Library Websites During the COVID-19 Pandemic

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Abstract
The outbreak of the COVID-19 pandemic has been shown to impact the business environment in different ways. The current paper presents how the university and research library websites in Tanzania responded to the changes in the working environment and style following the outbreak of COVID-19. This study employed a content analysis method to collect and analyse data from academic and research library websites in Tanzania. This study focuses on how library websites in Tanzania were used to update and connect library users with relevant information resources and services during the outbreak of the COVID-19. The findings show that 12 of the 24 library websites had the opening and closing hours, two university library websites had information related to the outbreak of the COVID-19 and 12 had no information related to the outbreak of the COVID-19. This study has an important practical implication for the academic and research librarians on the effective use of library websites for information sharing and communication.

Keywords
Library website, COVID-19 pandemic, research libraries, university libraries, website, coronavirus pandemic

Introduction
The rapid growth of new technologies has shown to transform the way individuals and organisations conduct their business. For instance, the use of websites has impacted information sharing and communication among business owners and their customers (Devi and Verma, 2018; Okechukwu and Anunobi, 2020). In the libraries, websites are used as an important gateway to various information resources and services such as access
to scholarly databases, online public access catalogue, research tools and useful links for research and academic purposes (Arshad and Ameen, 2015; Dominguez et al., 2015; Devi and Verma, 2016; Gohain, 2019; Valenti, 2019). The library websites are used to give general information such as library history, facilities, working hours, staff and contact information (Herring, 2007; Sife and Tandika, 2014; Gohain, 2019). Similarly, library users can get the experience of the particular library through a virtual tour on library websites (Gohain, 2019).

Since the outbreak of the COVID-19 pandemic (coronavirus pandemic), several libraries in Africa and elsewhere had used their websites to share various updates related to the prevention of COVID-19, provide new arrangements for getting services from the library and updates from publishing industries (Ali and Gatiti, 2020; Petterson, 2020; University of Cape Town; University of Nairobi Library, 2020). This articulates that library websites remain important platforms that provide a convenient way through which libraries can communicate and share information with their users. Moreover, the library websites represent their respective libraries at the local and international level (Okechukwu and Anunobi, 2020). Therefore, effective management of the library websites is essential to facilitate its accessibility, ease of navigation and information discovery as well as communication between libraries and their users (Valenti, 2019). This paper intends to present how websites of the universities and research libraries in Tanzania had responded to the outbreak of COVID-19. Specifically, the study focused on the opening and closing hours of the libraries, new or special services and announcements on the library websites or pages.

**Reviewed Literature**

The outbreak of the COVID-19 pandemic has impacted people differently from the individual to the global level. The working styles of most individuals and institutions have changed and librarians are learning new facts about the pandemic disease, informing the public and adapting new services to meet the changing community needs and behaviour (Ali and Gatiti, 2020; OCLC, 2020; University of Pretoria University of Bath Library, 2020; University of Cape Town University of Bath Library, 2020; University of Nairobi Library, 2020). The American Library Association (ALA) websites, for instance, provide different information resources from various sources to support librarians’ needs in the current environment (American Library Association, 2020). This information includes information about professional development training/resources such as those related to conducting and evaluating distance library instructions as well as online reference service. Several libraries have established new ways of service delivery, such as online webinar and sessions to keep in touch with their users via various applications such as Google Classroom, Google Hangouts, Skype and Zoom (Ali and Gatiti, 2020). Social media platforms like Facebook are used to inform library users about available online resources in the libraries and special offers from different database publishers (Petterson, 2020; University of Cape Town; University of Nairobi Library, 2020). These publishers including Else, CDC, NEJM, JAMA, Lancet, Cell, BMJ, Nature, Science, Elsevier, Oxford, Wiley and medRxiv provide news, updates and promote research resources about
COVID-19 (Google Scholar, 2020). These updates are essential to support researchers and practitioners in health and cross-cutting fields.

Most of the libraries (academic, public and school) work remotely because many users have changed their information-seeking behaviour and, therefore, are not going to the libraries (IFLA, 2020). For instance, the UK local government association (2020) has reported more online new users of more than 600% since lockdown measures were introduced. However, most of these libraries are incapable of serving all users with e-books because of licence restrictions given by the publishers. Likewise, in France, an increase in the use of digital resources has been reported with a similar challenge of licence restrictions (Ministry of Culture-France, 2020).

