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Challenges and opportunities of academic libraries in India because of COVID-19

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The paper discusses the impact of the current pandemic caused by COVID-19 on the academic libraries in India. It identifies four areas concerned with an academic library namely, space, collection development, service, and the overall management to discuss the challenges and opportunities faced by them in view of the COVID-19. It shows how COVID-19 posed several challenges to run the academic libraries in India in comparison to pre-COVID-19 period regarding these areas. It also presents the opportunities to the libraries. It suggests that if the libraries use these opportunities, it may prove to be beneficial to it in the long run.

Keywords: COVID-19, Coronavirus, Academic Library-India; Pandemic; Library

Introduction

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)¹ or COVID-19² is causing a paradigm shift in every sphere of our life. The library is no exception. Even though vaccination has started in India and as discussed in various quarters about its existence and impact within us for a long time to come^{3,4,5}, we may be required to learn to live with the virus and manage our life and work accordingly.

Except a few, many academic libraries as part of their academic institutes are closed to their patrons from the last week of March 2020 in our country. It created ripples in all spheres of higher academic institutes from colleges to universities to research institutes. In most cases, the semester-end examinations were conducted online for their students. These students were unable to consult their library's resources, in many cases, print resources, to prepare for their examinations. The situation is compounded by the fact that in many institutes in our country, the educational resources procured and consulted in the library until now are available only in print^{6,7}.

COVID-19 is an infectious disease. It spreads mainly through the droplets expelled from the body when coughing, talking or sneezing⁸ in proximity or through other breathing-related actions. It can also spread through different surfaces, including items like printed materials⁹. Recently, it was also reported that the virus is airborne and can linger in indoor closed

spaces for several hours¹⁰. In addition to it, conditions such as temperature, humidity, wind speed, airflow, ventilation, air conditioning also may play a critical role in the spread of this disease¹¹. Among other preventive measures, social distancing is advocated in public spaces.

All these spell trouble for libraries from the perspective of it as a space and service entity. Libraries exist as a physical entity in closed spaces. It extends services to the users and works with them in close physical proximity. Students study in groups, practice presentations with their peers in small batches and use online resources using computers and other audio-visual media in proximity to each other. These were normal in the pre-COVID era. However, as these practices may spread the disease, these are prohibited in post-COVID new-normal era. So, the libraries in the post COVID era need to take a hard look at the way it functions. It needs to realign both in terms of its physical existence and the way it offers its services to its users. The possible areas from which the academic libraries in our country may face challenges and opportunities to turn them in their favour are space, collection development, service, and the overall management of the library.

Objectives of the study

- To trace the impact of COVID-19 on various aspects of academic libraries in India;

- To identify the challenges faced by the academic libraries due to COVID-19; and
- To examine opportunities faced by the academic libraries to augment their operations and services due to the challenges posed by COVID-19.

Review of literature

With the rapid spread and evolution of the disease, the international library community also responded quickly to minimise its fallout on the library operations. The libraries provided the latest information about the disease, what to do for the librarians to stay safe, the current situation in the library operations, how to manage the libraries after reopening and so on^{12,13}.

The International Federation of Library Associations and Institutions (IFLA) leads the way in this regard. It created a dedicated webpage to provide all the related and required information for the library community¹². As many places around the United States of America (USA) started to reopen their libraries, museums and archives, the OCLC, the Institute of Museum and Library Services (IMLS), and Battelle have started the Reopening Archives, Libraries, and Museums (REALM) project to provide the latest research information on the duration for which the virus survives on the various materials handled in these types of institutions. It aimed to provide information about how to handle these materials to stay safe for the library staff members¹³.

Robertson¹⁴ mentioned on the possible impact of a pandemic on libraries. Nix discussed the impact of infectious diseases on the use of library books¹⁵. This topic was also discussed in the 1891 conference of the American Library Association¹⁶. However, Poole discussed the topic of books as carrier of deadly diseases in as early as 1879¹⁷. Writings are also noticeable on several aspects of COVID-19's impact on library operations^{18,19,20}. These discussions emphasise on how the closure of the libraries due to COVID-19 may affect the community it serves, its impact on the delivery of the library services, on the areas the virus may affect the library's works, and the library's staff members' reaction to the reopening of the libraries. Some new thoughts also look at the impact of this pandemic in changing the research culture of present times^{21,22}.

