

12. Emerging Technologies in Library Service

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Abstract

The trending technological advancement has brought a lot of changes to library and information services as well as societal expectations from librarians/information experts. Librarians are expected to also change with the system in order to render user centric service by adapting to the trending web technologies being used globally to provide library services to people. Any librarian who fail to keep abreast of the trending issues and adopt the latest technologies in rendering services to users will be left behind and redundant in the field of information science. Therefore, it is very important Librarian/information professional to change with the system by ensuring knowledge and skills update as well as the utilization of emerging web technologies in library service delivery. Based on this fact, this paper attempt to identify the global and trending issues as well as emerging technologies for library and information science so that readers can specifically focus on them for effective library services

Introduction

Libraries are one of the foremost critical social institutions. No society is complete without a library storing information from the world over. Information and Communication Technology (ICT) have extensively impacted libraries and their services.

Earlier, libraries offered manual information resources and services to their users, but now, libraries are opening up to digitalization, primarily in the form of online libraries, e-Libraries, or digital libraries.

For New Economic Era Emerging technologies provide librarians with a unique opportunity to substantially enhance user centered services and to facilitate and promote collaboration between libraries and their users. Emerging technologies provide opportunities for library professionals in identifying, collecting, organizing, customizing and delivering information products and services in a range of formats and varieties to the user community both on demand and anticipation at physical and virtual environments in real time. Though library is independent of technology given the fact that every library activity designed or built with active

participation and feedback of its user community qualifies to the concept of Library but emerging technologies can help libraries to create collaborative and participative environment that is necessary to deliver user-centric library services and to create new resources and build-upon existing ones using collective intelligence of 6 users. Availability of technologies gives libraries the ability to offer improved customer-driven services to their users. As the web has been emerging predominant mode of communication, transaction and consumption, that has emphasized all spheres of human life. Web environment enabled the human resource potential as the foremost significant factor in developing the world. Higher education is being the major stake holder in human resource development must adopt newer technologies to reach the unreached and bridging the gap. Libraries are heart of the higher academic institutions always take a leading role in circulating the knowledge blood among the academics with a range of sources and services. E-resources have post great number of challenges and opportunities to the library professionals of higher educational institutions in enhancing the information environment

1. Electronic Resource Management

Electronic resources refer to e-journals, e-books, online databases, and other materials in digital formats, which are accessible electronically. E-Resource Management Software can be employed by libraries to trace the collection, access, authorization, maintenance, usage, evaluation, reservation, and selection of a library's electronic information resources.

2. RFID Implementation

Radio-Frequency Identification (RFID) uses electromagnetic fields to select and track tags attached to library items automatically. The RFID-based library management system is the newest technology used to track inventory and strengthen library theft detection systems. This technology enhances the security of libraries and increases their efficiency by streamlining the processes and reducing human dependence. For the users, RFID accelerates the borrowing and return procedures. Hence, RFID saves time and reduces library costs.

3. Cloud Computing

Libraries across the world are adopting cloud computing to make library services more streamlined and cost-efficient. This library management system plays a significant role in building digital libraries or repositories. Cloud computing also ensures optimal use of library resources, infrastructure, human resources, etc. Moreover, the technology is also used for library automation and quick data search. Additionally, in a digital library, cloud computing ensures that third-party services can manage servers, carry out upgrades, and create data backups.

4. Social Media

Web-based life joins influence library occasions to actuate and contributions simple offer. Advanced substance, for example, verifiable photos are ready for social sharing just as by reacting to online life labels, remarks or notices. Libraries increase profitable chance to draw in with their group of onlookers and reinforce social associations. Under this service librarians are using social media tools e.g. facebook.com slidshare.com, link, twitter etc. for diffusion of information and distributing educational resources to users.

5. Artificial Intelligence

Artificial intelligence (AI) uses the power of a robot or a computer that tries to do tasks that humans usually do. The most common application of AI in a library is the chatbots that receive directional questions from users and resolve them. They can alert the user about their book submission due date, direct a user to the relevant library segment, and automatically schedule appointments

6. Academic Integrity and Plagiarism

Any discussion about current trends in library systems will be incomplete without mentioning academic integrity and plagiarism. Plagiarism is using another's ideas, words, theories, illustrations or graphics, opinions, or facts without giving credit. For students, copying others' work damages the intellectual integrity of their academic experience. Therefore, avoiding plagiarism has become the need of the hour.

7. Mobile-Based Library Services

The three main objectives of a library are to promote literacy, disseminate useful daily information to the people and encourage lifelong learning through its reading materials and resources. Mobile libraries bring resources outside of the library's fixed location to users who otherwise might not get an opportunity to profit from them.

With the help of mobile services like SMS and WhatsApp, libraries can produce new services and provide faster access to their collection. It also includes a learning management system (LMS), a software application that provides the framework that handles all aspects of the learning process and tracks your training content.

8. Intelligent Library Search & Federated Search

Federated search and Intelligent Library Search are techniques to retrieve information from many different content locations with only one query and one search interface with

federated search. The technology complements main libraries in retrieving information quickly and makes indexing seamless. Libraries also use this technology for descriptive cataloging, subject indexing, database searching, and collection development.

9. Visibility of library catalogues on the web

General libraries catalogue database work differently from most of the webpage databases without going into the technical aspect of it. Majority of search engines cannot find the information contained in the library catalogue. The challenge is how to make your catalogue visible to search engines, thus making our library visible. The possibility of adapting the database system for the catalogue to the World Wide Web or waiting or contributing to the development of the so-called semantic web which pretends to make computer or Library management Software web people interaction more efficient.

Conclusion

Libraries today are in the state of transition, they are required to adopt new technologies to cater to the requirements of the users. To stand in competition and to attain sustained development, they are forced to implement 'change'. This change process necessarily should be a 'planned change'. This change process should be not only development friendly, but it must have to be 'employee friendly' and 'user friendly'

Conclusion the ever changing landscape of the information paradigm poses a host of new ways of service delivery using emerging web technology which will automatically brings new areas of skill acquisition for librarians in order to bridge the gap. The trending issues and emerging technologies poses challenges not only to the library and information professionals, but to the users, patrons and scholars and the publishing community as well. Indeed the new environment throws up a host of unprecedented features and avenues, and interestingly enough, if we know how to tap them well, we find there is a plethora of opportunities, and most of them even for free. Emerging technologies provide librarians with a unique opportunity to substantially enhance user centered services and to facilitate and promote collaboration between libraries and their users in this digital era. Adapting into some of these trends and implementation of some of the emerging web technologies are likely to improve reputation and standing of libraries in the community. Some of them may successfully attract new patrons to the library, others may help to retain existing members or make libraries even more important as centers of the culture and history of their cities and academic institutions. These new services

and ongoing changes are likely to make libraries more interesting, more relevant, and better acceptable place. However, methodologies, applications and concepts will continue to change within libraries.

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