Relevance of ICT in Modern Library Settings in Academic Libraries

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Abstract:

Academic libraries and information services have undergone significant modifications and transformations because of ICT. ICT has evolved in the rotation of information which has transformed the information handling activities in academic libraries. The academic library services have immensely upgraded with the vital changes in ICT. The upgraded library in academic libraries helps in ICT has opened with the new trends of assembling, variable and dissemination of the technical information. The academic libraries have already changed their regular tasks by using effectual information communication technologies to aggravate and integrate their electronic resources and services. This paper evaluates the necessity for ICT in modern librarianship. The librarians in academic libraries should update their information and communication technology to victoriously handle their roles of being responsible to authenticate the library and information centers target as an information support network for the society.

Keywords: Information and Communication Technology, ICT, Academic Libraries

1.0 Introduction:

In Academic libraries ICT is more effective and efficient tool for the diffusion of information to this academic community in the developing countries. The ICT have made the changes in library and information services into all over the world. The information society has been transformed by digital media, and advances in ICT have modified the information sources. The internet is giving the facility to access universal information at anytime and anywhere. The technological innovations have changed the conversion of information in digital form. In digital era the software development is a powerful tool for managing the software which has given the information is organized, stored, accessed, and retrieved. The ICT made the computer and communication technology. This technology is the tool for process the information in digital form while using the digital information. Computer programming languages, databases, networks, analysis and design approaches, and other ICT tools were used. The using of ICT is giving the facilities to easy access to Information. It provides the facility to libraries to give the services widely and can increase their importance in the organization to serve. Information service facilities in academic libraries are increasing the effect and usage of information and communication technology for

library activities and services. Acquisition of ICTs, preservation of e-resources, maintenance and security difficulties, training, and a lack of understanding and dedication among library employees are all challenges in university libraries. ICT stands for information and communication technology, and it is a tool for storing and processing digital data. It helps to users while disseminate the information easily in digital information. In ICT variety of technical applications are used in process and communication of information. In academic libraries are managing to be planning, organizing, and communicating the information according to the users' needs by using ICT. Users in academic libraries are no longer limited to physical books and documents; they may now access information in digital formats such as audiovisual, multimedia dimension features, and so on. All knowledge is now at people's fingertips thanks to the use of computer and communication technology. Libraries have a variety of computer-based information resources, such as e-books, e-journals, e-databases, CDs/DVDs, and so on. Some of the modern technologies used in academic libraries include acquisition, cataloguing, circulation, serial control, OPAC, e-books, e-journals, e-databases, current awareness service (CAS), and selective distribution service (SDI).

2.0 Literature Review:

1. **Shukla, Akhandanand&Sialai, S. (2016**) explained how ICT was first used in libraries and how it has evolved through time in different parts of the world. Major library components encompassed by the ICT application umbrella have been identified and discussed effectively, as well as the influence of ICT on libraries. The role of library professionals has evolved because of the increased use of ICT in libraries, and this has been thoroughly examined in the conclusion.

2.**Haneefa, Mohamed. (2007)** investigated in Kerala, India, the use of information and communication technology (ICT) in special libraries was explored by researchers. The library catalogue was identified to be the most favored area for automation in the study. Inadequate ICT infrastructure was discovered to be the main source of users' discontent, according to the investigation. The study suggests that library automation be improved, as well as an emphasis on the effective and efficient use of ICT.

3.**Buarki, Hanadi, Hepworth, Mark, & Murray, Ian. (2011)** "ICT skills and employability need at the LIS program Kuwait: a literature review, according to a study the authors of the study combed through a massive amount of ICT-related material. They focused on library and information science students' information and communication capabilities (ICT) in global LIS education and compared them to the skills required by the Kuwaiti labor market. ICT skills have been considered as crucial attributes for LIS graduates' job they discovered. As a result, ICT skills have become a requirement and a focus of attention when evaluating an applicant for employment.

4. **Rana (2009)**, The use of information and communication technology (ICT) is critical to the success of improving information services. ICT has a wide range of applications, but it is most used to transform existing paper-print information throughout the storage, retrieval, and distribution process.

5. **Anunobi&Edoka (2010)** described how university libraries serve an important role as information providers, assisting with teaching, learning, and research through a variety of information resources. Serials or periodicals are the most important information materials, especially for faculty and researchers. The operation of serials was previously manual; however, with the advancement of ICT, the acquisition of serials or magazines, as well as their retrieval, has become easier. Users' curiosity for knowledge has shifted from print to e-resources, in line with the viewpoint.