Space

The first challenge the academic libraries may face is related to space. They shall have to extend more

services with less space now because everyone in the library shall have to maintain a safe distance between them. In many colleges, the library consists of a big room consisting of both collections and the reading area. Now, with the distance management, libraries shall be forced to reduce the number of seats in the reading halls.

This space related issue permeates to all types of academic libraries, be it school, college, or other higher academic institutions. It shall put pressure on library management to look for more spaces in different locations. But finding additional space in today's academic institutes may not be an easy option. However, the colleges and universities which have departmental libraries may be in a better position now to utilise those spaces for arranging additional reading spaces. But, for school libraries, this option may not be available.

Problems with group study and collaborative spaces

Another important aspect of space management is to do with collaborative spaces and the group study in the libraries. From the last decade or so, due importance was paid on collaborative spaces and group study rooms in the academic libraries^{23,24}. However, the situation shall change in the post-COVID-19 era¹⁹. Hence, it may be assumed that there shall be less emphasis on collaborative spaces and group study rooms shortly or until the threat of the COVID-19 virus wanes. Till that time, though, the library management may consider whether they can convert these rooms for new study locations leaving the safe distance between users.

Problems with common information and communication technology (ICT) facility

Because the virus can spread via different surfaces, the common computer access area is another area of concern. To give the users access to both computing and online resources, many academic libraries have a dedicated space for computers and other information and communication technology (ICT) related infrastructure. In the post-COVID-19 era, there shall perhaps be less emphasis on common computer use by students¹⁹. It may result in encouraging users to bring in their own computing devices. Keeping in mind the financial conditions of the average students of our country and the huge number of first-generation learners, this scenario may create a divide between the digital haves and have nots.

Collection development

The second challenge academic libraries may face is regarding balancing their collection vis-à-vis print and online. In India, college students largely use print resources because of one or more reasons. These include reasons such as many Indian textbooks and study materials being available only in print format. Library funding in academic institutes is inadequate to acquire online resources^{25,26}.

Decreasing demand for print resources

Because of the impending emphasis on less person to person contact and the possibility of spreading the virus through surfaces like books, the library authorities may be forced to discourage the users from coming to the library. It creates hurdles for the users to access print resources of the libraries. Moreover, because the books and other printed resources may be kept in state of unuse before returning the books to the racks, it is likely to result in a delay in further issue of the books.

Increasing demand for online resources

India has 53,620 higher educational institutions, 14.04 lakh teachers and 3.50 crores students in the higher academic front. There are 993 universities, 41,901 colleges and 10,726 standalone establishments²⁷. Amongst these, 97 Centrally Funded Technical Institutes (CFTI), 217 universities, 89 technical institutes, 3200+ colleges receive governmental support in accessing online resources for their teachers and students²⁸.

Clearly, there is a vast gap between the number of users who require access to online resources and how many are receiving those. It may also be noted that 3132 colleges under N-LIST programme receive access to some e-books²⁹, and apart from 89 All India Council for Technical Education (AICTE) funded members, 217 universities and 186 other technical institutes (Centrally Funded Technical Institutes – 97 and AICTE Funded Members-89) also get access to some online resources through e-ShodhSindhu³⁰.

The demand for e-resources shall increase worldwide. Yale University recently announced that in 2020, they should give preference to purchasing e-books over printed books³¹. But with economic stress in all countries because of this pandemic, the library budget is also going to be affected for the current period. Balancing the demand for purchasing more e-books with a reduced budget is going to be a

challenge for library management in the coming days. It is also a challenge for the libraries to balance the question of equity and access to the digital materials to its users.

