

ISSUES AND CHALLENGES IN INDIAN ACADEMIC LIBRARIES AFTER COVID-19 PERIOD

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ABSTRACT

The purpose of writing of this book chapter is to create the awareness among the library professionals during period of covid-19 instant what all the changes happened in academic library environment, issues and challenges faced by library professionals. How the professionals are tackled the situation to came out from the issues and challenges to provide the library services for users community. How the library professionals shown the importance of library to academic institution and they make users to realize the importance of library in academic activities. The various new kinds of services and techniques brought in use by various library professionals examples are presented for future use for other professionals in India and across the world. In this article, some of the initiatives taken are observed for providing free information to general public usage by government and other non government organizations.

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INTRODUCTION

Across the world covid-19 pandemic impacted very adversely on all the areas of human life such as Human health, life style, industrial and manufacturing sector's, Country's DGP, Employment and other business sector, day to day activities of human life including human academic activity. Till date many doctors and scientists from developed to undeveloped countries are in search of vaccine for covid-19 (for corona virus) using all the available literature and non literature sources. Due to very unfortunate impact of Covid-19 pandemic the working style of many sectors have been completely changed from traditional method to automated or online method, office working environment to work from home environment, physical work places to automated work place using automated machines and robots. Similarly the academic activities across the world have been changed from class room teaching method to online teaching method. Based on the changes of academic activities, the services of library changes across the world, here we are going to see how the academic libraries in India are serving their users and what are the issues and challenges they are facing and how they tackle the challenges and what is the new method they adopted in providing the services to their users community. Here in this paper the issues and challenges are discussed under the major sections operated in academic library and how the role of such section's changed during the Covid-19 period and what all the new services techniques they found all those is **are** observed in this chapter.

BACKGROUND

Libraries collect large amounts of reading material for academic and research nature. These collections have three very different functions: archiving, distribution, and bibliography. The bibliographic role of the collection is compared with bibliographies and catalogs. There is a fundamental difference between materials and collection development. It is observed since the past that "the development of a collection in libraries is analogous to the arrangement of files on computer systems, and although it is generally considered a limited selection for acquisition, it contains a wide variety of decisions that determine the profile of any collection. Due to the growth of remotely accessible materials, ownership is less important than access, has important implications for all three roles of collections" (Buckland, 1989), and it signals a shift in emphasis toward collection development and traditional catalogs; bibliography and collaboration. In this context, according to IFLA, the Acquisition and Development of Collections section focuses on the interrelated processes of collection development (planning and building a collection of useful and balanced library materials over the years) as well as the acquisition of library materials in diverse formats. Recently, England and Anderson (2019) have pointed out about many aspects such as the criteria for selecting books, anticipation of the research needs of library patrons, different variables of quality and relevance interact and the preexisting interests of users. The development of the collection is based on the continuous assessment of the information needs of the library's clientele, the analysis of usage statistics and demographic forecasts. The development of the collection is often influenced by budgetary constraints. The collection development processes are as follows:

- Formulation of selection criteria

- Planning and participating in resource sharing (i. e., cooperative decision-making within library consortia or with other libraries)
- Design and implementation of new collections or collection areas (including user-initiated recommendations)
- Replacement of lost or damaged items
- Selection and selection decisions
- Evaluation of access options (e. g., format selection, rights management, license restrictions, consortium requirements)

These processes are driven by collection development policies that set priorities and facilitate decision-making about what is acquired. Activities related to the acquisition of materials in any form through purchase, exchange, gift, copyright or mandatory deposit, include:

- Ordering, receiving, claiming and paying
- Selection and evaluation of supply sources
- Negotiate prices
- Enable digital resources

METHODOLOGY

To share the views in this chapter, the resources and materials used are based on the past practices, the literature published during Covid-19 along with the personal experiences of authors to share the practices and developments.

Objectives:

The main objective of the present endeavor to know the issues and challenges faced by academic library users in accessing of required academic information resources as following:

1. The issues and challenges faced by library professional in providing the required academic information for its user fraternity.
2. It helps many library professionals about how to provide the required information for their academic user who are stuck at their home due to Covid-19 pandemic.
3. What all the traditional services have affected due to covid-19 pandemic and how the library professionals tackled such challenges in academic library.
4. How the online resources and services are being provided to required users and what kind of methods used by professionals to provide the subscribed resources to their users.
5. How the free and open access resources are helpful to academic users during these period to conduct the online teaching and academic activities, how the library professionals helped the users in getting such information, which major platforms library staff used in providing the information?
6. How the social media and platforms have been used to provide the academic information and services by library professionals?
7. The initiatives taken by Govt. of India for academic activities, purposes and mechanisms by library professionals.
8. How the traditional information sources are been handled by library professionals in these period and what all the precautionary majors need to took and need to be taken in future while providing the service to their users in physical.

