

## **Use of Information and Communication Technology (ICT) as a Tool for Information Service Delivery in an Era of Economic Depression.**

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### **Abstract**

*This paper examined the concept of Information and Communication Technology justifying the facility as the rave of the moment in global socio-economic affairs and asserting that it has become so important that every country, organization or institution no matter how highly or lowly placed want to identify and embrace it. This paper accessed the attitude and opinions of librarians on the use of Information and Communication Technology (ICT) as a tool for information service delivery in University libraries in this era of economic quagmire. The paper posited that ICTs are used in Catalogue and classification, Interlibrary information sharing, Registration of library users, Reference services e.t.c. The paper recommended that amount budgeted for the library funding should be enhanced/increased, librarians should ensure that the funds when released in the running of the library*

**KEYWORDS:** Delivery, Information, Communication, Technology, Cataloguing, Classification, Registration.

## **Introduction**

Today, it is very obvious that, the use of information communication technology system in all areas of human endeavour is now known and widely acceptable. This is because its application to the day-to-day activities of such organization is (growing exponentially which calls for the need of ICT for efficiency and effectiveness) very efficient and effective.

In library set up, information communication technology application is where the computer systems are used to manage one or several library routine systems such as acquisition, serial control, cataloguing and classification and the on-line public access catalogue (OPAC). This encompasses the notion of the application of technologies to information handling (generation, storage, processing, and retrieval dissemination). In general terms technology is the tool and technique used for utilization and gathering of information. It includes physical devices like papers, pencils, biros, computers, etc.

The information technology application in libraries can be divided into three categories: computer, storage media and telecommunications. A computer performs processing operations on data and is used to store and retrieve information process transaction (charging and discharging), sort, data, etc.

Since the central processing unit (CPU) or the computer has a definitive amount of data capacity; it requires additional storage media, such as magnetic disk and tape, and audio tape. A disk is the most common auxiliary storage device. Telecommunications facilitates the transfer or communication of data and information technology in the libraries.

Basically, information technology provides for full organizational structure (i.e. to provide enhanced users satisfaction, cost effectiveness, integration, faster, and simpler programmes, rapid responses, and operational procedures).

Introduction of ICTs in Nigerian University libraries has witnessed tremendous progress as many libraries have gone ahead to acquire these ICTs. Most libraries in Nigeria have not computerized any of their functions; the public card catalog and the visible index are still finding tools for books and journals in most libraries. In support of this submission Aguolu and Aguolu, (2002) buttressed the view that library and information services in Nigeria are yet to transcend the traditional functions of information provision to library users despite the overwhelming presence of ICTs in majority of University libraries in Nigeria. The writers are of the opinion that though there exist ICTs in university libraries, the extent of it been used for information delivery to users could not be ascertained. This paper is set on addressing the existing gap of information provision regarding the extent of ICTs used for information delivery in Nigerian university libraries

## **Background of information**

When exploring the history of library automation, it is possible to return to past centuries when visionaries, before the computer age, created device to assist with their book lending system. Even far back as 1588, the invention of French "Book Wheel"

allows scholars to rotate between books by stepping on the pedal that turns a book table. Another interesting example was the book indicator developed by Albert Cotgreave in 1863 which housed miniature books to represent books in the library's collection. The miniature book was part of a design that made it possible if a book was in and out or overdue. These and many more examples of early ingenuity in library system exist. However, this paper will focus on the more recent computer automation beginning in the early century. Library automation development began in the 1930s when punch card equipment was implemented for use in library circulation and acquisition. During the 30s and 40s, progress on computer system was slow which is not surprising, given the depression and World War II 1945. Vannevar Bush envisioned an automated system that would store information; include books, personal records and articles. Bush (1945) wrote about hypothetical "memex" system which he described as a mechanical library that would allow a user to view and store information from several different access points and looks at several items simultaneously.

The library automation first appeared at MIT, in 1957, with the development of COMT managing linguistic computation, natural language and the ability to search for a particular string of information. Librarians then moved beyond a vision or idea for the use of computer. With the advent of technology they were able to make great advance in the use of computer for library system. This now led to the explosion of library automation in the 60s and 70s.

The advancement of technology in 1960 and 1980 led to increase in the use of computer in libraries. The new potential for computer use guided one librarian to develop a new indexing technique. H. P. Luhn, in 1961, used a computer to produce the "key word in context" or KWIC index for articles appearing in Chemical Abstracts as it was discovered that a librarian had the ability to put a language index term on the computer. By the mid 60s, computer was being used for the production of 'machine readable catalogue record' by the Library of Congress between 1965 and 1968.

