

Innovative Technology to be Implemented in the Future Library

¹Mr. Vishal S. Gangane, ²Dr. Sanjay J. Shenmare

¹Research Scholar, Sant Gadge Baba Amravati University, Amravati

² Librarian, Bhausaheb Bhore Shivshakti Mahavidyalaya, Babulgaon, Dist. -Yavatmal (M.H.)

Abstract:

In this digital age, the great advances made by modern science and technology have speeded up information exchange and information distribution. The internet and web search engines assist library users to obtain large amount of information with great speed. On the one hand, large amount of information does exist around information seekers, but on the other hand, scattered and disparate information resources, various formats, and dynamic channels confuse them. Under library settings, for example, many library users need assistance to access, locate, convert, analyse, synthesize, and evaluate information effectively and efficiently. Academic information services librarians and executives have primary responsibility of designing, developing, enhancing, implementing, and leveraging high quality library user services to satisfy library users' dynamic needs.

Keywords: electronic, online services, digital information, online services, technology, innovative

Introduction:

The advent of technology has provided libraries with a plethora of chances to market their unique information products and services. Traditional online services have transformed themselves into web-based services using web technologies. The web also offers libraries the potential for more revolutionary change as well. College Library and various Information Centres websites have become the main point of access and catalyst for new web-based library services. Emergence of websites is the ideal medium through which knowledge and information can be disseminated very efficiently and efficiently to every nook and corner of the world. The library is only one of many institutions changing in the face of technological advances. With its wealth of data and information-sharing capabilities, web is a natural complement to traditional library services. The inherent character of the web offers many advantages and improvements for library services including the ability to hyperlink to other resources, use of a graphical interface, and access for remote users. Web based Library services means that library users can obtain library and information services whenever they need them and other databases are accessible twenty-four hours per day from anywhere on campus. The web was designed as an information space, with the goal that it should be useful not only for human – human communication, but also those machines would be able participate and help. Most of the web-based library service providers are getting a lot of feedback from their effective users. So, libraries also introducing more and more services on the web, a tremendous amount of quality content and the system has had some continuity over time. The web has become commonplace throughout the world, a natural complement to traditional library services and develops innovative ways to meet the information needs of users.

Libraries are frequently defined by their collections as repositories and points of access to information. Collection management is an important aspect of any Library and Information Science (LIS) programme. In addition to books, newspapers, magazines, videos, web-links and audio-visual content, new digital formats have significantly improved library resources in the twenty-first century, allowing libraries to

expand their offerings without incurring costly physical renovations. Some of the collection management innovations being used to make massive amounts of information accessible to all are listed below:

Nonetheless, libraries have long been aware of new developments in information technology and have used them to enhance their print as well as digital collections and serve their communities. If you've already decided to pursue a career in librarianship, keeping up with emerging trends in library science isn't just a hobby; it's also one of the critical skills you'll need to function effectively as a librarian in the modern era. There is a need of acquiring some soft skills to maintain the dignity in this LIS field.

Objectives: -New Trends & Technology arising in libraries

- to improve one's professional competence and talents;
- to participate in collaborative teamwork;
- to uncover new areas of inquiry and enquiry in the field of library and information science.
- to investigate the use of Machine Learning, Artificial Intelligence, and other technologies to benefit the library community.
- Identifying New Roles for LIS Professionals in the Changing LIS Environment
- to employ ICT tools to provide good user services;

This article examines the most recent trends in library and information science in three categories:

- **Collection management**
- **User engagement**
- **Security**

Collection management

Libraries are frequently defined by their collections as repositories and places of access to information. Collection management is an important aspect of any Library and Information Science (LIS) programme. In addition to books, newspapers, magazines, and audio-visual information, new digital forms have considerably improved library resources in the twenty-first century, allowing libraries to expand their services without incurring costly physical renovations. Some of the collection management innovations being used to make massive volumes of information available to anyone are listed below:

Electronic resource management (ERM):

A vast amount of information is now available digitally, thanks to an expanding selection of eBooks, e-Journals, and the like. ERM assists librarians in keeping track of what is and isn't available (in terms of accessibility and authorization), who is accessing it, and which specific items people find most useful. All of this makes collection development and management easier.

Cloud Computing:

Library collections are now significantly enhanced by cloud computing, which increases the sheer amount of digital information libraries can make available to their patrons (and which does not have to be physically stored anywhere).

Federated search (FS):

In this search, which is similar to cloud computing in concept, allows users to search for information spread across multiple databases in different locations using only one interface. It allows for the virtual consolidation of information resources without the hassle of physical consolidation, making research much easier.

Internet-of-Things (IoT):

If connectedness is one of our era's defining characteristics, the Internet of Things could be its poster child. Devices that can communicate with other devices have proven to be extremely useful as a type of library technology, not only for the implications for the library space itself (such as maintaining consistent air quality), but also for initiatives such as self-checkout, automated material handling systems, auto-recommendation services, and metadata discovery tools.

Library Bookmark apps:

This functions as a regular bookmark but also has additional features that help the user's book-finding activity. The tool is still in the concept stage, but it includes the ability to give the user directions to the book they want to find or to keep track of their lending activity in a more interactive manner. Locating books within the library remains a challenge for many users, so a feature that guides the user to the book is a cutting-edge solution to this problem.

