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AVAILABILITY AND REMOTE ACCESSIBILITY OF ACADEMIC LIBRARY SERVICES IN NIGERIAN UNIVERSITIES DURING THE COVID-19 LOCKDOWN

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Abstract

The purpose of this study was to evaluate the state of operations of academic library services in the Nigerian Federal Universities by assessing the existence of functional library websites and remote availability and remote access to library services during the COVID-19 lockdown. All the academic libraries in the 43 Federal Universities form the population of the study. A purposive sampling technique was used to sample all the 43 academic libraries. Results indicated that 10 (23.3%) of the libraries had no functional websites while 33 (76.7%) of the libraries had websites and subscribed to various e-resources some of which were library Internet Protocol (IP) restricted. With regard to the availability and remote access to information resources, 17 (39.5%) of the libraries had websites but had no online information services available and none remotely accessible to users from remote locations. Three (7.0%) of the libraries had very few digital resources, and they are remotely inaccessible. Only 13 (30.2%) of the libraries provided tangible information sources that were available online and remotely accessible during the lockdown. It was concluded that many academic libraries in Nigeria failed to provide remote library and information services during the COVID-19 pandemic lockdown, and this would force users to access other unverifiable sources of information.

Keywords: COVID-19, academic library services, pandemic, lockdown, availability, remote accessibility.

Introduction

The primary role of the library is rooted in the activities of storing and disseminating information and transfer of knowledge. These activities propagate include facts, ideas, history, thoughts, and activities of human interaction in his environment in diverse areas. Therefore, for continuous relevance in information management, library service delivery must be conscious, timely, accurate, updated, and transformational. Libraries must constantly reflect such changes that constitute the hallmark of societal life and information needs of each user group in all communities. Consequently, the library must consistently appraise its services to the public by supporting changes in development that occur in the modern information environment while responding to the ever-changing and dynamic user behaviour.

The internet/web has become a veritable tool in most academic libraries for providing improved library services. Osa (2003) explained that "librarianship exists to preserve and make accessible

records of human experience." Thus, changes in society must equally be reflected in the art of information provision. Accordingly, the internet and the web have completely impacted human society especially in the aspect of information publishing and delivery system in the 21st century (Arora, 2001). Adekunmisi and Odunewu (2016) posited that information communication technologies (ICTs) have also permitted effective organization and management of information for use and electronic resources sharing which has brought about effective and low-cost library operations and thereby, satisfying the changing needs of library users. Therefore, library professionals need to position themselves as leaders not only in the information field but also in the field of information technology (Singh, 2001).

"Information Communication Technology (ICT) is a term used to describe the various technologies that are used in the processing of information including coding, creation, storage, retrieval, manipulation, dissemination and transmission" (Zulu, 2011). According to Nwachukwu (2005), ICT are those devices or tools that allow for the collection, storage, processing or the communication of information. The term includes any equipment or interconnected or subsystem of equipment, that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information (Federal Republic of Nigeria, 2004). Generically, ICT refers to all communication technologies, including the internet, wireless networks, cell phones, computers, software, middleware, video conferencing, social networking, and other media applications and services enabling users to access, retrieve, store, transmit, and manipulate information in a digital form (Food and Agriculture Organization, n.d.). The author, further suggests that there is no generally accepted definition of ICT as the concepts, methods, and tools involved are constantly evolving rapidly. Therefore, definition of ICT is profession-relative, as it is applicably defined according to the applications and functions specific to each professional role. However, the concept of ICT does not deviate entirely from library science. Grigsby (2019) opined that the library is the entry point hub from which new technologies are introduced to the entire world. This means that Information (Communication) Technology as a discipline interface with Library Science at some point, since both deals with the management of information in its distinct approach. Hence, ICT in libraries is seen as the effective application of communication devices such as internet, websites, social media, blogs, etc., in collection, storage, and providing remote access to library and information services at the appropriate time to users. The concept of remote accessibility explains the introduction of library automation.