For online textbooks the problem is more prominent. Publishers bring new editions for these books more frequently than the reference books. They frequently put different and sometime harsh licensing terms and pricing systems for procuring textbooks for the academic libraries. So even if an academic library decides to procure e-textbooks, it may put a lot of pressure on its budget on this account.

However, this emphasis on online and digital resources may bring out the chasm regarding library budget allocation between science and social science and humanities to the fore. It is no secret that science-related materials are available more in the digital format and being used more vigorously than social science and humanities³². There is reluctance also from the part of the social science and humanities teachers in using digital resources in classrooms. They cite several reasons for this: lack of alignment with the teaching method adopted; diverting attention from the approach used to teaching; allowing the students to copy their assignments from the web; lack of information literacy on the part of the students; possibility of using out of context etc³³. So, the challenge to the library authority is to balance the scarce financial resources during this hard time between all the subjects judiciously.

But not all the required resources are currently available online or in digital format. Because of sustained demand in the coming days, some current print only resources may be made available in digital format through online platforms by the publishers. However, not all publishers, especially many Indian publishers, may not be in a position, at least soon, to transfer all their backlists into digital format. Archival materials pose a different type of problem to the academic libraries. There are plenty of archival materials, particularly in Indian languages which are not available either online or in digital format. So, the demand for digitisation shall increase from the users in the coming days so that they can continue to access those archival materials. But, for school libraries and more for schools of teaching in Indian languages', the problem of unavailability of study materials in online or digital format in those local languages is more acute than other types of higher institutions of learning.

Need for digitisation

For archival documents in government-controlled institutions like the National Library, the central government may fund digitization initiatives. But there are massive amounts of archival materials to be digitised lying outside the government's purview^{34,35}. However, without governmental intervention, colleges and universities may not be able to take up digitisation for materials like local history collections or other archival resources in their collection. Government or government-aided schools may face a more challenging situation in this area.

The digitisation process is fraught with copyright issues. Digitisation efforts from the Google book digitisation³⁶, Hathi Trust's use of books scanned by Google³⁷ to recent National Emergency Library by the Internet Archive³⁸, faced copyright infringement cases from authors and/or publishers. The court ruling is yet to come for the National Emergency Library. But in both the cases of Google and Hathi Trust, the courts ruled in favour of Google³⁹ and Hathi Trust⁴⁰ due to fair use involved in these digitisation efforts. It may be noted here that Internet Archive also argued in the court that its emergency digital library is protected under the fair use doctrine of copyright act⁴¹. However, for Indian libraries, the Indian Copyright Act, 1957 (amended several times later) under Section 52, clause n, o, and p give the libraries permission for "storing", "making" and reproducing materials by "electronic means", for documents "not available for sale in India" or "for research or private study..."⁴². So, except for the concern for the availability of funds for the digitisation process, this is an opportunity for the libraries to create an enduring collection for the future generation.

Library services

Post COVID-19 era may see a sea-change in the delivery of services from the libraries. It may result in decreased in-person service and an increase in remote and online services. Library patrons may be encouraged to send their queries and suggestions to the library more through online means than meeting the library personnel physically. With time and waning impact of the virus, this aspect may revert to the previous situation, hopefully.

Remote access service

With classes going on mostly online and many faculty members and other academicians working from home, it is imperative upon the library to extend

remote access to their subscribed resources to their members. The prevailing technology used to extend this type of service is using Virtual Private Network (VPN), proxy technology and the leased lines^{43,44}. Academic libraries in India are mostly using VPN systems, or though proxy technologies like RemoteXs or EzProxy of OCLC etc. to offer this service. However, though implementing the VPN system may not cost much to an academic institution but, it requires a quality ICT infrastructure on its part. This may not be available in many schools or college libraries.

On the other hand, though the subscribed resources may help the institutions to roll out services in a smoother manner, but it entails a recurring cost for them. The availability of remote access facility for the users does not solve the access problem though. This is due to the inability of some Indian publishers to integrate this service with their online resources. So, in some cases, even though the library offers the remote access facility to its users and has subscribed some Indian online resources, the users may be unable to access those resources because of the lack of proper ICT infrastructure on the part of some Indian publishers.

