ICT LITERACY AND SKILL COMPETENCY AMONG LIBRARY PROFESSIONALS: AN OVERVIEW

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ABSTRACT: - *Paper attempts to explore the ICT literacy and skill competencies among library professionals. In general most of the Library Professionals possess skills to handle various ICT tools used in the library used to access e-resources and provide library services. Though, the frequency of ICT tools used by the library professionals is very high, it is observed that they still need ICT training and orientation programmes from time to time in order to provide library services and to manage library as per user's requirement in a better way. Article reviews the current scenario of the ICT literacy in the global and national level. It has been observed that the role of librarian in the ICT age has revamped completely from the library manager to the digital or e-resource provider.*

KEY WORDS – ***Information Communication Technology (ICT), ICT literacy, ICT tools, ICT Applications, Skill competencies, Computer literacy***

1. Introduction

1. Introduction

Education at all levels has been significantly influenced by the tremendous innovations in ICT especially in the field of telecommunication and multimedia applications. Few decades ago, technological devices like radio, television, film strips, Over Head Projector (OHP), audio and video cassettes were used for effective teaching and enhancing the learning experience. But now today, teaching and learning has been enhanced due to the impact of ICT based technologies like interactive radio, teleconferencing, web based / satellite based services (Gunjan, 2014).

Use of ICT in the higher education has made tremendous change in the education process. Technology is at central to the communication, storage, process, manage, and retrieval of knowledge. The library is not exceptions from these technologies. The traditional library is being revolutionized by web-based information systems, with the application such technologies it makes a hybrid library, digital and/or e-libraries.

A library whether a public, national, academic, research or special library has its main objective and function to collect, organize and disseminate information to its end users efficiently and effectively. According to Mandao & Singh (2011), libraries of the 21st century have to conceive not merely as a store house of knowledge, but also be an effective mechanism to facilitate dissemination of knowledge, promoting information and knowledge sharing. The libraries of the 21st century should transmit today's literate society in to knowledge based society of tomorrow. The library is the fulcrum of support for the entire range of academic activities of an educational institution.

According to (Maharwar, 2011), libraries have moved towards digital and electronic resources which are generally found to be less expensive and more helpful for easy access. Due to globalization, electronic resources have made the information as the backbone for each and every library and information centre.

2. Application of ICT tools in libraries

Modern libraries have shifted their collection and services from books and journals to e-books and e-journals, and from traditional service oriented centre to modern online resource and service providers. Khan, Dominic, Banga, & Garg (2011) have explained that ICT has provided libraries with new opportunities to improve their resources and services. The main tools to be implemented in libraries are Computers, Internet, Email, Mobile Phones, Image Scanners, Printers, Barcode Printers and Readers, and many more things.

3. Impact of ICT on the Library and Information Centres

ICT, i.e. Information Communication Technology, has transferred information in the digital format. It has made it possible to transfer the information online and transfer files, images, and videos in short time to any place on the earth. It has also made networking and sharing of information resources among library or group of libraries. Thus, today digital information is available either free or cheaper than the printed reading materials. ICT has made the printed information resources into digital resources and available / accessible from remote areas.

4. Advantages of ICT in libraries

There are various issues involved in ICT application in the library it is essential to understand the advantages of ICT in a library

situation. The advantages explained by Sharma, Singh, & Kumar (2009) are as follows:

- ✓ ICT provides opportunities to deploy innovative methodologies and to deploy more interesting materials that create an interest in the librarian.
- ✓ It enables better management of library thereby improving the productivity.
- ✓ It enables the librarian to concentrate on other tasks such as research and consultancy.
- ✓ It enables optimum utilization and sharing of resources among institutions thereby reducing the costs of implementing ICT solutions.

5. ICT Literacy

The 21st century library professional has all the skills and literacies of handing various ICT tools to require, process, store, use, retrieve and disseminate the information. Without ICT skills, librarians of the present days will have to struggle for existence. Because of the convergence of technology in the libraries, it has brought changes in the user's attitude and approach. According to (Angeline & Swaroopa Rani, 2015), ICT skills or IT skills can be referred to the overall competencies including knowledge, know how skills and attitudes, necessary to create, store, analyze, retrieve and disseminate digital information (text, image, and sound) in digital libraries or any type of information.

5.1 Definitions of ICT literacy

In general, ICT literacy is an attitude or skills to handle digital technology, access e-resources and to know the functioning of these ICT tools. In today's changing scenario the library and information professional possess adequate ICT skills to manage the modern libraries. Haneefa & Shukkoor (2010) have defined ICT literacy as "the ability to use digital technology, communication tools and/or network appropriately to solve information problem including the ability to use technology as a tool to research, organize, evaluate and communicate information and the possession of a fundamental understanding of the ethical/legal issues surrounding the access and use of information". Quadri (2012) stated that ICT literacy is "the skill and abilities that will enable the use of computers and related information technologies to meet personal, educational, and labor market goals''. Today ICT skill is very important for its pre-requisite of networking of e-library services and resource sharing among the group of libraries.