Library automation include all information and communication technologies that are adapted to compliment or supersede manual systems in the library (Deshpande, 2013). Itsekor and Ugwunna (2014) emphasized that ICT has changed the substance of librarianship as the job of library and data science experts shift from the caretaker of books to data experts, with the obligation of making, handling, controlling, and sharing data electronically. Fulkerson (2012) reiterated that "the growth of internet over the past 20 years has caused a fundamental shift in the way libraries are accessed." Hence, it implied that libraries should provide remote access-enabled services. To achieve remote accessibility, the library must be equipped with the understanding and implementation of such ICTs as website management – including metadata management, managing digital collections, networking, and remote access technologies (Fulkerson, 2012; Emasealu, 2020). However, most often, librarians have these ICTs at their disposal but lack the requisite skills to optimally apply them in rendering remote information services, such is the case of the significant ICT-competency gap among library professionals in Nigeria. (Aschroft and Watts 2005; Ekoja 2007; Ferdinand; 2011; Nkamneben, Okeke, Udem, & Nkamneben, 2015).

The philosophical change in information services led to the adaptation of ICTs into library services, hence, automation processes in libraries. Oyedokun, Oyewumi, and Laaro (2018) expressed that the viability of library benefits in this century to a great extent relies on ICT, such an extent that libraries with vital infrastructural capacities can tap the ICT abilities of their staff for advancement. Nigerian academic libraries are, therefore, improving their services with the application of ICT to facilitate access and delivery of electronic content to their ever-growing technology-savvy clients (Mohammed, Garba, and Umar, 2014). The authors asserted that the World Wide Web (WWW) has transformed libraries from storehouses of print media to knowledge resource centers with web-enabled ability to access, store, process, communicate, and deliver information services to the desktops of their clients. Emasealu (2019) posited that:

> …information in the 21st century has become a vital survival package par other basic natural resources such as oxygen, water, land, capital, among others. In such dispensation, information professionals have been positioned to constantly redefine their roles towards ensuring the provision of information resources and services that is not limited to physical boundaries through digitization. This process entails the integration of the intricacies of ICTs into the information business. This is marked by the

digitization of library contents and services are summarily known as library automation. p1.

It is envisaged that very soon online/mobile applications will become the primary means of distributing knowledge content, online information will become a commodity traded for privacy and attention, and physical idea of libraries will continue to exist primarily as archives of unique contents. Consequently, science and innovation of the new era has provided the librarian a new tool (information technology) for repositioning (Emasealu, 2020). The author asserted that the two important reasons for transformation in libraries includes the emerging of information and communication technologies that has been penetrating the library, and the changing environment such as the COVID-19 situation. Therefore, Kaur (2009) observed that "there is a transition of stand-alone libraries to library and information networks." Thus, in ensuring their survival, the attention of libraries is being focused on building user-friendly, responsive, content-rich, remote access, available, easily managed, and maintained library websites. Such websites are expected to be utilized in the provision of remote services especially for accommodating environmental situations such as the COVID-19 lockdown.

A brief on the introduction of library websites in Nigerian academic libraries

According to Aguolu, Haruna, and Aguolu (2006), the utilization of any type of technology in any Nigerian University was the introduction of microform at the University of Ibadan in 1948. The first set of computers in Nigeria was brought in by IBM through the African Education Centre initiative at the University of Ibadan. However, the adaptation of ICT and its implementation as an enabling tool was slowly introduced in Nigerian libraries as they were seen primarily as storehouses for books.

Technology was initially embraced by libraries for managerial purposes than service purposes as it allows for bibliographic, financial and order records to be kept, managed, and retrieved by both library staff and patrons. It is recorded that a computer-generated list of serials was first produced by Ahmadu Bello University in 1979. However, according to Akintunde (2004), the computerization of university libraries started in the mid-1990s. The automation project of academic libraries came along with the introduction of library websites which is a brainchild of the National Universities Commission on the use of ICT in education, particularly Universities (Awogbami, 1992; Lawani, Azubike & Ibekwe, 1992; Mosuro, 1996; Ogunleye, 1997; Idowu & Mabawonku, 1999; Ajala, 2001; Agboola, 2002; and Nok, 2006).

