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## Remaking academic library services in Zimbabwe in the wake of COVID-19 pandemic

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### ABSTRACT

The outbreak of the global COVID-19 pandemic has affected all aspects of life, access to higher education has not been out of danger as evidenced by the enforcement of official closures, enforcement lockdown and social distancing rules by governments throughout the world. However, while the COVID-19 pandemic has presented the world with numerous socioeconomic challenges, it has also helped to spur creativity and information as evidenced by the responses of academic libraries that have seen a heightened use of digital platforms to support education, teaching and research. The study sought to establish how librarians in Zimbabwe responded to the outbreak of COVID-19 and the implications of the pandemic on library service delivery. A qualitative research was adopted for the study. Using snowballing, interviews were used to gather data beginning with the library association's branch leadership. The researchers ensured that the questions were aligned to the research objectives. The interview schedule included open and closed questions to provide further details relating to the phenomenon under study. The participants were guaranteed their rights to consent, privacy and anonymity in the introduction of the interview schedule. The study reveals that there has been an increase in the use online platforms for accessing information especially library's webpages, electronic books and journals. The use of library online resources from distance locations also rose following closure of campuses. Library patrons' perceptions towards electronic resources significantly improved as they realized that they were equally useful as the print. Findings from the study provide useful recommendation on how librarians can remodel their services to match new demands presented by the COVID-19 pandemic. The study provides a starting point upon which further research on the effect of COVID-19 or other similar pandemics have on library service delivery.

### Introduction

There was an outbreak of coronavirus (COVID-19) in Wuhan, a city in Hubei province of China in December 2019 and the rate of transmission of the virus was worrisome such that lockdown were imposed as a means of controlling the transmission of the disease throughout the globe (Lau et al., 2020). Zimbabwe is one of the countries in the world that was affected by the deadly pandemic and it had to adapt lockdown measures as a mitigatory measure.

Dzobo, Chitungo, and Dzinamarira (2020) report that the COVID-19 situation in Zimbabwe resulted in the government of Zimbabwe

declaring the pandemic a national disaster on 17 March 2020. The adherence to the COVID-19 regulations, for example, the wearing of face masks, social distancing, self-isolation and mandatory vaccination were some of the key measures enforced by the government of Zimbabwe to slow down further spread of the virus (U.S. Embassy in Zimbabwe, 2020). Srivastava et al. (2020) contended that, the COVID-19 pandemic triggered an unparalleled instantaneous education emergency and anxiety. This initiative, while noble, exposed the gap between institutions endowed with technology and those that are marginalised, for example, the latter had to close while the former switched over to fully fledged service delivery through digital platforms. This scenario served

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as a warning signal to governments and organisations that it was necessary to invest more in emerging technology in order to ensure continuity of services in case of another disaster breaking out in the future. This implied a fundamental rethink on the future of organisations in an era of digital transformation and uncertainty.

The study sought to establish how academic libraries maintained their relevance in the absence of traditional ways of service delivery. While COVID-19 protocols required that access to physical spaces be minimised or suspended, academic libraries were still expected to provide their services. The researchers sought to ascertain if academic libraries managed to adjust their service provision models to match the expectations of the new normal.

The COVID-19 pandemic lockdown meant that schools, colleges, and universities were physically closed and learners were expected to study from home using the available e-learning facilities (Mukeredzi, Kokutse, & Dell, 2020; Mutambisi, Murasi, & Mazodze, 2021). It should be noted that the conversion to online learning has not been an easy route due to a number of factors, for example, the digital divide and high costs of internet connectivity. On a similar note, in South Africa, the Department of Higher Education announced that all universities and colleges would be closed from 18 March until 15 April 2020 in response to the COVID-19 pandemic (Chothia, 2020:2194). According to the author, academic institutions were advised to use the break to explore digital and online delivery methods for teaching and learning to support programmes at a later stage.

Libraries responded to the government directive accordingly; the study presents findings on how academic libraries in Zimbabwe provided library and information services in response to the government-imposed lockdown. The study presents findings of how academic librarians in Zimbabwe have grabbed this opportunity amid a global crisis to raise their visibility and value in support of teaching, learning, and research, and information dissemination. It is also important to reiterate Vindrola-Padros et al.'s (2020) view that timely sharing of research findings on pandemics and associated perceptions, social practices, health-seeking behaviours, health care delivery models, and barriers to care are useful and worthy considerations in the drive to develop strategies for confronting the pandemic. Thus, the study also seeks to promptly share some research findings relating to COVID-19 and library service delivery among academic libraries in Zimbabwe.

