Assessing the Role of ICT Software on the functioning of Academic Libraries and its Impact on Librarians: A Case Study of Delhi NCR

Hemant Sharma[1], Dr.Dharamvir Singh[2]

Department of Library Science

[1,2]OPJS University, Churu, Rajasthan, India

Abstract

ICT is now a key component of libraries. ICT has a tremendous impact on academic libraries through application. Different electronic and digital media, computer-aided electronic equipment, network, and internet play a vital part in information retrieval & dissemination, and ICT is necessary for housekeeping tasks and library administration. ICT plays an important role in modernization of libraries. Libraries in the twenty-first century serve as both knowledge repositories and efficient tools for marketing and exchanging intellectual property.Thus, the main concern of this work is to analyse the role of ICT software on the functioning of academic libraries, howit is impacting the functioning of libraries and how library personnel are coping with these changes. Therefore, to do so, this research has selected 10 colleges/universities situated in Delhi NCR and conducted the questionnaire-based survey on 250 respondents. The research found that though colleges/universities are transforming themselves from the traditional library to the digital ones, the majority oflibrary personnel are facing various types of hurdles in performing their duties such as, lack of technical IT knowledge, poor infrastructure, less funding, copyright issues, load shading, etc.

Keywords:ICTsoftware, academic library, library personnel, training programme,Delhi NCR.

Introduction

Libraries have assisted universities and R & D institutes with teaching, learning, research, and other academic activities for decades. However, as the digital age came into being, numerous

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 32

nations and their university libraries began utilising information and communication technologies (ICTs) (Byamugisha, 2009).The availability of online information resources, ICT-enabled products and services, and academic institutions' and libraries' current user service models have all evolved. Information selection, acquisition, processing, storing, and dissemination are all done through the usage of ICT, which stands for information and communication technology. It has altered the standard procedures used by libraries and information centres to provide services to customers (Ahmad & Fatima, 2009).With the use of ICT tools and apps at Indian universities, users can now access and utilise information electronically. As a result, ICT aids libraries in overcoming the limitations of space and time and shortens the period between the creation of information and its usage. As a result, Indian institutions have transitioned from an information environment to an electronic information environment. The accessibility and usage of electronic resources by users is the primary characteristic of the electronic information environment. In a digital context, a library is essentially a computer-based system for collecting, organising, searching, and disseminating digital materials for user access (Matoli, 2019).

As a result of the advancement of Academic libraries, data services, and informaticshaveallseensubstantialtransformationsmodernization.Usinginformationandcommunicationstechnology(ICT),patronOnlinepublicadmissioncataloguing(OPAC), bibliographic services, and patron encounters might all be supplied moreproductively.Servicesthatareenabledbyinformationandcommunicationstechnology (ICT) are more expensive. The use of information and communicationstechnology (ICT) in libraries mostly relates to the provision of physical servicesthrough networking. Inlibraries,thisstreamlinestheprocessofdevelopinganddisseminatinginformation.   Progress in information communication technology has revolutionizedthe manner in which librarians obtain material from the internet and store it, as wellas how they control and disseminate it to potential customers. Machines, CD-ROMs,broadband net, emails, and internet sites are all examples of modern   technology arealltoolsthatlibrariesusetocarryoutavarietyoftasks,includingcollectiondevelopment,collectionad

ECONSPEAK: A Journal of Advances in Management IT & Social Sciences,
Vol. 11, Issue 4, April 2021 Impact Factor 5.132   ISSN: (2231-4571)
www.skirec.org   Email Id: skirec.org@gmail.com

ministration,andorganization,serialsorganization,bibliographic   anthologies,and interlibrarylending, amongotherthings.