9. How to handle the entire library and services after opening of library activities in academic institutions along with the measures need to be followed in future for providing the required information to user community.
10. What all the new online services been added to library during covid-19 period and how library professionals need to prepared for accepting the changes and challenges.

REVIEW OF LITERATURE

"Kuwait University faculty's use of electronic resources during the COVID-19 pandemic", (Hendal, 2020): In this article the author discusses about the benefits of using electronic resources subscribed by the Kuwait University by its faculty member's faculty by its University Library especially during the Corona pandemic in this year. 80% of the survey's Respondents were informed that they are using the library electronic resources for research writing and 55% are expressed that reading and updating knowledge and 47.5% are using e resources for updating course material. Most of the faculty using the library databases by 80%, e-journals by 67.5%, subscribed journals by 40%, e-books by 37.5%, open-access journals by 17.5%, open-access books by 15%, theses and dissertations by 12.5%, lecture videos by 10% and searching OPAC for literature by 7.5%. Most of the library users use Scopus and Web of Science databases. This study reveals that awareness of subscribing electronic resources by the library users is must for all patrons' for their studies and library also take necessary steps for creating the awareness about its resources through user awareness programmes frequently for proper utilization of electronic resources. This information about databases of libraries and its services should be e mailed at the beginning of the semesters and feedback mechanisms and excellent communication with users to understand their needs and the problems they are facing and a prompt reply to meet all users' information needs helps to saving their time results to bring a good research output.

"Silver lining of the COVID-19 crisis for digital libraries in terms of remote access" (Pokorná, Indrák, Grman, Stepanovsky, & Smetánková, 2020) paper discussed about the digital library (DL) resources and its usefulness to replace traditional library services during the lockdown period caused by the COVID-19 pandemic, in the context of current copyright laws. Due to corona pandemic people habituated for Social distancing and the lockdown opened up a new mind set of library users for using library services. Digital libraries became as essential to library users, striving to achieve their full potential for their academic and research activities. These digital resources become a needful resource for information and increased the users' awareness about the services provided electronically. This study arises a point that libraries need to focus on the copyright-free environment for future and not a temporary solution gave libraries. It helps libraries in future for strengthening digital libraries and digitization of resources leads about what library users really want.

"COVID-19 and digital library services – a case study of a university library" (Mehta & Wang, 2020) this paper has explained the experiences of Bridgewater State University Massachusetts, USA,, a university library in response to the COVID-19 pandemic since early March 2020. It describes the library's position and its importance during the Covid crisis and Provides the unexpected challenges has posed by Corona pandemic to its digital services. It limelight's that how the library has to take some existing services converts into a electronic format

and explored new initiatives and practices to support academic purposes into a completely online teaching and learning. The library has been taken steps by adapting its current practice and conducting new initiatives in such digital services as references, BI, the provision of the subscribed electronic resources, course reserves, free e-Textbooks, Open Educational Resource materials and institutional repository. These steps reflect the indication for the users' needs. Digital libraries are helps library users for giving free text and electronic with good quality helps to grow exponentially in future for learning needs of scholars on off campus.

"Information dissemination in an era of a pandemic (COVID-19): librarians' role" (Okike, Benedict Ifeanyichukwu, 2020): In this article author discusses about how Librarians and information professionals disseminate information as often as they have access to authoritative information and resources to users. How social media and other online platforms are help full to disseminate information to users; librarians should serve as catalysts for the effective dissemination of information to promote true knowledge (Okike, 2020).

"COVID-19 and digital library services – a case study of a university library" (Dipti & Wang, 2020): The paper describes the Bridgewater State University, Bridgewater, Massachusetts, USA, library's position during the crisis and illustrates the uncharted challenges that the pandemic has posed to its digital services. In the paper different Challenges for library staff faced during lock down period are discussed such as challenges during working in-house, Challenges for library staff working at-home, Challenges for digital library services and users, etc. Different type of digital services offered by library staff such as, Reference services, Bibliographic instructions, providing electronic resources (e-resources), Digital repository, etc. the outcome of the paper is to promote the use the digital content and digital services for academic use by staff and students (Mehta & Wang, 2020).

