

Awareness, Availability and Utilization of ICT Facilities for Effective Service Delivery in Academic Libraries in Nigeria

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ABSTRACT

This paper assesses the availability and utilization of ICT facilities for effective service delivery in academic libraries in Nigeria. The paper opines that since the beginning of the 21st Century, Libraries automation has come to stay and since then library services delivery have undergone changes from purely manual to modern technology- driven, the aftermath being challenges in terms of inadequacy of manpower, infrastructure and finance. The paper then recommends that since ICT has come to stay, academic libraries in Nigeria should adopt a positive attitude towards its adoption and adaptation to enhance their service delivery. It encourages libraries to train and retrain their staff to adopt ICTs. It concludes that academic libraries and Librarians should not remain onlookers rather should be active participants in policy formulation and implementation as its affects ICT usage in academic libraries.

Keywords: *Availability, Utilization, ICT Facilities, Effective Service Delivery, Academic Libraries.*

INTRODUCTION

Library Services and its scientific study of access to information and effective service delivery are currently undergoing drastic transformation and application of Information Communication Technologies (ICTs). For some times now, service delivery has undergone significant metamorphosis from purely traditional medullar manual service to a more dynamic technological driven system. Though this changes in the system have been phenomenal globally, in Nigeria it's only come to stay in the new millennium. Like cyclonic waves, this technology driven environment has developed the library and is taking it's to unprecedented heights in information acquisition, dissemination, management and overall service delivery.

The purpose of this paper therefore is to assess the availability and level of utilization of ICT facilities in academic libraries in Nigeria. Its significance can be seen in advances that ICT is bringing about in terms of knowledge based economy and global based interconnectivity. This is because information has become the driving force behind the development of Nations. Academic libraries should ensure that ICT resources are available and well organized to facilitate easy use by library Patrons. The aftermath is that the age-long expectation of the demise of books as

contractual access to information in the era of information explosion and “paperless society” have dogged service delivery in academic libraries, challenged professionalism but failed so far to eclipse the vital role of libraries in what have been described in the past two decades as the information age (Lawal, 2012). Thus providing practitioner with challenges to review, adjust and update their skills, technologies, services and methods of outreach for various clientele. Amidst the competitive demands of the information age, Nigeria Library professionals must be used to and familiar with the wide range of databases available and use them extensively in satisfying users information needs. They are expected to be chief facilitators of the process of information storage, packaging and transfer among individuals and groups, assist in developing website for their libraries and provide detailed information of their reference sources and services on the website. As they engage in websites creation, they usually would take into consideration collections, publications, catalogues of individual libraries around the world and Nigeria in particular, Akpan-Atata (2013). Usually their role will become more prominent as Educators, Information managers, information providers, publishers, archivists, records managers, intelligence, information officers, editors, and dealers in information media etc., Nkanu, Iyishu and Ogar (2013). As trained professionals they can increased awareness among clients of available information network and assist them in the content and usage of reference information network.

The Concepts of ICTs

Information and Communication Technologies (ICTs) in Libraries can be understood as the application of digital equipment’s to all aspects of library work. It can also be defined as the type of technology that links the computer to the global computer network to make it possible for users to acquire process, compare, store and disseminate oral, printed and pictorial information. In effect ICT embraced all the technologies that enable the handling of information and facilities in different forms of communication between man and electronic system, among divers’ electronic system such as Radio, TV, Cellular phones, computer network, and satellite systems (Ormes and Dempsey, 1997).

According to Aina (2004), ICT in the library is concern with the technology used in handling, capturing, processing, sorting, storing and disseminating information. It can also be described as a range of technologies for gathering, storing, retrieving, processing, analysing, transmitting information. Aguolu and Aguolu (2002) also opine that ICT use in libraries also accomplish such receptive and tedious tasks as book ordering, loads and recalls much faster, more accurately, more efficiently, and retiringly than human. In terms of professional services. Lawal (1991) had also provided taxonomy of library tasks from which a universally applicable ICT has emerged and adopted with local content.

