

**ICT APPLICATION IN ACADEMIC LIBRARIES AND THE NEED FOR SKILLS ACQUISITION BY
ACADEMIC LIBRARIANS IN KADUNA STATE, NIGERIA**

BY

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Abstract

This study assessed “ICT application in academic libraries and the need for skills acquisition by academic librarians Kaduna State”. Four research questions guided the study and survey research method was adopted. A population of 40 academic librarians from the selected academic libraries in Kaduna State were use in this study. The response rate showed that 40 copies was filled and returned in useable form. The data collected were presented in tables and figures and were analyzed using simple frequencies and percentages. The findings for this study shows that many academic librarians have applied ICT in their various library operations and also basic information and communication technology (ICT) equipment such as computers, printers scanners, CD ROMs, Slides among others are available in most of the academic libraries. Based on the findings, the following recommendations were made that adequate funds should be made available by parent institutions to their libraries in order to acquire more ICT infrastructures needed for the services, creation of awareness and sensitization of librarians.

Keywords: ICT, Academic, Librarians, Skills acquisitions, Libraries and Kaduna state

Introduction

Oxford dictionary define library as a building or room containing collections of books, periodicals, and sometimes films and recorded music for use or borrowing by the public or the members of an institution. According to Ranganathan (1937) “A library is a public institution or establishment charged with the care of books, the duty of making them accessible those who require the use of them. “Also Wikipedia (2008 define library as a curated collection of sources of information and similar resources, selected by experts and made accessible to a *defined* community for reference or borrowing, often in a quiet environment conducive to study. Information and Communication Technology (ICT) is defined as a computer based tools used by people to work with the Information and Communication processing needs of an organization. It encompasses the computer hardware and software, the network and several other devices (video, audio, photography and camera) that converts information (text), image, sound, motion, and so on into common digital form (Adaeze, 2007). It is an eclectic application of computing, communication, telecommunication and satellite technology (Yusuf and Onasanya, 2006).

Information Technology (IT) which is the component of ICTs refers to the creation, storage and processing of data including hardware system software and software applications (Gbenga, 2006). The revolution of Information Technology has made great impact in all fields of knowledge and the field of library and information science is no exception. It has now clear that any aspect of library operations in academic libraries is not devoid completely of the use of computers and associated telecommunication facilities in providing information services (Nkannu, 2007). However, earlier traditional functions of the library according to Rahman (2006) were limited; a situation that made libraries, Library Corporation, groups and organization tries to share their resources, to get the latest information and attempted to improve the dissemination of information services but without any remarkable impact due to non-availability of ICTs facilities at the time.

The advent of Information and Communication Technology (ICT) and computer network has enhanced services in Nigerian academic libraries and gives a new direction to the traditional job of the library. Oyewumi and Oyesiku (2007) assert that all human activities on earth have much to do with information and communication of all kinds. Today, the pace of technological innovations and different forms of information presentation have pressurized a greater percentage of Nigerian University libraries to use the computer networks and other associated technologies in the provision of library and information services. Mwamba's (2007) report that library have now been found to shift their focus of operation in order to include the following directions in addition to the basic functions from library-centered to information-centered, from the library as an institution to the library as information provider, and to the librarian as a skilled information specialist functioning in all-related information environment, from using new technology for the automation of library functions to utilizing technology for the enhancement of information access and delivery not physically contained within the four walls of the library, and from library networking for information provision to area networking for all types of information resources provider.

Thus, as a result of advancement in Information and Communication Technology (ICT) in libraries, the current trend in librarianship is on-line acquisition process, on-line cataloging practices, on-line reference services. Therefore, the present day librarians need to be skilled in using computers, networking and internet to fulfill their professional obligations. They are expected to acquire the necessary training and skill development in order to meet the information needs of the users in the present changing information environment. The Information and Communication Technology (ICT) is also conceptualized as the technology that includes the wide variety of computing hardware (desktop computers, laptops, servers, mainframes, networked storage etc) (Wikipedia, 2008). It is also viewed as the set of activities which facilitates by electronic means the processing, transmission and display of information (Aye, 2008). He asserts that Information and Communication Technology (ICT) was brought about as a result of the convergence of computer components and the telecommunication infrastructure to access and retrieve data or information. It embraces and covers all and every conceivable medium or mechanism that stores, manipulates, retrieve, transmit and receive data or information electronically in a digital format such data or information can either be textual, graphic or a combination of both.

