Access and Use of Digital Platforms by Librarians during Covid-19 Pandemic in Selected College Libraries of Delhi NCR

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Abstract

This study examines how academic librarians used digital platforms during the COVID-19 pandemic and how they accessed them by analysing of multiple data volumes sets. The COVID-19 pandemic gave academic librarians the chance to investigate how users of digital platforms are utilising these platforms to give the finest and most consistent services to library users. A survey approach was used to collect the data required for the current research article. The Covid-19 pandemic affected the way relationships and organisations functioned, resulting in an increase of a variety of problems that people had never encountered before. Similarly, academic librarians faced a number of difficulties including the complete closure of academic libraries, financial constraints, issues with developing collections, the mental health of library staff, granting typical services throughout the Covid-19 outbreak, and a number of others. Academic librarians developed a new strategy to offer standard services to library users by utilising various digital platforms in response to these challenges and issues. The findings of this study will undoubtedly assist academic librarians in handling scenarios such as the SARS-CoV-2 epidemic in the future.

Keywords: Covid-19 Outbreak, Academic Libraries, Libraries' Obstacles, Libraries' Problems

Introduction

Before the covid-19 pandemic, libraries and information centres operated regularly and experimented with other helpful digital tools to improve user experiences. However, the covid-19 pandemic drastically altered the landscape of library operations and required librarians to adopt new strategies in order to offer library services to their clients. In response to this situation, librarians using various strategies utilised digital platforms to offer their clients library services in accordance with their wants and requirements. Social media platform widely used by the librarians to overcome the problem of health emergency like Covid-19. All facets of libraries and information services are quickly being impacted by social networking sites as an online information distribution method. Additionally, it is noted that social networking is quickly taking the lead between librarians as the primary means to build professional and social networks. Additionally, social the media has been used to connect with prospective patrons of libraries and reach out to other distant patrons, especially those in universities (Quadri & Idowu, 2016). Social networking tools are a particularly appropriate platform for people to engage, distribute, and exchange knowledge within the academic profession, especially in libraries, institutions of higher learning, and colleges (Sahu, 2013). Now that they are aware of the possibilities offered by social media platforms like Facebook, Twitter, YouTube, LinkedIn, Skype, and Google+, as well as additional networking tools, libraries are working to incorporate social media into library offerings like orientation, new resource arrivals, references services, selective dissemination of information (SDI), and general customer services in the context of covid-19 pandemic. In the Covid-19 epidemic period, making use of social networking technologies can help with online resources through Facebook, Twitter, and feeds from RSS. It can also make current knowledge services easier for consumers to stay up to date on the most recent developments in their preferred areas of interest. Specifically, feeds from RSS allow consumers to follow changes to a site without always visiting the one in

question (Witten brink 2005). Additionally, text message technology may be used to improve the way we provide services to libraries. SMS might be utilised for delivering updated materials and collections information to library consumers, enabling rapid and simple utilisation of library amenities. It may additionally be implemented whenever a library wishes to notify patrons when checked-out books are due or late. In situations where customers must reissue it, they may send an inquiry to have it renewed instead of visiting the library in order to do so because of the mobility limitation.

2. Literature review

Before this research study, a number of books, studies, articles, and expert reviews were carefully studied to simplify the trend regarding academic librarians' usage of digital platforms to better serve their clients. Following the Government of India's directive to cease all operations completely, management and staff at libraries took a new tack by utilising digital technology to better serve their patrons. The obtundation of COVID-19 in terms of library services was overcome by the more remarkable usage of library websites. **(Verma, Nitesh Kumar, 2022)** In addition, university libraries encountered other operational issues, including those related to space, the creation of collections, and library services provisioning patterns. **(Chakraborty, Sukla, 2021).** Librarians were taken aback by the COVID-19 pandemic's effects and the problems they caused with computer systems, the implementation of an innovative platform for service approach, managing space, among other areas. **(Bawack, Roseline, 2023).** Before the COVID-19 pandemic, libraries offered their clients more focused print materials and electronic resources because of in-person services. However, when libraries closed, the question of how to offer materials during the pandemic arose. In this situation, librarians responded by offering e-resources via the internet with the aid of remote access. **(Srirahayu, D.P., 2020).** Academic libraries offer a wide range of services, including circulation, table of contents, and much more. However, the most important service offered by all library types is reference, which can be accessed in-person or virtually. Certainly, before the corona virus disease, librarians focused more on in-person reference; however, the corona-19 pandemic changed the landscape from in-person to virtual reference. **(Akande, S.O., 2023).**

3. Objective of Study

The prime objective of the current research is to find out access of use of digital platforms by librarians during covid-19 outbreak.

1. To find out which digital platform were used by librarians during covid-19.
2. To find out problems in the context of implementation of digital platforms by librarians during covid-19 outbreak.
3. To find out obstacles and problems in use of digital platform during covid-19 outbreak.
4. To reveal challenges faced by Academic Librarians while creating digital platform during covid-19 outbreak.