The Nigerian policy for IT known as the National Policy for IT (NPIT) was developed in 2001. The National IT Development Agency (NITDA), the implementing agency, has as its major objectives to ensure the use of technology in facilitating access and delivery of e-content within and among Nigerian Universities. Realizing the importance of ICT in University administration and research development, the Association of Vice-Chancellors of Nigerian Universities AVCNU established the National Research Education Network (NREN) with the responsibility of developing an ICT infrastructure for effective access to e-resources (National Universities Commission (NUC, 2009). The AVCNU recognized the significance of ICT to incorporate supporting the turn of events and sharing of online data, supporting community research among public and colleges worldwide, exploration, sharing experiences, and best practices among scholars (NUC, 2009). This resulted in the establishment of ICT forum of the universities with the mandate to develop ICT infrastructures in various universities (NUC, 2009).

Assessing the implementation of IT in academic libraries, Emasealu (2019) asserts that "the automation project plan in Nigerian Universities is designed as a gradual and continuing process, and ever since then, the application of IT is gradually taking firm root in some Nigerian university libraries." Despite the presence of ICT units in every Federal University in Nigeria, the library website and IT component are set to function from the library independent of the university wide ICT unit control. Most Nigerian University libraries started automation in record management such as Online Public Access Catalogue (OPAC), cataloguing unit, and still, presently, more automation attention is centred on cataloguing section of the academic libraries. This is noticeably not without a library website. Presently, despite the concept of virtual library, the development and implementation of technology in Nigerian libraries is still a work in progress as Nigeria is severally challenged by the lack of the absence of fundamental foundation that has forestalled solid monetary improvement in many areas. Therefore, it would not come as a surprise that some Nigerian academic libraries are, till date, without a library website.

Literature review

In particular, the 21st century has identified information as very crucial to the survival of the human society. The lack of information results in developmental setback, and the library, as a social institution reserved for information service provision, must ensure that there is adequate, accurate, timely, and trendy information for the citizens. As the most enduring and dynamic part of the society, the role of the library during public emergencies has been discussed with

much attention in the past (Dadhe & Dubey, 2020). Lili (2006) suggested that electronic library services on the internet and world wide web should include "bibliographic instruction, computerized library catalogs, digital libraries, distance learning services, e-databases, government documents, instant messaging services, interlibrary loan and document services to ready reference, virtual classrooms, and so on." In the same view, Oyedokun, Oyewumi, and Akanbi (2018) assert that the unprecedented roles of ICT in reformation and transformation of the landscape of human activities does not exempt the library. The authors explained that ICT has such magnitude of impact in information delivery system such that "libraries are now deeply engaged in digitization of almost all library resources in order to provide fast, interactive and dynamic information services to users." This translates to the fact that ICT has not just transformed resources and mode of operations in libraries, but also, the manner (where and how) of information provision to uses. Therefore, it is pertinent to reason that any library in the contemporary society that cannot boast of dynamic information services (digital resources that can be accessed remotely) to its patron, cannot be said to be operationally effective.

Emasealu (2017) asserted that as traditional libraries move towards providing services in a digital environment, "improved access to remote library collections is making the use of electronic information resources more realistic and more attractive". However, "the automation of academic libraries in compliance with web development in Nigeria remains a reverie" (Emasealu, 2019). Consequently, users have neglected such library services as reference, communication in information retrieval and use, consultation/counselling services, print-based resources, credibility of information resources, and information literacy programmes (Umeozor, 2020). Librarians in this technological era play an apo-mediating role between varied information resources and the users. Emasealu (2019) explained that:

> The era of web 1.0 ushered in the concept and idea of the modern library otherwise known as library 1.0…, the proliferation of ICT tools into information services was promulgated by web 2.0. This led to a more 'democratic' information service that is interactive, user-centered, collaborative, content rich, and social in nature. The content of web 2.0 and library 2.0 used web-based media like as Wikis, Blogs, RSS Feeds, FAQ, texting, websites, social networks and electronic programming for its expectations. The library, thus, has been at 3.0 and prospecting 4.0.

