Utility and Impingement of Digital technology on Academic Library services and operations in India: a review of related literature

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ABSTRACT

The paper discusses the use and impact of digital technology and role of academic libraries in the age of knowledge and information societies. The results reveal that, academic libraries are making an endeavor to do well in collection development, services, infrastructure It also highlights the problems faced by the academic libraries in India in implementation of digital technology. A good number of library users are not satisfied with the application of digital technology in their libraries and indicated "inadequate digital technology infrastructure" as their major reason for dissatisfaction. The lack of basic management and proper planning and frequently change in digital technology are the basic hurdles for successful implementation and development of digital technology in academic libraries. As this paper is based on the secondary resources, findings shows that notable number of digital resources are found in the academic libraries of different states of India such as Uttar Pradesh, Karnataka, Rajasthan, Kerala and Tamil Nadu though still the collections need to be increase in number. This paper concludes with some specific suggestions to increase digital resources in Academic Libraries of India.
Key words: Digital technology, E-resources, Information and communication technology (ICT), Digital resources

1.INTRODUCTION

Development in Digital Technology has influenced the Academic libraries of India for its overall betterment. Academic libraries use Digital Technology to manage user's services, communication facilities, housekeeping operations, standardization and development of library activities. Academic libraries need to respond to the growing and diversifying information needs of the end-users.

2.OBJECTIVES

The prime objective of the study is to explore the use and impact of digital technology in Academic Libraries services and operations in India. More specifically the objectives of the study are:
- To know about availability of the digital resources available in academic libraries
- To study the different areas of library operations and services those are performed through Digital technology in academic libraries of India.
- To know about the users' delight of library services and operations in digital environment in academic libraries
- Identify specific problems those hinder the use and development of digital technology in academic libraries
- Give specific guidelines to overcome the difficulties related in this field.

3.METHODOLOGY

This analytical research aims to explore the present digital resources available at academic libraries, identifying problems related to digital resources and provide specific guidelines to overcome the problems. In analytical research, the researchers have to use facts or information already available. So, this study is based on the secondary sources, mainly from literature review. Relevant articles, reports and periodicals were also reviewed. The available material on the Internet was also used.

4.IMPORTANCE OF THE STUDY

The present study is a keen effort to show the real sketch of entire infrastructure, use and problems in development and implementation of digital technology in academic libraries of India. Findings and suggestions of the study may help to the academic institution and librarians to improve their current management and planning of digital technology projects and the financial resources for this purpose.

5.SCOPE

The study covers the development, use and problems of Digital Technology implementation in Academic libraries of India. The present study focuses on the usage of Digital technology products and services by the faculty members and research scholars of Academic libraries of India

6.LITERATURE REVIEW

There have been many studies on use of digital technology and its impact on academic library services and operations in India in the last few years.

Hussain (2013) investigated the purpose of using ICT enabled library services, assess to what extent users of B-schools in Delhi and NCR region utilized ICT based library services and facilities, the various aspects of Internet usage, favorite search engines, and difficulties faced by the users in using the ICT in libraries. The papers also study the satisfaction level of users regarding the research work, online database service and infrastructure facilities. Most of the users were aware and use ICT application in computer, internet surfing, laptop etc. Most common ICT activities of the users were surfing internet, email, chat and preparing presentations etc.

Tiwari and Sahoo (2013) revealed that information and communication technology activities are under developing stage in the university libraries of Rajasthan. The paper emphasized on the information about the staff, document collection, financial sources, software, hardware, networking infrastructure, library housekeeping operations, user's services, training and difficulty areas experienced or detected during implementation of ICT in university libraries. The lack of basic management, proper planning, continuous training of staff, up-gradation of infrastructure and frequently change in ICT are the basic hurdles for successful implementation and development of ICT.