User Engagement

A library's primary function, above all others, is to assist inform and enhance the lives of its patrons. It is a monument to the strength of libraries that they have survived in the face of so many other distractions. One of the reasons libraries have thrived is because they have embraced technological advancement. We hope to always have library stacks full of knowledge to stroll around; however the following technological innovations have been added to interest users:

Digital displays:

There's nothing wrong with an old-fashioned sign, printed out or scrawled in ink or chalk, directing customers to where they need to go to get what they're looking for. Consider how many people may be lured to a digital display with images and the capacity to cycle between many announcements. With so much focus on digital displays these days, why not fill at least one of them with something that could lead to a genuine library adventure?

Augmented reality:

We submit the following two improvements to anyone who would dismiss the idea of a library visit being an adventure. Reading-related games and augmented reality areas that patrons may access through their devices promote reading, research, and learning.

Maker's spaces:

If the ultimate objective of a library is to assist individuals think about how they may utilise that information, why not offer them with a room in the library where they can put their ideas to the test? This idea underpins the present spread of library makerspaces, which are exactly what they sound like: rooms where people can manufacture things using machines provided by the library.

User-focused interface (UFI)/artificial intelligence:

UFI, like makerspaces and gamification /AR, aims to strengthen the patron-library relationship by customising their contact. This is most commonly accomplished using AI breakthroughs like as chat-bots, which may answer a patron's demands and assist them in navigating foreign territory in digital libraries and other open-access systems. This type of library automation frees up librarians for other responsibilities, resulting in increased productivity.

Big data and data visualization:

Consolidating information to make it less overwhelming is a significant breakthrough for our existing system. Vast volumes of data held in information systems surrounding a certain topic can be displayed using visual aids such as maps, graphs, and charts, allowing the user to more quickly identify and access exactly.

Mobile-based library services:

Much of what has been said so far is about connecting the physical area of the library to its users.

But what about people who are unable to attend the library?

There are mobile applications that allow users to remotely access a library's user services via their smart phones. These are frequently used in conjunction with learning management systems, which enable self-paced online courses by administering, tracking, and recording a learning plan.

Security:

It's almost comical now to recall how some individuals were hesitant to give out personal information to a library for fear of it falling into the wrong hands. With libraries growing more reliant on technology and digital connection, the challenge of protecting information has grown exponentially since the days when all you had to worry about was the incorrect person rummaging through a drawer full of index cards.

Few innovations that are helping libraries maintain security:

Single sign-on:

Once a person has been confirmed, they can access the system by just clicking on a single link using this automatic authorisation mechanism.

Single sign-on eliminates the need for more involved verification procedures while also personalising the patron/library experience by employing the same identification technology to "remember" the information services that user most frequently uses.

Radio-frequency identification:

This technology enables libraries to use radio waves to tag and track items in their collections.

This not only improves security by ensuring that the library's inventory is not stolen, but it also simplifies the check-out/check-in process for patrons and allows librarians to quickly determine whether an item is available or out on loan.

What to anticipate from future libraries:

Libraries were already well on their way to increasing the percentage of their collections that are digital and accessible remotely, but the pandemic accelerated that effort.

We can expect to see the digital collections of public libraries continue to grow, as many library patrons prefer to access library materials this way.

The epidemic also emphasised the library's function as an important community resource, with some libraries collaborating with local social service organisations to help their clients with concerns such as food security, job searches, substance misuse, mental health care, and housing.

Expect to see more of this type of outreach as libraries continue to explore for ways to change their environments. Of course, technology will continue to play a significant role in future libraries, thanks to advancements in augmented reality and artificial intelligence.

While many people currently use catboats when they need help online, expect to see a shift toward adding actual robotics into library systems, which is already happening in certain areas.

Conclusion:

Where there is a financial investment, there is a need of marketing. In the context of library, due to the exponential increase of information and the diverse demands of users, marketing is inextricably linked to the library. However, by implementing marketing techniques, a library may reach the greatest number of users with resources. Social media is the biggest platform for promoting information products and services. However, it is entirely dependent on the library staff commitment as well as their ability and competencies in using social marketing tools and technology. They must be inventive, well-qualified, having strong interpersonal skills, and be numerous. Regular brainstorming and training improves a person's ability to manage a proper LIS Centre.

- Library Professional needs to keep abreast of the Latest development in the field.
- Need to team up with others associate professional to developed new technologies required for the Libraries.
- Librarian must make them more pertinent in this Digital age.

References:

1. Baruha A, editor. 'Computer networking in libraries'. New Delhi: Kalpaz Publication; 2002.
2. Firke, Yogaraj S. 'RFID Technology for library security'. In Emerging technology and changing dimensions of libraries and information service by Sanjay Kataria and others. New Delhi, KBD Publication.2010
3. Hussain, A., & Fatima , N. (2017). 'Emerging Trends in Information Technology in Modern Libraries'. Manakin Press.
4. Kataria, Sanjay et al. (Ed.) (2018). Proceedings of 5th International Symposium on 'Emerging Trends and Technologies in Libraries and Information Services'. Available at <https://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=8467458>
5. Kataria, Sanjay Nigam BS and Shukla, RK (Ed.) (2008). 'Emerging Trends and Technologies in Libraries and Information Services'. KBD Publication, New Delhi, 2008
6. Kumar PSG. 'Information technology application'. New Delhi: B R Publishing Corporation; 2004.
7. Mathew C. 'Current trends in library services'. Cyber Tech Publications; 2011.
8. Rao MK. 'Digital libraries: Challenges, opportunities and implications'. Society for Information Science Conference (SIS 2004); IIT Madras, Chennai. 2004.
9. Singh, K. P. 'Information Products and Services: Market Testing and Test Marketing'', IASLIC Bulletin67,2 2022,June, p.67-79