Ward and Menver (2003) posit that "the library website is a powerful gateway that can provide information to patrons." Gavit (2019) explained that "digital library services, internet library services, electronic library services sum the terms used interchangeably for web-based library services," which are accessed through the library website as the doorway to library web-based information services. Nielsen and Tahir (2002) assert that "an institutions homepage (website) is its face to the world, its building's lobby, and the company receptionist." The library website is, therefore, not expected to fall short of any of the roles above and continuing especially, when it is critically needed as witnessed during the unexpected COVID-19 pandemic and lockdown of physical activities of most social institution including the library. More so, Medawar and Tabet (2020) maintained that "The International Federation of Library Associations and Institutions developed key resources that tackle major issues facing libraries, and these include remote services, hygiene, handling materials, staying at home, closing or reopening." All these could be associated with the situation presented by the lockdown in libraries. Gavit (2019) provided the list of common web-based library services to include:

> Library webpage, web OPAC, Bulletin board services, Ask-a-librarian, web forms, digital reference services, online document delivery, interlibrary loan, online help and information skill tutorials, online current awareness bulletins, e-mail-based services, online reference services, electronic journals, online circulation service, electronic SDI services, online acquisition, electronic article alert service etc.

According to Diaz (1998) every library website plays a variety of roles which include;

- Workstation for finding database for patrons to locate and access, repositories, databases, OPAC, and electronic materials.

- Market place for library-made products to a wider arrays of information users.

- A window to the WWW, making internet information resource available to users selectively.

- Communication channel through which research outcomes can be communicated, as well as communicating services, facilities, and collections.

Evidence has shown that some libraries were able to provide some level of web-based information services while the lockdown lasted. The Bond University in Gold Coast Australia provided such services as online chat, ask-a-librarian, SMS, forms, voice messages, frequently

asked questions, reference services (faculty librarians), citation search, library research guide, information search (LibKey Nomad), and information use education (Bond.libanswers.com, n.d.). In Qatar, Medawar and Tabet (2020) assert that the National Library on 11 March 2020, closed all face-to-face library activities and physical spaces and initiated 'digital transformation' to provide remote access to its collection through the digital library; revamping the library website to highlight available online services such as LibAnswer, LibChat, LibraryAware, and virtual research and writing consultation, Voiceboxer, social media platforms (Instagram, Twitter, and Facebook), access and extended notifications, cancellation of fines and due dates, e-mail support, digitizing collections, and provision of heritage information resources. Dadhe and Dubey (2020) explained that out of the 23 library websites of the Indian Institute of Technology (IITs), 22 provided digital services of remote access to electronic resources, free expanded access, open-access resources, resources related to COVID-19, easing of penalty rules, assistance in information searching and scholarly writing, and organization of virtual events. In the same light, Neog (2020) reported that libraries in Assam, India utilized social media in the provision of library services during the COVID-19 lockdown.

The listed above are among the few of the many libraries that provided web-based library services during the COVID-19 lockdown. It is also important to note that regardless of being in developed or developing nations, these libraries struggled through the hurdles of the challenges presented by the unprecedented pandemic and were forced to rely on digital service provisions. Therefore, such a quick and responsive effort is expected of libraries in Nigeria.