### Problem statement

Academic libraries provide key services in supporting teaching, learning and research within and outside the aegis of the academic institution. Connell, Wallis, and Comeaux (2021) argue that historically libraries have proved their capacity to comprehend and apprehend the need for preparedness in the event of an outbreak of disasters. However, the outbreak of the COVID-19 pandemic caught many institutions unaware and without a clue as to how they should respond. The COVID-19 tragedy resulted in unexpected disruptions in the form of lockdowns, social distancing and the heightened need for compliance with the WHO (2020) guidelines for safety through adapting hygienic practices in all aspects of life. Academic librarians had to rethink and re-strategise on alternative ways to ensure continuity of service delivery as an opportunity to prove their worthiness in times of a global crisis in the form of the COVID-19 pandemic. While globally, there are many studies that have been published on the impact of the COVID-19 pandemic on academic libraries and the responses from staff, it appears there is paucity of knowledge with regards to how academic librarians responded to pandemic. This study aims to build on from studies done within Zimbabwe, selected African countries and the global world in order to add on to the quantity of knowledge relating to how academic libraries responded to the COVID-19 pandemic.

### Literature review

#### *Academic libraries as the core of the cruxes*

The unveiling of a US\$26 million COVID-19 Preparedness Plan by the Zimbabwean government was meant to develop a systematic approach to mitigate and prevent the spread of COVID-19 (Makombe, 2021). However, the plan excluded universities, yet such institutions have research infrastructure including innovative hubs and libraries that are critical in providing solutions. Research infrastructure encompasses the amenities and resources that support research and innovation and academic libraries are key components of such set-ups. The pandemic exposed the differences between academic libraries that are technology capable and those lacking such resources. While, academic institutions found themselves navigating in the same vessel in a sea of uncertainty, the COVID-19 pandemic exposed the dichotomies between the metaphorical staterooms and steerage in higher education (Butler-Henderson et al., 2021). This scenario resulted in full-length techno-centric driven switch over to digital infrastructure to continue providing services during the lockdown, while those that are resource starved completely closed as they pondered the way forward.

#### *Reaching out to patrons through technology*

Libraries employ various means of reaching out to their patrons when lockdowns are implemented. Considering that lockdowns create physical barriers between librarians and their patrons, information and communication technologies (ICTs) become very useful tools for service delivery. IFLA (2020) concurs with Islam and Habiba (2015) who suggest that use of social media applications such as Facebook, Twitter, YouTube, and Myspace can bring librarians and patrons closer to each other. Madhusudhan and Nagabhushanam (2012) also observe that although web-based services such as library webpages, e-mail, and social media are not yet popular in some libraries, they are good tools for providing library services in a digital world. The COVID-19 pandemic proved that digital transformation was a necessity as evidenced by its potential to ensure continuity of services in emergency situation. However, digital transformation and the uplifting of an institution's digital maturity should be viewed as a process rather than an event (Fletcher & Griffiths, 2020). The decision to adopt emerging digital technologies requires a fundamental rethink and futuristic strategies that take into cognisance the pros and cons of decisions that an organisation adapts in its journey to realise complete digitisation. The COVID-19 pandemic triggered a keen interest among academic institutions in Zimbabwe to adapt novel digital technologies to prevent total closure and suspension of services. It has also helped to leverage the value of digital libraries as key institutions in the drive to ensure the continuity of teaching, learning and research.

Academic libraries in COVID-19: a renewed mission for digital literacy, 2020 argues that globally, the COVID-19 pandemic created an erratic situation for many higher education institutions and online learning and the hybrid provision that now characterizes the new education reality among those institutions that are resource endowed. Globally, universities have responded positively to mitigate and prevent the spread of the COVID-19 by supporting research to find the panacea, cooperating with governments to develop ways to stop the pandemic, and finding other channels to fulfil its mandate (Abbey, Adu-Danso, & Aryeetey, 2020). However, not all academic institutions in Zimbabwe have managed to successfully adopt technological innovations due to a myriad of factors ranging from lack of futuristic planning and lack of funding. This predicament raises the need for resource sharing, partnerships and capacity building as a long-term measure for survival in the wake of the COVID-19 pandemic.

