development.

Information and Communication Technology has attracted many definitions. Kolawale (2008) defines ICT as the technologies that help us record, store, process, retrieve, transfer, and disseminate recorded information. This implies interaction between the user and the data. Information and Communication Technology is therefore an umbrella term that includes any communication device for teaching and learning. Such device could be computer system, communication device, telecommunication, telephone, satellites, telex, facsimile, internet, e-mail, fax, video text and document delivery, electronic copiers, radio, television, etc. Olakule (2007) added that these systems link schools, homes, business, students, hospitals and facilitate teaching and studying.

APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN TRANSFORMING LIBRARY SERVICES IN NIGERIA HIGHER EDUCATION

The demand for modern education has necessitated the use of Information and Communication Technology (ICT) in the digital age which has brought with it innovations meant to bridge the seemingly wide gap that exist between traditional and modern methods of information organization and service delivery in Nigerian libraries. According to Rahman (2002), the advent of computer networks has ushered a new path to the library and has given a new dimension to traditional tasks of the library. The pace of technological innovation as presented in different formats has become necessary for libraries of higher institutions in Nigeria to use computers, computer networks and other associated technologies in their organization for providing information services to enhance learning, teaching and research at all levels of education in Nigeria.

ICT is used to create opportunities for people to develop abilities without limit. It is in view of this that Singh and Sharma(2002) agreed that today, the electronic revolution is affecting the traditional role of libraries as institutions that collect and store information and make them available to the users. It is agreed that, the electronic information sources are very accessible, reliable and highly cost effective, and this is having an edge over print sources.

Pinfield (2001) sees the development in Information and Communications Technology, especially the invention of computer and related devices and their application in various fields of human endeavour to have resulted in changes in the traditional ways of doing things in such fields. The traditional ways are largely made up of manual operations, while the new ways involve applying computers and other products of technology through ICT, resulting in several advantages like greater speed, and more accurate results. For example, the effects of these changes in the banking industries can be seen in the emergence of Automatic Transaction Machines (ATM). There are innovations in other professions and disciplines and educational institutions utilize e-registration for various examinations, and programs.

There is indeed a paradigm shift in the traditional concept, as well as the operations and services of libraries. The training and education of library and information science institutions have improved, such that librarians and information scientists being produced today are the ones that should be capable of applying the skills of ICT to their professional practice. The information sources in libraries are no longer limited to books and journals but also CD-ROM, audio and video resources. Libraries now subscribe to electronic versions of information sources such as e-books, e-journals and e-maps. Publishing and distribution of books and journals are being done nowadays electronically with the development of the internet and the possibility it affords of accessing information held by libraries all over the world (Aina, 2004).

The importance of Information and Communication Technology is seen in the automation of some areas of library activities such as circulation, acquisition, serial control, cataloguing, to mention but a few. This automation involves the computerization of routine tasks hitherto performed by human beings. The objective of library computerization is to make the services of a library more effective and efficient. Library automation has many advantages in that it reduces the number of repetitive routine tasks and is therefore more efficient than the manual. It is therefore worthy of note that among some academic libraries in Nigeria, Ahmadu Bello University currently runs Virtua and Online Public Access Catalog (OPAC) services, Electronic Thesis and Dissertation (ETD), among others also some universities like Covenant and Babcock have imbibed the use of ICT.

CATALOGUING AND CUSTOMER SERVICES SECTIONS IN THE LIBRARY

In the cataloguing section, where the cataloguer often has to ensure that all documents have three minimum access points; author, title, and subject, computerization can considerably reduce this task. Also, the charging and discharging of records at the circulation desk can easily be taken over by the computer because of the speed up of many activities in the library, but still depends on library capability to computerize some particular activities or integrate all the services to be computerized.

ONLINE CATALOGUING

Online cataloguing is a process in which a physical description of metadata record for an information package is created by a catalogue without the use of cataloguing data for the package that may have been operated by someone else first. The cataloguer can adopt internet facility during cataloguing to make their work easier and efficient. The second function is to enable library clients to know the resources that are available in a particular library and their various locations.

Barton et al (2004) observed that in an automated catalogue, library patrons use keywords to search for resources in the library from their various locations. With the internet, it is possible to search catalogues of other libraries remotely. This is far better than the manual system, because the search facility of the catalogue module is very flexible. It will allow searching for items such as author, title, accession number as well as class mark. However its greatest power for users is the search on subject keyword or word in title which is done by application of Information and Communication Technologies (ICT) to libraries, many libraries nowadays have catalogues of their collections in electronic format.

ONLINE PUBLIC ACCESS CATALOGUE (OPAC)

Online Public Access Catalogue (OPAC) is a computerized Online Catalogue of materials held in a library where the library staff and patrons can virtually access on the computers located in the library or at home through the internet. OPAC is generally the best form of catalogue formats, as many access points are provided for, such as the author, title, subject keyword, publisher data, ISBN etc. For example, it is now possible to

conduct a search of the catalogues of a University or other higher institutions without leaving one's office but from any of the computer terminal around the campus.