Library Tasks

- * Bibliography
- * Bindery Preparation and Records

- * Budget Preparation
- * Cataloguing Classification and Indexing
- * Date Processing
- * Filling of Cards/Forms
- * Formal Library Instruction
- * General Administration
- * Informal Library Instruction
- * Information work and assistance to Readers
- * Inter Library Loan Records
- * Lending function (registration and Circulation work)
- * Periodical Checking
- * Photocopying
- * Policy Determination
- * Public Relations
- * Repairing and Mending of Books
- * Selection Acquisition and withdrawal of Documents
- * Shelving and Stock maintenance

ARL (1995) further emphasized that academic library is not a single entity and therefore required technology to link the resources of many. The linkage between academic libraries and information services are transparent to end users. Also, academic collections are not limited to document surrogates and therefore extend to academic artefacts formats. With the above description by ARL (1995); it suggests that automated academic library can also be referred to as Electronic library or virtual library since their collection can both be accessed electronically via internet resources. Having all these resources at its disposal suggest that academic library is not only exciting but also an improvement of what obtains in the past due to better utilization of resources and faster speed accessibility.

In agreement with the above statement, Akpan-Atata (2008) referred to academic libraries as the organizations that provide resources such as specialized staff, to select, structure, offered intellectual access to, interpret, distributes, preserved the integrity and ensure the persistent overtime of collections of academic works so that they are readily and economically available for use by a defined community or set of community.

These suggest that academic library specifically required both the skills of librarians as well as those of computer scientists to be able to contribute their part for their libraries to achieve their goals. Without specialized skilled libraries that are adequately trained to use the digitization resources, the process may not function well. Academic Libraries may not need to be single, completely digital system that provides instant access to all information for all sectors of society, from anywhere in the world due to the complexities involved in building automated academic libraries. Instead, they will most likely be collections of different resources and systems (Aina, 2008).

Integrating ICT into our Libraries

The availability and utilization of ICT facilities is essentially to fast track the processes about and to ensure that information resources spend the least period of time in library. It is also to provide the most effective and efficient retrieval option to the library clientele. However Nigeria has been struggling with a dire of technical talents to build, maintain and grow new ICTs for enhance service delivery. In view of the rapid global transformation into knowledge based economy, the problem of shortage of qualified human resources in the ICTs sector is a serious problem that is compounded by shortage of funds in our academic libraries, Aina (2008). The unavailability of high levels of skills of labour force and finances are therefore of critical importance and require concerted efforts of all stakeholders particularly the government, the private sector, University Governing Councils and international donor organizations if our academic libraries are to move with time (Akparobore, 2013). The use of ICT in our academic libraries should entail three components: Content, Delivery Mechanism and Frontend Infrastructure.

Content: The creation of high quality interacting trained staff is the key to unlocking the potentials of ICT usage in academic libraries as well informed and consistently high quality staff can ensure good service delivery.

Delivery Mechanism: Effective Service Delivery needs communication infrastructure in the form of broadband connectivity, fibre optic lines, table TV, Satellites link, free and open software programmes and equipment's.

Front End Infrastructure: This includes computer and its accessories, network resources and facilities.

Benefits of ICTs for Academic Library:

ICTs- driven Academic Library has the following benefits

- Improved searching methods through different search engines and manipulation of information.
- Improved facilities for information sharing.
- Accessibility to information is made possible in a short time.
- Improved collaboration with other information institutions and centres. Opportunities to form consortia where they can pull their resources together and get a good bargain of scale to acquire library software.
- Universal Access – people from all over the world gained access to the same information as long as an internet connection is available.
- Capacity - there are limited storage spaces in traditional libraries while ICTs based academic libraries have the potential to store much more Information, simply because digital information requires very little physical space to contain them.
- Cost – the cost of maintaining automated academic library is much lower than that of a traditional library. A traditional library must spend large sum of money paying for staff, books, maintenance, rent and additional books (Ibinaye, 2012).

Human Resources Requirements for ICT in Academic Libraries Nigeria

Human resources for ICT development and utilization in Academic Libraries in Nigeria may be classified based on the occupational structure in the library profession and of ICT profession, or into hardware professional, software professional, managerial professional, marketing and sales personnel and support services personnel. Another classification may be into ICT development, ICT programme operators and technicians (Madwewesi, 2013). Development of human resources to enhance effective utilization of ICT in our libraries may also be done in the following two approaches; responding to market demand, (clientele demand driven) and developing skill human resources (human driven). As observed by Madwewesi (2013) in laying down an ICT policy, the following basic factors should be taken into account:

- (a) Human Resources in term of computer knowledge;
- (b) The situation regarding computer hardware and computerization of the Libraries.

