

## Chapter 18

# Opportunities and Challenges Offered by the Effects of the COVID-19 Pandemic on Academic Libraries

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### **ABSTRACT**

*A study was conducted to examine the opportunities and challenges offered by COVID-19 on academic libraries during closure. Telephone interviews were conducted with 75 academic librarians to understand their reaction to library closure. The opportunities and challenges experienced were unpacked to show how academic librarians took advantage of imminent closure to continue offering services. It was discovered that physical buildings were closed, and some librarians were visiting the library to assist patrons virtually. The major opportunity was the introduction or enhancement of virtual services. The major drawback was the non-circulation of print resources and unavailability of seating space for patrons. The author recommended that institutions should provide internet connectivity for librarians to assist patrons from home.*

### **INTRODUCTION**

Zimbabwe currently has 24 registered universities, 12 polytechnics, and 15 teachers colleges (Garwe and Thondhlana, 2019) which are regarded as institutions of higher learning with academic libraries. The closure of physical libraries due to the COVID-19 pandemic presented a number of opportunities and challenges which affected service provision in academic libraries in Zimbabwe. It is stated that the library's purpose is to serve students and faculty needs at the same time ensuring that the campus community is protected (University of Illinois (2020). On March 30, the Government of Zimbabwe (Government of Zimbabwe, 2020) announced an indefinite lockdown which led to the closure of insti-

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tutions of higher learning and all the services, including library services. There was a shift from face to face to online learning and in-person gatherings were cancelled. Students were barred from accessing all the campuses and were supposed to learn from home. Librarians were also supposed to work from home to ensure that library services were not affected in support of teaching and learning. As a result, both librarians and students were supposed to maintain social distancing and wear masks and gloves to protect themselves, patrons and the collection (Mehta and Wang, 2020). A study done by Hinchliffe and Wolff-Eisenberg (2020) showed that libraries were putting in place preventive measures of cancelling public events, providing hand sanitizers for patrons and thorough cleaning of libraries to deal with the effects of COVID-19. In light of the above, the chapter seeks to meet the following objectives:

1. To identify the opportunities that were brought about by COVID-19 in academic libraries.
2. To examine the challenges that was conveyed by COVID-19 in academic libraries.
3. To offer solutions to some of the challenges faced by academic libraries during the lockdown period.
4. To establish information services that different academic libraries were offering during the pandemic.
5. To document the lessons learnt from the COVID-19 lockdown in academic libraries.

The library is now accessible twenty four hours as long as someone is connected to the internet. The library is also regarded as the hub of teaching and learning at higher education institutions. The opportunities and challenges presented by the COVID-19 pandemic are presented below.

### **OPPORTUNITIES OFFERED BY PHYSICAL LIBRARY CLOSURE**

The section reviews literature on opportunities created by library closures due to the COVID-19 pandemic. Mehta and Wang (2020) pointed out that libraries had been developing digital services to meet the needs of patrons from different backgrounds, and there is no need for patrons to physically visit the library to use the services. The virtual services include reference services, bibliographic instruction, and e-resources usage including electronic journals and books, past examination papers and the institutional repository to support the learning, research and teaching activities in higher education institutions. The COVID-19 pandemic assisted in increasing the use of the library webpages, email, online public announcements, and social media platforms to market the virtual library services. Libraries had also introduced self-service and touchless interactions such as self-checkout, curbside pickup, scan and deliver in order to curb the spread of the disease and reduce traffic in the library (Cox, 2020).

#### **Introduction of New Services**

Mullins (2020) stated that Carnegie Mellon University initiated remote book delivery service where they have been ordering print materials from the vendors and sending them directly to students who might be facing challenges in accessing the books online during the lockdown period. The University of Illinois (2020) adopted the electronic-first strategy to curb the spread of the disease whereby the library prioritised checking out of electronic versions of the information resources. Librarians were used to meet new students physically during the beginning of the semester on orientation. However, due to the limited numbers which were supposed to gather at a certain time, the orientation exercise was done online and students attended it from home (EDUCAUSE, 2020). The use of zoom to hold meeting and

other training sessions was used to engage with library patrons during lockdown (Ballard, 2020). The introduction of library Apps, ConverSight LIBRO and CapiraMobile were used to offer curbside pickup features which enabled library staff to fulfil requests for books observing social distance and minimising person contact with patrons (Enis, 2020). These new services enhanced library services during the lockdown period where patrons were not supposed to visit the library physically.

