# COVID-19 PANDEMIC AND EVOLVING LIBRARY AND INFORMATION SERVICES: LESSONS FOR NIGERIA

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#### **Abstract**

**Purpose:** This paper examined the impact of the novel COVID-19 pandemic on libraries in the world with emphasis on lessons for Nigeria.

Design/Methodology/Approach: Using secondary data and literature sourced from journals and the Internet, the paper gave a brief chronology of the emergence of the disease; the extent of the danger it can cause; its symptoms and safety measures. The paper reinforced the importance of the roles libraries are playing in order to mitigate the effect of the pandemic. They include promoting the use of Information and Communication Technology (ICT) and resources, promoting media and information literacy, using information management to support health care and other social services, raising awareness of the disease and safety measures, and fighting against misinformation on the disease.

Findings: The findings of this study revealed that from the ecological view point there are endemic constraints libraries in Nigeria are facing, which have prevented them from innovating programmes and services like in advanced climes to effectively contribute to mitigating the effect of COVID-19 pandemic in the country. The constraints include poor reading culture, passive nature of librarians, negative disposition of the society towards library and information issues, poor funding for library education and library development, poor technologically driven library and information services amongst others.

Originality/Value: The paper concluded by making recommendations and implementation strategies including the following: libraries in Nigeria must create more values for users, must become technologically innovative, government and stakeholders in the profession must act swiftly to ensure adequate policy framework for the effective functioning of libraries so that they are always in a good stead to cope with changing trends.

**Practical Implication**: In any pandemic the roles of the library include promoting awareness by creating and disseminating information relating to preventive measures, supporting research by providing information regarding latest developments and meeting the information needs of the user community. More so, the proper documentation of all facts gathered before, during and after the pandemic.

**Keywords:** COVID-19; Pandemic; Libraries; Librarians; Digital technologies, Innovations.

#### 1. Introduction

The novel COVID-19 pandemic is a rapidly evolving phenomenon and information about the virus is still emerging. The World Health Organisation (WHO) (2020) and the International Association for Medical Assistance to Travellers (IAMAT), 2020) aver that "Corona viruses are large families of respiratory viruses that can cause illness in people and animals". It is a respiratory virus which spreads primarily through droplets generated when an infected person coughs or sneezes, or through droplets of saliva or discharge from the nose. An outbreak of the novel (new) coronavirus also referred to as COVID-19 was first reported in December, 2019 in Wuhan, Hubei Province, China. It was declared a public health emergency of international concern on 30<sup>th</sup> January, 2020, and a pandemic on 12<sup>th</sup> March, 2020.

According to official information issued by the WHO, "The disease is easily spread and it is vital that every effort is made to control and ensure that health systems are able to provide services to all that need them. Data sourced from World Health Organisation (WHO), as at October 2020 suggest that 80% of infections are mild or asymptomatic, 15% are severe infections, requiring oxygen and 5% are critical infections, requiring ventilation. Additionally, as at October of 2020, 3.4% of reported COVID-19 cases have died and 75,465 COVID-19 cases have been reported in China, 20,224 COVID-19 cases in Nigeria and 8.92 million cases globally (WHO, 2020).

The most common symptoms of the disease include flu-like symptoms such as fever, dry cough, and shortness of breath or difficulty in breathing. Symptoms can also include chills and repeated shaking, muscle pain, headache, sore throat, and loss of sense of taste or smell. Symptoms typically appear within two to fourteen days after exposure (IAMAT, 2020).

The first confirmed case relating to COVID-19 pandemic in Nigeria was announced 27<sup>th</sup> February, 2020. On 31<sup>st</sup> January, 2020, following the development of the disease, the federal government of Nigeria set up a Coronavirus Preparedness Group to mitigate the impact of the virus if it eventually spreads to the country. On the same day, WHO listed Nigeria among other 13 African countries identified as high risk for the spread of the virus (WHO, 2020).

