

PREPARING LIBRARIES FOR FUTURE TECHNOLOGICAL CHALLENGES: A STUDY

Mrs. Vaishali S. Patil

Librarian

Shri Chakrapani Kala

Mahavidyalaya,

Hudkeshwar Road, Nagpur.

e-mail-

pvaishali451@gmail.com

Abstract:

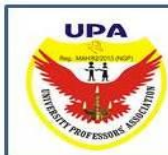
A library is a social institution and the work of establishing reading culture is done through this institution. Over time, this institution which fosters a culture of reading is changing and the adoption of technology is a revolutionary step in this institution. In keeping with the changing times and keeping in mind the needs of the reader and changing needs of the society, this institution has also used modern technology. It will widely be used in the future as well because the equation of conventionality and lack of users seems to apply here. Application of technology in LIS has made this institution as technology hub and expansion of technical accesses within it offer opportunities to share information by applying technological devices. Application of technology also offers opportunities to easily communicate the society. Though libraries in recent times have followed recent trends of information and technology, challenges within them have enforced library institutions to adopt preparative steps in order to cope with the changing technology and its challenges. This research paper aims to underline preparative directions from this point of view.

Key words: technology, data, users, digital library, public library, academic library, hybrid library, functional models

Introduction:

Technology has a significant impact on all kinds of economic aspects of society. Advances in social reform, cultural reform, development, means of communication, transportation, health, education, and all other fields have been made possible by means of technology. Today, human society has come to a stage where it feels increasingly necessary to develop new technologies that can take it forward in global competition and that too by ourselves. Only by imitating others can we reach the first place, but we cannot get the first place. For that, it is very important to have own innovative initiative. This is even more pronounced in a knowledge-based open economy.

Efforts are being made at all levels of learning with a view to develop a reading culture among the learners. To coordinate the three streams like education, research, and social



engagement in university education, libraries are kept well equipped to give students a good introduction to these three areas. It is not different at the social level as well.

It is because from the point of view of creating a reading culture at the social level, public libraries are playing their part. But in the field of education, it is emphasized to a greater extent. Therefore, from this point of view, the use of technology in academic and other educational libraries is increasing over time, in which the automation process has started in the libraries and new software have also been developed. In such a situation, it is also necessary to develop technology literacy and technology skill in the library personnel and library users. The Kanawha (West Virginia, U.S.) Public Library 2022 can be the best example of this when the authorities of library felt uneasy when the number of visitors (readers) gradually decreased and this decline of attendance of people was 21% across the country (2009 to 2019). For this, the library management did not get discouraged; they spent a lot of money on the library to make the modern library available to the public and with fully technology based. As a result, the number of physical and digital materials in the library increased by 55% and the attendance rate also increased rapidly. Therefore, library is a trusted institution and innovation within its functioning has also increases its trust among its users. However changes in technology, their complexity, and user confidence all have an overall impact on the library management. Immigrant learning practices, navigation to internet, computer uses, library book mark apps, data privacy, internet facilities, diversity in digital knowledge among the human resources in library institutions and any more are likewise challenges that libraries have to face.

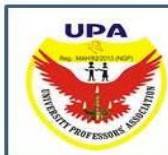
Purpose of Study:

After considering the contribution of technology in the development of human society, education is an important aspect in these processes. Library is an important source of knowledge. So while acquiring advanced knowledge, the up-to-datedness of library is equally important. Therefore, this research papers aims to understand how libraries can prepare from the point of view of library information technology and how reading culture can there be advanced through it.

In order to fulfill the purpose this research paper, the researcher has used secondary source of data for the collection of information.

Recent Trends in Libraries:

According to Margaret Allen, the state library chief executive, Australia, 'Libraries now days have their own competitions as they have changed their entire functioning by means of adapted technologies. The ranges of library services have also rapidly increasing due to their entire technological functioning. The access to digital technology, user's supports to those accesses etc. therefore, libraries are expected to offer digital learning programs for their users. Today libraries are obviously responding to the demands of digital world by offering e-books, e-audio books, and digital content so that people can access by their devices. This is how libraries are communicating and becoming community hubs for imparting advance knowledge. They are also institutes for people to generate knowledge by means of accesses offered to them.' (Kakodkar, 2010)



Liz Barlett (2019) in her speech on, 'Are Libraries Still Relevant' stated that libraries are social institutes having different organizational authorities and functioning. According to her, when it comes a matter of relevance of libraries, she argued that as library is a social and educational institution, it is natural library to undergo changes keeping in view the changing society and changing educational policies. Therefore, the library itself has also adopted technology by using innovative devices by understanding the social needs. And through that, they keep updating themselves with the view of providing quality knowledge, digital knowledge, and digital literacy to the updated society. So their relevance is as much as the society. (Liz Barlett. 2019)

On the other hand, RathPravakar, (2023) in his research article mentions the different between traditional library and digital library. According to him libraries of today are cooperating to the resources sharing networks/consortia. There is a striking difference in conventional reading and web-based reading in conventional and digital library. Library automation, networking, open accesses, design, information system, internet, digitization, content development, sources mapping, ICT tools and implications and access to content to cost are the new dimensions of recent libraries. What Pravakarwants demonstrate here is that no library today can take the risk of being isolated from technology and digitization as technology has become on the essential needs of human being. (Parvakar, 2023)

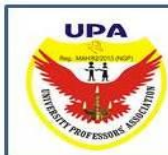
Preparative for Future:

Reshaping the Organization:

Due to the digital disruption across the world, libraries for better future are undergoing extensive information changes. The organizations of today are keeping prediction towards the future needs and means of that they reconstructing the entire physical assets so that libraries can cope with the future technology and its changes. These preparative are associated to transformation of knowledge, design, web-based learning, operation, and execution of human resources. According to Ahmat and Hanipah (2018), 'when a new era of disruptive changes come up, the study of interaction of organizational behavior in those levels should be scrutinized again especially in terms of adjusting with the new library.' This very statement of the authors shows intimacy of organization towards self-modification with reference to the innovative changes in library systems. Therefore reshaping the organization, its aims and functioning is essential today.