"Role of Library Professionals in a Pandemic Situation like COVID-19" (Bhati & Kumar, 2020); this paper emphasizes upon the various roles of library professionals during the pandemic situation like COVID 19. It also identifies the advocacy role that Library Professionals have taken up. In the papers the author presented the number of digital platforms made available around the world for academic use from govt. and other non-govt. organizations. In the article it is discussed that how to use of social media / social networks for use of academic activities. How library professionals support the entire community in their scholarly endeavors during the covid-19 period (Bhati & Kumar, 2020). To encapsulate different components and methods which are closely associated with developing digital libraries from definition to the latest tools and techniques which is helpful to create and disseminate information to the library users suits to the present environment during Covid-19 for accessing online resources through digital libraries.

Some ideas about technical issues, architecture along with web scale discoveries, data curation and its techniques on various platforms for creating digital collection by the libraries, help to the library professionals for applying techniques for reaching the resources to unreached scholars during present Covid-19 situation for any library professional for encouraging scholars and academia for research and academic purposes.

Major Issues and challenges faced in academic libraries during covid-19 period.

Challenges of staff working in-house: Due to some reason in the universities and colleges some students are not able to go home, such students are stayed in the college or university serving such students by library staff who willing to serve them are had the big challenges such as maintaining of social distancing, keeping hygienic, quarantine of library materials, time bound for work, following of SOP etc.

Challenges of library staff working at-home: Following are some of the challenges faced during lockdown period by library staff.

- Lockdown is not well planned and pre-prepared which is created messy in work.
- All the library staffs are don't have computers and internet connection at their home to work from home during lockdown period.
- This creates very hamper situation, when the requisitions from students and faculty are raised for information.
- It became need to purchase the new computers and internet connection in their own money to serve the users.
- Another challenge is that the some staff of library are hesitant in accessing of digital content and providing digital content to users. It increases the work load of other staff if library during who need to serve the users and their needs.
- Accessing of subscribed resources by library staff and library users outside the campus using remote access tools need to purchase newly.
- Working time is became big challenge: Before lockdown period the library services and library staff work time is fixed, there is no issued in services. But during lockdown period all the users who need information are started asking library staff at any time there is no fixe time for them to ask the resources. It is created problem for library staff.
- Use of more than one medium to provide the same information to users. During the lockdown period the different users are asking information through different medium of communication, some will ask information through e-mail, some will ask through whatsapp, some will put text message and some will call though telephone and ask information. Some will ask through facebook page etc. This is also very panic situation to library staff that as per the requisition the library staff needs to replay for their queries.
- Converting of some traditional services into digital services: During the lockdown period some of the library services such as issues of physical books is converted as providing access of e-books to users, print news paper service is totally converted to access through online mode. All the print journals are made access as online journals.
- The limitations for staff working at home increases the difficulty to effectively fulfilling job responsibilities of library staff, such situation create problem in understanding the user requirements and providing the right information to them. If they don't get the right information again the same effort need to put by library staff for providing information.
- All the above discussed issues and challenges are directly or indirectly affect the working ability of library staff to explore the right tools and provide the right digital services efficiently, confidently and comfortably during the pandemic period.

Challenges in access of digital content and online services:

- All the users are not having digital devices to access the library resources from their home.
- All the library content are also not available in digital format only earlier subscribed online journals, online magazines, online news papers, online databases, subscribed e-books and some of the digital library content are available in digital format but most of the library resources are still not accessible in lockdown period.
- Due to lack of technical support some institutions are unable to provide the online services of subscribed resources.
- Lack of infrastructure in accessing of digital content also a big challenge to users.
- All the required information for teaching and research are not available in digital formats also a challenge to users for complete their work.
- Those who are using digital resource and digital content and digital devices such staff and students are faced many issues during lockdown period.
- Working for long time in digital device is cause to health issues this is also a challenging for users.

Impact of Covid-19 pandemic on Academic Libraries in India

It is well known that library is the heart of all the academic institutions and without library and library services it is very difficult to imagine the activities, growth and success of academic institutions. Before the impact of Covid-19 pandemic all the academic library activities and services are functioning smoothly with physical collection along with online resources. After the hit of Covid-19 pandemic in India and across the world all the library activities are disturbed and many changes in its services taken place. Somehow after five months of lockdown, based on the govt. order academic activities of higher education institutions got started slowly on online mode, during this period there is a big challenge raised by all the academic teaching fraternity and students that for teaching activity they required the information sources for their day to day teaching activities. It was the challenging situation to make available of required resources to teachers and students at their home, because during lockdown period along with academic institutions, the academic libraries were also closed in India. Even though to fulfill the user's requirements, the library professionals actively participated and made available the required sources which are available online or in digital format. Apart from what other methods they used and what all the new techniques they used all those are discussed for the benefit of library professionals who are in need of such techniques to provide the information to their users. It is difficult to estimate what are the changes to happen and the issues and challenges would be raised in academic library environment as follows.