Onifade (2020) confirmed that Nimbe Adedipe Library of the Federal University of Agriculture, Abeokuta provided access to e-resources and social media (WhatsApp) reference, information literacy through Zoom, during the lockdown. Oluseun (2021) stated that while digital library service promotes public health awareness, provision of information, and enhance access to information during the lockdown, "the COVID-19 lockdown interrupted learning, shattered academic dreams of students, denied students access to school facilities and research laboratories, led to the loss of interest in reading, as well as limited researchers' ability." Furthermore, Chuks-ibe, Salau, and Irenoa (2020) described the response of social institutions in Nigeria (libraries included) at the face of the dreaded COVID-19 pandemic as "calamity". The authors reiterated that "the country seriously displayed a high level of negligence, unpreparedness, and unwillingness" with a flip-flopping attitude meted to the situation by the government.

Purpose of the study

Based on the foreground in the literature above, this study seeks to investigate the online availability and remote accessibility of academic library online services in Nigerian universities during the COVID-19 lockdown. Given the understanding that it is not enough for a library resource or service to exist without being available and accessible to patrons, it is equally important to establish how remotely accessible the services are especially in dire situations when such services are most needed.

Based on this, the specific objectives of this study are:

1. To determine the existence of functional library websites in Nigerian Federal University Libraries, and
2. To find out the availability of online library information services during the COVID-19 with specificity to Open Repository (OR) and Other Educational Resources.
3. To assess the remote accessibility of library information services during the COVID-19 with specificity to Open Repository (OR) and Other Educational Resources.

Significance of the Study

The finding from such a study is expected to serve as a SWOT indicator to librarians, transforming the challenges presented by the pandemic to the opportunities to practically utilize technology to promote open access, restate the library's mission statement and its place in society. In a society where proprietary database owners and publishers have monopolized scholarly information communication, imposing big subscription fees on libraries and information users, librarians could leverage the situation to improve on their local content and provide open access to resources. Also, it should be the practical arena for librarians to hone their skills and experience in virtual referencing and services in readiness for the unplanned obsolescence of most library physical activities by web development. In this regard, this study adopted the Diaz (1998) library website roles to assess the availability and accessibility of such services as repositories, databases, and other educational resources (OER) in the 43 academic libraries in Nigerian Federal Universities.

Methodology

The study adopted a descriptive survey. The population included academic libraries in Federal Universities in Nigeria. The purposive sampling technique was employed to sample all the 43 Federal academic libraries. The data which were collected through secondary sources included

functional library websites, online availability and remote access to library services and resources during the COVID-19 lockdown. A physical assessment method was used as the instrument for the study. This was done by checking for functional website, availability, and remote accessibility to library digital resources. Considering the absence of a single policy on the collection of digital resources for academic libraries in Nigeria, the study focused on online availability and remote access to digital content on each library website. Therefore, there was no physical instrument but physical visitation of the library websites as listed in the Table 1, and physical effort to determine accessible links to the digital contents of sampled libraries (The unique nature of the situation could not allow for granular analysis as there is no uniformity in collected digital content). The functionality of each website was determined by functional links and online presence, while availability and accessibility were determined by actual availability and remote access to online services and resources on each library website.

Result and Discussion

Existence of functional library websites

Table 1 shows that out of the 43 academic libraries studied, 10 (Federal Universities numbers 4, 7, 11, 17, 18, 21, 26, 30, 41, and 43) do not have online visibility since they do not have any traceable websites dedicated to the library for its services. This means that 23.3% of the Federal University Libraries in Nigeria do not have a functional website. Considering the role of ICT in the current global information service delivery, Nigeria is severally challenged by the lack of basic infrastructure which has prevented strong economic development in most areas. It is no surprise, then, that these libraries are without websites. The current/modern information world is at par with web development and websites were ushered in under the auspices of web 1.0 (the one-directional web). Cormode and Krishnamurthy (2008) explained that "web 1.0 saw users simply acting as consumers of contents with no channel for feedback." It, therefore, means that these ten academic libraries are yet to embrace technology as a tool for information service provision and delivery. With the global health challenge posed by the COVI-19 pandemic, it is least expected that academic libraries should be operating on the level of web 2.0 which is the prosumer web, where content creators can also be users simultaneously. Stephens (2006) stated that:

> Web 2.0 is a set of ever-evolving tools that can benefit online users, with these tools, users can converse across blogs, wikis, and at photo-sharing sites…via comments or through online discussions… Some libraries and

librarians are involved in creating conversations, connections, and community of users via many of these social tools. But it may be time for more librarians to explore how these tools can enhance communication with users.