## **Reference Services**

It has been noted that library patrons require assistance in evaluating information sources and using information legally and ethically (Riehman-Murphy and Hunter, 2019; Ali and Gatiti, 2020). The closure of the physical libraries saw the removal of the reference desk and information services were moved to be purely online. This was an opportunity to use virtual reference services such as live chat, WhatsApp, Facebook, Skype and other social media platforms (Ballard, 2020; University of Illinois, 2020). Therefore, library staff is supposed to make slots for answering reference queries while working from home to ensure that patrons are supported throughout the working hours. Librarians should therefore promote these services virtually so that patrons are aware of the services that are being offered and how they can access the library. A study done by Mehta and Wang (2020) concluded that the pandemic created better awareness of the various platforms that are used to offer online reference services by academic libraries. Hollander and Carr (2020) and Ali and Gatiti (2020) stressed that virtual communication is a good way of informing patrons who are in isolation about the disease and meeting other information needs that the patrons might have.

## **Library Instruction and Embedded Librarianship**

From time immemorial, the library has been offering information literacy skills training, sometimes as stand-alone courses or embedded courses in communication skills or information technology. The mode of delivery changed from face to face to online and the librarians were using Zoom, Google meet and other learning management systems such as Moodle and blackboard to deliver information literacy lectures (University of Illinois, 2020). This also led to the usage of library guides and other tutorials posted by the library as a way of guiding students on how to use various information resources provided by the library virtually. The library also utilised the virtual spaces to offer training sessions to patrons during the lockdown period caused by COVID-19. Library instruction is now one of the major activities being done in the online environment where librarians are creating content for students and teaching faculty members to find information resources for online teaching and learning. Library staff are offering virtual tours to showcase the collection and utilising their instructional design skills to assist the faculty in developing courses online (Lutz and Schonfeld, 2020). Therefore, digital literacy skills for librarians are now required than never before.

The pandemic strengthened embedded librarianship where librarians are now part and parcel of the flow of online research, learning, and teaching. Librarians are now helping faculty members to develop course content and teaching some aspects of information access and use (Ali and Gatiti, 2020). Librarians had been assisting lecturers in developing online courses due to their vast knowledge in tutorial and instructional video creation, learning management systems, and open educational resources. Lutz and Schonfeld (2020) pointed out that librarians working with the faculty are now working with lecturers to

build quizzes for students and provide electronic resources in the learning management systems. This shows that librarians should provide online support for teaching and research.

## **Electronic Resources Access and Usage**

Mehta and Wang (2020) stressed that the COVID-19 pandemic posed a good chance to effectively promote electronic resources to library patrons. Some patrons have a tendency of using Google to get information resources leading to the retrieval of sources that are not authentic. Patrons who were used to print resources were encouraged to use electronic resources. E-resources can be used anywhere, any-time as long as one is registered to access the resources off campus. Therefore, the library had a duty to make sure that the e-resources are accessible and the users are able to access and use them. There is need for librarians to guarantee the library patrons that the e-resources can be accessed and used any time. Librarians had an opportunity to update their library how-to-guide to assist users who might face challenges in accessing and using the virtual services. This was also an opportunity for collaboration between librarians, information technology departments and publishers to maximise on the accessibility of information resources during the lockdown period. Cox (2020), EBLIDA (2020) and Lutz and Schonfeld (2020) pointed out that the use of the e-resources skyrocketed during the lockdown period due to COVID-19 induced physical library closure.

## **Open Educational Resources**

During the lockdown period, both students and lecturers wanted to access information resources since learning and teaching continued online. This presented an opportunity to utilise free digital content, and most publishers have opened up their resources to make them freely available online (Ali and Gatiti, 2020; Loyola University Chicago, 2020; Oyelude, 2020). The librarians compiled lists of the free resources and send them on mailing lists and posting them on the library website to create awareness. Mehta and Wang (2020), and Lutz and Schonfeld (2020) noted that librarians were also promoting open educational resources materials in line with the open scholarly communication mantra that had been emphasised through the open science movement. As a result, libraries were able to provide access to electronic books that were very previously expensive. The library had also been embedding open educational resources into the learning management system to create more awareness and encourage usage. Researchers were trained by librarians on how they can retain their publication rights in promoting open access to information resources during the publication process.