3.0 Objectives:

1. To study the ICT sources availability in Academic Libraries.
2. To study the perspective of library professionals in their works by using ICT.
3. To study ICT influenced professional development for users.
4. To research Academic libraries' instructional and information demands have been changed by ICT.
5. To identify the problems those come with implementing ICT in academic libraries.
6. To study the impact of ICT on library management in academic libraries.
7. To study the role of librarians changing by using information technology in present era.

4.0 Purpose of the study: The purpose of the study's goal is to determine the influence of ICT on academic libraries. The study focuses on the advantages and disadvantages of ICT in academic libraries.

5.0 Scope of the study: In the present library environment, the study focuses on the impact of ICT on academic libraries.

6.0 Methodology: The information is collected from the secondary data i.e.Websites, newspapers, research articles for the study.

7.0 Analysis of Data

7.1 ICT Sources in Academic Libraries:

ICT is the major driving force behind information society. In academic libraries, the librarians were using different techniques of information sources for sharing the information to users. The ICT includes different types of services in libraries like Cataloguing, Acquisition, Inter-library loan, Current Awareness Service (CAS), e-books, e-Journals, Information services in special collection, referral services etc. The information and communication technology ICT has changed the information facilities in libraries of acquisition, processing, dissemination. The academic libraries can convert old collections to machine readable format. In academic libraries make use of ICT tools are very useful for the information needed users that is students and faculty. Libraries in academic communities are to support and encourage teaching, learning, and research to assist students, lecturers, and other members. Academic libraries offer a variety of services to help users obtain the information they require, including orientation or user education, interlibrary loan, reference, and circulation. In libraries, information storage and retrieval, acquisition, classification, and cataloguing have all changed because of ICT. ICT is providing the value-added information services and access digital based information resources to their users. Academic libraries are also implementing effective resource sharing networks, management information systems, and developing institutional repositories of digital content libraries employing modern ICT tools for their purposes. Academic library and information services, such as OPAC, Reference services, Current Awareness Services, Document delivery services, Inter-library loan, and Audio-visual services, have been revolutionized by information and communication technology to be more efficient and effective.

Changes in format, content, and production processes, as well as the contents, production methods, and dissemination methods of information products, describe the impact of ICT on information services. The internet's emergence as the world's largest repository of information and knowledge, the shift from intermediary to facilitator role of library and information science professionals, new tools for information dissemination, and the shift from physical to virtual services environments, as well as the extinction of some traditional information services and the emergence of new and innovative web-based services.

7.2 Impact of ICT on Library Professionals:

The high impact of technology in various library services and information provided by the library which are used to the library patron. ICT has benefited librarians and information scientists by allowing them to give significance library services including remote access by the help of existing information resources. ICT has revolutionized the way we utilize libraries by allowing for faster retrieval of stored data. In recent years, information technology has had a tremendous impact on LIS profession. Because of improvements in ICT and extend utilization of ICT, online resources and digital preservation are replacing and becoming of the information storage and retrieval is primary method. Information and Communication Technology also subsists and contributes to the establishment of real rules of Library and Information Science. According to Ranganathan, "Every reader has his or her own book/information," "Save the reader's time" and "The library is a living organism." Through its vast information resources, fast communication speeds, and ease to access the information, information and communication technology ensures that users with diverse demands are satisfied, that distance barriers are overcome, that time is reduced, and that the right information is provided to pin-pointed information in the real time. It is also raises and fulfillment of the demand for collection development at the library. It's a great resource for libraries and information centers. ICT has presented several challenges for librarians and LIS professionals, forcing them to rethink their jobs to satisfy evolving needs. Librarians and LIS professionals must be able to handle change by incorporating cutting-edge technology. To provide high-quality library services, they must increase their abilities and

knowledge of developing information and communication technologies. The librarian's job in today's fast-paced environment is to keep up with emerging information and communication technology, information resources, and user expectations. The librarian oversees more than just standard library information. To live and serve their consumers, the library must keep up with their expectations. The librarian must transform into information navigators who can condense material into useful information. In today's changing ICT environment, the librarian must play many evolving and increasing responsibilities to meet many new difficulties.

7.3 Impact of ICT Changes in Academic Libraries:
Academic libraries have altered because of technological advancements. Academic libraries are referred to by a variety of labels, including hybrid, digital, and virtual libraries. A digital library is a "managed collection of material with associated services that is kept in digital format and accessible across a network." The virtual library is defined as "remote access to the content and services of libraries and other information resources, combining an on-site collection of current heavily used materials, both print and electronic, with an electronic network that provides access to and delivers from the external worldwide library and commercial information and services." sources of information Libraries that allow access to both hard as well as electronic resources are known as hybrid libraries." Based on the definitions, most current academic libraries obviously fall under the Artificial Intelligence category. Accessing and retrieving information has become both simple and challenging thanks to the internet. End-user information retrieval systems are created to meet their needs while keeping the procedure as simple as possible. The user, on the other hand, is inundated with so many information, resources, and options that the task becomes difficult.