### *The usefulness of digital technologies in support of learning during the COVID Era*

The rapid expansion of the COVID-19 pandemic has forced many educational institutions across the world to switch to the realm of emergency digital teaching (EDT), learning, assessment, and research, and Zimbabwe is no exception (Gewin, 2020; Sahu, 2020). The failure to adjust to the changing demands of digital transformation can render an institution useless. The pandemic has highlighted the need for educational institutions to strengthen their practices in the use of technology for innovative practices of education (Toquero, 2020). The application of digital technologies in all education sectors of Southern Africa helped to reduce the digital divide, disruptions of teaching and learning activities, by ensuring wider access to learning opportunities for students who cannot access school so that they can continue their education and to facilitate student's personalised learning. The cooperation or partnerships with key stakeholders including government and Internet service Providers (ISP's) has helped to ensure continuity of services through subsidising access to internet connectivity.

Moreover, Chisita (2020) emphasised that the indispensable role of libraries should be highly appreciated during the pandemic as evidenced by the proliferation of digital technologies and by the provision of access to high-quality databases, for example, the Web of Science, Scopus, PubMed, Eric, JSTOR, ScienceDirect, Directory of Open Access Journals among many others, makes it easier to close the gap in terms of access to scholarly content.

#### *Digital platforms to the rescue*

Teaching and learning through various digital transformation tools continued using several platforms such as Skype, YouTube, WhatsApp groups, Microsoft Teams, and Zoom, to implement constructivist teaching strategies, which involve sharing of knowledge by instructors and students. The constructivist teaching strategies promote autonomy for students, increase student higher-order thinking, critical reasoning, make content more comprehensible, foster collaborative learning and interactivity among students and teachers (Govender & Olugbara, 2021). These learning platforms increased access to digital content and continuous assessment activities were conducted through these platforms to support curriculum delivery. The COVID19 massive online learning experimentation has brought new acemens, improved access to education, and effective method of educating students in the education system.

Butler-Henderson et al. (2021) viewed the year 2020 as the most challenging year for global contemporary higher education as universities were thrown into the deep weird, wired and world characterised by alternative online teaching paradigm. Academic institutions in developing countries bear testimony to this technological crisis induced by the COVID-19 pandemic. However, these challenges have provided academic institutions with a fertile ground to rethink and re-strategise their digital transformation programmes to move with the complex and dynamic changes arising from the COVID19 pandemic. This has seen academic institutions adapting emerging digital technologies to provide remote learning services for the benefit of marginalised students.

The COVID-19 pandemic proved that could serve as a fertile ground for creativity and innovation as evidenced by the adaptation of remote access learning technologies by academic institutions in Zimbabwe especially those that are part of the Zimbabwe University library Consortium (ZULC). Ifijeh and Yusuf (2020) observed that universities in Nigeria were already rethinking and re-strategizing on the adoption of a mixture of teaching methodologies consisting of a combination of legacy and online methods in the wake of the Covid-19 pandemic. Such an approach adapted by Nigeria in response to the COVID-19 pandemic has become the norm in Zimbabwe.

#### *Digital technologies and way forward*

Rafiq, Batool, Ali, and Ullah (2021) in a study on the response of

academic libraries in Pakistan during the COVID -19 pandemic noted that the reactive surge of online classes offered the libraries challenges and opportunities. Prior to the outbreak of the COVID-19 pandemic, academic libraries in Zimbabwe had already embarked on a transition from physical to hybrid model service provision. However, the major stumbling block has been the lack of access to reliable internet connectivity. Nakhoda (2020) cited the digital divide as a factor undermining digital inclusivity and wider access to scholarship during the pandemic. Despite these challenges, the COVID-19 pandemic saw digital libraries and services proving their worthiness in facilitating remote access for those with internet connectivity Zimbabwe.

However, in the developing world like Zimbabwe, the COVID-19 pandemic has exposed the digital gap between academic institutions that are resource endowed and those that are on the periphery of the digital divide (Chisita, 2020). Soomro, Kale, Curtis, Akcaoglu, and Bernstein (2020) lament the effects of the digital divide which they describe as the gap between people who have adequate access to digital technologies compared to those poor or no access. The prevailing COVID-19 scenario and its disruptions serve as a warning signal that the reality of remote working and learning in higher education institutions will remain for longer than initially envisioned, hence the proactive re-strategising. Zimbabwe's academic libraries re-strategized on the need to invest in remote working infrastructure, digital tools and formulate systematic and structured approaches for a novel trajectory to sustain teaching, learning, and research amidst the COVID-19 realities (Academic libraries in COVID-19: a renewed mission for digital literacy, 2020). Partnerships between academic libraries in Zimbabwe and key stakeholders including governments and the private sector helped to widen access to affordable access. Such partnerships included mobile service providers, for example, Econet and Telone that provided subsidised access to internet connectivity.

