4. Impact of the ICT on Academic Libraries

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Abstract:

Continuing development is being undertaken in the fields of computer technology, communication technology and mass storage technology which shape the way libraries access, access, and store, manipulate, and spread information to users. In particular in the form of library collection development strategies, library building and consortia, the ICT has affected every field of academic library activity. ICT offers customers value-added information and access to a wide variety of digital information resources.

Keywords:

ICT, Libraries, Digital Library, Library Management, ICT Tools, Library Services, Librarians, Information Communication Technology.

4.1 Introductions:

The issue of national progress and development remained a catalyst for Information Communication Technology (ICT). Information: power is effectively an endless resource and an essential tool for all sectors of every nation to develop. The application in libraries is therefore important to address the information need of citizens. It is important to do this. Note that the evolution of ICT has had a significant impact on the quality of information supplied by libraries. It also allows library users of all disciplines to be provided with proper and adequate library services. In the 21st century it will not be possible to emphasize the dramatic role of ICT in library operations. Many library and manual routines and operations are now converted into computerized operations, which means ICT techniques to provide better and quicker services for end users. There is no access to information that would allow sustainable development of a country without functional libraries and information centers. In this global era, information gains its power through constant storage and wide-ranging distribution that ICT can achieve. The world is now experiencing a digital scenario according to Janakiraman and Subramaniah (2015), in which the ICT has changed the possibilities of library promotions and changed its anticipated library performance.

The nature of academic libraries has changed by ICT. A number of terms are used for the academic library, such as the hybrid, digital and virtual library. A digital library can be defined as a digital "managed data collection with its related services, which store and access information via the network." "Remote access to library content and services and other information resources combine a compilation of current, highly utilized materials, both in print and in electronic form with an electronic network, that gives access to and provides international library content and business information and knowledge sources from

outside the world," the virtual library was defined. Hybrid libraries are libraries which provide both electronic and paper-based access." It is evident from the definitions that most academic libraries today fall into the hybrid category.

The internet provides simple and complex access to information and recovery. Information recovery systems are designed to meet the requirements of end users and thus try to simplify the process. At the same time, however, the user is overwhelmed by so many information and choices that the process is difficult.

- ICT enabled the creation of information in digital format.
- ICT enabled file transfers and on-line access.
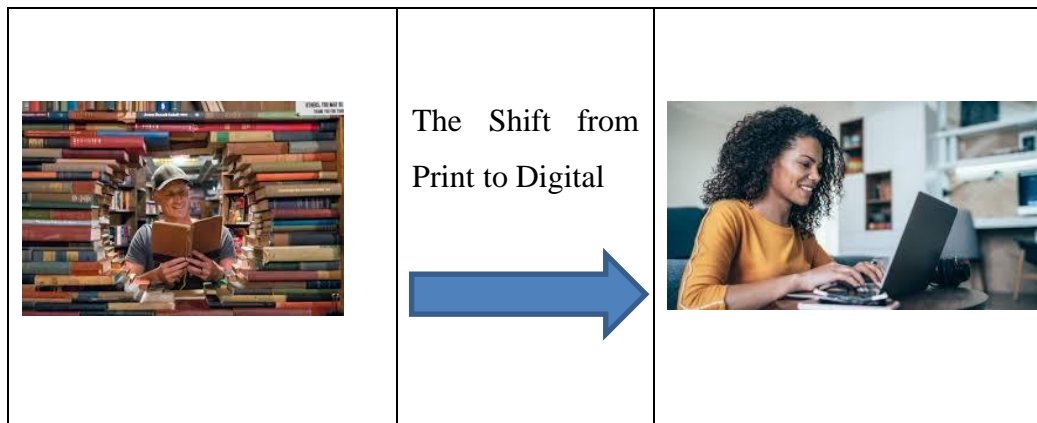- ICT enabled information resource networking and sharing.

The Shift from Print to Digital

Figure 4.1: Impact of ICT to the Academic Libraries

The transfer from print to digital information has a significant impact on libraries, information centers and other institutions which directly engage in information processing. This shift is usually due to the fusion of computer technology, telecommunications and other industries. The ability of computers to carry out repetitive, error-free, high-volume tasks at speeds much faster than human beings has impregnated society, and recent developments in the areas of computing have made access to data possible in all situations.

The entire library scenario has changed with the developments and application of ICT. Traditional libraries are moved from traditional to hybrid. We see the emergence in the universe of knowledge of libraries with different nomenclatures. These libraries include automated libraries, electronic libraries, digital libraries, etc. The concept of Library 2.0 has been developed in the web environment. These library companies all use various IT applications to carry out activities from material acquisition to information dissemination.

4.2 Impact of ICT on Library Collection Management:

Electronic resources have become very complex and challenging management of collections at this time of information explosion.

The budget is constrained, there are numerous formats, and the user needs always change. Management of collections means participation in tasks such as need analysis, contract negotiation and resource assessment:

Electronic resources: The academic/college library collections changed fundamentally by ICT. The age has passed when the physical collection of the academic library has determined its stature. In the modern era of networked technology, the focus is shifted from ownership of physical resources to accessing global electronic resources.