5.2 Need for ICT literacy

Information is the basic requirement for every activity of human life. There are a number of reasons for the need of ICT literacy of which some of the reasons are listed as follows:

1) Rapid increase of information due to information explosion or information revolution

2) Changing shape of libraries from traditional library to the modern digital library

3) Advancement of information and communication technology
4) Vast variety of information resources
5) Increase in number of users
6) Wide dispersal of information
7) Research on complex and interdisciplinary topics
8) Increasing demand of the users to use information.

5.3 Need of ICT skills among library professionals:

Arokyamary & Ramasesh (2012) experienced and suggested that LIS professionals not only improve the performance of their work but also prepare themselves to take up new assignments in the world of advanced technologies. According to them, library professionals require following ICT skills:

1. Subscription and access to online journals
2. Access and retrieval of information through web resources
3. CD-ROM browsing and search services
4. Access to digital libraries and online databases
5. Web designing, creation, and maintenance of the library website and library blogs
6. Creation and maintenance of database using RDBMS software
7. Skills pertaining to hardware networking
8. Knowledge and skills pertaining to an operating system, programming language, and application software.

6. ICT Literacy: global scenario

6.1 United States of America (USA)

According to Miller (2007), Library and information science (LIS) professionals of USA have full understanding of education and endless learning processes and they have shifted to technology based learning and teaching strategy. They have acquired sufficient knowledge and skills to handle information technology to provide library resources and service to their users. Katz & Macklin (n.d.) found that there is a lot of effectiveness of an innovative ICT literacy assessment before and after instructional method by comparing students' performance on the ICT literacy.

6.2 United Kingdom (UK)

As observed by Jackson, (2005), students in the UK are familiar with ICT in their daily activities. They use ICT mainly for word processing and feel that it is quick and easy to edit in order to amend their work and improve the presentation of assignment using ICT. A computer used at home and the provision of ICT facilities in college means that students can learn from family members, friends, and other students as well as teaching faculties and LIS staff .

6.3 Africa

Olu Adeyoyin (2006) conducted an analytical study of the ICT literacy among staff of West African University Libraries. In this study, the university libraries are selected from Anglophone and Francophone countries. The findings show that Senegal University professional librarians are best ranked among other West African university librarians. Ghanian university library professionals are next in ranking. Nigerian University librarian's ICT literacy level is considered as poor and low among other Anglophone countries. The level of ICT literacy of Guinea university librarians is equally poorest among all other Francophone countries.

6.4 Nigeria

Obaje (2014) studied the current situation of library personnel on computer literacy. The study stated that the majority of library personnel in university libraries in Nigeria are skilled in computer literacy. There should be intensive training and re-training of library personnel on regular basis to improve the level of computer skills. Adomi & Anie (2006) have explained that the application and use of the computer is presently widespread in Nigerian libraries especially in academic, research and special libraries. Most of the libraries in Nigeria do not yet possess the high level of computer skills and their use of computers and technology is not grown-up yet.

6.5 Iran

Talab & Tajiferi (2012) have conducted a comparative study on the impact of ICT on library staff training between India and Iran. Iranian medical university library staff have stated that attending 'seminar/workshop' and 'on-the-job training' are most popular methods for acquiring IT skills. Indian University library staff indicate 'self-study' and 'vendors/suppliers training' is most preferable for acquiring IT skills. Another study by Safahieh & Asemi (2008) stated that majority of librarians of the University of Isfahan, Iran do not possess a good level of computer skills. Even their long duration experience of the computer has not improved their level of computer literacy skills.

6.6 Pakistan

According to Warraich & Ameen (2010) young library professionals of Pakistan have more interest in the use of e-database and the majority of them have accessed this database through the higher education commission (HEC) web site. In another study by Ansari (2013) about ICT skill proficiency of library professional in Karachi, Pakistan shows that library professionals in the University of Karachi are not equally proficient in all area of ICT skills and the majority of them are moderately proficient. Rahoo, Mangrio, & Bhutto (2016) have stated that the library professionals of public sector universities of Sindh province in Pakistan, must possess sufficient knowledge of

new skills, information and communication technology (ICT).

6.7 Bangladesh

A study by Islam & Islam (2006) focuses on the technological changes in library and information science field in Bangladesh. They have explained that the present age is the most exciting period in the history of the human race when the world's most population is shifted from 'techno-illiterate' to 'techno-literate'.

6.8 Nepal

A different study conducted by Shresta (2007) stated that the Ministry of Science and Technology (MSOT) established in 1996, they play a dead role to promote and facilitate the effective use of ICT in Nepal. As per the MSOT rules, in every one thousand persons in Nepal, there are fourteen telephone lines, one mobile phone, four internet users connections and nine personal computers.