## **Digital Repositories**

The “new normal” caused by the COVID-19 pandemic led to the diminishing value of the print collection (Schonfeld, 2020). Libraries provide virtual services via various platforms including the digital libraries such as institutional repository, electronic past examination papers, and electronic thesis and dissertations. Digital libraries are now a vital pathway in providing authentic information resources such as e-books, e-journals and educational content (Falt and Das, 2000; Lutz and Schonfeld, 2020). Cox (2020) pointed out that the pandemic caused a shift in library collections, spaces and operations and most libraries closed with no time to plan as a way of protecting collections, patrons and employees. He added that the university had curated digital content leading to the provision of opportunities for

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research interaction and a web presence that supports online teaching and learning. However, libraries should deal with copyright issues in the digital age and ensure that there is equitable access to these information resources. There is also need to ensure that the library website is usable, more user friendly and customisable since it is now the virtual front door in providing online services.

### **Partnerships**

The COVID-19 pandemic led to some partnerships between higher education institutions, agencies and other stakeholders in offering new courses about the disease. Oyelude (2020) stated that Coursera worked with the London School of Hygiene and Tropical Medicine and the UK Public Health Rapid Support Team to offer a COVID-19 course. FutureLearn has been offering free courses and also open access to its content. JOVE which is a peer reviewed scientific video journal has been providing free access to educational videos in Science, Technology, Engineering and Mathematics to support remote teaching and learning. Organisations also partnered in providing webinars to educate both librarians and students on how they can operate in the COVID-19 pandemic era. The pandemic also led to the development of partnerships from around the world in improving the discoverability and accessibility of COVID-19 research output. The Confederation of Open Access Repositories (COAR, 2020) held a forum on COVID-19, open science and repositories showcasing the OpenVirus, OpenAIRE COVID-19 Gateway, Canadian COVID-19 Repository Initiative and COAR recommendations for COVID-19 resources in repositories projects from different regions. It was noted that COAR can help open science activities through community building, advocacy, defining best practices and supporting information sharing.

## **CHALLENGES OFFERED BY PHYSICAL LIBRARY CLOSURE**

Due to the closure of the physical library buildings, it was no longer business as usual for libraries in higher education institutions. During the lockdown period, no physical library services were offered and when the lockdown restrictions were relaxed, the opening hours of the libraries were changed while some services such as seating space, photocopying services, use of computers by students, group study rooms, and printing services remained unavailable. The challenges of COVID-19 affected both the students and library staff.

### **Challenges for Staff**

Before the complete lockdown, library services continued for some time and librarians were afraid of contracting the disease (Mehta and Wang, 2020) since the in-house practices that were imposed were new. Librarians were expected to always sanitize their hands, wear gloves when handling library materials, wear masks, and maintain social distance to avoid the transmission of the disease. After the complete lockdown, librarians were supposed to work from home. Telecommuting was a sudden change for most of the library staff and most were not prepared to work from home. Mehta and Wang (2020) pointed out that some librarians do not have computers and internet connectivity at home. This means that library staff was supposed to subscribe using their own money in situations where institutional support was not available. After reopening, there is need to support library staff by providing personal protective equipment (PPE) so that those on the circulation and reference desks are safe when interacting with patrons.

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Working from home presented its own challenges especially for librarians who were not equipped with technological skills. Librarians were supposed to learn new collaborative technologies like Microsoft teams, zoom, WebEx, and Google docs (Mehta and Wang, 2020). Therefore, there is need for training and preparedness on the part of the library to equip these skills to its staff to be able to use digital services off campus since the information technology support cannot be provided from home. Mehta and Wang (2020) indicated that “some library staff do not know how to access Microsoft off campus, the documents saved and specific software installed on their office computers, the shared network drives, etc.”. Librarians who are learning to work from home had experienced frustrations when they fail to do their jobs effectively. There are also negative feelings that are associated with working from home such as failure to secure a private space to do work, and dealing with children as a parent and an employee. Most of the library staff and patrons do not have internet connectivity at home and this greatly affects service delivery (Ballard, 2020).