Issues and Challenges faced at Various Sections in Academic Library

a. Acquisition section

The main function of acquisition section is to purchase the recommended academic books requirement for the user fraternity. The acquisition section or the acquisition process is common in all the academic libraries in India as well as abroad. The major activities of this section before covid-19 pandemic are follows as and what

are the changes happened after Covid-19 pandemic also discussed and presented below.

Following are past practices in acquisition section:

- i. **Recommendation of Books:** In all the academic institutions, all the faculty and students prefer to buy print books for their academic activity with limited number of e-books purchase through library.
- ii. **Collecting the recommendation** from users through various modes such as book recommendation forms, Book suggestion through OPAC, books recommendation by departments, books recommendation through committee members etc.
- iii. **Duplication checking** of recommended titles in the library with existing stock.
- iv. **Conducting of library Purchase committee meeting** to look off the recommendations and providing of approval for further process, this process was happened in library by set of committee members nominated by higher authority.
- v. **Obtaining the administrative and financial approval** from authority for purchase of new recommended books to library was held through physical file moment in academic libraries along with online approval process at some of the institutions of India.
- vi. **Calling quotation:** The process of calling quotation is not uniform in Indian libraries, some will call quotation through mail, through university web site, some will call the tender, and some will arrange the book exhibitions for direct selection of books as the past practices.
- vii. **Preparing of comparative statement:** This process was held in library by library staff and after preparation of comparative statement selection of L1 process also held in library.
- viii. **Order placing:** Earlier this process also held through mail or through online mode only.
- ix. **Receiving of ordered materials:** As per the ordered list the supplied books and other resource are been received by library professionals by checking the exact title, author, edition information, quantity along with physical condition of book etc.
- x. **Distribution of textbooks:** In Indian some of the academic institutions are providing printed textbooks or printed course materials to students when students join to institute or at the time of joining class by students in the institute through library.

Changes in past practices after covid-19 pandemic:

- i. **Recommendation of Books:** In all the academic institutions, all the faculty and students are preferring e-books instead of carrying print books for their academic activity.
- ii. Due to covid-19 pandemic impact, during lock down period, after that book recommendation process got changed from print based recommendation, through OPAC, recommendation, recommendation from departments, recommendation through committee members got changed only the recommendation of new books for procurement will be accepted by library staff is online recommendation through email. All other modes of recommendation are stopped.

- iii. **The process of duplication checking** of recommended titles happened through Web OPAC or other available sources which are in digital forms, checking of duplication in physical was stopped during these period.
- iv. **The process of obtaining the administrative and financial approval** from authority mode is completely changed to online mode of approval.
- v. All the process of recommendation, selection rejection of titles by library purchase committed members sitting in the library room got shifted to online meeting through video conferencing using available platform forms such as G-Talk, Zoom etc.
- vi. The process of calling quotation is restricted to online mode.
- vii. The process of preparing of L1 also restricted to online through video conferencing.
- viii. **Order placing:** There is no change in this process.
- ix. **Receiving of ordered materials:** In this process a major change is happen firstly the recommendation of print book and their quantity was reduced and promote users to purchase the e-book for academic use until unless print version is very essential. If print book is ordered such books are received by library staff as per the ordered list by checking the exact title, author, edition information, quantity along with physical condition of book. Due to Covid-19 pandemic along with regular practice following precautions need to be followed by library staff as given below.
 - Once the ordered books received to library all the books need to be quarantined for the period of 2 days.
 - After quarantine all the books need to be taken in to stock following of past practice procedures.
- **Distribution of textbooks:**
 - i. In this process some of the institutions are changed the mode of purchase of textbook from print media to purchase of e-books for students and made them available through institute website or through library website with the help of web based remote access software or services.
 - ii. Some institutions purchase textbook from vendor or from publisher and delivered through the vendor or by institute to the student home for their use during conduct of online class.
 - iii. Some institutions created the online courseware platform, through that they made arrangement to access the required course materials and subscribed text books along with online audio visual materials are shared to students.

Periodical Section

In the academic institute the work of periodical section is to procuring of print journals, magazines, news papers, online journals, online databases, other institutional memberships for accessing of resources etc. The past practices in procurement process of periodical section also changed to covid-19 pandemic.

Following are past practices in Periodical Section:

- i. **Recommendation of periodicals:** In all the academic libraries, subscription of very limited print journals and more numbers of online journals, Magazines, print news papers or e-news papers, Online database recommendation for subscription through library as per availability of funds.

