



Application and Usage of (ICT) In Collection Development of Polytechnic Libraries.

Adegbite-Badmus, T. A & Egbeyemi T, A
Department of Library and Information Science
The Federal Polytechnic
Ilaro, Nigeria

E-mail: funmi4badmus@gmail.com, taiwo.egbeyemi@federalpolyilaro.edu.ng
Phone: +23408060154012, +23408135534969

ABSTRACT

Library is the back bone of every academic institution in rendering the expected teaching and research activities to the students, members of staff and the immediate community members. Therefore the quality and value of the library depends on the quality and availability of its collections. The Federal Polytechnic, Ilaro, with 38 members of staff was used for this study. Descriptive survey method was adopted while questionnaire was the instrument for data collection. The data collected were analysed with the use of tables, in simple percentages, it was found out that the use of ICT in collection development has greatly saved time, promotes quality acquisition of materials to the library, enhance quick and prompt delivery of information materials, promotes adequate communication with publishers and book vendors, make information materials readily available to the perspective library. However, it was also found out that inadequate infrastructure and poor power supply coupled with lack of maintenance are some of the hindrances to effective use of ICT' in collection development. It was therefore recommended that the parent institutions should adequately fund polytechnic libraries on ICT, provide and maintain adequate infrastructure training skill development of librarians as well as the use of online shops for acquisition among others.

Keywords: Application, Usage, ICT, Collection, Development, Polytechnic Libraries.

iSTEAMS Proceedings Reference Format

Adegbite-Badmus, T. A & Egbeyemi T, A (2019): Application and Usage of (ICT) In Collection Development of Polytechnic Libraries. Proceedings of the 16th iSTEAMS Multidisciplinary Research Nexus Conference, The Federal Polytechnic, Ilaro, Ogun State, Nigeria, 9th – 11th June, 2019. Pp 123-132
www.isteam.net - DOI Affix - <https://doi.org/10.22624/AIMS/iSTEAMS-2019/V16N2P16>

1. INTRODUCTION

Traditionally, Collection Development in any library setting is the means by which the library acquires process and organise collection of print and non-print materials that are capable of meeting the instructional, cultural, and recreational information requirements of its immediate users. There can be no useful collection development without the collection development policy which is a guide for adequate collection for the library. This includes;

- Ensure that any library develops its collection which must be responsive to the community or institution curriculum, balanced content and responsive to the immediate and future needs of all the users depending on the type of library.
- Provide objective criteria for selection and development,
- Clarify to users the philosophy behind and the scope of the collection of such library'



- Ensure that available resources or materials are directed towards those policies, practices and procedures that best enable support for the library's parent institution mission and vision.

1.1 Statement of the Problem

Library collection development is the process of meeting information needs of the people (a service population) in a timely and economical manner using information resources locally held as well as from other organizations. The purpose of this study is to find out ways in which collection development practices in the polytechnic can be enhanced by the use of Information and Communication Technology (ICT)

1.2 Objectives of the Study

This research work has the following objectives:

- to find out the major areas of collection development that ICT can be employed.
- to examine the various types of ICT's used in collection development in Polytechnics
- to identify the challenges of ICT use in the collection Development section of the libraries
- to find out the impact of ICT use on collection development in polytechnic libraries
- to look at the ways for improvement on the usage and application of ICT to collection development in Libraries

1.3 Research Questions

1. Has your library apply ICT for its collection development
2. What areas of collection development needs to be automated
3. What is the relevance of automation in collection development process?
4. What are the hindrances to effective automation of the collection development of your library?
5. What software is your library using for collection development?

1.4 Scope of the Study

The research focuses on the application of ICT in collection development with regards to the benefit/advantages and challenges of Nigerian Polytechnic Libraries using the Federal Polytechnic Ilaro as a case study. The respondents used for this work comprises both the professional, Para-professional and all members of staff The Federal Polytechnic, Ilaro Library, Ogun State.