Since then, the situation has degenerated with more cases occurring regardless of measures initiated by the Federal and State Governments to combat the virus. Taking a cue from WHO, the Federal Government of Nigeria reeled preventive measures including washing

of hands, social and physical distancing and a total lockdown through the coronavirus preparedness group including National Centre for Disease Control (NCDC) and the Presidential Task Force (PTF) on COVID-19, the Federal Ministry of Health, Federal Ministry of Information and their equivalents in the States.

Further strategies to combat the COVID-19 adopted by the federal government include the test, treat, trace and isolate. However, the strategy is crippled as a result of lack of equipment (Akinwotu and Burke, 2020). Other problems associated with COVID-19 are lack of bed spaces in hospitals and isolation centres, inadequate ventilators, limited testing capacities and insufficient numbers of trained medical personnel are the realities in most African countries as COVID-19 continues to spread in the continent (African Library and Information Association and Institutions-AFLIA, 2020). The Federal Government of Nigeria went ahead to enforce an initial twoweeks lockdown on March 20<sup>th</sup>, 2020 for three of the 36 states, namely: Lagos, Ogun and Abuja considered high risk states. On April 13<sup>th</sup>2020 the lockdown was extended by another two weeks. So far, the lockdown has not been very effective because of the hunger majority of citizens are facing. It is important to bring to fore the fact that in 2018 the World Poverty Clock revealed that Nigeria has overtaken India as the world poverty capital, with over 40% of its citizens living below poverty line. Also, a large proportion of the population lives on daily income, thus staying at home led to another problem which is hunger (Kalu, 2020). It is also on record that many Nigerians think COVID-19 is a hoax or a disease for the elites (Think global health, 2020; BBC, 2020 & The Republic, 2020).

To date there is no specific medication recommended to prevent or treat the new coronavirus (2019-nCov.). Though, nations have experimented on Hydroxyl Chloroquine, Remdisivire, COVID-organic, etc to ascertain their effectiveness in managing COVID-19 patients (WHO, 2020). Those infected can receive appropriate care to relieve and treat symptoms, and those with severe illness can receive optimised supportive care. However, the best-known way to prevent and slow down transmission or even to stay safe is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. This is in line with the belief in medical parlance that prevention is better than cure. Accordingly, it is much easier and cheaper to prevent COVID-19 than to cure it. Many countries around the world have adopted this measure with their libraries playing prominent and strategic roles.

Ordinarily managing information effectively for routine situations is critical. But during a period of crisis, how information is gathered and handled is most crucial and could make all the difference between positive outcomes and exacerbated scenarios. In line with the foregoing, the UN Secretary General, Antonio Guteres posited that the danger now is no more just the virus which is the common enemy but the growing surge of misinformation, thus the need to urgently promote facts and science, hope and solidarity over despair and division.

AFLIA (2020) further states that misinformation about COVID-19 is engendering false hopes and generating fear, promoting quackery as well as undermining scientifically proven pathways that curb the spread of the virus such as social/physical distancing, staying at home, proper hand-washing and use of sanitizers. Misinformation thrives more where there is illiteracy, especially the inability to understand and evaluate information itself as well as the source(s). Africa including Nigeria is lagging behind in the world's average on literacy levels. This makes the continent a fertile ground for misinformation about the COVID-19 pandemic. According to Chatham House (2020) many Nigerians initially considered the

pandemic a hoax, some describing it as a 'rich man's disease'; while others see it as another conspiracy by politicians to loot the treasury. It should also be noted that some governors did not believe the Covid-19 is real at the initial stage. This also sent wrong signals to the citizens.

Information literacy is the turf of librarians all over the world. In this regard, AFLIA stresses that this is the time for librarians to carve a space for themselves in the fight against the continued march of the virus. This can be done disseminating correct, reliable, relevant information that will make Africans including Nigerians concerned, without instigating panic and bursting myths and disinformation that can help the pandemic to wax strong in the continent.

Fallows (2020) avers that libraries have learned from their experience and attention to previous pre-pandemic efforts. They are pivoting quickly to new ways of offering services to the public which is the core of their mission. Fallows further stresses that when libraries closed their doors abruptly, they immediately opened their digital platforms, collaborations and creative activity to reach the public in ways as novel as the virus that forced them to it; thus, evolving new ways, resources and services.