Redesigning the Functional Models:

There has been a paradigm shift in the concept of library and information center. The conventional functioning of library institution was somewhat in the form of print material and functioning preservation and retrieval of documents which is time consuming and also sorts availability of certain reading material. With the paradigm shift and introduction of technology, this function today and in future concerns hybrid libraries and digital libraries or virtual libraries. This need of redesigning is due to application of Information and Technology which has continuously brought changes in this sector. The future library tends to redesign its functioning so that it can offer unlimited access points, dynamic and ephemeral evolution, multi-media and fractal objects, Scaffolding data structure, Analytic technology to store large data, Semi-structured or unstructured data, sensor data, traffic control, provision for artificial intelligence, image classification, object detection, and utility



of block chain technology and most importantly application and execution of library book mark apps for their users.

Redesigning Hybrid Library:

According to Harun Rashid (2023), 'Hybrid Library has emerged as revolutionary approach to information access and learning.' This form of library is a combination of both timeless allure of physical facilities and applies dynamic potentials in the form digital technology. This form of library enables its users to utilized advance technology and practice for devices related to it rather searching for printed materials structured in different gallery sections within the library. This form of library though emerged in the 1990s, the initial emphasis was on electronic sources and traditional electronic devices were widely used. It also has some limitations so it is necessary to redesign the hybrid library. Keeping in mind all these aspects and the needs of the readers in future, utility of advances techniques are essential. This is because there has been a big change in technology and many means have been developed to get more information by utilizing more data in a short period of time. (Harun Rashid, 2023)

Preparing for Technological Challenges:

One of the biggest challenges in terms of technology application in any field is people's knowledge of technology and the ability of users to use it. Although academic libraries and public libraries have enthusiastically responded to library automation process, the concept of the digital divide clearly illustrates the gap between those with information technology knowledge and those who do not have.

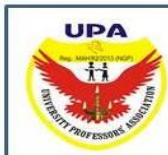
User interface, repository, handle system and search system are important and essential components of a digital library. Redesigning these major components is a big challenge for libraries especially in case of handle system and search system. The reason for this is that vendors are providing services in their own way in digital and automation systems. Both of them find it difficult to use these systems due to lack of consistency in that services. Therefore, this would be a challenge for the library institutions to cope with services and consistency within the services.

The ever-changing interplay between hardware and software in technology is considered a major headache in technology application. It is because every library management will need to update and modify their devices to adapt to this changing technology. And they also have to consider to the cost involved in this process. Therefore preparation of accepting changing forms of technology is must in this sector.

Intellectual Property Right and its security is another challenge that libraries related to technology are will face in great quantity as user friendly accesses and approaches provided for users offer data in large scale. Hence there rises issues of IPR security what it is called as copyright. Therefore, libraries need to apply authentic and strong networks by secure modes to their accesses. Securing used id and passwords by the users and appliers should continuously be guided.

Conclusion:

A library is a social institution and the work of establishing reading culture is done through this institution. Over time, this institution which fosters a culture of reading is changing and



the adoption of technology is a revolutionary step in this institution. In keeping with the changing times and keeping in mind the needs of the reader and changing needs of the society, this institution has also used modern technology. It will widely be used in the future as well because the equation of conventionality and lack of users seems to apply here. Application of technology in LIS has made this institution as technology hub and expansion of technical accesses within it offer opportunities to share information by applying technological devices. Application of technology also offers opportunities to easily communicate the society. Though issues like indexing code and retrieval information are common in digital libraries of today's era, utilization of users on regular basis is the best solution for this. (Vipan Sharma, 2019)

References :

- Ahmat, M. A., and Hanipah, A. (2018). Preparing the libraries for the fourth industrial revolution. *Journal of Malaysian Librarians*, Vol. 12, 53-64.
- Kakodkar, A. (2010). Need of our technology. *Maharashtra Time, Marathi News*, December, 2010. www.maharashtratimes.com/editorial/ravivar-mata. 7/ 12/ 2023.
- Liz, Barlett. (2019). 'Are libraries still relevant?' <https://www.youtube.com/watch?v=sG7zYoUq bs>.
- Nahak, B., and Patra, P. (2014). Planning, designing, and developing digital libraries and digital Preservation. *9th Conventional PLANNER, Dibrugarh University Assam*, 336-347.
- Pravakar, R. (2023). Preparing library and information professionals for the 21st century: Issues and challenges for LIS educators in India. *School and Communication Information, Nanyang Technological University*, <http://hdl.handle.net/10150/105129>. 7/12/2023.
- Rashid, H. (2023). Hybrid library: Features, advantages, challenges and strategies. *KPRT Concepts*, www.limbd.org/hybrid-library-features-advantages/challenges. 8/12/2023.
- Sharma, Vipan. (2019). Digital library challenges and opportunities: An overview. *Library, Philosophy, and Practice (e-journal)* 3735, 2019 www.https://digitalcommons.unl.edu/cgi/viewcontent.cgi.70208. 8/12/2023.
- Sheik, M. (2022). Preparing libraries: Innovations and transformations. *ResearchGate*. www.researchgate.net/publication/363738652 Reshaping Libraries. 7/12/2023