Mittal and Sharma (2013) examined the problems faced by users in using electronic resources in agricultural universities of Himachal Pradesh. The study reveal that majority of users have the opinion that print resources can't be replaced by e-resources. In the case of Agriculture University libraries of Himachal Pradesh there were some problems in providing their services which can be solved by the libraries with little efforts. There was a shortage of the e-resource professionals, who can provide proper assistance to the users of digital resources. So libraries should appoint trained persons in the field of digital resources and also provide time to time proper training. Library should also arrange and send the staff to outside campus for seminars, workshops and orientation programs for the users as well as for the staff. So, users may know about the new digital resources and their uses.

Siddiqui (2013 The present study investigated that a majority of users of Shobhit University used a variety of ICT products and services mainly internet services for their academic purposes and research work, as it is helpful in finding information quickly and also helps the users to access, manage, integrate, evaluate, create and communicate information easily. The paper recommends proper training and guidance for use of ICT-based technologies for the optimum utilization of these services by the users. The low speed internet access and not getting proper training/guidance are general problems related to the internet based e-resources and same have been found in this study as well.

Khan and Dominic (2013) highlighted the present scenario of automation and networking of university libraries of Uttar Pradesh. Survey was carried out in the central, state, deemed and private university libraries of Uttar Pradesh focusing the automation, networking, and services and emphasized that there is need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs.

Harsahdkumar, Patel and Patel (2012) highlighted the impact of the ICT services to the users of S.U. Patel Library, Hemchandracharya North Gujarat University. The major findings of the present impact study can be concluded as, that most of the users face problems because they do not get a proper training to use the electronic resources, access to web database, WEB OPAC, online journals in the library. The study pointed out that greater part of the users working in this university has shown positive attitude toward application of ICT based services. The study recommended to give priority to consortia based subscription and increase the funds and recruitment of information technology trained staff for better ICT based services.

Dhanavandan, Esmail and Mani (2011) reported that Self financing engineering college libraries are switching over to ICT infrastructures at an accelerated pace. E-Journals, CD-ROM databases, online data bases, e-books, web based infrastructures and a variety of other electronic resources are fast replacing the traditional resources of self financing engineering college libraries. In the view of the findings it can be concluded that establishment of ICT infrastructure facilities in the self financing college libraries in TamilNadu can improve the efficiency of information support, the information retrieval and quality of education as a whole

Ansari and Nasreen (2010) study the Use of Electronic Resources among the academics of the university of Kashmir and analyzed that academician were unable to use the electronic resources available in the libraries because of the problem of networking and lack of training to the users to use the e-resources.

Sivaram and Sevukam (2010): report the use and user perception of Electronic resources in Annamalai University. And find out that even there is lot of e-resources available in the library but users are unable to use it due to lack of awareness, shortage of time and low speed of internet for downloading of resources.

Mohamed, Haneefa (2007) investigated the application of information and communication technologies (ICT) in special libraries of Kerala, India. The paper concluded that most of the libraries were hampered by lack of funds, infrastructure, and skilled professionals to embark on automation of all library management activities and application of ICT. A good number of the library users were not satisfied with the application of ICT in their libraries and indicated "inadequate ICT infrastructure" as their major reason for dissatisfaction. They proposed several of actions of formal orientation and training on ICT to become more effective library users.

7.USE OF DIGITAL TECHNOLOGY IN HOUSE KEEPING OPERATIONS OF ACADEMIC LIBRARIES

Broadly use of Digital technology in house-keeping operations encompasses the areas of Acquisition, Cataloguing, Circulation, Serials control and Online searching of library database (OPAC).

(A) Digitized Acquisiti1on – (a) Database of Collection/Retro-conversion. (b) Document Selection. (c) Purchase Order Preparation. (d) Accessioning. (e) Documents Bar-coding. (f) Invoice Processing (g) Reporting.

(B) Digitized Cataloguing - (a) Database for Catalogue (b) Maintain Authority File. (c) OPAC (d) Export/Import Cataloguing Data (e) Printing of Catalogue Cards (f) Stock Verification

(C) Digitized Circulation - (a) Database of Users. (b) Member Registration. (c) Documents Circulation. (d) User Bar-coding. (e) Fine Management. (f) Statistics.