E-Journals: The e-journal can be defined as a version of a traditional print or paper journal that is electronically distributed directly to the user in one form or another. The newspaper was the primary vehicle for communication between academics and researchers from its inception in 1665, but there have been substantial increases in journal subscription costs over the last decades. The average growth per journal subscription between 1986 and 1996 was 147%. The advent of the Internet transformed publication enabled it to be published radically at low cost. Access to the Internet was also universal. E-Books: E-Books are essentially digitized and electronically distributed books and reference materials. In terms of shelving, binding, circulation, overdue warnings and the management of fines, library library-based e-books save costs. Additional benefits include online accessibility, search capability for keywords, etc.

4.3 Impact on Library Users:

Academic library staff are well aware of the enormous value of printed and electronic resources for academic libraries students. Users don't have the insight necessarily. The users of the new generation library prefer to print resources for electronic resources. They want

- All resources should be fully textual and printable
- The library service should be accessible quickly and easily
- Library services available 24*7 hours
- All transactions in the library should be online

Effects on the user community of these developments

- Improves the literacy level of technology
- Increases demand for better and quicker access.
- It aggravates discrepancies between rich and poor information.

In their life, the users are now exposed to different applications of technology and expect access in their times of need. In libraries, users who know how to use computers and the internet for their research only need a computer with access to the internet. However, this cannot and does not apply to those who, owing to financial difficulties, lack access to such technologies. Two kinds of users, which libraries need to cover: 'has' and 'have-nots' have therefore emerged. In order for all users to have equal access to the data, a balance should be maintained when providing services for both groups. This can be done effectively by using powerful and appropriate technologies.

4.3.1 ICT's Impact on LIS Professionals or Librarians:

The use and use of library services had a new effect on computers and IT. ICT supported library and IT professionals in library services by providing value-added services and by providing more remote access to information resources. ICT can quickly collect stored information and turn our traditional library into a modern library.

Recent ICTs affect various facets of libraries and the information industry. The development of ICT and the widespread use of ICT lead to the replacement of and the dominant form of data storage and retrieval from digital information sources and digital media. It also survives and makes the true regulations for library science: "Each reader's book/information"; "Save the reader's time"; "Library is an organ that grows."

The high information source, fast transmission speed and easy access in the field of information and communication technology guarantee the user's satisfaction with a varied demand, overcome the distance and reduce the time it will take and guarantee correct information for the right reader in due time.

The demand for collection development in the library is also increasing and solving. In fact, it is an excellent tool for centers and libraries.

In order to meet evolving needs, the ICT has created complex challenges for librarians or LIS professionals. The changes must be managed by librarians or LIS professionals with the use of the latest ICT, thus improving performance.

In order to provide quality library services, they must improve the skills and knowledge how of new information and communication technologies.

4.4 Use of ICT Tools:

The emergence of the ICT information revolution has enabled libraries to formulate viable strategies to improve the delivery of services (Igwe, 2010). In order to provide its users with information, Library uses various technologies. Some of the ICT tools that are used mainly for various communication purposes are followed:

a. Communication Technology: Email is the best way to exchange messages and information in electronic format, it is the most effective way of formal communication. There have been revolutionary changes in communication since it is possible to send or receive from some corner of the globe various types of information such as personal message, letter, article, sound, computer programming files, pictures, etc.

This is currently the most useful tool for various communication types (personal, official communication, etc.). This tool can be used to provide the information required at the right time. Libraries are currently using this live tool to serve library users, which basically demands that library material be renewed or returned (check in). The medium for faster information can also be considered.

- Voice mail is the new and innovative mail technology development. We can also say it to email as an alternative. It helps to send the mail through the voice immediately.
- For personal users contact, telephone is used. Users usually ask questions concerning resources and reading room availability. Still, they use the telephone to book carrels in advance for reading and research.
- Fax is described as 'the telephonic transmission of scanned-in printed material (the text or images) usually on a phone number associated with a printer or another output device' by Rouse (2006) (a short fax for fax mail and sometimes called telecopies). The document is scanned by a fax machine which processes the contents as a fixed graphic image (text or pictures) into a bitmap.
- A video conference (or video conference) is explained as "a means by means of computer network transmission of audio and video data, for conducting a conference of two or more participants at different sites. For example, a video-conferencing system point-to-point (two-man) functions similarly to a video phone. Each participant has an on-computer video cameras, microphones and speakers. When they speak to each other, their voices will be transmitted through the networks to speakers of the other, and any pictures appear before the video camera will be displayed on the monitor of the other participant in the window (Beal, n.d.).".."
- Internet: it's the ICT's main component. It is essentially a network of networks which connects the computers. The Internet is a communication medium that uses various online tools.

b. Remote Control Technology: Remote control offers a computer system to work with remote control. It is a major technological development. By using this technology, any type of services that are far from the destination are easily implemented. This ICT is generally used to remotely control, to meet online, to share desktops, to confer and to transfer files from one computer to another.