Library staff is not certain about the availability of their jobs in the near future. In some cases, library staff was laid off because of the pandemic (Lutz and Schonfeld, 2020). They added that, in as much as there was management and staff support during the lockdown period, the closure of library buildings led to the reduction in numbers of library staff especially those who are not directly linked with faculty work. Positions were also not filled since hiring was put on hold and the hiring freeze also affected positions that were about to be given offer letters (Lutz and Schonfeld, 2020). It has been stated that staff were also affected by furloughs and layoffs especially those with a responsibility for processing library materials and with circulation duties. Therefore, there is need to reallocate staff and foster professional development to ensure that staff available is able to offer the required services.

Diminishing budgets that are being experienced by libraries had caused challenges since more money should be used to develop the electronic collection. Therefore, there is need to develop new strategies in negotiating with publishers to ensure that patrons access more content. The COVID-19 pandemic led to serious economic challenges which worsened the already declining budgets. There are spending restrictions and hiring freezes within institutions which might hinder service delivery in the pandemic era (Lutz and Schonfeld, 2020). There is need to reskill and up skill the existing library staff so that they can fill new roles within the department to avoid cascading the effects of budgetary constraints to library patrons.

### **Challenges for Library Patrons**

The announcement of the lockdown period was abrupt and libraries did not have enough time to prepare for closure. Library patrons who had borrowed print library materials were worried about where they could return the books. This is because the services that were available were digital services only and they were supposed to be accessed virtually. Mehta and Wang (2020) stated that the challenges of using digital libraries during the pandemic would be high because the students are overwhelmed with online learning while lecturers were preparing for online teaching. There is also a challenge of course reserves that are in print and should be scanned for onward transmission to the e-mails. This may take longer than in the past and it is also taking longer to fulfil the inter-library loan obligation.

Patrons had to access e-resources off campus during the COVID-19 pandemic lockdown. Some libraries did not have the facility of accessing e-resources off campus leading the challenges of accessing and using e-resources in those higher education institutions. This pandemic showed how irrelevant the circulation print collection has become due to the danger of spreading the disease. Circulation of print

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materials was put on halt and patrons depended mostly on electronic resources. Lecturers were providing reading materials to their students and there was need to take note of the copyright issues and fair use (Congressional Research Service, 2020). However, some faculty members do not understand these concepts since they are only worried about providing access to information. COAR (2020) added that the following challenges are faced in the COVID-19 era, copyright, embargoes and licenses attached to resources, metadata and data curation, infrastructure, and connectivity. Rimmer (2020) pointed out that the non-profit Internet Archive is being sued by major publishers for lending books to researchers and students through its temporary national emergency library which was set up during the pandemic. As a result, librarians must educate both lecturers and patrons on copyright and fair use and also encourage researchers within the institution to use creative commons licences.

### **Space Redesign**

The pandemic forced libraries to redesign their space taking into consideration the need to maintain social distance. Library spaces and staff offices are being redesigned to reduce the risk of overcrowding which might speed up the spread of the disease (EBLIDA, 2020). Previously, the new library designs favoured open floor plans and group study. Due to the limitations in the number of patrons that should visit a library, there is need to manage and coordinate access to these spaces to avoid disruption of library services. The pandemic also caused the disappearance of computer laboratories where students are encouraged to bring their own devices to the library (Cox, 2020). There is need to develop new cleaning routines so that there is safe circulation of technological infrastructure within the library.

### **Unavailability of Some Services**

Peet (2020) indicated that most patrons were not able to access physical materials, public computers and the internet on campus during lockdown. This is because circulation activities were banned and patrons were not able to visit the physical library buildings to use the computers reserved for patrons. Mullins (2020) added that print materials were not circulating using the normal channel and this greatly affected access to print information resources by the students. Books were not being processed in libraries since library staff was working from home, and this also affected inter library loans for print materials. There were challenges when there was no electronic equivalent of the required print sources. This led to the invention of the remote book delivery to assist postgraduate students. The students who benefited from this service were required to return the books when the campus reopens. This was a disadvantage to undergraduate students since the service was for postgraduate students only. The quarantining of returned materials upon return also led to items taking long to reflect that they were returned. At the University of Hawaii, returned books were kept in book return bins for several days to avoid contamination until they were safe for handling and circulation (Brandees, 2020). The other challenge was faced by patrons with special needs especially the visually impaired who needed special software to access the information resources. There is need to develop disability-friendly technologies to allow equitable access to materials.