7. ICT literacy: An Indian scenario

The invention of ICT and its application in libraries and information centres have drastically transformed library from traditional store house of books to the modern knowledge resource centre. The status of the ICT literacy in India can be stated in the following way:

7.1 Orissa

A study by Barik, Das, & Ramesh (2011) states that the private Engineering and Management colleges of Odisha are trying their level best to pace with the changing scenario of ICT application in the libraries. Another study by Satpathy & Maharana (2011) found that they are computer literate and have acquired considerable basic ICT skills to manage the library. LIS professionals in Orissa are also actively participating in professional forums, mailing list, socials networking, blogging etc.

7.2 Kerala

A study by Mehaboobullah & Kabir (2013) reveals that there is a need for systematic training programmes for college librarians in Kerala to make use of ICT based resources optimally and effectively. Susan, & Baby (2012) have examined that the college library professionals are moderately skilled in various modern technologies and its applications but the awareness level is very low in case of emerging web tools and services. It is also observed that the younger library professionals are more interested in emerging technologies and ICT based services.

7.3 Assam

Mahanta (2016) explains that LIS professionals of Assam are not fully skilled in ICT based resources and services. There is a lack of awareness of library automation software, digital library software and cloud libraries. Inadequate training

in ICT applications is the main constraint in the LIS professionals of Assam.

7.4 Andhra Pradesh

According to K. Kumar (2013), most of the LIS professionals of the Rayalaseema region of Andhra Pradesh are computer literate and have significant basic ICT skills to handle the library. There is enough scope to develop their innovative ICT skills and to implement these skills in the library to provide new ICT-based library services. At the same time, Kumar & Rao (2016) have examined and found that National Board of Accreditation (NBA) accredited Engineering college libraries affiliated to JNTUK, Kakinada are fully automated as automation is the basic quality indicator for college libraries emphasized by the AICTE-NBA and UGC-NAAC.

7.5 West Bengal

Mondal & Bandyopadhyay (2010) studied the Burdwan Sadar degree colleges in Bengal and found that insufficient manpower, lack of IT skills among library professionals and lack of right attitude of the authorities towards library development are the main constraints for ICT development. There is a need to make provision of adequate funds for ICT application in academic libraries.

7.6 Tamil Nadu

Latha, Nagarajan, & Nithyanandam (2010), found that most of the special libraries in Tamil Nadu have automatic functioning available with ICT infrastructure such as hardware and software. Thanuskodi (2011) in his study stated that the faculty members of self-financing Engineering colleges in Annamalai University have a very positive attitude towards e-resources accessing for their study and research purpose. The role of the library is a gateway to provide assistance in accessing library resource and services.

7.7 Karnataka

A study by Arokyamary & Ramasesh, (2012) indicates that the ICT skills level of the LIS professionals in Visveshwaraya Technological University, Karnataka does not possess a good level of ICT skills when compared with their academic qualification and rich work experience. Farahi & Gandhi, (2011) have undertaken a comparative study of LIS professionals of Medical, Dental and Pharmacy colleges of Karnataka affiliated to Rajiv Gandhi University of Health Science (RGUHS) and Iranian college libraries. They have found that Indian LIS professionals do not have more IT skills like e-mail, the internet, e-publishing, e-databases and presentation as compared to Iranian library professionals.

7.8 Maharashtra

In the study of ICT literacy status in Maharashtra by Bellary, Sadlapur, & Naik (2015) it is found that majority of library professionals are working in NMIMS Mumbai are satisfied with ICT related

activities available in the library. The LIS professionals are satisfied with their job and they update their ICT skills through attending a training course, seminars and workshops.

According to Angaitkar, Nair, & Deshmukh (2016), ICT can be a useful tool to address problems in medical education, but the lack of technology and resources have a serious limitation. They also observed that there is an absence of cooperation among the medical libraries in Maharashtra at the national level.

A study conducted by Bansode & Viswe (2015) revealed that the library professionals of University libraries in Marathwada region are having satisfactory ICT skills and the maximum of them have significant basic ICT skills to handle the library. But still there is enough scope to develop their innovative ICT skills. Another study by Bansode & Viswe (2016) on the ICT literacy of library professionals working in Jayakar library, Savitribai Phule Pune University (SPPU), Pune found that majority of library professionals working in Jayakar library are computer literate and they have sound knowledge of the computer technology. They emphasize that the library professionals must possess sufficient knowledge and skills of emerging ICT technology.

8. Conclusion:

ICT is the basic requirement for management and development of the college libraries is to organize and offer continuous training programmes to train or retrain librarians with the latest advancement of information technology. Most of the library professionals possess skills to handle digital technology, communication tools, and the internet to manage the library resource and provide library services. Library authorities can take initiative to send the library staff for attending a various training programs on new technologies and seminar, conference and workshops related to ICT application in libraries. Expectations from the librarians in the new digital age have been changed. He/she has to be more knowledgeable, advanced, creative, productive, more focused and more competitive. The librarians with adequate ICT skills/competencies mostly possess these traits. The role of the librarian as an information organizer and a navigator has gained importance in the era of digitization.

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