The Information and Communication Technology has established itself in recent years as one of the most important feature of modern life. This is because the use of ICT is very cardinal to the totality of librarianship. Total librarian is used here to connote the library, the librarian /library staff and the library clientele. Acquisition of skills and competencies in the application of ICT by both the library staff and clientele is a necessary impetus for quality and efficient information service delivery and information search by the library staff and library user respectively. It is because of the pervasive influence that ICT has on almost all aspects of library practice that makes the re-positioning of librarianship at the levels of pedagogy and practice more compelling. ICT is one of the most potent force that is shaping the twenty-first century because it helps the individuals, institutions and societies to achieve greater access to and utilization of information and knowledge. It is indeed a new tool that libraries in the advanced countries use and which libraries in the developing nations can use to make library and information services available to the library clientele. According to Uchebu and Igwe (2008), the acquisition and the use of ICT in the library is essentially to serve as a communication tools for library practice since information can be retrieved and communicated to library clientele more efficiently in an ICT environment. It is to be submitted therefore, that the library of the 21st century must be very familiar with and be competent in the use of ICT as a tool for professional practice.

With this development, there was need for academic libraries to reach out for a more sophisticated approach of processing information in order to meet the need of the users. Thus, library automation was necessary. In other words, to process and manage the increased information resources, the developed countries of the world computerized their library services in order to meet up with the information challenges of the 21st century. To buttress this point further, Okoye (2007) emphasized that "as other professionals, the need for librarians anywhere to take the advantage of the fast evolving potentials and capacities of the computer to enhance the profession cannot be over-emphasized". Electronic documents are characterized as having fuzzy or indefinite boundaries, in contrast to books or other physical media that normally have an identifiable beginning and end. On the issue of application ICT in the library operation Adebisi (2009) asserts that, the tremendous success

achieved by computer applications to library services in terms of information dissemination cannot be over emphasized. Adebisi (2009) further highlighted the various area of application of Information and Communication Technology (ICT) to certain library operations as follows: electronic documents, CD-ROM, automating indexing and abstracting, digital library and software for bibliography services.

According to Ugwuanyi (2009) to be able to function effectively as a librarian, there has to be degree of expertise in various aspect of library and information work. In this era of digital libraries, electronic libraries, and globalization occasioned by the use of Information and Communication Technology (ICT), librarians require skills that can enable them operate in the environment. The present changing information environment has revolutionized various aspects of library services from the simple clerical work to the acquisition, organization and dissemination of information materials. As a result of the advancement in Information and Communication Technology (ICT) and subsequent globalization, according to Omoniyi and Akinboro (2009), the current trend in librarianship is on-line acquisition process, on-line cataloguing practices, on-line reference services. They also stated further that, the present day librarian therefore need to be skilled in using computers, networking and internet to fulfill their professional obligations. They are expected to acquire the necessary training and skill development in order to meet the information needs of users in the changing information environment. Librarians are require to know various computer operations. Ugwuanyi (2009) enumerated some basic computer operations which are required for librarians such as turning computer on, opening a folder, copying a file from one disk to another, scanning etc. the use of application software's such as creating a new word processor document, modifying an existing word processor document, printing out a document, operating in a networked environment (LAN/WAN). Internet skills such as using the World Wide Web (www), sending an e-mail, message, using the word to find specific information, taking part in an online discussion or chatting (videoconferencing), and sending attachment with an e-mail message are also necessary. Also included are having the www skills which includes: using yahoo, google, MSN etc using keywords or phrases to search for information on the www, using more advanced searching techniques than keywords of phrases.

Therefore, librarian should be able to independently operate their own personal computer and to manage various peripherals and associated software's application. As they are involved in web-based information surfing retrieval, organization and dissemination, they should also know how to manage and use computer and internet. Omoniyi and Akinboro (2009) also argued that many Nigerian University librarians tend to be transiting now from mere automation syndrome to ICT application reality, even, without mastering library automation itself, some of these libraries may certainly be so ill-equipped in terms of skilled manpower to effectively and efficiently apply ICT to library operations and services. Even when libraries know that they lack ICT technology, these researchers have observed that most of them do not show much enthusiasm about acquiring the necessary ICT hardware and software. Omoniyi and Akinboro (2009) emphasized that training of librarian on skills for the following library applications: resources sharing, networking, information services, CDS, SDI, online public access services etc.

Therefore, the academic library of the present have a great task which has necessitated the need for academic librarians to be well trained and develop their skills in the much needed fields in Information and Communication Technology (ICT) in order to effectively and efficiently discharge their information dissemination and improved services delivery to the library user and the society in general.

Statement of the Problem

The fact that Information and Communication Technology (ICT) is relevant and improves the way by which people seek for information cannot be disputed. Despite the fact that there are many benefits attached to the use of ICT in libraries, yet many have not been able to benefit maximally as a result of the unavailability of such facilities in most academic libraries. Also, the crop of academic librarians in the state was of very low caliber with little or no knowledge of computer nor of its applications in the library. In no small measure, Information and Communication Technology (ICT) have made library operation more efficient where but in Nigeria, particularly in Kaduna State certain factors have been limiting its application and utilization, and the few libraries with such facilities have not been utilised efficiently due to the lack of basic training and necessary skills to handle such facilities.