Availability of online library information services during the COVID-19 with specificity to institutional repository and other open sources.

At the emergence of COVID-19, social activities including academic institutions were placed on lockdown. This affected almost all libraries in Nigeria including those of Federal institutions as they were completely shut down. The study examined the library availability of library services provided by all the 43 federal universities while on lockdown. The observation showed that 10 academic libraries (numbers 4, 7, 11, 17, 18, 21, 26, 30, 41, and 43) do not have a functional website to provide any service. The rest of the 33 have library websites and which by literature is expected to provide information services to patrons considering the pause on physical library activities during the period under study. However, out of the remaining 33 with a website, 4 (9.3%) libraries (12, 15, 22, and 34) have no online information resource and services, the remaining have online information services made available for users.

This finding is contrary to the purpose of the establishment of ICT units in libraries. Following the recommendation for an online information-sharing system by AVCNU endorsed by NUC in 2009, by implication, the library website is supposed to be one of the prerequisites for the existence of an academic library. Kwanya et al, (2015) explained that with ICTs, the world has transformed into a 'global college'. According to Ajidaun (2010), "globally, the trend in IT and its incontestable relevance to information retrieval systems have decisively propelled and compelled libraries worldwide to critically consider these technologies to enhance the provision of efficient services." The implication is that during the lockdown, researchers would be sourcing for information from varied sources other than the library or researches would otherwise be put on hold until such a time when libraries reopen. Either way, the resultant effect would be severe developmental retardation.

Accessibility of online library information services during the COVID-19 with specificity to institutional repository and other open sources.

The study further assessed the remote access to available information services. The observations revealed that, while the 10 (23%) academic libraries without websites have no online visibility and thus, no service to offer, the other 17, numbers 1, 5, 9, 13, 15, 19, 20, 23,

24, 25, 28, 31, 32, 33, 39, 40, and 42 amounting to 39.5% have a website, but have online information services that are not remotely accessible to users. Numbers 12, 22, and 34 (7.0%) have non-functional links to information resources. Numbers 2, 3, 6, 8, 10, 14, 27, 29, 36, 37, and 38 (30.2%) have online information resources, but these resources limited remote accessibility quality since they are library Internet Protocol (IP)-restricted, which means that it is only those connected through the library provided internet network (which does not exceed beyond the library premises) can access these resources. This is a practice in most Nigerian academic libraries which is chiefly due to copyright issues, inadequate funding required to provide such services beyond the university premises, and to attract users to the library, thereby requiring physical visitation. Therefore, defeating remote accessibility of these e-resources. At best, one can only read the scope of each e-resource but cannot access them unless they are connected to the library internet or using a computer provided by the library.

Consequently, out of the 43 academic libraries, only 2 – University of Lagos Library (35), and FUOYA Library, Federal University, Oye-Ekiti (16) across the 36 states provided remote information resources accessible during the period under study. This is unlike what is obtainable in many libraries in developed countries, where libraries have deployed and utilized technologies such as social media, personalized mobile applications, and blogs among others to render selected but vital information services.