1.5 Brief history of The Federal Polytechnic Ilaro and the library.

The Federal Polytechnic Ilaro was established by law on July,25,1979 and opened her gate to the public on November, 15,1979. Its mission statement is 'To provide opportunities of qualitative technical education in a serene and conducive learning environment to all eligible Nigerians who would drive the national industrial economy'. While, its vision is "To be a market leader, in the provision of technically skilled manpower for Nigeria and the global competitive economy". The Federal Polytechnic ilaro currently has five faculties which are; School of Engineering, Environmental Studies, Communication and Information Technology, Management Studies and Pure and Applied Sciences. The Library is organised into four main divisions namely; (1) Collection development which has under it acquisition unit,(2) Readers' Services that houses; the reference unit, circulation unit, serials unit,(3) Technical Services which has under it ;cataloguing and classification unit, audio-visual unit, reprographic unit (4) Electronic library which currently has subscribe to the following e-journals; AGORA,HINARI,ARDI,GOALI, OARE, AJOL and JSTOR. The E-library again has E-repository where books purchased and accessed from time to time offline. Some of the regular publishers are; Springer, Oxford, Blackwell and Wiley.



2. LITERATURE REVIEW

This study examined the Information and communication technologies (ICT) application in collection development in academic libraries. The development in information and Communication Technology, Networking and use of Internet have brought about transformation of data, information and knowledge into digital format which has profoundly affecting the library's landscape .It has affected the selection, acquisition and information transfer processes.

UNESCO (2000) defines ICT as the “scientific, technological and engineering disciplines and management techniques used in information handling and processing.” The use of ICTs provides quality services to users. Moreover, ICT have revolutionized activities in all spheres of life, especially library and information services. Meyer (1997) sees ICT as “the hardware, software, telecommunication technology, human skills and intellectual content that enable the study, design, development, implementation, support, management or use of intellectual expressions. This includes data, knowledge and languages in all digital, print, audio and visual formats. The importance of information as a crucial resource in modern society hardly needs emphasis as information brings people and thoughts together. It is the exchanges of ideas, news and data that make a society what it is. In recent times, huge investments are being made in the Information and communication Technology (ICT) industry for the purpose of generating, processing and disseminating/transmitting information. IT can be used in academic libraries to save time of the user or staff.

Over the years, academic libraries are being affected by a number of external forces such as social, economic, political, technological and internal variables for a change. However, the challenge of change and the pressure for accountability has called for academic libraries to be proactive rather than inactive and hence, need to be effectively managed. Luijenijk (2009) asserts that recent advances in science and technology in general and developments in the field of information technology in particular have vastly influenced the concept of collection development and have brought in sweeping changes in information collection, storage and dissemination. For several years, it has always being a tradition of libraries to use manual systems to retrieve, process, and disseminate information to users. Thanks to advent of ICTs which brought a new dimension and made library and information services, as well as information access, much faster and easier.

Academic libraries are libraries attached to tertiary institutions such as Universities, Mono and Polytechnic institutions, colleges of Education, and also Research Institutes (Akporhonor, 2005). Singh and Kaur (2009) stressed that preservation and access to knowledge and information is the main mandate of academic libraries along side supporting the mission of their parent institutions which is teaching and research Academic libraries are generally acceptable that the heart of a library is its collections. The notion for accessing electronic information resources is gradually increasing by the day which has made demand for printed materials decreasing. According to Elaturoti (2000), “we are no longer accessing the whole fabric of information, rather bits of data, sound bites and images torn from it”. Currently “Economic forces and technological advances have combined together to create a new environment, where access to collective scholarly resources that no library could be ever afford, supersedes the historic quest for the great comprehensive collection” (Fayose, 2005).

Collection development section is a crucial part of a library which is responsible for an up-to-date, adequate and balanced collection both qualitatively and quantitatively to meet the needs of the user community effectively is the primary duty of any library. Collection development is a wider term. According to Mannan Khan (2010) ‘It involves the formulation of a systematic general plan for the creation of a library collection that will meet the needs of that library’s clients’. Collection development is beyond collection building. However, it is managing the use, storage, and organization of the collection, and making it accessible to users.