Research Objectives

The objectives of this study are to:

- i- Determine the availability of Information and Communication Technology (ICT) facilities in the libraries.
- ii- Investigate the level of application of ICT to library operations by the library staff in academic libraries in Kaduna State.
- iii- Determine the level of ICT skills of library staff in academic libraries in Kaduna State.
- iv- Determine the area of training needs of library staff.

Methodology

A survey research design is adopted because it is used for descriptive, explanatory and exploratory purposes. It allows the researcher to make out relevant responses from a given population. The population of this study is made of the academic librarians in 5 governments owned (federal and state) tertiary institution in Kaduna State, which constitutes the Ahmadu Bello University Zaria, Federal Polytechnic, Kaduna, Kaduna State University Kaduna (KASSU), Kaduna State College of Education (COE) G/Waya and Federal College of Education, Zaria. A total of forty (40) academic librarians were used in this study which comprises of twenty (20) from ABU Zaria, seven (7) from KASSU, Four (4) each from Kaduna state college of education and FCE Zaria and five (5) from Federal Polytechnic, Kaduna. Considering the population for this study, there was no need for sampling, as the number of respondents chosen was studies. A total of forty (40) librarians were selected from the five academic institutions chosen for the study. A questionnaire was used to obtain relevant data from the respondents pertaining to the application of ICT in academic libraries and the need for training and development of librarians in Kaduna State. The data collected were presented in tables and figures and were analyzed using simple frequencies and percentages.

Response rates

Institution	No of questionnaire administered	No of questionnaire returned
ABU, Zaria	20	20
Fed poly Kaduna	5	5
COE G/Waya	4	4
FCE,Zaria	4	4
KASSU,Kaduna	7	7
Total	40	40

From table 1, a total of forty (40) questionnaires were distributed to the five institutions survey and all the questionnaires where completed and returned to the researcher. This shows that a 100% questionnaire return rate.

Results

Types of ICT equipment available in the academic libraries

Table 2: ICT equipment available in the academic libraries

Equipment	Frequency	Percentage
Computer /accession	40	100%
Projectors	25	62.5%
Internet connectivity	40	100%
Library software	35	87.5%
Slides	15	37.5%
CD ROMs	40	100%

Table 2 above shows responses to the types of ICT equipments available in the libraries. The table shows that all the respondents (40) which are 100% said there are computers and accessories (printers, scanners etc) are available in their libraries. 25 (62.5%) of the respondents said there are projectors, 40 (100%) also identified with the availability of internet connectivity the academic libraries. Also, 35 (87.5%) of the respondents said their libraries have library software’s such as software for cataloguing/online cataloguing, while 15 (37.5%) said slides are also available and 40 (100%) of the respondents also confirms the availability of CD ROMs in the libraries. This finding is in line with the work of Ayeh (2008) who viewed ICT as the set of activities which facilitates by electronic means the processing, transmission and display of information.

Level of application of ICT to library operation by the academic libraries

Table 3: Areas of application of ICT in the academic libraries

ICT Application Areas	Frequency	Percentage
Electronic Documents	29	72.5%
CD ROMs Database	35	87.5%
Automatic indexing and Abstracting	26	65.5%
Software for bibliographic application	31	77.5%
Digital library	18	45.5%
Current Awareness Services	35	87.5%

For the area of application of ICT in the libraries, the above analysis shows that 29 (72.5%) of the respondents said their libraries apply ICT in the area of electronic documents. 35 (87.5%) selected CD ROM Database. Also 26 (65.5%) selected automatic indexing and abstracting, 31(77.5%) selected software’s for Bibliographic applications. 18 45.5%) of the respondents chose the area of digital library and a total of 35 (87.5%) of the respondents said their libraries apply ICT in the area of current awareness services (CAS).

Training and skills acquisition of academic librarians in the academic libraries

Table 4: Training/skills requirement of academic librarians

Training/skill requirement	Frequency	Percentage
e-information retrieval systems	10	25%
e-information searching techniques	7	17.5%
Library software’s	15	37.5%
Computer operations	8	20%
Total	40	100%

On the training /skill acquisition of academic librarians, the table above shows that, 10 of the respondents representing 25% needs training on electronic information retrieval systems, 7 (17.5%) indicated the need for additional skills on electronic information search techniques. 15 (37.5%) of the respondents require training on library software’s such as CDs/ISIS, TIMLIB, X-LIB and 8 (20%) of respondents who have little or no basic training in ICT require skills in computer operations to improve their efficiency. The findings revealed that a significant number of librarians possess basic training and skills in the area of ICT. This finding tally with the work of Ugwuanyi (2009) who reported that to be able to function effectively as a librarian, there has to be degree of expertise in various aspect of library and information work.