The questions then are: How do we use the tools provided by the free and open ICT platforms to develop our human resources to enhance their service delivery capability? How do we prepare our academic libraries for the present and future ICTs usage – software, hardware and management?

The Challenges of ICTs in Academic Library

In recent study of awareness and use of ICT, Ukachi (2011), provides a valuable insight when we consider the application of ICT in academic library. The author provided the following data in availability and usage study.

Table 1: Response on Open Source Software Awareness and use by the Respondents

Open Source Software	Aware of existence		Knows what It is used for		Presently being used in my library		Not aware of its existence	
	F	%	F	%	F	%	F	%
Greenstone	12	28.6	3	7.1	3	7.1	24	57.2
DSpace	2	4.8	5	11.9	2	4.8	33	78.5
Fedora	2	4.8	3	7.1	-	-	37	88.1
Eprints	1	2.4	-	-	1	2.4	40	95.2
Joomla	1	2.4	2	4.8	-	-	39	92.8
Drupal	1	2.4	2	4.8	-	-	39	92.8
Plone	2	4.8	1	2.4	-	-	39	92.8
Open Office	4	9.6	2	7.1	1	2.4	34	80.9
KOffice	-	-	7	4.8	-	-	40	95.2
KOHA	5	11.9	1	16.7	5	11.9	25	59.5
Evergreen	3	7.1	2	2.4	-	-	38	90.5
ABCD	2	4.8	6	4.8	-	-	38	90.5
CD/ISIS	11	26.2	2	14.3	7	16.7	18	42.8
Firefox	12	28.6	-	4.8	4	9.6	24	57.1
Chrome	4	9.6	-	-	-	-	38	90.5
PHP	4	9.6	-	-	-	-	38	90.5
Perl	-	-	-	-	-	-	42	100
Python	-	-	1	2.4	-	-	41	97.6
Jabber	1	2.4	-	-	-	-	41	97.6

Source: Ukachi N. B. (2011). Awareness and utilization of Open service software in Nigeria Libraries: The Way Forward.

The explanation for low usage is that a major hindrance to the use of the software is unavailability of internet access in the libraries to enable downloading of the software. This is as a result of lack of ICT equipment's and Infrastructures in our academic libraries, thereby denying libraries users the benefits inherent in ICT utilization. The low patronage of the benefits of ICT had also been identified by Okojie (2010). According to Okojie (2010):

Libraries in the 21st Century have witnessed a tremendous paradigm shift from their conventional functions of Acquisition, Organizing Storing, Preservation and dissemination to creating hybrid functional libraries where Information and Communication Technologies (ICTs) and Networking technologies run side by side with the traditional model. This has transformed the manner in which services are rendered to clientele by de-emphasizing the idea of ownership while promoting access and resource sharing. However the library and Information Community especially in Nigeria is yet to fully annex and lineage the benefits provided by ICTs particularly as it relates to providing better access to information resources. Academic Libraries therefore that wants to move alongside this information age must embrace ICT that revolves around computers to enhance effective service delivery.

Enke (2012) found a diverse mix of both technological (Lack of appropriate databases/mechanisms) and sociological (time, funding, and human factors) as challenges facing the ICTs adoption in Nigerian Libraries.

Enabling Factors

It has been echoed earlier that library that works with the application of Information and Communication Technologies not only has the best of the information in the world, it also has the added advantage of meeting up the enormous demand for the information by users (Eyo and Ebaye, 2009). In essence therefore, there are both external and internal factors to the library environment which will endanger shift from the traditional library services to the technological model. Omekwu (2003) identifies internal factors, which serve as catalyst for the availability and easily utilization of ICT in academic libraries. These are:

- (i) Management decision to introduce computer system.
- (ii) Purchase of ICT based system like CD Ram data hold
- (iii) Where the CEO of the organizational environment is computer literate or has been successfully exposed to ICT driven information management methodologies.
- (iv) Where Local Area Network has been initiated for the entire organization
- (v) Where Library themselves champion the movement for application of ICT in their organization.
- (vi) The challenge to access and contribute to international Data base like Online Computer library catalogue; Lexis, Nixes etc.