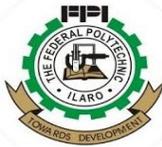


The section is also the means through which the library provides organized collection of print and non-print resources that will meet the instructional requirement, as well as the cultural and recreational needs of the community. Collection Development is always an on-going process, undertaken by library departments/faculties within the schools, administrators, staff and students in the case of academic libraries Aina (2007) agrees that collection development is one of the fundamental functions of the library and information profession. While collection development relates to the selection and acquisition of information materials, it is an all-encompassing term that ensures that there is a balance of materials acquired with the respect of various disciplines. A purposefully built library with well capable and skilled members of staff without adequate information resources is not to be called a library. Hence the continuity for existence for such library and information system will depend majorly on functionality of the collection development process of the library. Kavitha (2009) confirms that library collection has gone through ages of clay tablets to papyrus sheets, paper document, optical disc and the rest. However, librarians have used information and communication technology to carry out their collection development activities

Tella et al (2007) observes that ICT's are increasingly becoming an inevitable tools for participation in almost all human activities like participating in global markets, promoting political accountability, improving the delivery of basic services and enhancing local development opportunities, information and communication technology has been found effective on the progress and development of human civilization and socialization. ICT has become within a short period, one of the basic building blocks for modern society. Almost all countries now regard understanding ICT and mastering the basic skill with the concepts of ICT as part of the importance of education alongside reading writing and numeracy (UNESCO, 2002). It can therefore be inferred that no society or community can be developed without the application and usage of ICT.

Aiyebilehin (2011) affirms that ICT has far reaching influences. He also noted that new technologies have a powerful influence on all aspects of our society, from commerce and business to health and entertainment. Hence, the library is not an exception. In order to effectively meet up with the demand of the polytechnic libraries by the users, the collection must be adequate and properly shaped. The traditional system of collection development are no longer relevant and need to integrate ICT, for the library collections to be as relevant as expected by the users in a world governed by technology. The advent of Information and Communication Technology (ICT) has brought a transformation to academic library services and the librarian's role is diversifying. Etim (2004) cited in Okon (2005) observes that the rapid pace of development in the field of information technology and the advent of networked information services have prompted a comprehensive review of the Library and Information Sciences (LIS) profession. The revolution of (ICT) has propelled a paradigm shift from traditional library to e-library.

Kumar (2009) also notes that academic libraries are changing dramatically by adopting new means of technology in all activities of print to e-environment where a variety of manual method, are replaced by computerized system which provides opportunity for online accessibility. Library users rely more on libraries to provide them with a range of information and communication technologies necessary to acquire information. However, whatever the shape collection development takes, there is still need for the acquisition of library resources in both electronic and traditional forms of documents. Without any doubt, the development of ICT in academic libraries has been an advantage and great tools in disseminating scientific and technical information and discharging library duties. ICT has intensify academic libraries tasks by providing a better service to the user and integrate their electronic resources likewise their services. It is imperative for librarians in academic libraries to regularly update their database and expertise in information and communication technology (ICT) in order to make them become a better librarian for validating the library.



2.1 Challenges of ICT in Collection Development in Academic Libraries

Over the years, academic libraries have not been able to function effectively due to some impediments factors, some of which include:

1. **Lack of invention:** Academic libraries in Nigeria have failed in terms of securing supports and sponsorship from relevant authorities in order to improve their situation. Relevant bodies and stakeholders in Library and Information profession needs to find a means of getting organizations, international partners, individuals and groups to invest largely in the library and information sector. This can further enhance reading in the academic settings.
2. **Lack of adequate skills by library staff:** The absence of skills in the members of staff of the library especially librarians and library officers is a great source of problem for effective collection development in academic library. Librarian and library officers who are not ICT compliant would not be able to function well in collection development and other routine activities of academic libraries. Also such staff will find it very difficult in handling some tasks, materials, equipments therefore will not be able to adapt and update to new innovation in this age of information explosions.
3. **Insufficient Funds:** The major setback facing academic libraries in Nigeria is lack of funding. Traditionally, academic libraries are entitled to 10% allocation from their parent's institution yearly budget which unfortunately has never been enough to meet the financial challenges of these libraries. Hence lack of funds will continue to cripple the activities of academic libraries including acquisition and collection development of new materials both foreign and indigenous.
4. **Inadequate ICT infrastructure:** Lack or inadequate infrastructure especially on information and communication technology is peculiar to most academic libraries in Nigeria. Also facilities that can make academic libraries to function perfectly are nowhere to be found. Many of the existing infrastructures are in bad conditions, while some are faulty, many are outdated or expired, rendering the not up to date to meet the current needs of the library users.
5. **Lack of Digital Equipments:** most academic libraries in Nigeria are not well equipped with modern technology and ICT related facilities without these technologies, library will not be able to apply and adapt to ICT and librarians will not be able to compete favourably with modern E- library in discharging their duties effectively.
6. **Poor Internet Services:** This is another serious factor hindering the effective ICT application and usage in academic libraries, which there has never been permanent solution at sight.
7. **Inadequate manpower :** The inability of the government to train members of staff on the job for various activities on ICT has hindered effective e- library services especially acquisition and collection development services in academic libraries.
8. **Erratic Power Supply:** Unstable power supply has always been a big impediment to effective and adequate application and utilization of ICT in all aspects or functions of the library. However, using generating sets to power these ICT equipments has done more damages than good to these expensive information resources, which has made its effective utilization inadequate.
9. **Cost of ICT purchase and maintenance;** The exchange rate in converting Nigerian naira to US dollars have made importation of ICT equipments a big problem for librarians and their parent institutions / body. Many imported ICT equipments and materials are not easy to maintain due to unavailability of their spare parts. Also, where these ICT equipments are available, they are always too expensive to purchase, thereby making adequate and judicious utilization very difficult and discouraging.
10. **Lackadaisical Attitudes of the Government to Library Needs:** In the recent time, government has no interest in funding libraries of any type, their concerns is how to loot the country's treasury for their personal interest. The government focus has been shifted from every other thing to how to enrich their pockets rather than improving the infrastructural activities of the country and the states.