This is the most modern form of a catalogue. One needs a microcomputer with a large memory. Bibliographic records of all documents in a collection are stored in the computer memory disk. It is also very efficient. It possesses all the advantages of other forms of catalogue by being flexible to update easily and also possible to access the records through several points.

The catalogue does not occupy too much space and it can be provided in many places. All the bibliographic records of a collection have been put into the computer and can be accessed instantly. Many on-line library catalogues can be accessed through the internet (Madison, 1992).

ONLINE CLASSIFICATION

The Library of Congress (LC) Classification web is the online version of the Library of Congress Classification scheme. Anglo-American Cataloguing Rules (AACR2), Revised Dewey Decimal Classification (DDC) as well as "WORLD CAT" as Cataloguing and Classification are major bibliographic standard. With the dawn of ICT, Manual Cataloguing should now be a thing of the past. Classification provides the ability to browse and also narrow and broaden searches, and other activities for valued users. This can be done without the user seeing any classification notations. In this environment, most of the lists of information appear in yahoo where websites are placed into categories created by the cataloguers at yahoo as cited in Wynar (1980) and Dunkin(1986).

ACQUISITION OF LIBRARY MATERIALS

Acquisition can be done through ordering, receiving and invoicing by the help of automated system to facilitate the process of acquisition by using its reporting system and ordering transmission in a very little way. It also helps in spreading records under various budget headings within the needed time. This spells out both the projected factor and the actual spending with date. This is done by entering of order information accurately to enable the computer to do the computation effectively (Ezeani, 2010).

CIRCULATION SECTION/DEPARTMENT OF THE LIBRARY

The circulation section of a library is usually responsible for providing lending services. This involves charging and discharging library materials to borrowers through on-line transactions. This service is transacted by loaning out materials to borrowers (checked out). The records of transaction are kept in the library (charged in). When materials are however returned to the library, the record of transaction of materials is returned and kept on the shelf (Ogunleye, 1997).

CHALLENGES FACED IN LIBRARY TRANSFORMATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR EDUCATIONAL DEVELOPMENT OF HIGHER EDUCATION IN NIGERIA.

Many libraries in the developing world have suffered neglect for decades. To date, there are no concrete measures to develop this type of library. Nigerian libraries suffer from gross inadequacies in terms of infrastructure, absence of teaching and research facilities, in almost all cases or situations, provision of such facilities can be aptly described as inadequate or substandard, poor training of staff which often results in low ICT competence among them as well as inadequate funds. In developing economics, electricity supply is also one of the major problems. Some more pertinent challenges facing academic libraries are: -

- Poor communication networks
- High costs of maintaining ICT infrastructure
- Limited access to ICT hardware and software
- Lack of funding to provide ICT infrastructure
- Digital and information divide
- Neglect of ICT resources
- Computer /Information illiteracy
- Technological obsolescence

- Poor Policy guidelines
- Technological dependency as technology begets more technology
- Utilizing technology to promote indigenous knowledge

The cost of providing ICTs in Nigeria as compared with other African countries is very exorbitant and as already noted by Partnership for Higher Education in Africa (2006) bandwidth rates are usually higher in Africa than in the developed countries. As a result of this, many academic libraries work with very limited bandwidth which makes their servers slow and most time there is internet down time as a result of slow server. This impedes the services rendered by librarians. This usually results in non installation of computer networks (LAN) in libraries, as well as no regular training programme.

Some solutions to the above listed challenges are: -

- Transformation of traditional libraries to digital libraries,
- Print on paper to digital information,
- Card catalogs to Web OPACs,
- Print journals to online or electronic journals,
- ownership to Open access,
- Provision of access to library resources to remote and desktop access.
- Continuous availability of Information from different libraries.
- Photocopies to digital copies,
- Standalone libraries to Information networks
- Real to Virtual libraries.

CONCLUSION AND RECOMMENDATIONS

In conclusion, a lot need to be done with regards to improving the skills and competencies of Nigerian tertiary institutional librarians. There is the need for the government to allocate more resources to education in Nigeria. This will give impetus for the provision of more computers and general ICT infrastructure in Nigerian libraries. Electricity supply in Nigeria is another impediment to the delivery of library services because of the incessant nature of it's supply, again, this should be tackled by the federal government, modalities for enhanced manpower development through training, adequate monitoring and supervision, provision of ICT infrastructure and material resources should be in place, provision of sufficient funds, provision of bandwidth as well as regular review of the educational curriculum. With these recommendations it is hoped that librarians in Nigeria would work in comparable conditions as their counter parts abroad thereby reducing the incessant brain drain experienced in Nigeria.

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