4. Research Methodology

The method of surveying was utilised to collect the data needed for the current investigation. For this purpose, a well-structured questionnaire containing nominal and ordinal data was developed. The current research or study employed the basic random sampling approach as its sampling methodology or method, highlighting the fact that each unit or proportion had an equal chance of being selected for the sample. The survey questionnaire was sent to participants via email and in-person delivery, and SPSS 21.0 and Microsoft Excel were used to process the data.

5. Sample Size

For the present study, the formula created by Rehman Bukhari in the year 2020 was used to indicate the proper sample size. The complete detail is shown here in visual form.

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Bukhari Sample Size Calculator 2020	
Confidence Level	95%
Sample Proportion (p)	0.5
Margin of Error (e)	0.05
Population Size (N)	856
Alpha divide by 2	0.025
Z-Score (z)	1.96
Sample Size	265

$$\text{Sample size} = \frac{\frac{z^2 \times p\,(1-p)}{e^2}}{1 + (\frac{z^2 \times p\,(1-p)}{e^2 N})}$$

Formula for known population;

For the research study to be considered genuine and valid, a minimum sample size of 265 colleges must be included in the population of 856 individuals, as seen in the visual aid. 285 college libraries were selected for the study.

6. Coverage

This research investigation focuses on the access and use of digital platforms by librarians during the Covid-19 outbreak theme, as well as how academic librarians responded to the service model for a better understanding of library clientele needs and requirements during the Covid-19 scenario. Only Delhi NCR College libraries and librarians' responses to these circumstances were examined in the study.

7. Finding/Result

The findings or conclusion rested on two pillars: first, the utilisation and accessibility of digital platforms; and second, the ways in which librarians addressed these platforms by employing social media and other digital technologies within the context of a service model. Notable findings were made about every concern regarding librarians' use and access to digital platforms during the COVID-19 pandemic.

Library IT Infrastructures prior to Covid-19 outbreak

Every library, in today environment, purely depend upon the IT infrastructures to provide best library services to their patrons. Modern librarians are very keen to adopt new technology in the libraries so that maximum services with high standard must be provided to library patrons as per needs and requirements. As shown in the table 1 all libraries had IT infrastructures prior to covid-19 outbreak. All the respondents agreed that they had IT Infrastructures prior to health emergency like covid-19.

Table:1, Before the outbreak of the pandemic, did your library have any established ICT infrastructure?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	285	100.0	100.0	100.0

Modification of Technology Infrastructures during Covid-19

Table 2 offers information on the alterations made to libraries' IT infrastructure to provide online services and access throughout the epidemic. 182 replies, or 36.0% of the total, said that their library had improved internet connectivity. The most likely goal of this update was to guarantee a steady and dependable internet connection to facilitate online services and access for both library employees and users. 285 replies, or 56.4% of the total, highlighted improving online resources and tools. To give a more complete online library experience, this change most likely entails growing the digital collection, enhancing the library's website, and adding an online catalogue and search functions. 38 respondents, or a lower percentage of 7.5%, said that their libraries had video conferencing systems in place. This probably made online programmes, remote personnel and customer communication, and virtual meetings easier. These results demonstrate that during the epidemic, libraries realised how critical it was to modify their information technology infrastructure in order to accommodate the surge in demand for online resources and access. To maintain the availability of library services in a

remote or online setting, some important tactics included creating video conferencing platforms, improving online tools and materials, and upgrading internet connectivity

Table 2: How did your library modify its information technology infrastructure to provide for online access and amenities during the pandemic?

	Responses		Percent of Cases
	N	Percent	
Internet connectivity upgraded	182	36.0%	63.9%
Enhance Online tools and materials	285	56.4%	100.0%
Video conferencing Platform	38	7.5%	13.3%
Total	505	100.0%	177.2%

Digital Literacy Assistance During Covid-19

Table 3 details the ways in which libraries provided support for digital literacy during the epidemic. 45.4% of respondents, or 285 responses, indicated offering online tutorials to help customers become digitally literate. To enable users to learn digital skills at their own pace, online lessons come in a variety of formats, such as textual manuals, video tutorials, and interactive modules. A similar proportion of participants (45.4%, or 285 replies) stated that they provided online workshops as a way to help with digital literacy. Virtual workshops usually consist of live, interactive sessions in which professionals or librarians lead users through a variety of digital tools and abilities. Just 9.2% of respondents, or 58 responses, said that they provided one-on-one virtual sessions. These highly customised sessions enable clients to get tailored support for particular digital literacy requirements. In general, libraries used a multimodal strategy to help patrons with digital literacy, including one-on-one virtual sessions, virtual workshops, and online courses. This strategy was designed to serve a broad spectrum of customers with different levels of digital proficiency and learning styles. It demonstrates libraries' dedication to helping local communities throughout the pandemic adjust to the digital environment.

Table 3: How did your library offer digital literacy assistance?