Communication Technology: This can be regarded as telecommunications which are used to convey information in the form of signals between remote locations, using electrical or electromagnetic media as carriers of signals. It consists of the following:

- **Audio technology:** Audio technology can be used in academic libraries, such as compact disc (CD).
- **Audio visual technology:** Audio visual technologies are those by which things can be understood by listening as well as seeing.
- **Videodisc:** Videodiscs can be used to disseminate computer programmes, digital databases, educational video programmes and a range of electronic publications.
- **Videotext:** Videotext is a newer technology, but as in the on-line information retrieval, the information is stored in computer files and accessed through a telecommunication link.
- **Cell phone or mobile phone:** it is an instrument that connects with the telephone network over radio wave transmission. Mobile phone provides avenue to dial connections anywhere in the world. As the user of mobile telephone moves from cell to cell the radiotelephone link switches from one central transmitter/receiver to a second while the call continues, uninterrupted.
- **E-mail:** E-mail is a system of exchanging message in electronic format. It is the most used tool on the internet. It has brought a revolutionary changes in communication because any type of information such as personal notes, letter, documents, publications, computer programmes, even pictures and sound can be sent to or received from anywhere of the world within a fraction of a seconds at a very cheap rate through electronic signals called SMTP (Simple Mail Transfer Protocol).
- **Reprographic technology:** This is used to identify of information processing which concerned with the reproduction, reprinting and equipments for the reproduction of documents using electromechanical or photographic methods.
- **Printing technology:** A printer is a device that process and converts computer output in to printed material by means of inked type and a printing press or similar technology. There are different types of printers used in library such as Dot Matrix Printers, HP LaserJet Printer, Inkjet, Bubble-Jet, etc.

2.1 Applications of ICT collection development in Academic Libraries

In recent times, academic libraries are adopting several information and communication technology tools for collection development and administrative functions of the library. Information and communication technology (ICT) have been playing a crucial role in retrieval and dissemination of information. Some of the roles are:

Library Automation

Library Automation is the notion of reducing manual involvement of library personnel with the use of electronics in the library services so that any user can get the desired information with the maximum comfort and at the lowest cost. Major areas of the automation can be classified into two-organization of all library database and all housekeeping operations of library.

Library Networking

Library networking is an association of academic libraries which are interconnected for some common pattern or design for information exchange and communication with a purpose of engaging in a joint venture and to improve work efficiency.

Library Management

Library Management has to with the activities that can gear up the use of ICT developments such as Classification, Cataloguing, Indexing, Database creation and Database Indexing



Electronic Library

Machinery together with the content and software needed to reproduce and extend the Electronic library is a collection of digital computing, storage and communication libraries service based on paper and other material means of collecting, cataloguing, finding and disseminating information. Electronic library provides access to its part of or all its collection.

