

Innovative ICT Library Services in Academic Libraries

Shilpa N. Hirekhan, Librarian, Seth Kesarimal Porwal College, Kamptee

Abstract

Effective application of information technology in library transmits users' satisfaction. The present scenario demands the updated technology for the faster and approachable library services. Gradually, new technologies are developed; consequently, there is the need to develop our skills and capacity to provide enhanced library services. Library resources must be used at a large amount. The successfulness of a library and the library professional always depends on the quality of the service. The emergence of ICT is the new paradigm to extend the level of library operation and services. So, it is inevitable for the library professionals to be updated with the technology for the own existence.

Introduction

Information and Communication Technologies (ICT) facilitate the process of identification, collection, storing, processing and disseminating of information. The library and information science professionals are utilizing ICTs to keep pace with the problem of information explosion. The benefit of instant access to digital information is the most distinguishing attribute of the information age. But at last it is to say today's highly sophisticated information technology facilitates the storage of huge amounts of data or information in a very compact space. Information technologies promised fast retrieval of stored information and revolutionize our concept of the functions of a traditional library and a modern information Centre and have dramatically changed the mode of library operations and services. In libraries, information technology has assisted library professionals to provide value added quality information service and give more remote access to the inter-nationally available information resources.

ICT-Based Library Services:

1. Online Public Access Catalogues: - (OPACs) are digital platforms or interfaces that allow users to access and search the catalog of a library's collection, including books, journals, audiovisual materials, and other resources. OPACs serve as online versions of traditional library card catalogs, providing users with a convenient way to discover and locate materials available in the library. The advent of OPACs has transformed how users interact with library catalogs, providing greater convenience and accessibility. Users can access OPACs from any internet-connected device to search the library's collection remotely. This remote access eliminates the need for physical visits to the library to browse through catalogs, thus saving time and effort for users.

2. Digital Library Services: - Digital library services encompass a range of offerings that leverage technology to provide access to digital resources, facilitate information retrieval, and enhance user experiences. These services utilize digital platforms, tools, and systems to manage and deliver a wide array of digital content, including e-books, e-journals, audiovisual materials, research databases, and archival collections. Digital library services enable users to access and explore these resources remotely through online catalogs, digital repositories, and virtual libraries. They offer features such as advanced search functionalities, personalized recommendations, and interactive interfaces, enhancing the discoverability and usability of digital materials. Additionally, digital library services often support functionalities like online borrowing, digital lending, and collaboration, enabling users to engage with resources and connect with other researchers and learners in the digital realm. These services have transformed the landscape of libraries, expanding access to information and knowledge beyond physical constraints and empowering users with flexible and dynamic digital library experiences.

3. Electronic Document Delivery Services: - Electronic Document Delivery (EDD) services provided by libraries revolutionize how users access and obtain specific documents. These services offer a convenient and efficient means of delivering requested materials, such as journal articles, book chapters, conference papers, and reports, to library users. Through EDD



International Conference on Digital Innovation in India

Venue: Sant Shri Prannath Parnami Teachers Training College, Padampur

26th June 2022

services, users can submit their document requests electronically, eliminating the need for physical visits to the library. Library staff then retrieve the requested documents from various sources, including licensed databases, digital repositories, and interlibrary loan networks. Once obtained, the documents are digitized and delivered electronically to the users via email or secure online platforms. This electronic delivery accelerates the document delivery process and enhances accessibility, as users can receive documents remotely from anywhere with an internet connection. EDD services also expand the scope of available resources, as libraries can tap into their network of partnerships and interlibrary loan systems to fulfill user requests.

4. Institutional Repository Services: - The Institutional Repository (IR) service offered by libraries is a digital platform designed to collect, preserve, and disseminate scholarly and research outputs produced by the institution's faculty, researchers, and students. Institutional repositories serve as centralized digital repositories, allowing institutions to showcase their intellectual contributions and make them openly accessible to a wider audience. These repositories typically host a variety of materials, including research papers, preprints, conference proceedings, theses and dissertations, datasets, and multimedia content. The IR service provides numerous benefits, such as increasing the visibility and impact of scholarly work, promoting collaboration and interdisciplinary research, and ensuring long-term preservation and accessibility of institutional resources. Researchers can showcase their work to the global scholarly community, leading to increased citations and recognition. Institutional repositories also facilitate open access, allowing anyone to freely access and download research outputs, fostering knowledge dissemination and public engagement. Furthermore, the IR service supports compliance with funding agency requirements for open access and research data management. Through the Institutional Repository service, libraries play a vital role in preserving and showcasing the intellectual contributions of their institution, fostering scholarly communication, and promoting the overall advancement of knowledge.

5. Current Awareness Services: - The Current Awareness Service is crucial in supporting research and information needs. It saves users time and effort by directly delivering relevant and curated information, eliminating the need to search for new content manually. By staying informed about the latest developments, users can remain current in their respective fields, discover new research trends, and identify potential collaboration opportunities. The service is not limited to scholarly resources alone but can also encompass news articles, industry reports, and other relevant information sources. This ensures that users comprehensively understand the latest happenings in their field of interest, including academic and practical insights.

