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# ROLE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN PROVIDING VALUE-ADDED LIBRARY SERVICES: AN OVERVIEW

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**Abstract:** The Information and Communication Technologies have brought about changes in different aspects of human life in the twenty-first century. New opportunities offered by. Information and Communication Technologies in the fields of business, learning, communication, etc. have thrown the world into a new society called Knowledge Society. Thus, the world has become a global village. The internet where you can migrate from one computer chain to another is called the super information highway. Information and Communication Technologies have brought about socio-cultural, political, educational, and economic changes. The libraries have long been an integral part of communities, serving as a source of information and knowledge for people of all ages. In the digital age, libraries face new challenges as users' needs and expectations have changed. Also, the present library and information services extend beyond walls and physical buildings. Nowadays with the help of Information and Communication Technology the libraries are providing value added services effectively to the end users.

**Keywords:** Information and Communication Technology, ICT, E-Resources, Library Services, Digital Libraries.

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## 1.0 Introduction

Information Technology means a variety of technological applications in the process of communication of information the term information technology has been used as collective term for the whole spectrum of technologies providing the ways and means to acquire, store, transmit, retrieve and process information. According to the Webster's new encyclopedia, information technology is the collective term for the various technologies involved in the processing and transmission of information, thus information technology includes computer technology, communication technology, multimedia technology, optical technology, networking etc. Due to tremendous development has been seen in the field of Library and Information Science due to the faster growth in technology. In past few decades, with the use of internet and technology, the library work has become very fast. To satisfy the needs of library users, speed and accuracy is the most two important dimensions. Basically, Information and Communication Technology enhances the workflow of the library which helps reducing manual work, with this, it proliferates the library services. One of the most prominent advantages of ICT is to provide ICT-based information services to meet the users' demands. Emerging ICTs have changed traditional libraries into knowledge centers and librarians' function more like consulting information engineers or knowledge managers. The modern technology has carried momentous changes in different aspects of library management. From housekeeping operation to users' management, have been largely achieved through the applications of internet and library software. Basically, ICT is used in libraries, efforts to provide various services, such as access to OPAC, library databases, automated circulation of library materials, etc. The integration of Information and Communication Technology (ICT) into library services can overall enhance value-added services and transform libraries into dynamic and user-centered institutions.

## 2.0 Advantages of Information and Communication Technologies (ICTs)

The main advantages of Information and Communication Technologies (ICTs) are:

- Greater flexibility in when and where tasks are carried out.

- No restrictions of geographical boundaries for users
- Information access speedy and accurate, use one and more users at the same time.
- Library users are live connected to another from long distance.
- Use of technology by getting the information is accurate, authentic, and reliable.
- 24X7 Access and save the time.
- Gains in ICT related literacy skills, confidence, and enthusiasm.

**3.0 Information and Communication Technologies (ICT) Based Value Added Library Services**

The Information and Communication Technologies based value added library services implemented in various libraries are:

- **Augmented Reality and Virtual Reality Technologies:** A software tool enabling libraries to create immersive and interactive user experiences.
- **Data Management Platforms:** A software tool used to manage and share research data, including data storage, organization, and analysis.
- **Artificial Intelligence and Machine Learning Tools:** A software tool that enables libraries to automate and streamline various tasks, including cataloguing, data analysis, and user engagement.
- **Library Management Systems:** A software platform for managing library collections, acquisitions, technical processing and circulation.
- **Online Public Access Catalogue:** A search interface that allows users to find and access library resources, including books, journals, and multimedia materials.
- **Electronic Resource Management Systems:** A system utilized for the administration and facilitation of electronic resources, such as e-books, databases, and e-journals, is known as a platform.
- **Discovery Layers:** A software tool used to search across multiple library resources, including print and electronic materials, and provide a unified search interface for users.
- **OpenURL Link Resolvers:** A software tool that allows users to access full-text content directly from search results or other resources.
- **Institutional Repositories:** A platform that stores and provides access to scholarly works produced by an institution's faculty and researchers.
- **Remote Access Technologies:** Tools that enable users to access library resources remotely from off-campus locations.
- **Blockchain Technology:** A software tool that enables libraries to securely and transparently manage and share digital assets, including research data and scholarly works.
- **Web-Scale Discovery Services:** A software tool that enables users to discover and access library resources through a single search interface.
- **Geolocation and Mapping Tools:** A software tool that enables users to locate and access library resources based on their physical location.
- **Digital Libraries:** A web-based system that provides access to digital resources, including e-books, e-journals, and multimedia materials.
- **Federated Search Engines:** A software tool used to search across multiple library resources simultaneously, including books, articles, and databases.
- **Digital Preservation Systems**: A platform used to ensure the long-term preservation and accessibility of digital materials.
- **Social Media Platforms:** A software tool that enables libraries to engage with users and promote library services through social media channels.
- **Learning Management Systems:** A software platform for managing and delivering online courses and educational content.

**4.0 Benefits of Information and Communication Technology (ICT) in Libraries**

Information and Communication Technology has revolutionized the way libraries provide services. The benefits of Information and Communication Technology in providing value-added library services are:

- **Personalized Services:** Information and Communication Technology enables libraries to offer personalized services to users, such as customized recommendations based on user behaviour, email notifications of new resources, and personalized research assistance.
- **Enhanced Collaboration:** Information and Communication Technology facilitates effective collaboration between librarians, their peers, and other organizations. This can include sharing resources, participating in online communities, and holding virtual meetings.
- **Improved User Engagement:** Information and Communication Technology can create engaging and interactive learning experiences for users, such as gamification, virtual reality, and other digital tools that make learning fun and interactive.
- **Improved Library Management**: Information and Communication Technology can streamline library operations, making it easier for librarians to manage their collections, track usage, and provide data-driven insights. Libraries can easily manage the process of book check-out, overdue fines, and reservations.
- **Easy Access to Information Resources:** Information and Communication Technology makes it possible for libraries to offer digital access to information resources, such as e-books, online journals, and databases that users can access from anywhere at any time.
- **Data Analytics:** Information and Communication Technology can provide librarians with data-driven insights that can help them better understand user behavior and preferences. This can include information about which resources are most popular, what search terms users are using, and how users are interacting with library services.
- **Greater Security:** Information and Communication Technology can enhance library security by providing user authentication, access control, and security monitoring.
- **Improved Reference Service:** Information and Communication Technology can help librarians to provide better reference services, such as virtual reference desks, chat services, and email references.
- **Preservation of Cultural Heritage:** Digitization of cultural heritage materials using ICT ensures that the materials are preserved for future generations.
- **Improved Accessibility:** Information and Communication Technology can help libraries to provide better accessibility for users with disabilities. This can include digital resources designed to be more accessible, as well as assistive technologies like screen readers and text-to-speech software.
- **Cost Savings:** Information and Communication Technology can help libraries to save money by reducing the need for physical storage space, printing costs, and other expenses associated with traditional library services.
- **Remote Access to Library Resources:** Information and Communication Technology enables libraries to provide remote access to their resources, making it easier for users to access information from anywhere. This is particularly important for users who are unable to visit the library in person.

**5.0 Conclusion**

The role of librarians and information professionals in this new environment has been strongly influenced by these changes. Now the traditional library and librarianship is undergoing significant changes due to the digital revolution through ICT application, and it affected all aspect of role of librarians in providing information provision in a library. The best practices help to improve the quality of library services. Best practices adopted in academic institutes should bridge the gap between the library collection and the user community for maximum resource utilization. Libraries have adopted various best practices in administration, management, collection and services, extent of service use and technology. Information and Communication Technology has become essential in providing value-added library services. The integration of Information and Communication Technology in libraries has enabled them to offer digital resources and value-added services that are easily accessible to users from anywhere at any time.

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