Study spaces for general study and collaboration were not provided by the libraries during the lockdown (University of Illinois, 2020). This was a blow since most library patrons visit the library for seating space and group discussions. Options to offer limited individual spaces were investigated when the lockdown restrictions were relaxed by the state of Illinois.

## **Reopening of Libraries**

The COVID-19 pandemic led to the closure of libraries and implemented remote working to carry out online reference services and access to digital libraries. The sudden shift from face to face to remote working led to some changes in the facilities that are needed to offer digital services. This calls for major challenges in reopening the closed libraries since new facilities, protocols and equipment were needed for the safety of patrons and library staff. All the libraries were forced to implement new services which might be expensive such as curbside pickup, delivery of materials, and by appointments services (Peet, 2020). There is also need to disinfect returned books as a precautionary measure to avoid the spread of the virus especially among the library staff on the circulation desk and those responsible for shelving (Peet, 2020a). Some libraries were planning phased reopening of libraries and the introduction of services in batches to ensure the evaluation of these services in line with the spread of the COVID-19 pandemic. Chmara (2020) pointed out that institutions should consider both the safety of staff and students and the provision of information resources to the library patrons. Therefore, libraries are governed by laws that affect the plans and policies of reopening which should be enforced consistently. Library associations should develop guidelines to assist academic libraries to operate after the lockdown period as those that were stated by Colorado Library Consortium (2020), Duncan (2020), and Peet (2020b) which include handling of print materials including quarantine, keeping staff safe, and keeping the environment clean and disinfected.

## **METHODOLOGY**

In order to gather data from the academic libraries, a literature analysis of the opportunities and challenges presented by COVID-19 was done. After the literature analysis, seventy-five librarians in Zimbabwe were interviewed using the telephone since the lockdown caused by the COVID-19 pandemic did not allow movements to do face to face interviews. The population was selected using purposive sampling to ensure that all the academic libraries were represented. The data was collected for a period of six months during the lockdown period. An interview schedule was used during the interview process. The collected data included the services that were being offered by these academic libraries, what they regarded as opportunities and challenges during the COVID-19 pandemic closure and the lessons learnt from the imminent closure. The collected qualitative data was analysed using content analysis and the findings were thematically presented showcasing the statements highlighting the major concepts presented by the participants. Only responses that encompassed all the issues pointed out by the 75 respondents were chosen and presented.

## **RESULTS AND DISCUSSION**

The findings revealed that the closure of physical library buildings brought some opportunities which were utilised by academic libraries in providing virtual services. All the librarians interviewed indicated that, although virtual services were offered before lockdown, there was need to be proactive and innovative in offering the same services during the lock down period as stated by Ali and Gatiti (2020),



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Ballard (2020), Cox (2020), EDUCAUSE (2020), Enis (2020), Hollander and Carr (2020), Mehta and Wang (2020), Mullins (2020), University of Illinois (2020).

### **Services offered during COVID-19 lockdown**

The participants indicated that new virtual services were introduced while the existing services were enhanced as stated in the responses below:

*My institution had to introduce a learning management system since teaching and learning was moved purely online. The library also created its information literacy course on Moodle to ensure that students are able to access it and continue with learning during the pandemic.*

*Librarians resorted to the use of Google classroom so as to meet the learners' information literacy training needs during the lockdown. E-resources access and use training sessions were done virtually and learners were trained on issues to do with plagiarism, referencing and citation.*

*We introduced online reference services when the information desk was closed due to the physical closure of library buildings. Since students were learning online, we were supposed to help them in their research activities so answering reference queries was key to us. We developed a live chat facility which was accessible via the library webpages. Library staff was timetabled to sign in and answer the queries. Social media platforms were also used to answer reference queries. Faculty librarians used WhatsApp, Facebook, and Twitter to assist patrons.*