- ii. **Collecting of recommendation** for new subscription and renewal of existing subscription of periodicals. Generally in all academic libraries the collecting of recommendation process is held through paper work. Very few libraries follow the online recommendation process for subscription of periodicals.
- iii. **Duplication checking** of recommended titles is done from library staff in the library using subscribed periodical list available in library software. Some of the libraries using periodical Cardex system for duplication checking. Some will check duplication with available list maintained by staff.
- iv. **Obtaining the administrative and financial approval** from authority for purchase of newly recommended periodicals and already subscribed periodical for renewal to library is held through physical file moment in academic libraries along with online approval process at some of the institutions of India.
- v. **Calling quotation:** The process of calling quotation is not uniform in Indian libraries, some will call quotation through mail, through university web site, some will call quotation by post these are the past practices.
- vi. **Order placing:** Earlier this process also held through mail or through online mode only some libraries follow traditional method through post or through courier.
- vii. **Receiving of ordered materials:** As per the ordered list the supplied periodicals, Magazines, News papers are been received by library professionals by checking the exact title, volume no, Issue no. year information, quantity along with physical condition of periodicals ordered in print or ordered online.
- viii. **Access of periodicals:** All the periodicals in print format are accessed in library physically by library staff and online subscribed periodicals are accessed in the library, through library website within the campuses.

Changes in past practices after Covid-19 pandemic:

- i. **Recommendation of periodicals:** In all academic libraries, subscription of print journals, print news papers, print magazines is completely stopped and subscription of online journals, online magazines, online news papers and online databases recommendation is taken place for subscription through library as per availability of funds.
- ii. **Collecting of recommendation:** This process also strictly restricted to online recommendation process through mail.
- iii. **Duplication checking** After covid-19 pandemic all this process changed to computer based duplication by library staff.
- iv. **The process of obtaining the administrative and financial approval** from authority mode is completely changed to online mode of approval.
- v. The process of **calling quotation** is restricted to online mode.
- vi. **Order placing** this process also restricted to online mode of placing order.
- vii. **Receiving of ordered materials:** During the covid-19 period all the print journals, magazines, news papers subscription are stopped and the procurement is restricted to subscribe online journals, online magazines, online news papers and online databases etc.
- viii. **Access of periodicals:** All the print and online subscribed periodicals are accessed in the library print copies and online resources are accessed through library website within the campuses that as per subscription mode

bases. Some institutions are made them available through IP base access within the campus, some institutions made them accessible login based within library or within institution. During the Covid-19 period all the online resources are made accessible to users through remote access services from their homes, this facilities given big relief to users that their academic and research activities are running smoothly without any difficulty.

Circulation Section

The functions of circulation section is to check-out, check-in and reservation of books, reading materials, registration of new users, monitoring of proper issue and return of library books as per the standard rules of the institute by faculty and students of the institute.

Following are past practices in Circulation Section:

- i. Issues of library books as per the institutions rules for fixed period of time.
- ii. Receiving of library books through check-in after used by user.
- iii. Reserving of books which are already issued to users.
- iv. Registering of new users in the library automation software and providing them a library barrower ID card.
- v. Replacing of returned library books in the stock area.
- vi. If the issued book is in demand and other users need the same book that time the book maybe retained during renewal time and issued to reserved person.

Changes in past practices after covid-19 pandemic:

- i. During lockdown period libraries are fully closed in that time above said past practices are completely closed at circulation.
 - ii. If the library is reopened based on the govt. orders during that time the following standard operating procedures need to follow to quarantine the library materials or books returned by users which are issued before lockdown period.
 - a. If the issued book is returned to the library such books can be collected and kept in the specified area inside the library (before that the librarian need to identify the separate location to collect and keep such books for the purpose of quarantine)
 - b. The return book need to be kept in an isolated area for the period of 24 hours because of corona virus survives on cardboard, paper jacket materials 24 hours.
 - c. After that the books can be salved or it can be issued to needy users.
 - d. The staff managing return books needs to write down the return time of book duration and quarantining period by wearing mask, hand gloves.
 - e. After that the library staff needs to monitor the users' behavior they are following SOP in the library to prevent the spread of virus or not if they are not following library staff need to tell them follow SOP in the library.
- **Some suggestion to prevent the spread of Corona virus in the library:**
 - i. The duration of the overdue period may be extended for some more periods with the approval of administration.
 - ii. Similarly the charges may be waived off for such books that are overdue.