The AfLIA (2020) advocates that as managers of information, African Librarians cannot afford to stay on the side lines and act unconcerned. But hitherto, despite much development since the introduction of libraries in Nigeria beginning from the 1940s studies for instance Olden (1985), Nwokwo (1998), Ochogwu (2007), Nkechi, Eweani and Eke (2018) have shown that there are endemic constraints fostered by systemic or ecological problems bedevilling the establishment and functioning of libraries and librarianship in Nigeria.

Over time, related studies revealed that there is government and management apathy towards the issues of the library in Nigeria. This is coupled with lack of functional policy framework for libraries. This has also culminated into low inclination to the establishment and use of libraries. Consequently, leading to slow performance in initiating robust programmes, operations and services as the need arises in libraries in Nigeria.

The above narrated phenomenon could also be linked with the poor performance of Nigeria in the Global Innovation Index which measures each country's contribution to global research and international patent application which ranked Nigeria 114 out of 118countries in 2019 (Global Innovation Index, 2019). Related to this is the fact that research is also underfunded in Nigeria. For instance, the National Institute for Medical Research (NIMR) is grossly underfunded. The National Research and Experimental Development Survey revealed that in four years Nigeria spent less than 162 million on research while South Africa Spent \$2.09 billion on research in 2018. The main takeaway of AFLIA is that African libraries including libraries in Nigeria cannot be on the side lines. They are expected to join the fight against the COVID-19 pandemic in their own respective ways and capacities.

The COVID-19 pandemic is having a global impact; it is affecting societies in different ways and levels. Concerted efforts are being made around the world to combat the disease for which no sublime cure is yet discovered. The world is relying mostly on preventive measures including lockdowns, restrictions and lifesaving medical treatments. But there is consensus amongst world leaders and stakeholders like WHO and related bodies such as Ministry of

Health, NCDC and PTF that the best way to prevent and slow down transmission or even to stay safe is to be well informed about the COVID-19 virus, the disease it causes, how it spreads and preventive measures. In this regard, "libraries around the world are bringing their information triage, vet tinge, vetting and organization skills to bear on the current crisis in new ways" (Dar, 2020).

In spite of the fact that the disease is also having a significant negative impact on libraries across the world including having to close down completely or semi-closed, they are gathering resources and exercising their ingenuity to create and adapt operations, services and programmes to meet the changing information needs of communities. This brings to the fore the fundamental question: what are the contributions of librarians and libraries in Nigeria towards combating the COVID-19 pandemic? And how can the Nigerian Libraries function effectively.

The paper is segmented into sections, section one presented a background on COVID-19 and library services, section two presents related literature, section three presents materials and method, section four presents discussion of findings and section five presents conclusion, and section six presents recommendations and implementation strategies.

## 2. Library Services in Selected Countries amid the Covid-19 Pandemic

The United States of America (USA) has recorded over 2.36 million cases of coronavirus with about 733,000 patients fully recovered from the virus. Amid the pandemic, libraries in the USA were shut, although some of the employers requested the employees to report to work daily, most especially those on essential services (The New York Times, 2020). Interestingly, social and physical distancing was observed by those who reported to work with hand sanitizers and gloves also provided. On the contrary, some libraries shut down completely requesting the staff to work from home with full salary in states like Texas, Massachusetts and Colorado. Though, some of the libraries were tasked with providing educational resources via ICT medium. The Duke University Libraries which completely shut down their libraries to the public only provided skeletal services to users. The University library provided teaching and online services to students and provided 40% of their print collections to library users (Duke University, 2020).

China recorded the first case of the coronavirus in the city of Wuhan. China created a memory bank to document the coronavirus outbreak stories which includes articles, audio, pictures, manuscript, multimedia resources, video calligraphy and paintings (CGTN, 2020). According to the International Federation of Library Associations and Institutions, the Library society of China (LSC) and the National Library of China (NLC) ensured the provision of library services through the use of ICTs and made information available online for the citizens of China. Additionally, librarians in Wuhan and other regions and communities were able to provide makeshift booker centres for hospital patients and medical workers who were at the frontline of the pandemic. They further assisted in the provision of information in the prevention and control of the pandemic that supported national policy making organs. They collated all information about the pandemic on daily basis, and stored same. They provided online services via library's official websites. Interestingly, the NLC provided a service tagged

"Special Topic on the Resources of fighting against COVID-19" with the sole aim to provide librarians and the public both locally and internationally literature on COVID-19 (AFLIA, 2020).