The above mentioned instruments could be effectively utilized in the collection processes of library materials

2.2 Benefits of ICT

Use of ICT in collection development in academic libraries enhances users' satisfaction. It provides numerous benefits to library users. Some of the benefits are:

- it allows easy integration of various activities;
- it provide speedy and easy access to information;
- it provides up to date information;
- it provides round the clock access to users;
- it increases efficiency;
- it provides access to unlimited information from different sources;
- it provides information flexibility to be used by any individual according to his/her requirements;
- it provides increased flexibility;
- it facilitates the reformatting and combining of data from different sources;
- Libraries are also providing various ICT-based services to their users, including the followings;
- Provision of Web access to OPACs;
- Electronic document delivery;
- Networked information resources;
- Delivery of information to users' desktops;
- It provides accurate result.

3. METHODOLOGY

This paper is based on research that was carried out on the application of ICT on collection development in polytechnics in Southwest Nigeria using the Federal Polytechnic Ilaro as a case study. The polytechnic library was purposely selected for the study in order to save time and cost. Descriptive research design was used for this work. Questionnaire was the instrument used for data collection. 40 copies of questionnaire were administered to the respondents and 38 copies (93%) were retrieved and used for analysis. The data collected was analysed with the use of simple percentages and tables.



4. DATA ANALYSIS AND INTERPRETATION

1. Has your library been automated?

Strongly Agree	Agree	Strongly Disagree	Disagree
25(66%)	13 (34%)	0	0

2. What are the percentages of ICT that are available for your collection development?

ICT	Readily available (%)	Available (%)	Not readily available (%)	Not available (%)
Internet connectivity	29 (76.3%)	9(23.7%)	0	0
Computers	33(86.8%)	5(13.2%)	0	0
Scanners	25(65.8%)	11(28.9%)	0	2(5.3%)
Printers	27(71%)	11(28.9%)	0	0
CD-ROM workroom	18(47.3%)	15(39.5%)	5(13.2%)	0
Mobile phone	20(52.6%)	12(31.5%)	4(10.5%)	2(5.5%)
Spine labelling machine	22(57.9%)	9(23.7%)	3(7.9%)	4(10.5%)
Photocopiers	29(76.3%)	9(23.75)	0	0

3. What benefits will application of ICT in collection development has on the library?

On the above question, the under listed options are some of the responses provided by the respondents.

- Improved collection
- Increased library users/usage
- Saves time
- Updated materials
- Professional/ Academic fulfilment
- Speedy information collection
- Improves performance and services
- Increase productivity in terms of collection in the library

4. How will the application and usage of ICT in collection development influence or impact on library users and services of the library

Options	Strongly Agreed	Agreed	Strongly Disagree	Disagree
Promote users interest and confidence	33(86.8%)	5(13.2%)	0	0
Increase patronage	27(71%)	10(26.3%)	1(2.6%)	0
Improves regency and relevance of resources	31(81.6%)	7(18.4%)	0	0
Encourages prompt and fast access to information needs	35(92.1%)	3(3.5%)	0	0
Encourages both far and close users	24(62.2%)	9(23.7%)	2(5.3%)	3(7.9%)
Assists in stock exchanging	32(84.25)	6(15.8%)	0	0
Helps in the bibliography control of resources	24(62.2%)	12(31.6%)	0	2(5.2%)
Encourages reading habits	22(57.9%)	13(34.2%)	0	3(7.9%)
Saves costs	34(89.5%)	4(10.5%)	0	0



5. Identification of aspects of collection development where ICT are used.

Activity	Strongly agree	Agree	Strongly disagree	Disagree
Online acquisition	31(81.6%)	5(13.2%)	0	1(2.6%)
Ordering	26(68.4%)	10(26.3%)	1(2.6%)	1(2.6%)
Electronic journal subscription	30(78.9%)	4(10.5%)	0	4(10.5%)
Checking publishers catalogues	33(86.8%)	5(13.2%)	0	0
Invoice clearing	29(76.3%)	8(21.0%)	1(2.6%)	1(2.6%)
Acquisition record keeping	34(89.5%)	3(7.9%)	0	1(2.65)
Bibliographic searching	28(73.7%)	7(18.4%)	1(2.6%)	2(5.3%)
Correspondences with suppliers and vendors	35(92.1%)	3(7.9%)	0	0
Production of lists of materials-on-order	22(57.9%)	13(34.2%)	1(2.6%)	2(5.3%)
Tracking of the progress of materials (books) on order	27(71%)	6(15.8%)	2(5.5%)	3(7.9%)