The changes in the working environment and working style require librarians and their respective institutions to respond accordingly. Several libraries and other information service providers like database and journal publishers demonstrate how library websites can be used to inform and connect their users with essential information and services (Ali and Gatiti, 2020; OCLC, 2020; University of Pretoria University of Bath Library, 2020; University of Cape Town University of Bath Library, 2020; University of Nairobi University of Bath Library, 2020; Google Scholar, 2020). Nevertheless, there is a lack of information on how academic and research libraries in Tanzania employed their websites following the outbreak of the COVID-19.

**Methodology**

A content analysis method was used to collect and analyse data. The content analysis is a research method concerned with the objective, systematic and quantitative description of the content of communication (Franzosi, 2008). This method has been extensively used to analyse the contents of library websites (Verma and Devi, 2015; Savitha, 2016; Kumar and Mir, 2017). Content analysis was considered appropriate for this study because of its popularity in library research and the fact that it is context-sensitive, thus allowing for the examination of texts not subject to the influence of interests (Kim and Kuljis, 2010).

The websites of university and research libraries in Tanzania under the Consortium of Tanzania University and Research Libraries (COTUL) (https://www.cotul.or.tz/) were explored to determine how libraries have responded following the outbreak of COVID-19. These libraries were selected because they provide essential support in research and academic activities in Tanzania. Therefore, a list of 42 libraries was obtained from the COTUL website (COTUL, 2020). Then, a search was conducted on 18 May 2020 on the Google search engine by using the key terms from the names of each library to retrieve their websites since the list provided on the COTUL website did not have links for all libraries. Table 1 provides a list of library websites that were accessible. The Google search engine was selected because of its capability to use keywords to search the internet and retrieve results accordingly. Furthermore, it provides options to organise search results and broaden or narrow down to specific searches (Price, 2020). Regarding the time limit, it was paramount to retrieve the data within 1 day to reduce the possibility of any changes that could occur in these websites, thus ensuring the stability of the data collected.
from these websites. The reason behind this is that changes can be easily made and a site seen on one day may not be the same afterwards (Patrias, 2017). Therefore, only 24 websites were included in this study because other websites were either unavailable or not found. Then, the accessible websites were analysed according to a checklist, which guided the collection of information about the opening and closing hours of the libraries, information resources and services (if there was any special information or following the outbreak of COVID-19) from each website. Different sections of the websites such as the news, new updates, library services and opening and closing hours were visited. These sections were considered potential areas where the required information to address the objectives of this study can be found.

Findings and Discussion

Closing and Opening Hours of the Library

As pointed in the Methodology section, only 24 out of 42 websites of the university and research libraries in Tanzania were accessible. The websites/pages of the rest (18 libraries) were not available or found. The findings show that 12 library websites had information related to the opening and closing hours of the library, while 12 library websites had no information regarding the opening and closing hours of the library (see Table I). The findings further reveal that these libraries had no information that shows whether there were any changes in the opening and closing hours following the outbreak of COVID-19. This suggests that those libraries have changed working hours but this was not reflected on their websites. It also suggests that the information about the opening and closing time might be found in other parts of the websites than the sections explored by the researchers (see the Methodology section). The same explanations may also be applied to those libraries, which had no information about the service hours. Although any changes in working hours may have been communicated on other platforms such as mailing lists, social media platforms, posters and short message service (SMS) (Shonhe, 2017; Malekani and Benard, 2018), the use of websites to share updates remains important. This is because academic and research library websites remain an essential gateway to library services (Dominguez et al., 2015). The library websites serve as a primary source of information to most of its users (Verma and Shukla, 2017). Furthermore, since the current age is characterised by library users who are more technology savvy and find most of their resources online (Okechukwu and Anunobi, 2020), the effective use of the library websites need to be emphasised.