Table 5: ICT skills required by library staff in delivering services

ICT skills	Frequency	Percentage
Internet skills	30	75%
Basic computer skills	35	87.5%
Research skills	25	62.5%
Electronic record management skills	25	62.5%
Information retrieval skills	30	75%

The analysis from table shows the distribution of ICT skills required by library staff in delivering efficient services. From the table 30 respondents representing 75% of the total population require internet skills. Also, 35 (87.5%) of the respondents needs training on basic computer skills and 25 (62.5%) of the respondents require electronic Record management system skills, while 30 of the respondents identified information Retrieval skills, which represents 75% of the population. This finding is in line with the findings of Omoniyi and Akinboro (2009) as the collaborated authors emphasized that training of librarians on skills for the following library applications: resources sharing, internet skills, electronic retrieval systems, networking, SDI, CAS, online catalogues.

Conclusion

Information and Communication Technology (ICT) offer innumerable benefits in enhancing the quality and quantity of information storage and dissemination in academic libraries. Despite the dwindling economic problems and other environmental factors, some libraries have managed to adopt the use of ICT infrastructures in the running of their day-to-day operations and routines. Though the infrastructures are not so adequate, but basic equipments like computers, printers, scanners, internet connectivity, projectors, CDROMs to mention a

few can equally be found in most academic libraries in the state. The application of ICT in libraries can enhance efficiency and improved services to library users and will also equip the librarians to overcome the challenge in the present changing environment in the 21st century.

Recommendations

Based on the findings, the following are the recommendations.

- i- Adequate funds should be made available by parent institutions to their libraries in order to acquire more ICT infrastructures needed for the services.
- ii- Creation of awareness and sensitization of librarians and library managers on several opportunities which ICTs can provide.
- iii- Library capacity building in acquiring adequate ICT skills should be recognized and taken care of for assurance of successful and sustainable application of ICTs in the libraries.
- iv- In the libraries where ICTs are currently in use, such investments may be wasted efforts unless adequate attention is given to ICT projects such as hardware/software maintenance, replacement and sustenance, personnel training and enumeration, support service; periodic evaluation; and updating.

References

- Adaeze, C. (2007). Availability and utilization of information and communication technology (ICT) facilities in higher institutions in Niger State, Nigeria. *The information technologist*. 4(1), 34-47.
- Adebisi, O.L. (2009). Application of information and communication technology (ICT) to library services. *Journal of Library and Information Science* 1(1), 24-34.
- Aina, L.O (2007). Library and information science text for Africa. Ibadan: The world information serviced limited, 305.
- Ayeh, J.K. (2008). information and communication technology and global education: The challenger of the African virtual university learning centre.
- Gbenga, A. (2006). Information and Communication Technology and web mining techniques. *A paper presented at education trust fund capacity building workshop for knowledge-driven growth for Nigerian universities north-central zone held at university of Ilorin.*
- Harrods library glossary and Reference Book. (2005). Tenth edition. Compiled by Ray Prythereh, England: Ashgate, 8-10.
- Mwamba, A. (2007). The computerized process system design and implementation in “into the information Age” UK; INKSP Publications, Pp.45-63.
- National Bureau of statistics (2007) Annual abstract of statistics. Published by Federal Republic of Nigeria. Pp. 4.
- Nkannu, W.O. (2007). Availability and utilization of information and Communication technology (ICT) facilities in Nigerian University Libraries. *The information technologist*. 4(2), pp17.
- Okoye, M.O. (2007). Assessment of the use of information and communication technology in Nigerian university libraries. *JONLA*, 5 & 6, 21-32.
- Omoniyi, J.O and Akinboro, E.O. (2009). Repositioning librarianship Education and practice for ICT challenges in Nigerian University libraries. *Information technologist*. 6(1), 45-58.
- Oyewumi, O and Oyesiku, F.A. (2007). Electronic services provisions in Nigerian university libraries. *Journals of Oyo State chapter of the Nigerian library association* 20 (1 & 2), 1-12.
- Ranganathan, S. A. (1937). *The five laws of library science*. Retrieved on 3/4/2014 from www.librarianshipstudies.com
- Rahman, H.K. (2006). Computer networks: A new paradigm shift library. *Progress international* 22(1), 39-42.
- Uchebu A.N. (2007). “The status of ICT in Nigerian Public libraries”. *Coal City libraries*, 5(1&2), 13-31.
- Ugwaanyi, F.C. (2009). Information and communication technology (ICT) Literacy among academic librarians in Nigeria. *Information technologist*. 6 (1), 123-128.
- Yusuf, M.O and Onasanya, S. A. (2006). Information and Communication Technology (ICT) and teaching in tertiary institutions. *A paper Presented at the working on teaching for newly recruited University Lecturers organized by faculty of education, university of Ilorin.*