#### *Digital competencies and academic libraries*

The COVID-19 closure created more alertness about the digital collection of Zimbabwe's academic libraries digital collections and services as evidenced by an increase in online queries, downloads of ETDS, Open Educational Resources (OER's), and other scholarly resources. The COVID-19 pandemic stressed, even more, the important role of academic librarians in helping students to develop information, digital, and media literacy skills so that they can be in a position to independently select, access, and use accurate, reliable, trustworthy, and credible sources of information, not only for their studies but also for their wellbeing. During COVID-19 the surge of circulating false claims and information online via social media and fake news made it equally difficult for students to interpret misinformation/disinformation from accurate and reliable information. Academic libraries in COVID-19: a renewed mission for digital literacy, 2020 contended that the COVID-19 pandemic stressed even more the central role of academic librarians in serving students to grow information, digital, and media literacy skills so that they can be able to independently use library resources judiciously and productively. Laurillard, Derrick and Doel (2016) viewed digital skills as a gamut of information and communication tools and technology-related skills, attitudes, and behaviour that relates to the digital information and communication landscape which calls for information hygienic practices and the development of creative and innovative approaches when using digital media for learning, work, and everyday life social participation to fulfil personal, social or commercial goals.

Guo et al. (2020) note that in China during the outbreak of severe acute respiratory syndrome (SARS) in 2003 which resulted in the production and publication of research studies on library patron services in response to the epidemic. These studies are useful in building a corpus of knowledge that will serve as a basis for further research on library patron services and also serve as a basis for generating evidence-based knowledge to assist policy makers in developing countries like Zimbabwe. Jing (2016) points out that Chinese libraries needed to raise

disaster emergency information services to a strategic level. The lessons learned from the 2003 SARS pandemic proved that intensive publicity, education, and implementation of various preventative measures helped to ensure the stability of library services. Naeem and Bhatti (2020) recommended synergies between digital health science librarians and academic librarians with regards access to authoritative scientific sources, opportunities to knowledge and skills through hyperlinks, and guiding the patrons on how to find credible and reliable information in the age of post-truth, especially during the current COVID-19 pandemic. On a similar note, academic libraries in Zimbabwe forged such partnerships with WHO and health librarians in order to create links on their web-sites for the benefit of users to access information from trusted sources in the wake of the COVID-19 pandemic and infodemic.

According to Tseke and Chigwada (2020), access to reliable and affordable digital technology remains a stumbling block encountered by academic libraries in the successful implementation and use of e-learning. This situation is compounded by the evolving nature of digital technologies and hence the need for support from public and private institutions and development partners to sustain digital transformation through funding and infrastructural developments. Dzinamatira and Musuka (2021) equally agree and lament the lack of online resources as one of the stumbling blocks for online learning which in turn led to very limited learning in 2020 among learners in schools. It interesting to note academic institutions have developed digital repositories populated with scholarly communication in the form of journal articles, and Open Educational Resources (OER's) among other resources that support learning, teaching and research.

#### *NRENs and access to internet connectivity*

Academic institutions rely heavily on either commercial or non-commercial internet service providers commonly known as National Research and Education Networks (NRENs). The aforementioned networks, provide critical communications infrastructure for universities and research institutes worldwide. Rassel (2020) argues that NRENs as a global network of interconnected networks helped to boost international capacity where needed as part of the global rapid response to the novel coronavirus disease (COVID-19) pandemic. Chisita (2018) highlights the critical role of NRENs in providing access to internet connectivity to academic institutions including libraries in Zimbabwe. Zimbabwe's academic institutions strengthened partnerships with NRENs, for example, in Zimbabwe, the Zimbabwe Academic and Research Network (ZARNET) and the Zimbabwe Education and Research Network (ZIMREN). The adoption of the United Nations Educational, Scientific, and Cultural Organisation's (UNESCO) in partnership with the Ministry of Primary and secondary education and the Zimbabwe Schools Examination Council (ZIMSEC) launched the online learning WhatsApp platform "*Dzidzo Paden|Imfundwe'ndlini App*" to support remote learning and access to academic resources in 2020 (Dzinamatira & Musuka, 2021). This platform has been helpful in leveraging access to teaching and learning in a developing country whereby access to technology is a challenge specially to marginalised students. The aforesaid authors predict that the UNESCO WhatsApp platform presents an opportunity for increased access to online learning considering that over 5 million Zimbabweans are using such use platforms.