(D) Digitized Serial Control - (a) Database of Serials. (b) Serial Selection. (c) Ordering and Renewal (d) Bar-coding of loose Issues.(e) Bindery Management. (f) Accessioning of Bound Vols. (g) Reporting. (h) Online Journals.

(E) OPAC – Online searching of library database

(F) Digitized Annual Stock verification

(G) Digitized Budget Management

(H) Others - (a) Word Processing/Printing (b) Classification, (c) In-house Scanning/Digitization of Documents (d) Use of RFID/Similar Technology (e) Close Circuit TV Cameras (f) Budgeting Purchase or Tender Procedure. (g) Digitized System Administration

8.MAJOR PROBLEMS IN IMPLEMENTATION OF DIGITAL TECHNOLOGY

1. Inadequate Finance
2. Lack of Planning
3. Inadequate Management Support
4. Lack of Digital Technology Trained Staff
5. Lack of Willingness of Staff
6. Lack of Consultancy Service for Digital technology
7. Lack of Well Accepted Standard of Library Management System
8. Lack of Less Expensive Standard Software
9. Inadequate Hardware
10. Lack of Training Facility
11. Low interest for Retro-Conversion & Bar coding
12. Lack of Awareness/ Hesitation in Users towards Digital technology
13. Low Priority to Digital technology
14. Lack of control over Library Staff
15. Lack of Motivation among Library staff
16. Vacant post of Librarian and Staff
17. Frequently change in Digital technology
18. Lack of support of library staff
19. Insufficient resources
20. Lack of searching skill
21. Lack of knowledge in computer handling
22. Lack of knowledge in browsing e-journals
23. Limited computer literacy among library users
24. Inadequate publicity for the Digital technology based resources and services
25. Rigid Digital technology use policies implemented by the library
26. Discouraging attitude of Library professionals towards their users

27. Limitations of internet access speed
28. Limitations of online full- text Journal article
29. Unfriendly Library staff
30. Lack of power supply
31. Untraceable documents
32. Shortage of Computer
33. System is not User Friendly
34. Insufficient of E-journals
35. Insufficient knowledge of consortium
36. Information is not updated
37. Insufficient of Digital technology base trained staff

9.FINDING AND SUGGESTION

1. It is found that most of the users use the internet in their daily life and there are only few users who use the internet weekly or rarely. So it is assumed that all users in the present era of Digital Technology are familiar with the internet.
2. It is found that almost all the users have the knowledge about the available digital resources in the library.
3. Most of the users use all types of the digital resources like e-books, e-journals, e-thesis etc. There are limited users who use the e-databases in the library.
4. Some users use the library digital resources for completion of projects and assignments and some use for updating the knowledge, preparing notes and writing seminar/ conference papers.
5. In the comparison of digital resources with the print one most of the responses are with the digital resources. All the users know the benefits of digital resources. But even then there is not proper use by the users. It is due to not proper awareness of digital resources to users. They do not know how to use them. So to overcome this problem library should conduct the orientation programmes, seminars, workshops, short training programmes for the library users.
6. Library users feel the difficulties in many ways in using the library digital resources like some users have the problem of searching skills and other have the problem, they don't know that how to use the digital resources. The above said problems can be eliminated through the above said solutions like orientation, seminars, workshops and the main thing that come into notice that there is lack of staff support to the users. This problem can be solved by recruiting well expert staff and sending the library staff to the short term training programs related to digital resources. There should be proper provision regarding the staff training in the campus also.
7. Awareness about different formats of digital resources can be given to the users by providing digital resources in different ways according to the choice of the users. e.g. by e-mail, soft copy in pen drive or in DVD, print outs or by sharing on the web through the library 2.0.
8. Most of the users have the view that print resources can't be replaced by digital resources in the future.

10.CONCLUSION

An increased number of users, a greater demand for library materials, an increase in amount of material being published, new electronic formats and sources, Insufficient digital technology base trained staff, Insufficient E-journals, and e-database are some of the reasons for the growing need for implementation of Digital technology in Academic libraries of India. Thus the mandate of the academic library in India is intact, only its role has expanded and format has changed.

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