*New students were supposed to start their lectures online and it was not fair for them to start without orientation. As a result, the library was forced to develop an orientation video which was uploaded on the official YouTube channel of the library. During the orientation session on Facebook live, students were informed that they can also view the orientation video to get the information on how to use the library. Previously, new students used to gather in the great hall for the orientation programme. However, under the "new normal", students attended orientation from their homes.*

*As the library, we used to post both print and electronic notices to inform the patrons about the new services being offered by the library. However, we were forced to drop the print notices and concentrate on electronic notices which were posted on the library website and other social media platforms as well as group e-mailing lists and WhatsApp groups. In previous years, the library was sceptical about developing official social media pages. However, the lockdown period made the management to realise that patrons are available on social media and as a result, they can meet them where they are.*

This results showed that the new services that were introduced during the lockdown period were uploading courses on the learning management system, use of Google classroom, virtual training sessions on e-resources access and use, online reference services using live chat and social media, and virtual orientation.

## **Opportunities Offered by COVID-19 Pandemic**

It was noted that the pandemic led to the increased use of electronic resources where patrons were able to access and use these resources remotely as stated by the Mehta and Wang (2020) and the University of Illinois (2020). The closure of the physical library buildings meant that patrons were not able to borrow print materials. In order for them to be able to complete their assignments, dissertations and thesis, they were supposed to access e-resources. Lecturers were posted their lecture materials online including the electronic information resources for that course which gave rise to the concept of embedded librarianship which was not fully utilised before the lockdown. Lecturers also saw this as an opportunity to use open educational resources for research and teaching and course materials for the learners as stated by Lutz and Schonfeld (2020) and Oyelude (2020). The following were some of the responses from participants:

*The usage of electronic resources skyrocketed during the lockdown period when it was announced that teaching and learning should continue online. There were more requests for off campus accounts and trainings on how to access and use e-resources. Those who were used to print materials resorted to electronic resources in order to excel in their studies.*

*Our patrons were used to access e-resources at campus where they use the internet connectivity provided by the library. After the closure of the physical library buildings, the library went on a rigorous marketing drive to promote the usage of e-resources off campus. Off campus accounts were created on remoteXs for all the students so that they are able to access the electronic information resources from home. This saw an increase in the e-resources usage statistics due to the heavy usage of electronic information resources since the print collection was not accessible.*

*The lecturers were requesting more information about open educational resources (OER) and how they can embed them on their courses on the learning management system. Our library witnessed the growth on the usage of OERs than ever before.*

The lockdown led to the increased use of electronic resources and off campus access accounts were created for users. The adoption of open educational resources was necessitated by the closure of physical library buildings during the COVID-19 lockdown period.

## **New Job Roles**

The closure of libraries caused by the lockdown also led to the introduction of new job roles and the reskilling and up skilling of librarians so that they are able to offer services from home as stated by EBLIDA (2020). Librarians were forced to deal with IT challenges and troubleshooting to ensure that there was continued virtual library services during the period of lockdown. One of the librarians stated that:

*Our library used to depend on the services provided by the IT department. However, due to the lockdown, response time of IT people was slow. In order to ensure that there is no service disruption, the library was forced to employ the Technology Librarian to assist with server operations and maintenance during the lockdown. Librarians who were already there learnt basic IT skills so that they are able to offer the various services from home especially answering reference queries.*

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The pandemic was a wake up to most librarians to work on their disaster preparedness plans to provide guidelines and steps to take in cases of disaster as stated by Colorado Library Association (2020), Chmara (2020), Duncan (2020) and Peet (2020). The abrupt closure of libraries can be regarded as a disaster which was supposed to be dealt with in an amicable way. It was indicated by one of the participants that:

*In previous years we were not worried about how to deal with disasters because we did not experience any. This lockdown was an opportunity for the library to lay down the steps that should be taken in times of disaster. When the closing announcement was made, we didn't know where to start since we had not experienced such cases in our history. We had to sit down and decide what to do and put down what we are supposed to do in such cases. A disaster preparedness and management plan was the end result.*