The lack of library services poses a serious problem for society as a whole. Since there is a paradigm shift from material-oriented services to client-oriented philosophy (Olorunfemi and Mostert, 2013), the essence of every library is the utilization of the resources in the library (clientele strength). The accumulation of information resources in the library would be useless if they are not utilized. According to Umeozor (2020), "the ubiquity of internet/web has drastically impacted on how users perceive themselves as entirely self-sufficient in information retrieval and use." The impact of COVID-19 may as well condition them to completely abandon the library. Although the essence of the physical library building cannot be entirely relegated to the backstage or forgotten, the problem is that we live in an information era where information is equated to power and energy, and as such, users cannot survive without information. They may, thus, abandon the library as long as the lockdown of libraries lasts, and get their information at the click of a button from remote locations. Starr (2011) has cautioned that "the exponential development of ICTs will accelerate the obsoleteness of physical collections in the near future". It means that the library organization will have ICT-competent

librarians who will effectively provide digital sufficiency library collections. This is the era to which COVID-19 has, without any fore-warning ushered libraries.

Table 1. Online availability and remote accessibility of online services in academic libraries in Nigerian Federal Universities.

SN	Nigerian Federal Universities	Year Established	Name of Library	Website	COVID-19 Library online Services	
					Available	Accessible
1	Abubakar Tafawa Balewa University, Bauchi	1988	University Library	http://www.atbu.edu.ng	x	x
2	Ahmadu Bello University, Zaria	1962	Kashim Ibrahim Library	http://www.abu.edu.ng	✓	✓
3	Bayero University, Kano	1975	University Library	http://www.buk.edu.ng	✓	✓
4	Federal University Gashua, Yobe	2013	Not Available	http://www.fugashua.edu.ng	x	x
5	Federal University of Petroleum Resources, Effurun	2007	University Library	http://www.fupre.edu.ng	x	x
6	Federal University of Technology, Akure	1981	Albert Ilemobade Library	http://www.fua.edu.ng	✓	✓
7	Federal University of Technology, Minna.	1982	Not Available	http://www.futminna.edu.ng	x	x
8	Federal University of Technology, Owerri	1980	University Library	http://www.futo.edu.ng	✓	✓
9	Federal University, Dutse, Jigawa State	2011	University Library	http://www.fud.edu.ng	x	x
10	Federal University, Dutsin-Ma, Katsina	2011	University Library	http://www.fudutsinma.edu.ng	✓	✓
11	Federal University, Kashere, Gombe	2011	Not Available	http://www.fukashere.edu.ng	x	x
12	Federal University, Lafia, Nasarawa	2011	FULafia Library	http://www.fulafia.edu.ng	✓	x
13	Federal University, Lokoja, Kogi	2011	University Library	http://www.fulokoja.edu.ng	x	x
14	Federal University, Ndufu-Alike, Ebonyi	2011	e-Library	http://www.funai.edu.ng	✓	✓
15	Federal University, Otuoke, Bayelsa	2011	University Library	http://www.fuotuoke.edu.ng	✓	x
16	Federal University, Oye-Ekiti, Ekiti	2011	FUOYE Library	http://www.fuoye.edu.ng	✓	✓
17	Federal University, Wukari, Taraba	2011	Not Available	http://www.fuwukari.edu.ng	x	x
18	Federal University, Birnin Kebbi.	2013	Not Available	http://www.fubk.edu.ng	x	x
19	Federal University, Gusau, Zamfara	2013	University Library	http://www.fugusau.edu.ng	x	x
20	Michael Okpara University of Agriculture, Umudike	1992	University Library	http://www.mouau.edu.ng	x	x
21	Modibbo Adama University of Technology, Yola	1981	Not Available	http://www.mautech.edu.ng	x	x