- iii. The eBook of high demand title may be purchased in library to prevent the spread of corona virus in the library.
- iv. The user can make use of OPAC facility to search the book instead of searching the book in the library or in the racks. It also helps in avoiding of virus spread.
- v. If the required book is available in the library after searching in OPAC the same title may be requested through the mail to the library staff for issue purpose library staff should make arrangement for the same. It also helps in avoiding virus spread.
- vi. To avoid the spread of corona virus in the library, access of library for uses may be restricted by converting open access system to close access system for some period or until this problem of corona complete.
- vii. The library cards need to be handled by library staff only, users need not touch the library card and book cards.
- viii. During the issue of library books users need to maintain social distancing between them otherwise they can come and collect the book on allotted time by library staff.
- ix. The library may provide the table of content services for newly arrived books along with high demeaned books through OPAC.
- x. Till the complete of corona virus issue library can plan for subscribe of e-news papers, e-journals, e-magazine instead of print sources.
- xi. For return of books RFID self check in stations can be installed. The books returned through self check in station quarantine need to be followed thoroughly.

The Digital Library and E-Resource Management

In the academic library the major task of digital library section is to provide computers along with internet facility to library users for accessing of digital resources which are subscribed and purchased along with in-house resource, in-house resources **are to be made available for access to users outside the campus through** digital library software such as DSpace, E-print, Greenstone digital library software etc. Creating of digital content, converting of print content to digital form and creating of metadata for the same and updating of metadata in to digital library software, make the digital resources available to users online from anywhere. In other hand, the role of digital library is managing of subscribed e-resources, **making** available of subscribed resources to users through library website, or through library portal **or through remote access software / services**. Maintenance of library website, library automation software, maintenance of all the computers used in library **along with network facility**.

Following are past practices in Digital Library section:

- i. Facilitating of computers with internet connection in digital library for library users to access the digital content, access subscribed resources for their academic activities.
- ii. Creating of digital library of **in house materials to facilitate services to users in accessing of in-house materials from anywhere, any time by users as per institution guidelines**. ~~facility along with creating of digital content for users.~~
- iii. After the use of digital library the cleaning process of digital library and all computers once in week practice is there in the academic library.

- iv. Conducting services for all the digital library systems, updating of system software's and hardware's as and when required.

Changes in past practices after covid-19 pandemic:

- i. During lockdown period the access of computers in the library is closed. Only the digital library content and subscribed online resources are managed through remotely by library staff and made them to access to users via remote access software such as Ezproxy, Nimbus, and EBSCO discovery tool, etc.
- ii. Some of the resources which are accessed through login based and within campus access resources are made available to users through library portal.
- iii. If the library services are started and access of digital library computers are opened for users in such condition the library need to follow these procedures to prevent the spread of covid-19 virus.
- iv. All the students are requested to use the personal computers more until unless it is very essential to use the computers kept in the library.
- v. The students how don't have personal computers can try to use the available library computers by following these procedure:
 - o Before entering in to digital library students need to wash the hands properly,
 - o Clean the hands using hand sanitizer,
 - o Wear the mask compulsory till the time use of digital library.
 - o Maintain distance between each user.
 - o Use only mouse and keyboard other parts of computer should not be touched by users.
 - o During this period avoid the use of pen drive, Key chain, wallet in the digital library.
 - o Try to use the online storage devices to store data such as Google drive, one drive. Cloud storages etc.
 - o If any user feel uneasy don't allow such user in to digital library advise them to use the personal computers.
 - o After use of digital library by students or by users, before closing the digital library all the key board, mouse, computer table, chair and other used places need to be sanitized properly once in a day that to evening time is ideal to clean.

Initiatives taken for Academic Activity Purpose

During covid-19 period, during lockdown period and before, the government of India has introduced some innovative initiatives for academic use. Such initiatives are listed here for the use of library professionals along with some academic institutions initiatives to made access of free of their content for other library users. Some of the international initiatives also presented here.

Initiatives by Indian government and Indian academic institutions along with some of private institutions of national and international:

- a. **Avid learning: (<https://www.avidlearner.com/podcast>):** It is a platform for cultural philanthropy platforms to accelerate the leadership [9].
- b. **"Bharat Padhe Online":** Recently Government of India Launched 'Bharat Padhe Online'. It invited all the finest brains in India to share new thoughts, new ideas, suggestions, and solutions directly to the

government. To eliminate the constraints of online education while promoting through digital education platforms. Professors/ teachers and Students are the main target audience under this program. Recently IGNOU started new online courses under this initiative [10].