#### *Objectives of the study*

The objectives of the study were to answer the following research questions:

- How did academic librarians provide services during the lockdown following the outbreak of COVID-19?
- What are the perceptions of academic librarians towards service provision following the outbreak of COVID-19?
- What challenges did academic librarians face when providing services during COVID-19 lockdown?

- What opportunities were presented by the outbreak of COVID-19 to academic librarians?

#### *Methods and materials*

The research employed qualitative research in which interviews were used for gathering data. As Braun, Clarke, Boulton, Davey, and McEvoy (2020) highlight, the qualitative research design was adopted so that the researchers could access rich and complex accounts of the subject under study. The researchers agree with Vindrola-Padros's (2020:2194) assertion, the use of qualitative research enabled the researchers to go beyond gathering data on 'what' but also on 'how' participants offered library services during the COVID-19 pandemic. WhatsApp and Facebook call facilities were used as they were chosen because of cost and convenience as they were preferred by the participants. In addition, the use of online platforms for conducting interviews was the most safe, secure and reliable means of collecting data as suggested by De Villiers, Farooq, and Molinari (2021).

The study focussed on one of five branches of the Zimbabwe Library Association (ZimLA) branches. ZimLA is the professional association of librarians in Zimbabwe (Zimbabwe Libray Association 2021). The five branches are Manicaland, Mashonaland, Masvingo, Matabeleland and Midlands. Mashonaland branch which has the largest membership was selected. ZimLA Mashonaland branch leadership was interviewed first. Purposely selected academic librarians who were actively involved in providing services during the lockdown were interviewed during the second stage of data collection. The latter were identified using snowball sampling. Three branch leaders, five university librarians, two teachers' college librarians, and one polytechnic college librarian participated in the study. Other types of libraries, namely public, special and school libraries, were excluded from the study as they were mostly closed during the lockdown.

Invitations to participate in the interviews could have been done on the library association's social media pages but the researchers embraced advice provided by Chambers, Bliss, and Rambur (2020) that traditional snowball sampling is more effective than soliciting participation on social media and websites. As Mweshi and Sakyi (2020) point out about snowball sampling, it was quicker to use snowballing to identify the network of librarians who were open and providing services during the lockdown. The interviewees' responses were transcribed using a word processor and themes emerging out of the responses were analysed for the study.

#### *Findings*

The findings from the study are thematically presented according to the research questions of the study as follows:

*Provision of library services in Zimbabwe during COVID-19 lockdown.* It was found out that following the closure of libraries, patrons were redirected to use online information resources like newspapers, research, teaching, and learning materials particularly electronic books, journals, and past examination papers. Access to electronic books and journals required off-campus authentication; proprietary software such as RemoteXs and EZProxy were used for remote logging in to authenticate and facilitate access to electronic resources by library patrons specifically those at the five university libraries whose librarians participated in the study. The academic libraries' homepages became the 'front offices' through which patrons gained access to the various resources available online.

Reference services were completely migrated to online platforms. For the most part, patrons used WhatsApp messenger to interact with reference librarians. The eight interviewees from the academic libraries confirmed migrating their reference services to the online platforms as this was the "*most feasible and safest mode*" of providing service "*vis-à-vis the ravaging pandemic yet library users were expecting a service*". WhatsApp became the most convenient and cost-effective mode of communication

between library staff and patrons. All the librarians interviewed except for one librarian at a polytechnical college library pointed out that WhatsApp became the most useful tool for delivering service; one university librarian described WhatsApp as “*the most convenient lightweight application library users were happy to use*”. One teachers' college librarian said, “*WhatsApp is the most user-friendly and low-cost application that both librarians and their clients can depend upon*”. Social media platforms, specifically Facebook and twitter were also used for providing reference services; however, queries on these platforms were very few. Only university librarians interviewed confirmed the use of twitter and Facebook during the lockdown. The interviewees, however, lamented “*lack of institutional support to enable the academic librarians to work from home including using social media ... to deliver service*”