	Responses		Percent of Cases
	N	Percent	
Online tutorial	285	45.4%	100.0%
Virtual Workshop	285	45.4%	100.0%
One to one virtual session	58	9.2%	20.4%
Total	628	100.0%	220.4%

Benefits of Incorporation of ICTs during Covid-19

During the COVID-19 pandemic, libraries were able to obtain valuable insights by utilising Information and Communication Technologies (ICTs), as illustrated in Table 4. Most respondents (44.5%, or 285 replies) said that using ICTs during the pandemic made their libraries able to provide services that were flexible and adaptive. This probably alludes to libraries' capacity to swiftly switch to online and digital platforms in order to keep servicing its customers in the event of lockdowns and other limitations. One important realisation was the need for services to be flexible enough to change as situations did. A similar proportion of participants (44.5%, or 285 replies) acknowledged the significance of instruction in digital literacy. The pandemic made clear how important it is to improve users' digital literacy so they can use internet tools and services efficiently. Libraries were essential in making this instruction available. Only 10.9% of respondents, or 70 responses, stressed the need of good and transparent communication. Libraries had to notify users about service modifications,

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safety precautions, and digital resource availability during the epidemic. Good communication became a crucial part of running a library. In conclusion, integrating ICTs during the pandemic gave libraries important insights into the value of adaptable services, digital literacy instruction, and transparent communication. These realisations helped libraries successfully serve their communities through difficult times and will probably influence their future tactics.

Table 4: What insight did your library get from incorporating ICTs during COVID-19?				
		Responses		Percent of Cases
		N	Percent	
	Flexible and adoptable services	285	44.5%	100.0%
	Digital Literacy Training	285	44.5%	100.0%
	Clear and Effective Communication	70	10.9%	24.6%
Total		640	100.0%	224.6%

Post Covid-19 era and use of ICTs

In the wake of the pandemic, Table 5 examines how information and communication technologies (ICTs) are expected to alter in libraries. The vast majority of respondents believe that ICTs, specifically virtual platforms, will play a big role in the future. This implies that libraries will probably carry on and grow their online presence, providing users with digital services, resources, and programmes. Since virtual platforms have been so helpful throughout the pandemic, libraries should keep using them to connect and interact with their local populations. Similar numbers of participants expect an emphasis on striking a balance between online offers. This suggests that physical and digital collections and services will be balanced in libraries. Libraries understand the importance of keeping a variety of resources and experiences, such as physical collections and in-person services, even while the digital component is essential. After the pandemic, a sizable percentage of respondents think that artificial intelligence, or AI, will be heavily utilised in libraries. AI can improve a number of library services, including search efficiency, suggestion personalization, and task automation. AI-driven solutions may be included into libraries more frequently to improve user experiences and operational effectiveness. In conclusion, it is anticipated that libraries would continue to rely on ICTs for their post-pandemic operations, especially virtual platforms and AI. Libraries' futures will probably be shaped by these technologies since they will increase their online content.

Table 45 In the aftermath of the pandemic, what do you see the function of ICTs in libraries changing?				
		Responses		Percent of Cases
		N	Percent	
	Virtual platform	256	33.3%	89.8%
	Balancing in online offerings	257	33.5%	90.2%
	AI	255	33.2%	89.5%
Total		768	100.0%	269.5%

8. Discussion

The conclusions drawn from the tables' explanations make it abundantly evident that the COVID-19 pandemic caused a great deal of difficulties and challenges that had never been encountered before. Academic librarians dealt with a variety of issues in every area of the library, including financial constraints, challenges in interacting with library users, whether or not the resources were used fairly, working remotely and providing virtual support for issues relating to library users, issues with physical space, collection development, service, and many more. However, academic librarians quickly embraced a new strategy to meet the needs and

demands of library patrons by combining social media tools like Facebook, Zoom, YouTube, Twitter, and many more with modern digital technologies. During COVID-19, answering customer inquiries was exceedingly challenging, and library staff lacked adequate IT resources. Without a doubt, the COVID-19 pandemic has caused mental and psychological problems for library staff members as well as other people. In this situation, staff members were offering information services to library patrons regarding general COVID-19 information as well as library usage through a variety of channels, including library websites, ask the librarian sessions, and many more.

9. Practical Implication

The investigation's conclusions were predicated on a hypothetical situation in which the Covid-19 epidemic provided librarians with an opportunity to think about novel service models and methods in the context of a medical catastrophe. A modern library's focus is on digital collections and technology to provide its patrons with top-notch services. In the event of SARS 2, the current study will act as a useful guide for librarians and library authorities regarding how high-level library services can be provided to modern library patrons by using various technological tools and approaches.

10. Conclusion

The relevance of the problems and difficulties academic libraries faced during COVID-19 and the reactions of librarians to service models that let users access library services during health emergencies such as SARS2 are clarified by this study. There are differences in the problems and difficulties faced by academic libraries before, during, and after COVID-19. The information obtained from the librarians focused mostly on the problems and difficulties that university libraries face. The COVID-19 pandemic undoubtedly hindered physical access to libraries, but the reality of virtual use gave librarians a new outlook on how to provide better services. When a human touch was missing between library staff and users during SARS 2, librarians made every effort to provide virtual reference services to them in place of physical ones. To sum up, the SARS 2 scenario presents a chance for librarians or library administrators to utilise state-of-the-art digital technology to implement a new service model for library patrons.

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