- (vii) The need to increase the speed of services like bibliography compilation.
- (viii) Decision to develop marketable information products and services.
- (ix) Management decision to modernize information services and system to conform to international standards and trends.

ICT Facilities for effective Library Service Delivery:

Information as a product of research and management of the knowledge content of books, Journals; and media outputs, have presented great challenges to library practices and information professional in particular. Thus as information scientists whose work is information manipulation and primary tool is data, there is a greater need to identify the appropriate ICT facilities relevant to their designed operation, i.e. facilities that will enhance effective services delivery. Some of these include:

- (a) Computer system
- (b) The Internet
- (c) Fax Machines
- (d) The Online Public Access Catalogue (OPAC)
- (e) E-mail
- (f) Scanners
- (g) Printers
- (h) Mobile phones with WAP wireless Application Protocol
- (i) Reprographic Machines

Computer: It is electronic devices which accepts, stores and process data as desired, retrieved and stored data and print the result in required format. It comes in types: Analogue, Digital and hybrid, and it can be Micro, Mini, Mainframe and supercomputer in sizes. It is called a system when all the accessories are attached to performed aforementioned functions.

The Internet: The internet sometimes called the Net is a worldwide system of computer networks. As a network of networks in which uses at any one computer granted the premium or access, get information from any other computer. The acquisition, storage, processing and dissemination of information processes has been the entire business of the library profession all these years so we can be proud to say that the world has now come to apply what libraries have loved to do all these decades, but in extremely more sophisticated and efficient manner (Eyo and Ebye, 2009).

The Online Public Access Catalogue: As the name implies OPAC is a computerized online catalogue of the materials held in a particular library or library system. Modern computer OPACs offer variety of search capabilities on several indexes book cover, video clips, and other interactive requests and renewal functions.

E-mail: For many internet users electronic mail (e-mail) has particularly replaced postal services for short transactions in Nigeria and the world as a whole. Its resolute

hardware and software allows unlimited usage with many service providers ability to read files written in HTML easily accessibility and large memory to host mails, makes e-mail a reliable library tool.

Scanners: These are devices used to replicate or convert hard copies of information into electronic formats for the purpose of editing, storage and transfer. They are another useful tool for information delivery.

Printers: These are output devices required by computers for generation of hard copies of information. They come in different types, speed and sizes.

Mobile Phones with Wireless Application Protocol (WAP): These are electronic/communication devices for easily information dissemination and gathering regardless of geographical locations. Service providers are many and very competitive for the libraries to choose from.

Reprographic machines: Machine in this class include Microscopy, photocopy and duplicating. They help in duplication, storing and Retrieval of usually recorded message for easy use.

CONCLUSION AND RECOMMENDATIONS

Without an educated, ICT savvy staff no library can reap the benefits of a knowledge based society or participate effectively in modern information service delivery. Library Staff need to be exposed from the earliest time possible to use ICT to enhance and improve their work experience. ICT need to be put in place in every academic library to improve productivity and effective service delivery. The enabling factor to enhance rapid growth, availability and utilization of ICT in our academic libraries is the provision of class ICT infrastructure which include telecommunication and data networks facilities, national and international data bases in subject areas of the curricular. Despite the enormous potentials of these technologies to offer high quality, cost effective and timely service delivery, the opportunities presented here are distinguished by extend to which they are in used, misunderstood and underestimated in Nigeria. Librarians and other information professionals have to stay current by absorbing new knowledge and learning the application of Information Communication technologies in their day- to-day activities. Librarians should invest in new technologies and absorbed recent graduates with ICT in order to sustain technology based utilization culture in library services delivery in Nigeria.

ICT has come to stay in every aspect of our profession. It has made impact on the profession in recent years, therefore librarians and other information scientists should developed positive attitude towards adoption and adaptation of ICT for effective service delivery in our academic libraries. Librarians in Nigeria should help formulate and implement ICT policies for effective management and service delivery in the new library technology- driven environment. In order to

acquire the benefits of ICT, libraries and librarian need to enlist the full support of library authorities in our various Institutions, the Management and Governing Councils. Finally, training and retraining of librarians should be an ongoing process in order to enhance effective service delivery and make Librarians relevant in today's knowledge based economy.

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