Though, at present, many libraries are attempting to adopt information and communication technology(ICT), they face a number of challenges, including a lack of funding, technologicalexpertise,anunstableelectricalsupply,anunenthusiasticclientele,   environmental isolation, and a preference for manual library operations, etc. With this change the role of librarians has also changed. Prior to the invention of technology, librarians were thought of as bookkeeperswho sat in libraries waiting for users to come in and gather information(Baviskar, 2022).However, academic librarians' roles and responsibilities have expanded to include subscription and management of e-information services and resources, advice to users on how to distinguish relevant e-sources, and electronic publishing. Librarians are involved in a wide range of digital activities, including subscribing to e-books and e-journals, browsing old reading materials, monitoring software and hardware, selecting content, designing web pages, marketing and publicising library products, outreach, conducting usability tests, troubleshooting technical issues, and publishing e-books.At present, To make free access to information more convenient for everyone, library professionals are working hard to develop new digital resources such as social networking sites and research aids like online encyclopedias and encyclopedia-like virtual reference services(Singh, 2019).Thus, the main concern of this piece of writing is to analyse the role of ICT software in academic libraries and its impact on library personnel.

Research Methodology

The quantitative research method was employed in this investigation. Adopting a quantitative approach entails using a questionnaire to obtain numerical data from participants based on their response alternatives. Open-ended and closed-ended questions are both included in the survey. Many important variables were included in the survey. Five Likert scales were used to collect the responses of the respondents. They ranged from "strongly agreed," "agreed," "neutral,""disagreed," and "strongly disagreed." A total of 250 people took part in the poll, including researchers from colleges and universities in the Delhi NCR (both men and women).

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 34

After the data was gathered, it was quantitatively analysed, summarised, and then presented in the form of tables, lists, and diagrams for everyone to see.

Details of the Respondents

Table 1: Details of the Respondents (Library Personnel)

S.No.	NameoftheInstitutions	No.ofRespondents
1	ChaudharyCharanSinghUniversity	15
2	DelhiUniversity(DU)	48
3	JawaharlalNehruUniversity(JNU)	53
4	InstituteofManagementStudies(IMS)	19
5	JamiaMilliaIslamia(JMI)University	12
6	GuruGobindSinghIndraprasthaUniversity	24
7	JamiaHamdardUniversity	32
8	DelhiInstituteofPharmaceuticalSciencesandResearch	20
9	MaharshiDayanandUniversity	18
10	KRMangalamUniversity	9

Data Analysis andDiscussion

The survey found that the majority of respondents recognized the significance of digital libraries and thus, favoured (223 out of 250)the digitization of academic libraries.Although the surveyreceived 16 responses oppose to the advent of digitization of libraries and 8 response for can't say. Besides, the survey found 4 blank responses (*for details see Table 1*).

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 35

Table 1. Responses of Respondents on Digitization of Academic Libraries

Response / Question	Yes	No	Can't Say
Are you in favour of digitization of libraries?	223	19	8

When asked that whether a respondent find it easy to handle digital library, the survey recorded maximum 163 responses in "yes", whereas, 72 respondents answered for "no". While assessing the survey records, it has been found that old library professionals finding it difficult to handle the digital libraries. Moreover, the survey recorded 8 response for "can't say" (*for details see Table 2 or Figure 1*).

Table 2: Responses of Respondents on Handling Digital Libraries

Response / Question	Yes	No	Can't Say
Do you find it easy to handle digital library?	163	72	15

Further, when asked about their increased work burden because of digitization of library, the survey recorded 179 responses in favour of "yes", whereas 36 responses for "no", and 4 for "not really" (*for details see Table 3*).

Table 3: Responses to check the Increased work Load of librarians

Response	Yes	No	Not Really	Can't Say

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 36

Question				
Do you feel that digitization has increased your work burden?	179	36	23	12

Moreover, the respondents were asked whether they face problems in performing their duties or not, the survey recorded 216 responses for "yes", whereas 26 respondents ticked the column for "no". And the survey recorded only 8 responses for can't say (*for detail see Table 4*).