c. Social Media: The main focus for quickest dissemination of information has been social media such as Facebook, Twitter, Blogs, etc. Most libraries are promoting or marketing their e-resources using these social media. Blogs are essentially used to disseminate short-term library communication, while Facebook has become the most useful ICT tool for all kinds of dissemination.

d. Digital Library: Computer and computer network are a basis for digital library libraries because reading material cannot be processed without the computer and no books published can be altered digitally. Computers and networks also depend on the complete reading material in digital libraries such as PDF, HTML, audio, video, and services etc.

e. Use of Library Automation Software: Automating libraries is the excellent way to reduce library services' human participation. Today's automation technology seeks to deliver maximal services in the lowest possible time and cost. The application of ICTs in library and library services is library automation. Many library automation software such as Libsys, Koha, SLIM21, etc. are available for library operation.

The software functions include the authorization, cataloguing, circulation, serials management, inventory verification, etc. The library systems.

4.4.1 Factors That Affect Information Technology in Modern Librarianship:

Why has the technology not moved faster? There are obvious reasons for this:

a. Cost: There has been a lot of publicity recently about costs for libraries and publishers; we must not ignore the effect on users that can now be asked to pay for access to an online database or for searching for an optical disc file and printing out abstracts.
b. Lack of standards: Hardware producers have used different standards until recently. Until recently. Now the Sierra-High standard appears to facilitate CD-ROM processing for software publishers, but standards in other areas like facsimile are still to be developed.
c. Lack of market perception. Publishers do not perceive the new technologies-based library market for new products. For example, there are relatively few libraries and hardly any of their own optical disc or CDROM drives. The Bibliophile's creators sold the product on the drives, and the hardware and software technology now has several imitators. It's not a big market yet.
d. Disc content. There's also over 500 megabytes of a 5-inch CD-ROM. That's a lot of information and it is difficult for publishers to determine logical data groups to assemble on a disc.
e. Only now are graphics and colour becoming widely available.
f. Users are not yet ready to switch only to electronic data from the printed page.
g. Articles only in electronic form are not yet perceived as valid publishing or perishable contributions; these may not be subject to the same thorough academic review and electronic articles are not yet trusted in scholars.
h. Copyright: The Copyright Law of 1976 did not deal with emerging information technology and, in only some degree of success, the Library and Publishing Communities seek to make a joint commitment between the two parties. As full-texts become increasingly available in electronic form, the copyright issue will become even more intensive.
i. Lack of training for staff: Because most librarian personnel are not web-friendly, the application and some library units.

4.5 ICT and Library Services: Using information and communication technology (ICT) the following library services are available:

a. On-Line Public Access Catalogue (OPAC):

The practice of library cataloguing has revolutionized ICT. The holdings of the library collections can be viewed by OPAC users. This reduces the cost of keeping a catalogue of libraries. It also removes pen and paperwork and helps to prepare the union catalogue.

b. Reference/ ILL Service:

The reference service has become very easy by using computer and internet technology. Different types of information resources are available online to provide users with the information required by the encyclopedia, directories, dictionaries, databases, online library collections, maps, biographies, patents and online information resources.

c. Reprographic Service:

For reproduction of documents, reconstruction technology is used. It has become extremely easy and accessible to use technology, copy and reproduce documents. Printed papers are converted into digital form in this technology, followed by a photocopy. Computer and software are necessary for that purpose.

d. Selective Dissemination of Information (SDI) Services:

Hensley (1963) stated that "SDI uses the computer to select those which are of interest for each of the several users from a flow of new documents. The inverse of information retrieval can be considered for this process. A user searches for a file of documents in order to obtain information. In SDI, the search for a standing file of user interests begins with a document."

e. Document Delivery Service:

Due to financial constraints, the library is difficult to acquire all kinds of published resources globally. Thus, it is very important to exchange library resources like books, reviews, etc. among libraries. Computer and the Internet have made a big contribution to DDS to overcome these problems.

f. Bibliographic Service:

Bibliographic services have become practical through the computer. Bibliographic services are now available to users in libraries and publishers. The lists of referrals for the research are helpful for bibliographic software such as EndNote, RefWorks, Zotero and Mendely.

g. Translation Service:

With the help of ICT, mechanical translation is performed. In order to be able to translate from foreign languages into English and vice versa various online instruments like Bablefish translator and Google translator.

h. Database Search Guide:

Databases are currently the focus of the research problem on various types. For their research work, researchers utilize data bases enormously. In the ICT environment it has become very easy to search and retrieve online resources or database data.

4.6 Conclusion:

Effective library application of IT transmits user satisfaction. The current scenario requires updated technology for quicker and more accessible library services. New technologies are gradually being developed so that our abilities and ability to provide improved library services need to be developed. A large amount of library resources must be used.

The success of a library and the professional library always depends on the service quality. ICT's emergence is the new paradigm for extending the operational level of libraries and services. So the library professionals must inevitably be updated with the technology for their very existence.

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