With library staff working from home, physical contact and meetings were not permissible but senior library staff were expected to provide routine updates to senior management with regards to the activities and services they were involved in. The COVID-19 pandemic forced managed to retain essential staff and the rest were expected to work from home. Cell phones became the readily available means of communicating. One university librarian explained how their library management created a WhatsApp group for posting updates, sharing views on library service provision, and to limited extent share words of encouragement in the face of the pandemic. The university librarian pointed out that their university library had “*actually discovered that social media applications especially WhatsApp were powerful and exciting tools they could use to deliver service*”. He further revealed that their library patrons, especially undergraduate students, were “*always on social media and it, therefore, made it easy to offer services there because ... this is where the patrons are*”.

The use of open access resources and resource sharing among academic librarians gained popularity following the closure of libraries. The academic librarians encouraged patrons to access information resources on open-access databases such as Directory of Open Access Books (<https://www.doabooks.org/>) and free search engines such as PDF Drive (<https://www.pdfdrive.com/>). Previously, some library patrons would resort to using these after failing to access print resources from library collections or subscription-based electronic resources.

The academic librarians depended on mobile networks for accessing the internet from their homes. However, the internet connectivity was sometimes very slow thereby frustrating their efforts of providing services from home. The cost of accessing the internet via mobile networks was, as one of the ZIMLA local branch leaders expressed, “*on the relatively higher side and therefore prohibitive.*”

There were some patron requests for print resources that required the academic librarians to access the print resources. This was however not possible because the lockdown laws did not permit unauthorized travel. IFLA (2020) recommended that libraries should put in place special systems including sanitisation of cards to ensure COVID-19 compliance in managing the process of lending or borrowing of books in the circulation section. The study observed that patrons needed to be prepared to learn under the open and distance teaching and learning mode. Both teachers' college librarians interviewed reported that their patrons were caught by surprise as they were “*more comfortable in using the physical library*” and “*redirecting service provision to the online platform was a sad development on the part of avid readers who enjoyed the physical library spaces*” as some of these patrons had not bothered to register with their libraries' remote access facilities. The other category of patrons lacked the navigation skills required to access library and information resources online.

*Opportunities presented by the outbreak of COVID-19 to academic librarians in Zimbabwe.* The outbreak of COVID-19 and the subsequent closure of institutions following the lockdown presented academic libraries in Zimbabwe with an opportunity to showcase their services in an online environment. Previously, there were instances when some library

patrons had negative attitudes towards library resources available in electronic format. According to one university librarian,

... librarians utilized this opportunity to “*demonstrate to patrons that online newspapers, electronic books, journals, and past examination papers served the same purpose as their print equivalents*”.

The use of cloud video conferencing software, for example, Blue Jeans and other communication platforms like Zoom, Google Meet, Microsoft Teams, Jitsi, Skype, and academic social network Sites (ASNS) have become fashionable.

Furthermore, the acceptance of open access content improved as the academic librarians referred more patrons to open access databases; previously, some patrons had been “*labeling all open access content as predatory and substandard*”. Similarly, reception of the remote access facilities especially at university libraries took a “*sudden surge*” as more patrons required the service. All academic librarians interviewed confirmed that use of remote access facilities went up; two university librarians reported that use RemoteXs almost doubled while the other university librarian pointed out that the use of

EZProxy significantly went up especially among teaching staff and postgraduate students... nearly all of them contacted the library to register for remote access to electronic resources.

One ZIMLA branch leadership member interviewed revealed that they

...were receiving encouraging reports of the increased use of academic libraries on the digital platform and some academic librarians were calling on the Association's leadership to organize training where members would exchange notes and learn from each other.

The need to upgrade the academic libraries' ICT systems became clear as the government encouraged institutions of learning to ensure that online teaching and learning were enhanced. Digital technologies have enabled widely dispersed users to access library resources irrespective of time and place.