6..Percentages for challenges of ICT use in collection development

Options	Strongly agree	Agree	Strongly Disagree	Disagree
There is problem of internet connection	35(92.1%)	3(7.9%)	0	0
There is problem of frequent computers breakdown	25(65.8%)	7(18.4%)	2(5.3%)	4(10.5%)
Lack of adequate ICT skills to use the ICT	15(39.5%)	13(34.2%)	7(18.4%)	3(7.9%)
Non accessibility to ICT needed for collection development	10(26.3%)	6(15.8%)	9(27.7%)	13(34.2%)
Preference to manual system of acquisition and collection development to the use of ICT	20(52.6%)	5(13.2%)	9(27.7%)	4(10.5%)
Some of the ICT are not available	32(84.2%)	6(15.8%)	0	0
Funding of ICT for collection development is not adequate	28(73.7%)	7(18.4%)	1(2.6%)	2(5.3%)

It was found out that ICT was available in the library under study but the application in collection development was not adequate in ensuring efficiency and effective in ensuring a well and adequately meeting the need of the collection development personnel of the library

5. SUMMARY OF FINDINGS AND CONCLUSION

From the study it was found that in the Federal Polytechnic Ilaro library:

1. ICT is available in collection development. Some of the ICTs readily available are computers, internet, printers, telephone, spine labeling machine etc. these ICT's are used for carrying out different aspects of collection development in the library
2. IC is used in carrying out most collection development activities such as bibliographic checking, ordering, printing list of books on order, checking publishers catalogues, and correspondence with suppliers. Also ICT was found to be used for acquisition records and tracking records and tracking of books on order.
3. The use of ICT in collection development has great impacts on the whole process. It was found that with ICT there is reduction in the time taken for acquisition, there is quick delivery of information materials, there is improvement in the quality of library services and that also lead to acquisition of current materials



4. Most of the challenges identified in literature such as poor funding, lack of skills, and problems of access were not found as challenges in the library which are common to the use of ICT in collection development. However, it was found that there is a great use that brings a change in the use of ICT in collection development.

6. RECOMMENDATION

- Polytechnic libraries should have proper plan for acquisition and maintenance of ICT in the library
- Funding of ICT in collection development in Nigeria polytechnics must be improved if the libraries are to participate effectively in acquisition and dissemination of information in the 24 century
- Librarians in Nigerian polytechnics should be given proper training in the use of ICT in collection development
- Nigerian polytechnic library should maximize the use of online book stores such as amazon.com which helps to reduce the cost of materials acquired
- Nigerian polytechnic libraries should provide supporting infrastructure for the use of ICT e.g stand/by power generator due to incessant power outages

REFERENCES.

1. Aina, (2005). Library and Information Science in Context
2. Anyakoha, M.W. (2005). Information and Communication Technology (ICT) in Library Services. Coal City Libraries.
3. Ebijuwa, A.A (2005), Information and Communication Technology in University Libraries: The Nigeria Experience. Journal of Library and Information Science, 7(1&2) 23-30.
4. Elaturoti, D.F.(2000), Personnel Requirement for Effective School Library Services in the Implementation of Universal Basic Education Programmes in Nigeria. J (4): 23-32.
5. Etim, F. E. (2006), Resources Sharing in the Digital Age: Prospects and Problems in African Universities.
6. Information Technology in Library and Information Science Education in Nigeria in Fayose, P. O. and Nwalo, K.I.N (edt.) NALISU, PP. 27-28.
7. Kumar, M.(2009), Academic Libraries in Electronic Environment: Paradigm shift. A Paper presented at the International Conference on Academic Libraries (ICAL) held at the University of Delhi, India.p.105
8. Meyer, S. (1997). Information and Communication Technology. Washington, D. C. National Academic Press. P.4
9. Okon, H.I. (2005), Effective Communication and Smooth Administration of Academic Libraries in 21st Century: A New Paradigm in Nigeria. 8(1)
10. Salem, S. Z. (2013), International Journal of Library Science.
11. Singh, S.P. (2004), Collection Management in the electronic environment. The bottom line; Managing Library Finance. 17(2):1
12. UNESCO, (2000), International Education Parks: Unesco House, p.12