- c. **EBasta** (<https://www.ebasta.in/>): It is another platform to access the school books in digital format like ebooks access through tablets and laptops. The main objective is to share a common platform for various publishers and schools together [11].
- d. **ePathshala** (<http://epathshala.nic.in/>): It is a joint portal which was initiated by the MHRD and NCERT in November 2015. The students of school level can get easy access to all educational material, including textbooks, periodicals, audio, video etc. Also print and non-print materials related to study are available through ePathshala. The useful study materials can be easily downloaded by the different types of user for offline use with no restriction on downloads. Mobile app-based ePathshala Library is also launched by MHRD and NCERT which can be downloaded through iOS, android, and windows system and can see the video, text, curriculum, and periodicals and also listen to audio of study material from class 1 to 12. As of April 2020, ePathshala provides 504+ e-Textbooks, Total eResources 3886+, and 2.6million downloaded apps [12].
- e. **ePG Pathshala: A gateway to all Postgraduate Courses:** (<http://epgp.inflibnet.ac.in/index.php>): It is an initiative of the Ministry of Human resource development (MHRD) under its National Mission on Education through ICT (NME-ICT) which is executed by the University Grant Commission (UGC).A gateway which focuses on high quality education systems, curriculum-based teaching, interactive e-content in more than 70+ subjects across all disciplines of various subjects like social sciences, arts, fine arts and humanities, natural & mathematical sciences, etc. [13].
- f. **Internet archive:** During the lockdown period in the USA, "National Emergency Library" is developed by the Internet archive blogs which has a wide range of collection around 1.4million books on its digital library platform [14].
- g. **Khan Academy** (<https://www.khanacademy.org/>): It is a private portal which is governed by a private organization that offers a well-defined curriculum based learning platform and material with practice sets, practical based video lectures that impact learners to easily and grasp knowledge related to subjects and understand with their own pace. It deals with many school related subjects like computer science, mathematics, social science, computer programming, history, art, science, economics, and more subjects. It also partnered with many prestigious institutions like MIT, NASA and many more to offer digital content. Recently in this lockdown period Delhi Government collaborated with this academy for teaching government school students [15].
- h. **Krishikosh** (<https://krishikosh.egranth.ac.in/aboutUs.html>): It is an initiative under National Agricultural Innovation Project (NAIP) and e-GRANTH at ICAR-IARI, New Delhi. It provides digital content of different agriculture & research institutions on a single platform for

accessing the different library resources. It provides more than 1 lakhs agricultural books, journals, articles, and reports [16].

- i. **National Digital Library of India (NDLI)** (<https://ndl.iitkgp.ac.in>): It is the biggest digital library of India. It is developed as a project under the MHRD, India. The Library was initially started as a pilot project form in May 2016. It was officially started by HRD minister Mr. Prakash Javadekar to serve the nation on June 19, 2018 [17].
- j. **National programme on technology enhanced learning (NPTEL)** (<http://nptel.ac.in/>): It is a joint initiative of the prestigious institution of India IITs and IISc. Under this initiative, various online courses of different fields are available on a single platform and certification in various topics starting from engineering to humanities [18].
- k. **National repositories of open educational resources (NROER)** (<http://nroer.gov.in/welcome>): It is a common platform for different types of users. It is developed by the MHRD, Department of School Education and Literacy, and managed by the NCERT, Central Institute of Educational Technology. The whole repository works on the MetaStudio platform, which is an initiative of the Homi Bhabha Centre for Science Education (Knowledge Labs) [19].
- l. **Online Labs** (<http://www.olabs.edu.in/>): The Online Labs launched by CDAC Mumbai and Amrita University. This project is funded by the Department of Electronics and Information Technology (Deity). It is a lab which is experimental based teaching through using the Digital platform. It is more efficient and less expensive practice. In this meantime where everything is struck due to the Covid-19, there is a need for such type portals for providing a suitable platform for younger generations. It is available anytime, anywhere and can be accessed within a short time [20].
- m. **PdfDrive**: PDF Drive is online based platform to access, download free e-books in many subjects. During the lockdown period this platform is very helpful to academic use for faculty and students and researchers, which helps to get more number of required books. Following are the features of pdfdrive.
 - a. **Previews**: Allows seeing the cover photos of book.
 - o **Advanced Filtering**: It allow sorting pdf files even after search by page number, year of publication, by popularity and file size.
 - o **Fast**: The search performance is very fast in retrieving of search result.
 - o **Up-to-date**: The platform archive is updating constantly every day.
 - o **Synchronized**: The facility of synchronization is available for access of any file from computer or from mobile devices having internet connection [21].
 - a. **Sakshat** (<http://www.sakshat.ac.in>): It is an initiative of the Department of higher education of the Ministry of Human resource development (MHRD) under its National Mission on Education through ICT (NME-ICT). For facilitating the learning needs of users through a national scheme was proposed under 'National Mission in Education' through Information and Communication Technology tools (ICT). The basic objective is to

provide inter connectivity between the higher educational institutions. Knowledge comes up under a single umbrella in cyberspace called Sakshat, in addition providing high-quality e-contents, to address the specific needs of users [22].