## Discussion

Findings from the study resonate very well with observations made by IFLA (2020), Harris and DiMarco (2010) that ICTs are very useful for reaching out to patrons during lockdowns. Similarly, the study confirms an observation made by Madhusudhan and Nagabhushanam (2012) that although web-based services are not yet popular in some libraries, they are good tools for providing library services in a digital world. The study also confirms the increasing use of cloud video conferencing software, a trend previously reported by Mhlanga and Moloi (2020). In addition, reports made by existing literature (IFLA, 2020; Islam and Habiba 2015) that social media especially Facebook, Twitter, YouTube, and Myspace are powerful tools that close the physical gap between librarians and patrons was indorsed by the study despite some interviewees lamenting the “*lack of institutional support to enable the academic librarians to work from home including using social media*”. Likewise, the study indorsed the assertion by IFLA (2020), Harris and DiMarco (2010) that cell phones can be used reliably for communicating.

It is, however, important to highlight that participant underscored the importance of ensuring that the ICT infrastructure is upgraded so that it becomes more efficient and less costly to use. There is also need to ensure that both library staff and patrons are versatile by properly equipping them with skills that not only match their needs but also those of the digital economy.

Study findings evidently underscore the importance of upgrading libraries' ICT systems to match the increasing for services in an online environment. However, as Sparks and Hannah Rogers (2020) argue, while the COVID-19 lockdown was still in effect there was a possibility that libraries could partially reopen their physical spaces in

collaboration with other University service points to create a climate of safety, compliance, and comfort for their users. It would, therefore, be an erroneous assumption to expect library patrons to exclusively depend on online services. Both physical and virtual library spaces have to be opened up with full adherence to laid down COVID-19 protocols. Thus, librarians require further skills to meet these new expectations. The COVID-19 pandemic has spurred the need for continuous professional development as a response to the dynamic socio-technological shifts in the information landscape.

## Conclusion and recommendations

Despite the challenges posed by the pandemic, it is evident from the study that academic libraries remain relevant as they were actively responsive to the global COVID-19 pandemic. Digital technologies have become the special vehicle for enhanced service provision. The COVID-19 pandemic has also stimulated research with staff using the lockdown to write articles relating to the effects of the COVID-19 pandemic on teaching, learning, and research. The academic libraries in Zimbabwe have adapted to the new normal by widening access to research through digital platforms but the onus is on them to think beyond the COVID-19 pandemic. The leadership in academic libraries in Zimbabwe has utilized the COVID-19 pandemic to rethink and re-strategize the digital competencies of staff and students, built environment health and safety management, and how to deal with the need to find ways to invest more in the emerging digital technologies to ensure sustainable and affordable access to internet connectivity.

Therefore, equipping librarians with mobile gadgets that are compatible with various applications is recommended to enhance library service provision in an online environment. A strategic partnership between libraries and other key stakeholders including health care information providers, internet service providers (ISPs), WHO, government, industry, communities, development partners and professional organisations is critical in leveraging more opportunities for the sustainability of services.

The study focused on how academic libraries responded to COVID-19 only. It would be ideal for similar studies to be conducted at other types of libraries in order to generate a holistic picture of how the pandemic has impacted on library service delivery. Similarly, it is also necessary for further studies to establish how library patrons are managing to access library services following the outbreak of COVID-19 and its variants.

## Recommendations

The study suggests the following recommendations:

1. Academic librarians should ensure that their disaster preparedness and management plans incorporate strategies on how to manage pandemics. Such plans should be futuristic in order to minimise risks relating to but not limited to the loss of materials, social, intellectual and human capital;
2. Strategies should be put in place to raise awareness through education on how to respond to pandemics and other predictable disasters. This can be achieved through creating linkages with experts from health, civic organisations, development partners and government institutions who can be invited to share knowledge on key issues relating to pandemics;
3. Academic librarians should persistently rethink or recalibrate their mindsets, attitudes, priorities and expectations with regards to service provision in an era of uncertainty; and
4. The COVID-19 pandemic should be viewed as an opportunity or a learning curve for academic librarians to draw lessons from best practices on reacting to pandemics and plan for sustainable service provision in the post COVID-19 era.

## CRedit authorship contribution statement

**Collence, T. Chisita:** Conceptualization, Methodology, writing  
**Blessing Chiparousha.:** Data curation, Writing - Original draft preparation.  
**Vusi Tsabetse.:** Investigation.  
**Cecilia Temilola Olugbara:** Supervision.  
**Moeketsi Letseka:** Editing,

## Declaration of competing interest

The authors declare that the disclosed information is correct and that no other situation of real, potential or apparent conflict of interest is known.

## Data availability

Data will be made available on request.

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