Table 4: Responses Against the Problems that Librarians face

Response \ Question	Yes	No	Can't Say
Do you face any kind of problem while performing your responsibilities?	216	26	8

Furthermore, the next question was asked for the types of problems librarians face on daily basis. The survey recorded that majority of librarians are facing technical skill issues; then the next problem they usually face is to deal with new era students; after that, they face problems related to filing of advanced e-assets and then maintain e-sources (*for details see Figure 1*).
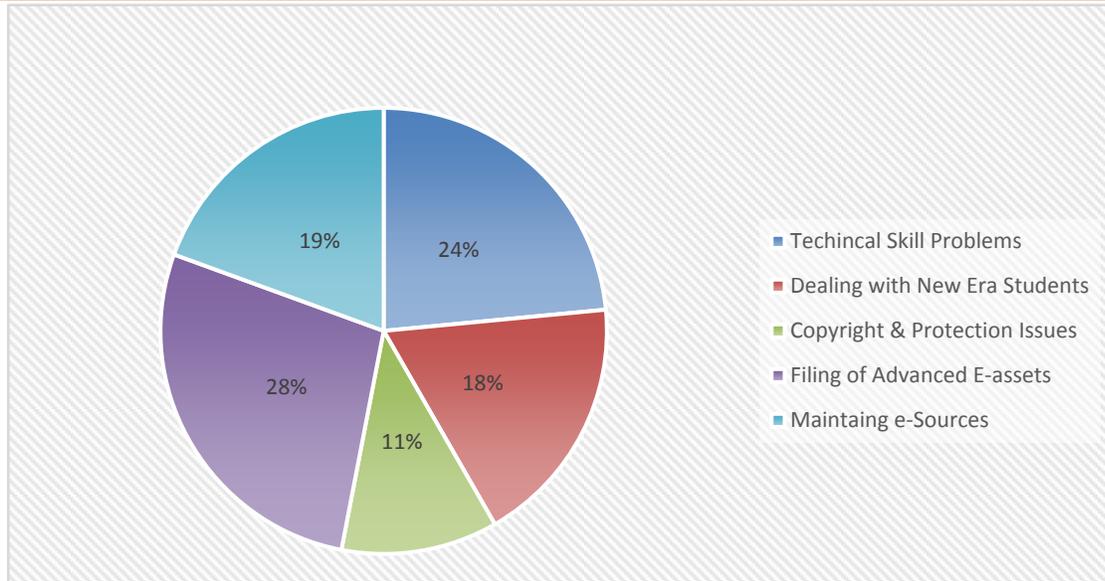
An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 37

Figure 1:

Percentile Representation of Types of Problems Librarian Faces

Table 5. Responses concerning required technical skills for library personnel

S. No.	List	Strongly Agreed(%)	Agreed (%)	Neutral (%)	Disagreed (%)	Strongly Disagreed (%)	Total (%)
1	Technical Skills	19	13.7	31.3	30	6	100
2	Digitization Assistance	20.8	10	16.5	15	37.7	100
3	Copyright	35	11.9	6.5	18.8	27.7	100
4	EnsuringAvailability ofReadingMaterials	6.3	11.7	16	32.1	33.8	100

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 38

ECONSPEAK: A Journal of Advances in Management IT & Social Sciences,
Vol. 11, Issue 4, April 2021 Impact Factor 5.132   ISSN: (2231-4571)
www.skirec.org   Email Id: skirec.org@gmail.com

5	Allowingothe rinstitutions toview readingmateri als	38.1	15	15	9.4	22.5	100

Table 5 shows the respondents' views on the specific skills and expertise needed for library professionals working in the subject of digital preservation. Of those who responded, 19% said they strongly agree and 13.7 percent said they agree that librarians should have technological abilities to work in the area of digital preservation, respectively. About 31.3% of those polled were undecided, while 30% of those polled strongly disagreed with the idea that librarians need have technical expertise in order to work in digital preservation. Respondents significantly disagreed with the idea that library workers should have technical abilities to work in the area of digital preservation.

Additionally, table 5 demonstrates that 20% of respondents agree that library staff must have knowledge of digitization help to work in the digital preservation field, whereas 10% of respondents agreed that library staff must have knowledge of digitization support to work in the digital preservation industry. Nearly one-fifth of those surveyed chose to express no opinion, while nearly one-fifth disagreed with the idea that library staff should be knowledgeable about digitization assistance in order to explore the field of digital preservation, while nearly three-fourths of those surveyed strongly disagreed with the idea.