22	National Open University of Nigeria, Lagos.	2002	Information Gateway Library	http://www.nou.edu.ng	✓	x
23	Nigerian Defence Academy, Kaduna	2013	Academy Library	http://www.nda.edu.ng	x	x
24	Nnamdi Azikiwe University, Awka	1985	Festus Aghagbo Nwako Library	http://www.unizik.edu.ng	x	x
25	Obafemi Awolowo University, Ile-Ife	1992	Hezekiah Oluwasanmi Library	http://www.oauife.edu.ng	x	x
26	Police Academy Wudil	1962	Not Available	http://www.polac.edu.ng	x	x
27	University of Abuja, Gwagwalada	1988	Dr. Samuel Ogbemudia Library	http://www.uniabuja.edu.ng	✓	✓
28	University of Agriculture, Abeokuta.	1970	Nimbe Adedipe University Library	http://www.unaab.edu.ng	x	x
29	University of Agriculture, Makurdi.	1988	Francis Suleimanu Idachaba Library	http://www.uam.edu.ng	✓	✓
30	University of Benin	1970	Not Available	http://www.uniben.edu.ng	x	x
31	University of Calabar	1975	University Library	http://www.unical.edu.ng	x	x
32	University of Ibadan	1948	Kenneth Dike Library	http://www.ui.edu.ng	x	x
33	University of Ilorin	1975	University Library	http://www.unilorin.edu.ng	x	x
34	University of Jos	1975	University of Jos Library	http://www.unijos.edu.ng	✓	x
35	University of Lagos	1962	University of Lagos Library	http://www.unilag.edu.ng	✓	✓
36	University of Maiduguri	1975	Ramat Library	http://www.unimaid.edu.ng	✓	✓
37	University of Nigeria, Nsukka	1960	Nnamdi Azikiwe Library	http://www.unn.edu.ng	✓	✓
38	University of Port-Harcourt	1975	Donald E. U. Ekong Library	http://www.uniport.edu.ng	✓	✓
39	University of Uyo	1991	Nyong Essien, Ime S. Umanah Library	http://www.uniuyo.edu.ng	x	x
40	Usumanu Danfodiyo University	1975	Abdullahi Fodio Library	http://www.udusok.edu.ng	x	x
41	Nigerian Maritime University Okerenkoko, Delta	2018	Not available	http://www.nmu.edu.ng	x	x
42	Air Force Institute of Technology, Kaduna	2018	Institute Library	http://www.afit.edu.ng	x	x
43	Nigerian Army University, Biu	2018	Not available	http://www.naub.edu.ng	x	x

Conclusion

The role of the library in society for timely, accurate, and verified information resources is crucial. Therefore, at all times, libraries are critically required to ensure that the information needs of members of the society are sufficiently provided for. The attitudinal changes in society resulting from the information-seeking behaviours of clients have brought about a tremendous shift in the philosophy of library services to patrons. From resource-based nature of the library to client-based nature. Thus, the library is constantly at professional flux as it continues to redefine and re-evaluate its services in maintaining the best practices in the information business.

Researchers have always wondered about the future of the library in par with web development at the emergence of web 6.0 as regards independent virtual library services. With this apprehension already in place, the emergence of COVID-19 created a push to this feared reality. Thus, librarians can no longer imagine what the future looks like, but have found themselves within that unplanned future. The finding shows that academic libraries in Nigeria are not yet prepared for this situation as few libraries averagely provided online library and information services to users as the lockdown lasted. Users no longer access library resources alone. More than ever, they need information-seeking guidance, retrieval skills, and user counselling. The resultant effect of the absence of librarians in the scheme of information transaction for over a long period of time is that users may not depend on library services as before since they can access other sources of information at the click of the button resulting in heightened self-sufficiency in information retrieval and usage. As these libraries reopen, librarians should not ignore the expected acquired perception of library users as it has a long-lasting influence on how they patronize the library services. Thus, there might be a few who would use the library services. This poses a serious implication for academic libraries in Nigeria to improve on the remote accessibility of their information resources through adequate utilization of the ICTs at their disposal. The findings are expected to provide insight into digital librarianship (the stage and level) in Nigerian academic libraries, which according to the results is poor. However, the study did not assess the credibility of the available information resources. Although, the result will serve as useful data for researchers interested in the provision of online information services in Nigeria as the two libraries found effective in that area can be studied and sample as a case study for other libraries to empirically sought ways academic libraries in Nigeria can address the issues identified in this study.

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