6. Online User Education Services: - Online User Education is an essential ICT-based library service that aims to empower library users with the knowledge and skills to navigate and utilize digital resources and technologies effectively. Through online platforms, libraries offer various educational resources, tutorials, webinars, and interactive modules to support users in developing information literacy and digital literacy competencies. These resources cover search strategies, database navigation, critical evaluation of information sources, copyright awareness, and digital privacy. By providing online user education, libraries ensure that users can access valuable learning materials remotely and at their convenience, fostering lifelong learning. This service equips users with the necessary skills to efficiently search, evaluate, and utilize digital information, enhancing their research capabilities, academic success, and overall digital literacy. Online user education as an ICT-based library service plays a vital role in equipping users with the knowledge and skills required to thrive in the digital age and navigate the vast digital landscape of information and resources.

7. Electronic Book Service: Electronic Books (e-books) service is a pivotal ICT-based library service that provides users with digital access to a vast collection of books. Libraries offer e-books through online platforms, allowing users to borrow or access digital copies of books remotely. E-books are available in various formats, compatible with e-readers, tablets, smart phones, and computers, enabling users to read anytime and anywhere. This service offers



numerous advantages, including instant availability, as users can download or access e-books immediately without waiting for physical copies. It also promotes accessibility by catering to users with visual impairments or reading difficulties, as e-books can be easily adjusted for font size, background color, or text-to-speech functionalities. Additionally, e-books eliminate the constraints of physical space and inventory, allowing libraries to provide a wide range of titles and expand their collections beyond the limitations of print materials. E-books also support annotation and highlighting features, enabling users to interact with the text, take notes, and bookmark pages. Through the e-books service, libraries offer a convenient, portable, and versatile reading experience that aligns with the evolving digital landscape and accommodates their users' diverse needs and preferences.

Benefits of ICT in Libraries

The integration of Information and Communication Technology (ICT) in libraries has ushered in transformative benefits, revolutionizing how libraries operate and serve their communities. Below are the key advantages of ICT integration, supported by insights from scholarly literature:

1. Enhanced Information Access and Availability: ICT enables libraries to provide seamless access to a vast array of digital resources, including e-books, online databases, and open-access repositories. Tools like Online Public Access Catalogs (OPACs) allow users to search and retrieve information remotely, breaking geographical barriers. Digital libraries ensure that resources are available 24/7, catering to diverse user needs and schedules, thus making libraries more inclusive and accessible.

2. Improved Operational Efficiency through Automation: Automation streamlines library operations by reducing manual workloads. RFID systems and integrated library management systems improve accuracy in inventory management, circulation, and cataloging. Self-service kiosks and mobile applications further expedite processes like checkouts and renewals, allowing librarians to focus on higher-value tasks like user support and program development.

3. Personalized and User-Centric Services: ICT enables personalized library experiences through recommendation systems and virtual reference desks. Libraries can utilize data-driven algorithms to recommend resources based on user preferences, increasing happiness and engagement. Virtual reference services, such as AI-powered chat bots, offer real-time assistance, guaranteeing that consumers receive prompt support regardless of location or time.

4. Innovative Services through Emerging Technologies: Emerging technologies like artificial intelligence (AI) and the Internet of Things (IoT) are reshaping library services. AI-driven chat bots offer 24/7 reference support, handling routine queries efficiently while IoT enables smart library spaces with automated lighting, climate control, and inventory tracking. These innovations create modern, user-friendly environments that enhance the overall library experience.

5. Increased User Engagement and Community Outreach: ICT enables libraries to function as community hubs by providing digital platforms for e-learning, coding workshops, and virtual events. These projects encourage digital inclusion and lifelong learning, especially in impoverished regions. Online systems also allow libraries to engage with patrons via social media and interactive tools, resulting in better community relationships.

6. Cost-Effectiveness in the Long Term: While initial ICT deployment may be expensive, long-term benefits include lower operational costs through automation and digital resource management. Cloud based library systems; for example, reduce the requirement for physical infrastructure and maintenance while providing scalable solutions for libraries of any size.

Conclusion: -

Information service skills are extremely important to make the information in the library more accessible in any form and therefore students should undergo relevant training such as computer education, information literacy education to effectively use the resources of the

International Conference on Digital Innovation in India

Venue: Sant Shri Prannath Parnami Teachers Training College, Padampur

26th June 2022

academic library. The development of ICT has changed the mode of information storage and retrieval as well as dissemination of information to library users. The advent of ICT has significantly transformed the information landscape. Librarians need to acquire the necessary knowledge, skills, and tools to manage digital information effectively, which is crucial for the library's success in serving as an essential information support system for the community. The effectiveness of both the library and its professionals' hinges on the quality of the services provided. ICT represents a new paradigm that enhances library operations and services, making it essential for library professionals to stay current with technological advancements to remain relevant and effective in their roles.

References

1. Ashcroft, L. (2019) The role of ICT in promoting inclusive library services, *International Journal Of Library Studies*, 11(4), 22–30.
2. Islam, S., & Islam, N. (2017) Digital libraries and the impact of ICT: A global perspective, *Information Management Review*, 22(4), 112–125.
3. Singh, N. & Chander, H. (2013) Impact of ICT on Library and Information Services: A Literature Review, *International Journal of Library Science*, 2(3), 45–56.
4. Sridhar, M. S. (2020) Reengineering Library Services with ICT Tools, *DESIDOC Journal of Library & Information Technology*, 40(4), 245–252.
5. Mishra L, Mishra J. (2014) ICT resources and services in university libraries. *International Journal of Digital Library Services*. 4(3):243-50.
6. Peters, T. (2017). Innovative technologies and their impact on academic library services. *Journal of Academic Librarianship*, 43(3), 237-244.