### **Challenges Faced During COVID-19 Pandemic**

The findings showed that academic libraries faced unprecedented challenges as they faced imminent closure due to the COVID-19 pandemic. They were also supposed to plan for reopening and ensure that careful considerations were made to ensure staff, patron and collection safety. The challenges which were brought about by the closure of physical buildings include no face-to-face interaction with patrons, no circulation of print materials, no access to campus internet services, no internet connectivity by patrons because data was expensive, no access to computers in the library, lack of internet services for librarians to assist patrons from home, and unavailability of seating space. Participants had this to say:

*Circulation of library print materials was greatly affected since the closure of physical buildings meant access to virtual services only. The circulation statistics in April dropped to zero and the acquisition and processing of print materials came to a halt. Libraries were supposed to ensure that the electronic resources are always accessible throughout the lockdown period.*

*Our patrons usually come to the library for internet access, computer use and seating space due to the data charges which are very expensive. The closure of libraries meant that learners were not able to access and use the computers in the library, be connected to WIFI nor sit in the library for reading. Librarians were also affected since most of them did not have internet connectivity at home to assist patrons. However, online learning meant that the learners were supposed to be connected in order to attend classes. Institutions were forced to negotiate for cheap data with internet service providers. Institutional support was key to ensure that librarians who were responsible for manning the reference chat service could assist the students.*

These challenges led to unequal access to information since some patrons did not own laptops and therefore cannot access e-resources and other virtual services that were provided by the library during lockdown. The library staff members were also affected due to unavailability of remote work policies to guide how librarians should work from home. Libraries and institutions of higher learning were therefore forced to negotiate with internet service providers to have subsidised rates for internet access or free access to educational websites.

## **Lessons Learnt from the Covid-19 Pandemic Library Closure**

The following lessons which were pointed out by Mehta and Wang (2020) in line with the closure of libraries during the COVID-19 pandemic also came out from the findings:

1. In emergency situations, user needs should always be met and in this case, digital library services played a bigger role in ensuring that library patron's information needs are met. The librarians managed to interact with patrons using various platforms such as social media, webpages, live chat facilities, and group emailing lists. There is need to continuously develop digital library services to promote off campus access of e-resources.
2. There is need to ensure that the protective measures laid down by the World Health Organisation are adhered to in order to protect both the staff and the patrons as well as the library collection. Staff and patrons should maintain social distance, sanitise their hands, always put on their masks and staff on the circulation desk should put on gloves when receiving returned materials. Returned library materials should be quarantined to kill the virus.
3. Libraries should have disaster preparedness and management plans and reopening plans to be utilised when disaster strike. Training should be offered to both library staff and patrons so that they are able to function in the virtual environment. There should be policies that deal with the issue of telecommuting to assist library staff working from home.
4. Librarians should reskill and up skill in the digital era to move along with the changes that are taking place as a result of the "new normal". The pandemic enabled librarians to learn and remodel their services to suit the purely virtual environment to support online learning and teaching. Libraries should adjust and be innovative in order to meet the changing needs of patrons.
5. Librarians play a bigger role in disseminating information to the community concerning the preventive measures that should be undertaken to avoid the spread of the disease. During the pandemic, libraries can provide facilities for hand washing and then demonstrate how to properly sanitise and wash hands. Falt and Das (2020) indicated that the role of digital libraries goes beyond providing access to content and includes raising awareness of intellectual property rights, preservation of cultural heritage and ensuring equitable access to information.

## **SOLUTIONS AND RECOMMENDATIONS**

From this study, it can be noted that academic libraries must move along with emerging issues in offering virtual library services which enable off campus access to electronic information resources. Librarians must ensure that their websites are up and running to ensure uninterrupted access to information resources by library patrons. Marketing efforts need to be geared towards electronic information resources to create awareness among the learners on how to access and use e-resources. As a result, librarians are advocating for support from administration to ensure that the subscriptions for e-resources are up-to-date and patrons are able to access them. Due to the advent of open educational resources, librarians are marketing open access resources which are a valuable asset in addition to the subscription based electronic information resources which are now too expensive for most academic libraries in developing countries.

The introduction of online reference services is now key in academic institutions in order to assist patrons during times of closure. It has been noted that most academic libraries have official pages

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on social media platforms to meet the students and other library patrons where they are. The use of WhatsApp, Facebook, Skype, Twitter and YouTube among other social media platforms was seen as an enabling feature on answering reference queries during the lockdown period. As a result, academic libraries should embrace social media marketing to make known their services and communicate with clients during times of physical closure of library buildings. This calls for capacity building among the librarians so that they are able to use these services and institutions should have social media policies which govern the use of these platforms and guide the librarians when they are carrying out their duties.