These findings differ from the experience given by other library websites around the world including Africa. For example, the University of Cape Town library website informs its users that their libraries are closed but they will be open for virtual support for a specific time (University of Cape Town Library, 2020). Other libraries that had communicated changes in working hours include the Aldinga Library, Noarlunga Library, University of Pretoria Library, The University of Sheffield Library and Radboud University Library (University of Pretoria Library, 2020; City of Onkaparinga Libraries, 2020). These libraries communicate changes in their working schedules as well, as an
Table 1. Websites for different libraries (universities & research institutions) in Tanzania Following the Outbreak of the COVID-19.

| Libraries                                      | Opening/closing hours | During vacation | Any special arrangements or information |
|------------------------------------------------|-----------------------|-----------------|-----------------------------------------|
| Agakhan University in Tanzania Library        | Monday–Friday: 6:30 am–8:00 pm Saturday: 8:30 am–5:00 pm Sunday: Closed | Monday–Friday: 8:30 am–5:15 pm Saturday and Sunday: Closed | None |
| Ardhi University Library                      | Monday–Friday: 09:00–22:00 Saturday: 09:00–18:30 Sunday and public holidays: 10:00–16:00 | Monday–Friday: 09:00–16:00 | None |
| Arusha Technical College Library              | Not seen              | Not seen        | None |
| Dar es Salaam University College of Education (DUCE) Library | Monday–Friday 08:30–16:00 16:00–22:00 Saturday 08:30–18:00 and 18:00–22:00 Sunday 14:00–18:30 and 19:30–22:00 | During vacation 08:30–16:00 | None |
| East African Community Library                | Not seen              | Not seen        | None |
| Hubert Kairuki Memorial University Library   | Not seen              | Not seen        | None |
| Institute of Finance Management - Dar es Salaam Library | Not seen              | Not seen        | None |
| Institute of Finance Management - MZA Library | Not seen              | Not seen        | None |
| Institute of Tax Administration (ITA) Library | Monday–Friday 08:30–10:00 pm Saturdays: 09:00–1:00 pm Sunday and public holidays: closed | Saturdays: 08:00–5:00 am, Sunday and public holidays: closed | None |
| Kilimanjaro Christian Medical College (KCMC) Library | Not seen              | Not seen        | None |
| Moshi Cooperative University (MOCU) Library   | Not seen              | Not seen        | None |

(continued)
Table 1. (continued)

| Libraries | Opening/closing hours | During vacation | Any special arrangements or information |
|-----------|-----------------------|-----------------|----------------------------------------|
| The Muhimbili University of Health and Allied Sciences Library | Monday: 8:30–18:30 Saturday: 19:30–22:30 Sunday and holidays Closed | Not seen | None |
| Mwalimu Nyerere Memorial Academy Zanzibar Library | Monday–Saturday 9:00 am–18:00 pm 19:30 pm–22:00 pm Saturday: 9:00 am–13:00 pm | Not seen | None |
| Mwalimu Nyerere Memorial Academy DSM Library | Monday–Saturday 9:00 am–18:00 pm 19:30 pm–22:00 pm Saturday: 9:00 am–13:00 pm | Not seen | None |
| Mwenge Catholic University Library | Not seen | Not seen | Announcement to inform university community that the university has suspended all academic activities until further notice |
| Mzumbe University – Mbeya Campus Library | Monday to Friday: 08:00 pm–10:00 pm Saturday to Sunday: 10:00 am–09:30 pm Public holidays: Closed | Not seen | None |
| Mzumbe University – Morogoro Campus Library | Not seen | Not seen | None |
| Nelson Mandela African Institution of Science and Technology (NM-AIST) Library | Monday to Friday: 9.00 am–10.00 pm. Weekends and public holidays: Closed | | None |
| Sokoine National Agricultural Library | Monday–Saturday: 08:00–18.30 hrs and 19.30–22.30 hrs Sunday: 14.00–18.30 hrs and 19.30–22.30 hrs | Monday–Saturday: 08.00–17.00 hrs Saturdays: 08.00–12.30 hrs Sundays and public holidays Closed | How to spot fake news about COVID-19 |
| Tanzania Institute of Account DSM Library | Not seen | Not seen | None |
alternative way of serving their users. For instance, virtual services and support for teaching, learning and research activities were shown to be available online and on phones.