The table also indicates that 35% strongly agreed that the library professionals should have knowledge of copyright advice to work in the digital preservation sector, and 11.9 percent agreed that library staff should have knowledge of copyright advice to work in this field of work. Only 6.5% of those polled said they were undecided, while 18.8% said they disagreed, and 27.7% said they strongly disagreed with the idea that librarians need be knowledgeable about copyright advice in order to explore the field of digital pre selection.

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 39

It is noteworthy that 11.7 percent of respondents and 6.3 percent of respondents strongly agreed that library staff members should be familiar with assuring long-term content availability in order to work in the field of digital preservation, respectively. Nearly 16 percent of respondents chose to express no opinion on the matter, while 32.1 percent disagreed and 33.8 percent strongly disagreed with the idea that library staff should be knowledgeable about ensuring long-term material availability in order to work in the field of digital preservation.

It is clear from the table that 38.1% of the respondent strongly agreed that the library personnel should have a knowledge of permitting other institutions to see the material towork in the area of digital preservation and 15% of the respondents agreed that the library staff should have a knowledge of permitting other institutions to see the material to work in the area of digital preservation. Around 15% of the respondents chose to remain neutral in their opinion about this and 9.4% of the respondents disagreed with the suggestion that the library staff should have a knowledge   ofpermittingotherinstitutionstoseethematerialtoworkinthefieldofdigitalpreservation and 22.5% of the respondents strongly disagreed with the suggestion that the library staff should have a knowledge of permitting other institutions to views the material to work interfiled of digital preservation.

And at last, when asked how they can resolve these problems, majority of respondents agreed that proper training can help them to tackle these issues (*for details see Table 6*).

Table 6: Responses for Proper Technical Training

Response\Question	Yes	No	Can't Say
Do you think that proper technical training can resolve these issues?	197	42	3

It is clear that maximum respondents agreed that they do not require any technical training for handling the digital academic libraries.

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 40

CONCLUSION

Thus, to conclude, the research found that the traditional library roles(acquisitions/cataloguing, circulation/reference) are becoming less important, while non-traditional library roles (publishing/research/information literacy/collaboration with academic staff on teaching and research) are becoming more important in the university's pedagogy and business operations. Though all the respondents acknowledged the importance of ICT in collaborative library spaces, and predict its relevance for future too, the respondents agreed that their roles and responsibilities have increased with the emergence of digitization of libraries. The survey recorded that majority of librarians are facing problems like, technically knowledge issue; dealing with new era students; maintaining e-sources; filing advanced e-assets; copyright issues, etc. Therefore, to resolve these issues, the work also claimed that there is a need of a proper training to the librarians to deal with these problems.

References

- Ahmad, N.& Fatima, N. (2009). Usage of ICT Products and Services for Research in Social Sciences at Aligarh Muslim University,*DESIDOC Journal of Library & Information Technology*, 29: 25-30.
- Baviskar, S. (2022), "Role of Librarians in Digital Era", [Online: web] Accessed on 8 May 2022,URL: https://hmct.dypvp.edu.in/ojhms/downloads/onlinejournal/Article-No-0003.pdf
- Byamugisha, H. M. (2009).Digitizing Library Resources for New Modes of Information Use in Uganda. Qualitative and Quantitative Methods in Libraries, International Conference, Chania Crete Greece, 26-29 May 2009.
- Matoli, R. S. (2019). Impact of ICT on College Librarian and Library Services in Changing Environment. *Journal of Advances in Library and Information Service*, 8 (2): 71-76.
- Singh, B. P. (2019), "Digital Librarianship: A changing role of Librarians in 21st Century", [Online: web] Accessed on 8 May 2022, URL: https://www.researchgate.net/publication/332241657_Digital_Librarianship_A_changing_role_of_Librarians_in_the_21_st_Century

An International Double-Blind, Peer Reviewed, Refereed Open Access Journal - Included in the International Indexing Directories

Page 41