- The development of digital information was aided by information and communication technology (ICT).
- Information Communication Technologyis ease access by the online and possible the document transfer.
- Using ICT, we can save and share the document in the cloud any corner of the world.

The transformation of information from print to digital influences libraries, documentation and information centers, and other data-processing institutions. The convergence of computing, telecommunications, and other industries is of course credited with development.Computers have become ubiquitous in the society because of their efficiency in producing large quantities of error-free repetitive tasks at a faster rate than humans, while recent and emerging computer advances, such as telecommunications, networking, and sharing services, have made information available anywhere,any time and any place.

The entire landscape of libraries has transformed because of technological advancements and applications. Traditional libraries are giving way to hybrid libraries. In the world of knowledge, we are seeing the creation of libraries with various nomenclatures. Automated libraries, electronic libraries, digital libraries, and omnipresent virtual libraries are examples of these types of libraries. The concept of Library 3.0 has emerged in the web environment. All these libraries use a variety of information technology tools to carry out tasks ranging from material procurement to information dissemination.

7.4 Impact of Information Communication Technology on Library Management:
In the age of Information explosion, E-Resource Management System made the development of collection are more complicated and difficult. Budgetary limits, a variety of formats, and constantly changing consumer needs are all things to keep in mind. Collection management entails participation in duties such as need analysis, contract negotiation, and resource evaluation:

7.4.1Electronic Resources: ICT has radically altered academic and college library holdings. The period when an academic library's physical collection established its status is long gone. In today's networked technological world, the emphasis has changed away from physical resource ownership and toward global access to electronic resources.

7.4.1.1E-Journals:A journal is defined as "the record of proceedings or transactions of a learned society" by the Encyclopedia Dictionary of Library and Information Science. It is a journal for which the full end-product is available on an optical disc, across a network, or in any other electronic form, simply a journal in which the entire process is carried out electronically, according to Harrods' Librarian's Glossary. Thousands of journals

are available in electronic format through the library. Some of these journals are electronic versions of those found in the library.

7.4.1.2 E-Books: E-Books are electronic versions of previously published copyright free and easy to use reference materials that have been digitized and shared. In terms of faculty publications, university/college exam papers, thesis/dissertation storing, binding, circulation, late notices, and fee administration, e-books are cost-effective for libraries. Other benefits include online accessibility, keyword searches, and so forth.

7.4.1.3 E-Databases: A database is an organized collection of data for one or more purposes, usually in digital form. Libraries offer a wide range of bibliographical databases and full-text resources, which are frequently organized to represent significant aspects of reality and support processes that require the information. An electronic database is a computer-based collection or listing of information. Professional, peer-reviewed journal articles can be included if they are organized in a systematic way with searchable features or fields. This simplifies and speeds up the search process.

7.5 Impact of ICT on Library Users:

The immense significance of traditional and online resources provided to users at academic libraries is well understood by academic library employees. Users do not always have insight. Electronic materials are preferred by new generation library users over print resources. They desire

- The complete text and printable of all resources should be available.
- The library service should be quick and easy to use.
- The library should be open 24 hours a day, seven days a week
- All transactions with the library should be completed online.

7.6 Effects of these advances on the user community

- Enhances technological literacy.
- The desire for better and faster information access is growing.
- Widens the divide between those who have and those who do not have access to information.

Users who are exposed to a variety of technology applications in their daily life are more adept at utilizing it and anticipate having it available when they need it. This may not be the case, and it does not apply to people who are unable to afford such technology owing to financial constraints. As a result, libraries must serve two distinct groups of people: "haves" and "have-nots." For all users to have equal access the information, there must be a balance in the services provided to both groups. Using powerful and proper technology, this can be performed quickly.