Importance of library website

Another essential aspect in this changed scenario is the delivery of digital documents or giving access to online resources to the library users. The opportunity for the library here is to raise the importance of the library website to its users as a gateway to information for all the library-related services, print-turned-digital and online resources available to them. It can help them to let the users learn about what are the ways their library can assist them in their teaching and learning effort.

Importance of digital resource management

The academic librarians are conversant with digital documents management for quite some time by creating institutional repositories using open source DSpace, ePrints and other digital assets management software. Now, they can help their institutes by assisting teachers with the management of digital copies of lecture notes, question papers, presentations in the institutional repositories, etc. So as the importance of institutional repositories may grow several folds, the libraries who are yet to set it up may try to do so to showcase the importance of the library to the institute fraternity. All these may help them in

good stead in future to claim a better share for the library budget for starting new and innovative services in anticipation of the changing scenario.

Demand for scanning service

Lack of adequate number of online or digital version of textbooks, primarily in colleges, may trigger the requests for the digital copy of book chapters from their recommended textbooks. The libraries shall have to meet this demand by sending the soft copies of the respective book chapters after scanning these from the concerned books. Hence, the librarians may need to develop the scanning facility in their respective libraries, if not already available.

Assistance in online learning

Most of the classroom teaching in our higher academic institutes is now transferred into the online forum. The presence of virtual classrooms was there in some of our research institutes. But this large-scale transfer of classroom teaching to the online mode was unprecedented in our country. For the library's part, they may help the teachers in handling the digital copies of the presentation files, class notes, lecture videos and others by managing the files in the institutional repositories with the addition of the proper metadata. This may help the students in retrieving the information regarding these digital course contents. So, overall, the library can take part and help the institute in the whole process of conception, organisation and managing the online teaching delivery to the students. In case of school libraries, the librarians may play an active role on this regard.

Lending of digital access tools

The availability of online reading materials may not solve the access problems for our students. Due to our socio-economic situation, many students may not have the personal digital tools to access these online materials. Hence, the intervention on the part of the library by lending the access tools like laptop, e-book reader may help the students to learn in the new normal era. Here, the challenge is the financial implication for the delivery of this kind of service. The governmental intervention in this regard is of paramount importance. In a country like ours, the school libraries are in more dire need to be equipped with these digital tools to help the students, particularly those students with challenging financial conditions.

Training on information literacy

Due to the shifting of teaching and learning to online mode, the information literacy skills of the students shall gain importance. Hence, the librarians may need to equip their users with the required information literacy skills adequately. For this, the library professionals may either arrange for online tutorials or upload videos of various information literacy skills. These may include how to access certain databases, how to set up VPN system on their laptop etc.

Library management

There are several managerial aspects which need to be addressed for the proper functioning of the library during the pandemic. These steps may help the library even after the impact of the virus decreases in the coming days.

Safety

From the management perspective, the library or the institute's higher authority's priority may be to look at the safety requirements of the staff members of the library and its users. Hence, the authority needs to take steps to keep the staff and users free from the virus attack when they are going to visit the library. For this, the libraries may follow the safety measures proposed by IFLA and other prominent libraries around the world.

The guidelines may evolve from time to time, and this information may be put up on the library website for widespread publicity among the users of the library^{12,45,46}. From the safety perspective, monitoring and managing the right number of users inside the library at a time is essential. For that, many American universities have started to use sensor technology to track the Wi-Fi and Bluetooth signals at a particular space to know how many persons are there⁴⁷. This may help in managing the number of users at a time at a particular space like the reading hall.

Work from home

The staff members may be encouraged to work from home as far as practicable and compatible with the government orders issued from time to time to contain the spread of the virus. They may be asked to attend the library physically when there are real needs to complete some essential official works. It may help to keep the safe distance between the staff members of the library. However, lack of computing facilities at home and the internet connection thereof may

prove a stumbling block for the library staff members to discharge their official duties from home. The speed of the internet is also a concern in some areas. The library management may take steps to provide proper infrastructure to the staff members to support them in their mission to offer their services to the library.