Institutions must have functional disaster preparedness and management plans which can be used in such a time when disaster strikes. Academic libraries would then be guided by these plans in mapping the way forward during closure and how to prepare for reopening. As it is, most academic libraries were just moving with the flow of events and did not have their own laid down processes and procedures in dealing with disasters. This also calls for the reinvention of the library and information science curriculum in library schools so as to meet the needs of the “new normal”. National, regional and international library associations should also chip in to work with these library schools in retraining and up skilling academic librarians to acquire the new skills required to operate in these pandemic times.

### **FUTURE RESEARCH DIRECTIONS**

A study on the experience of library patrons with regard to the accessibility and usability of virtual services can be done to understand how researchers, lecturers, and students sailed through the period of physical library closure. This study will unpack the challenges that were experienced by patrons during the time of COVID-19 imposed lockdown when learning and teaching was purely online. The findings will then assist academic librarians to improve their virtual services so as to meet the needs of patrons in times of disasters.

### **CONCLUSION**

The spread of the COVID-19 pandemic led to the closure of physical buildings forcing librarians and patrons to operate from home. This development was both an opportunity and a challenge for academic librarians since virtual library services continued despite the closure of libraries. The opportunities that were brought about by COVID-19 library closure were the introduction of new services and online reference services, moving the library instruction online to offer information literacy skills training, embedded librarianship where librarians worked with teaching staff to develop course content, an increase in electronic resources usage statistics, use of open educational resources, use of digital repositories, and partnerships among various stakeholders to improve the discoverability of information. The challenges include the unavailability of print materials, seating space, and computers for use in the library since the buildings were closed, difficulties in working from home due to the unavailability of internet connectivity, layoffs, declining budgets, and the need to plan for library reopening. Therefore, academic librarians must continuously develop themselves professionally to meet the new challenges that are presented by the “new normal”. There is need to ensure that patrons, library staff and the collection are safe in dealing with the effects of the COVID-19 pandemic.

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## **KEY TERMS AND DEFINITIONS**

**Academic Library:** It is a library attached to a higher education institution which is there to support the curriculum and the research of the university faculty and students.

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**COVID-19 Pandemic:** It is also known as the coronavirus pandemic of coronavirus disease 2019 (COVID-19) caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).

**Digital Repositories:** These are information systems that ingest, store, manage, preserve, and provide access to digital content.

**Disaster Preparedness:** It refers to measures taken to prepare for and reduce the effects of disasters.

**Embedded Librarian:** It is a librarian who participates in an academic course on an on-going basis, teaching information literacy and working with the faculty to develop course content.

**Higher Education Institution:** It is an institution of higher learning which includes universities, polytechnics, agricultural colleges, which specialise in different fields such as engineering, agriculture, medicine, pedagogy, the arts, and economics among others.

**Library Instruction:** It is also called bibliographic instruction, user education and library orientation which consist of instructional programs to teach library users how to locate the information legally and ethically.

**Lockdown:** A state of isolation or restricted access instituted as a security measure.

**Off-Campus Access:** Accessing information resources outside of the area of land that contains the main buildings of a university or college.

**Online Learning:** It is also referred to as e-learning which is education that takes place over the internet.

**Online Teaching:** It is the delivery of instruction using different web-based technologies, from the Internet or an intranet and other communication technologies that enable students to participate in learning activities beyond the campus.

**Open Educational Resources:** These are teaching, learning and research materials in any medium that reside in the public domain or have been released under an open license where researchers can access, use, adapt and redistribute at no cost no or limited restrictions.

**Social Distance:** It is also called physical distancing which means keeping a safe space between yourself and other people who are not from your household to avoid the spread of diseases.

**Space Redesign:** It is the revision in appearance, function, or content of space in libraries.

**Teleworking:** It is the process of working from home while communicating with the office by phone, email, or other virtual services.

**Virtual Service:** It is regarded as a means of connecting the library to the public via an electronic network.