**Special Service Arrangements Following the Outbreak of the COVID-19**

The researchers were also interested to see how the library websites were used to communicate any special arrangements for library services or any other information following the outbreak of COVID-19. The special service arrangements include any type of library service or means of serving library users that were employed following the outbreak of COVID-19 (University of Cape Town Library, 2020; University of Pretoria University of Bath Library, 2020; City of Onkaparinga Libraries, 2020). In Tanzania, the COVID-19 crisis caused a temporary closure of schools, universities and colleges and therefore, most of the library users did not visit their libraries as normal (The Citizen, 2020).

The findings reveal that only two library websites (Sokoine National Agricultural Library and Mwenge Catholic University Library) had information on how to spot fake news about COVID-19 and an announcement to inform the university community that the university has suspended all academic activities until further notice, respectively. The rest of the library websites (22) had no information related to COVID-19 or library services following the outbreak of COVID-19. These findings present a serious concern because as insisted by various scholars such as Dominguez et al. (2015), Verma and Shukla (2017) and Okechukwu and Anunobi (2020), the changing information-seeking behaviour of library users’ and conveniences given by library websites require its effective use.

The findings from this study also present a different image from other libraries in Africa and elsewhere, where various updates related to COVID-19 were given on library websites. The updates given ranged from those related to the library services due to changes in the working environment and style to those related to the prevention of COVID-19. For instance, at the University of Pretoria, the library website provides links to various information resources on COVID-19 such as a link to the COVID-19 coronavirius South African Resource Portal and virtual support for teaching, learning and

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**Table 1. (continued)**

| Libraries | Opening/closing hours | During vacation | Any special arrangements or information |
|-----------|-----------------------|-----------------|----------------------------------------|
| The United African University of Tanzania Library | Not seen | Not seen | None |
| Tumaini University Makumira Library | Not seen | Not seen | None |
| University of Dar es salaam Library | Various opening and closing hours for particular sections | Sunday and public holidays: Closed | None |
research (University of Pretoria Library, 2020). The University of Cape Town library provides COVID-19 related scholar resources including books and journal articles for its community. COVID-19 library guide, FAQs and free access to resources from several publishers (University of Cape Town Library, 2020). Another experience is the University of Nairobi Library that has shared information about free resources from various publishing industries such as Springer, Nature, JSTOR, CORE Search engine and Project Muse. It also informs its users of various options for remote access to resources (University of Nairobi Library, 2020). Likewise, The University of Bath Library has provided contact information for specific services following the lock-down environment (The University of Bath Library, 2020). The practice given by different library websites such as that of the University of Pretoria, University of Cape Town and the University of Nairobi provides useful insights that can be learned by other libraries in Tanzania and elsewhere.

It is evident that around the world, libraries, through their websites, have responded differently following the outbreak of COVID-19. This is different in Tanzania, where information on how library websites were used when the academic activities were temporarily suspended was lacking. The lack of updates on the library websites regarding changes in service arrangements and more importantly on information resources, such as special offers for free access to scholarly resources and the opportunities given by the journal publishers to publish research results related to the COVID-19 (Emerald Publishing, 2020), presents a serious concern because library users such as instructors, researchers and students continue to work in a restricted environment that requires continued library support. Although there might be some other means which can be used to communicate and share information resources and services (Shonhe, 2017; Malekani and Benard, 2018), the use of library websites cannot be ignored. Table 1 presents how various universities and research libraries in Tanzania have responded to the outbreak of COVID-19 through their websites.

**Conclusion and Recommendations**

This study concludes that most university libraries in Tanzania failed to use their websites for sharing information with their patrons during the COVID-19 pandemic. This conclusion presents a thoughtful concern because most of the academic activities were temporarily suspended and therefore library users, especially students, were not going to the library physically for services. It is also important to note that while students were not going to the classes, instructors and researchers continued to work. Therefore, essential updates from publishers such as information about free access to scholarly information and publishing opportunities, and other resources that can be accessed remotely were required to support academic and research activities from both individual and organization levels.

This study calls for the university and research librarians to use every opportunity given by information and communication technologies and particularly websites to address information needs of their users accordingly. It is important to note that library websites present a convenient platform for communication and sharing of information.
resources and services. Furthermore, since library users are increasingly living in the online environment, it requires continuous updates to support their information needs. More importantly, library websites represent their institutions at the local and international level.

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