Avoiding chasm between staff members

The allocation of duties for staff members at the library and work from home may create some unpleasant situations in the library. Some staff members may have to be at the library. For example, the circulation staff may need to come to the library regularly whereas the technical processing people may be able to process books from home and may be required to come to the library to prepare the books to deliver to the stacks. This seeming disparity may create some mental stress, agony, and friction between and among the staff members.

Staff training

The present situation calls for properly trained staff members in the digital environment. However, the problem is the availability of enough digital infrastructure and trained staff members in using that. All library staff members may not be adequately trained in handling digital service management of the library. Hence, the library authority may need to invest on an urgent basis in procuring or augmenting the existing digital infrastructure of the library. The staff members may also be required to acquaint themselves in using the new collaborative technologies like WebEx, Zoom, Google Meet and other such related technologies.

Open online educational resources

In recent years, the availability of free online course materials is increasing day by day⁴⁸⁻⁵². Here the library can take an essential role in promoting these freely available online course materials. These not only may help the institutes to help their students with their required texts quickly but also help them in saving a crucial budget for buying the many copies of books for a large number of students. As discussed earlier, the library websites may get its due importance from the students and teachers as a gateway to all their required information in their study and teaching.

Open access to research

The pandemic has presented a unique challenge as well as the opportunity to the library community on

the importance of open access to research to the researchers' community. The library professionals can take up this challenge to reach out to the researchers about this importance of making their research results published in open access journals so that anyone can access to their works. They need to spread the word regarding the impact of openly available research results to everyone like to help people to learn how to contain the spread of the virus. So, the current situation is an opportunity the librarians may tap to make the research community aware of the importance of open science⁵³. The present research culture after the COVID-19 pandemic is also a testament to this fact⁵⁴.

Constraint on budget

The present pandemic may force the academic institutions to go for more online teaching and minimal onsite classroom teaching in the coming days. This change in the teaching mode may put pressure on the institute authorities to reconsider the fees they used to collect from the students. As a fallout of this, the academic institutions' earning from students may come down. As a corollary, the overall budget and of the library's budget may come under pressure. This shrunk income of the institute may put the library under tight spot about continuing the subscription of the online resources they used to subscribe earlier. This goes against the requirement of more online materials in the present times. This possible lack of online resources also may force the librarians to extend services to their users using more open access resources. From this perspective also, the librarians may consider encouraging the researchers and faculty members of their respective colleges or universities to go for publishing in open access avenues.

Conclusion

In essence, it may be said that the present pandemic caused by COVID-19 has presented the academic libraries both challenges and opportunities. The challenges came from several areas related to library operations. However, there lie opportunities for the libraries to turn these challenges into opportunities. The academic libraries now may re-plan and re-organise their priorities and services in a manner commensurate with the changed circumstances. This pandemic has created a seismic change in the way we live and work. Naturally, it affected the way libraries function. However, if it can respond to these

challenges and act positively on the challenges and opportunities as delineated above, there is ample scope to think that it will again live up to its promise of changing lives.

Under these trying times, both the central and state governments need to reconsider their budgets for the education sector in our country. The infrastructure and services required under the present situation as discussed above calls for huge financial investments on the education sector. This may not be possible without the governments' help. However, the industrial houses may also be encouraged to come forward to help the education sector under their corporate social responsibility.

In this regard, it is heartening to note that some academic institutes have put in place the guidelines⁵⁵ or Standard Operating Procedures (SOPs)⁵⁶ to run the library even during the pandemic. However, on the lines of IFLA in the international level, our library associations may come forward to develop common guidelines or protocols to run our libraries during these difficult times. Being conducive to the conditions and environment of our country, it may help all types of libraries of our country to take a collective approach to both safeguard the lives of staff and users and continue to serve their users at the same time.

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