b. Shodhganga (<http://shodhganga.inflibnet.ac.in/>): It is a platform which is designed by Information and library network (INFLIBNET) for young researchers to deposit their theses. The theses available in open access to serve the whole scholarly community. The repository has some unique features to index, store, disseminate of information, and preserve the electronic Theses and Dissertation (ETDs) submitted by the Indian researchers [23].

c. Study Webs of Active-learning for Young Aspiring Minds (SWAYAM)

(<https://storage.googleapis.com/uniquecourses/online.html>) : It is the India's first Massive open online course platform which is initiated by the Indian Government and specially designed to achieve the basic objectives of Indian Education Policy. The main objective of this platform is to provide the best teaching-learning platform and learning resources to students from class 9 to post graduation. This platform can be easily accessible anytime from anywhere. It gives a strong platform for knowledge society & also provides a digital revolution in the field of teaching. In this Covid19 situation this type of platform is a very essential commodity for national knowledge growth and provides a backbone support for young learners [24].

d. Unacademy (<https://unacademy.in/>): It is a learning platform for different groups of students whether for competitive exams or curriculum based study. This portal serves a large variety of students. Apps are also available. It is easy to access through electronic media devices. It was started by Mr. Roman Saini, who cleared IAS and left the job. There are many famous educators connected through this platform like Mr. Abhinay Sharma, Mr. Abhishek Srivastava and many more .The young generation can access the platform through an app, YouTube videos where lectures videos are uploaded for learners [25].

e. World digital library: The World Digital Library, is a project of Library of Congress, which carried out with the support of the "United Nations Educational, Cultural and Scientific Organization" (UNESCO) in cooperation with libraries, archive centers, museums, educational institutions, international organizations across the world. The WDL makes available of its content on the Internet, free of charge and in multilingual format. The significant primary materials are collected from all countries and cultures of world. The objectives of the WDL are to:

- Promote international and intercultural understanding;
- Expand the volume and variety of cultural content on the Internet;

- Provide resources for educators, scholars, and general audiences;
 - Build capacity in partner institutions to narrow the digital divide within and between countries [26].
- f. YUKTI Portal:** Government of India launched another portal "YUKTI" (Young India Combating COVID with Knowledge, Technology, and Innovation). It is developed to record and watch the efforts and initiatives of MHRD. It will cover a wide range of initiatives and efforts of the academics, research institutions which are especially associated with Covid-19 situations. Social responsibilities and initiatives by the various institutions are the measures taken for the betterment of the whole community of the students/young brigade. It will facilitate various institutions to share their way of working and their strategies for various challenges they are facing due to the unprecedented pandemic situation of Covid-19 corona-virus and other future goals and their initiatives. It will establish a two-way channel between the MHRD. It will help to resolve various critical issues associated with student policies, placements related problems, and the mental and physical well-being of scholars in these challenging times [27].

The above listed resources are very helpful during lockdown period for users to fulfill their academic needs. Some of the libraries are listed all the freely available resources at one place and made them to their users for access them.

Reading Area and Reference Section

Once the user started coming to library and started using the reading area or reading room the quarantine of such places is essential to avoid the spread of virus after use of reader. Practically it is very difficult to quarantine the reading table, chair every use of different reader; following are some of the suggestions to avoid spread of virus in reading area of the library.

1. Before entering to reading area users need to wash their hands properly and should use the sanitizer.
2. If possible allot reading area per person from morning to till closing time of library for regular users of the library.
3. Provide the electronic content to users and motivate them to read in the rooms instead of library until unless very essential to read in library.
4. Frequently the reading area need to be sanitized to avoid the spread of virus.
5. All the windows, doors of reading area need to be opened so that users can come and use and walkout without touching the library furniture's and fixtures much.

Conclusion

During the lock down period the library professionals are worked hard to provide required information to users through various channels and medium. **Some of the professionals are suffered by covid-19 and some of the professionals are lost their lives during the service period. We tribute such professionals for their service and dedication towards profession.** The Covid-19 lockdown period is really challenging for all the country peoples across world. Its impact is spread not only educational field, all the sectors of human life even though the people are trying their best to

prevent the situation and it is must to prevent the spread of Covid-19 and break the chain of corona spread by maintaining social distancing, wearing face masks, following of SOP **guidelines issued time to time by govt. of India.**

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