### **Hypothetical Statements**

The study sought answers to the following questions:

1. ICT facilities are available in the library
2. ICT enhances academic library information service delivery
3. To what extent are ICTs used to render information services
4. The present global economic recession has not affected technology and its use in present library environment.

Before this present day economic slump of recession of financial stagnation that have witnessed libraries being neglected in terms of acquisition, of ICT apparatus and their subsequent deployment in libraries for use. The opinion or rather assertions of major players in library and information science about the use of ICT have been streamlined to:

- I. Cataloguing and Classification,
- II. Registration of users,
- III. Circulation and Administration functions,

#### IV. OPAC services.

The writers of this paper however posited that there is a radical unprecedented use of ICT in libraries which has however not only affected the functions and services of libraries and librarians but also changed the known status quo. Furthermore, given the present urge for information by library users and changes in librarians' roles, the authors opined that the following under listed ideologies influence the use of ICTs in libraries.

#### **ICTs are used for the following in the Libraries:**

- (a) For promoting Self Esteem of Libraries in academic environment
- (b) For fostering the importance and ideological views of librarians
- (c) To reach and propagate the presence of knowledge in the development of the society and sustaining the developmental projects and goals of the community,
- (d) To satisfy the diverse information needs of library users. This is as E-journals, CD-ROM databases; online databases, e-books, web-based resources, and a variety of other electronic media are fast replacing the traditional resources of libraries.
- (e) For marketing and advocating Library resources, services and skills.

Furthermore, the subsequent use of these radical innovations and trend in libraries heralded massive change in information handling by librarians and libraries in the following ways listed below;

#### **Impact of ICT on Academic Library Services functions**

- a. The advent of the Internet has brought awareness of the importance of global communication. People, organizations, and businesses are better informed and more connected to each other than ever before.
- b. Utilization to expedite book selection, book ordering, and book processing, using data from large databases like the OCLC and the Library of Congress.
- c. The internet is the gateway for libraries and information centres to enter the electronic information era and provides information generated by different organizations, institutes, research centers, and individuals all over the world.
- d. ICTs facilitate the easy identification and retrieval of library materials; for the easy creation and updating of inventory of library records for provision of easy and faster library services to its clientele
- e. ICT application and use in academic libraries allow remote access to library resources through library created institutional repositories, web pages, online public access catalogs (OPACs),

The jump from these basic uses of IT to ICT came with the availability of the Internet which allowed for the sharing of resources electronically throughout the world. This made effective communication between libraries easier. The librarian also noted that up to this point, the library has not been automated; though there are urgent plans do so in the near future.

### **Constraints to the Implementation and use of ICT for Effective Service Delivery in Nigerian Libraries.**

There are many constraints to any kind of development in Nigeria but some libraries have been computerized successfully. It is not an easy environment in which to move ahead for the following reasons which have hindered efforts to computerize library services in Nigeria. The consequences of this problem cannot be overemphasized.

- i. Lack of available and affordable electric power is holding back economic development and crippling the country. This is a difficult problem to address, as a solution depends on governmental action, but in order to move ahead now libraries need to make arrangements for generators and back-up power so that servers can be run on a continual basis.
- ii. The lack of affordable Internet facility service providers and their inability to provide wide bandwidth and strong connectivity..
- iii. Lack of trained personnel are essential for any implementation of ICT to take place and be effectively sustained
- iv. lack of library personnel to understudy and follow the ICT project,
- v. Absence of discipline and alertness required for the manipulation of computer systems often is manifest.
- v. Dearth of cooperation in resource sharing is also crucially important as a way forward in times of economic constraints.

In view of these, the following are hereby recommended as a means to check these challenges;

1. The body responsible for funding academic libraries should ensure that the amount budgeted for the library is completely utilized in developing the library, and not diverting it to other sections.
2. The library on its own should also develop some fee-based electronic reference service as, selective dissemination of information, abstracting and indexing services to individuals etc. this will help them generate funds internally to augment what is being allocated to them for the acquisition of additional ICT facilities to enable larger number of users to access them.
3. With the acquisition of more facilities, the duration of use by users should be extended so that they will have enough time to adequately utilize them
4. Librarians should provide current awareness services and elective dissemination of information services to academic staff of the university in order to motivate them seek information to enhance their knowledge
5. Government and private individuals should encourage inter-library partnership in order to build a perfect library.
6. The library should embark on price reduction for the use of these ICT facilities so as to encourage higher patronage from clientele.

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