7.7 The Librarian's Changing Role in the Information Age:

The librarian's job in today's fast-paced environment is to keep up with emerging information and communication technology, information resources, and user expectations. To exist and serve its consumers, the librarian must keep up with their demands. Information knowledge navigators who filter data into useable information are required of librarians. In today's changing ICT environment, the librarian must play many evolving and increasing responsibilities to meet many new difficulties.
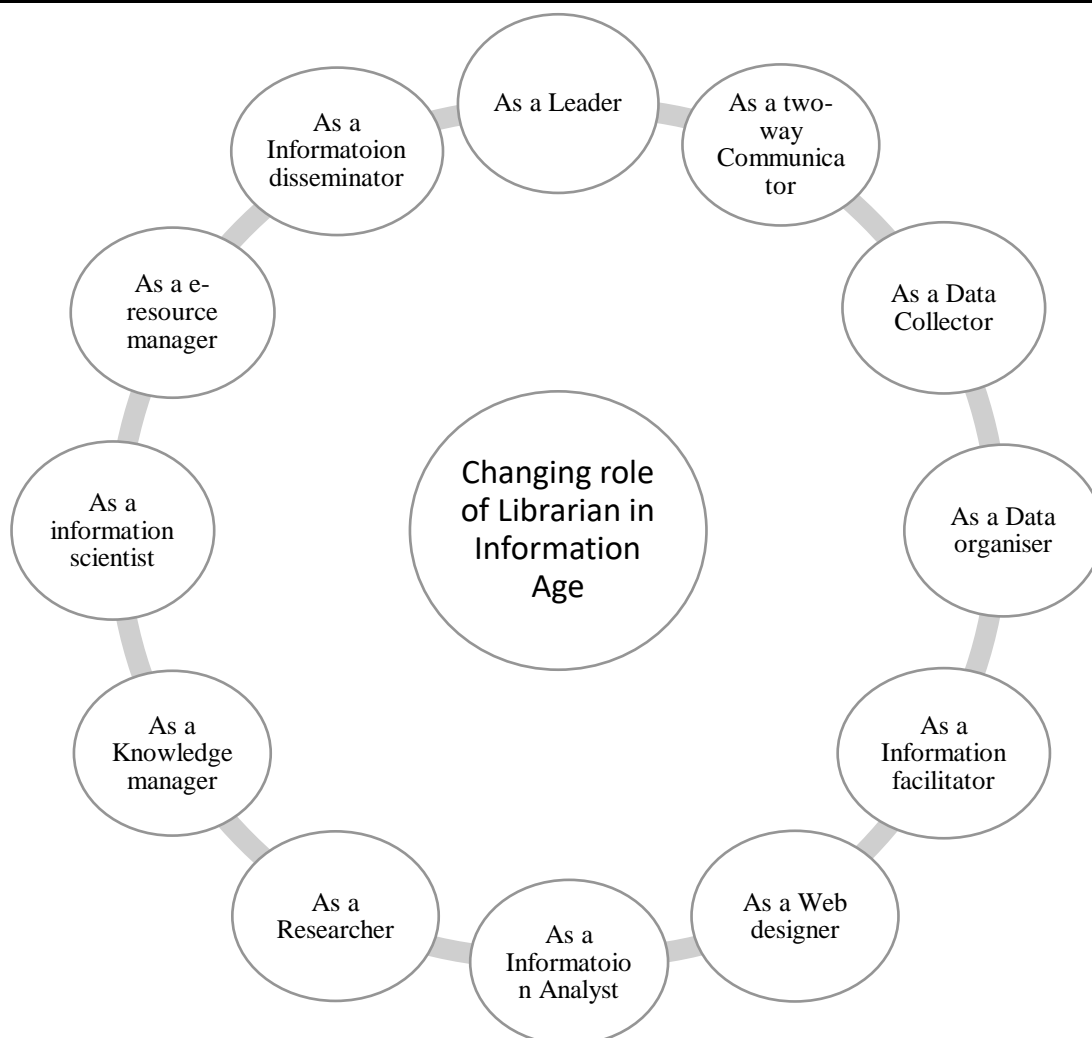
Figure 1 Changing Role of Librarian in Information Age

- The role of the librarian as a leader.
- The role of the librarian as a two-way communicator.
- The term "librarian" is used to describe someone who works at a library.
- A librarian's role as a data collector.
- A librarian's role as a data organizer.
- The librarian's role in the retrieval of information.
- In addition to being a librarian, I work as a web designer.
- As a librarian, I work as an information analyst.
- A librarian can also be a researcher.
- A librarian works as a knowledge manager.
- Librarians working in electronic/digital libraries as information scientists.
- Librarians working as e-resource managers.
- Librarians working as information disseminators.

ICT breakthroughs have brought all medias i.e., communication information, entertainment and many closer together, allowing data to be sent in the digital format used by computers at any time and from any location. The way we live, work, think, and play has all changed because of technological convergence. These changes are prevalent across society and may be seen in our daily lives, such as how we use e-mail and cell phones at home and at work.

8.0 Conclusions

Users' happiness is communicated through effective use of information technology in libraries. The current situation necessitates updated technology to provide speedier and more accessible library services. Each time a new technology emerges, we must increase our abilities and capacity to deliver better library services. The library's resources must be utilized extensively. The success of a library and its staff is always dependent on the level of service provided. The development of information and communication technology (ICT) has created a new paradigm for improving library operations and services. As a result, it is unavoidable for library professionals to stay current with technology to maintain their jobs.

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