In South Africa, the Library and Information Association of South Africa urged its members to follow the guidelines in order to be safe during the pandemic. They also informed the public that all library and information service centres were closed down; and they were at the frontlines trying to gather valuable information about the pandemic. The library association also informed the public to only source for information about the COVID-19 pandemic via the World Health Organisation website and the country's department of health website. Additionally, the library also stated that all digital medium was available for library services in the country.

According to a report by the National Authorities of Public Libraries in Europe (NAPLE) which consists of twenty European nations, most of the libraries in these 20 nations started to shut down in March, 2020 thus focusing on online services and digital content. Staff of most of the libraries were working from home but some library staff who were made to report to work, worked under strict physical distancing with the provision of anti-bacteria gel. Libraries in the NAPLE countries provided services such as drive through library service take away and home delivery services. They also rejected the returning of books which had been borrowed out and only received such books upon disinfecting them. Librarians focused on eservices and social media platform by providing all important information through such medium (NAPLE, 2020).

Ali (2020) averred that Pakistani librarians and information professionals during the pandemic needed to imbibe three attributes which include the supporting of public health awareness, the support of research teams and faculty and the provision of routine core services for regular library users. They further stressed that the library as social institutions are responsible for ensuring public health awareness and the provision of up-to-date information to clinicians and managers. This is done through drawing attention of medical Scientists and research teams to latest developments regarding vaccinations, diagnosis kits and relevant studies published in medical journals (Ali, 2020). This service is in tandem with library's principles of selective Dissemination of Information (SDI) and Current Awareness Service (CAS).

#### 3. Materials and Methods

The study sourced data through secondary means from the internet, newspapers and journals to ascertain the impacts COVID-19 pandemic have on libraries, what new ways, resources and services libraries have evolved to help combat the new COVID-19 disease, constraints faced by Nigerian libraries in contributing effectively towards combating COVID-19 pandemic and what measures can be taken to tackle these constraints. The study entails a full desk research on libraries across the world cum COVID 19 pandemic. The study adopted qualitative analysis which focused on identifying and categorising key themes, interpreting patterns and understanding social context (McCombes, 2021).

## 4. Findings and Discussion

The section presents findings in relation to the subject matter.

#### a. Negative Impacts of COVID-19 on Libraries

The study revealed that since the outbreak of the COVID-19 pandemic, there have been library closures around the world. Where they are not closed, the libraries are facing hard choices pertaining which services to offer and how, ranging from minimal restrictions to full closure. Meanwhile, libraries in 177 countries have been affected by the closure of all educational institutions. In many of these countries, universities, national and research libraries are also closed (IFLA, 2020).

Findings revealed that more than 3,000 libraries across the country have been shut down. However, IFLA advised that the decision to restrict services or close a library is a difficult one and needs to be taken following an assessment of the relative risks.

Furthermore, it was established that the closure of libraries in almost all countries of the world, Nigeria inclusive, simply implies that librarians would not be able to store hard/soft copies of information and also make available such hard copies to the public. Unfortunately, Nigerian libraries are yet to fully go digital and services made available online, making it most difficult for proper and adequate information about COVID-19 to be disseminated accordingly.

# b. Ways Libraries are Contributing to Combating the COVID-19 Pandemic

Ashworth (2020) revealed that the outbreak of the COVID-19 pandemic has brought a lot of creativity and innovative practices in library programming, operations and services. Libraries have been repurposed to perform traditional conventional and other social functions and thus, realigning library services. In spite of the closures and restrictions placed on libraries by the COVID-19 pandemic, library buildings did not just sit empty. Some have been repurposed as emergency care facilities for children of parents on the frontlines of the COVID-19 outbreak and low-income families. Libraries are one of the few places that anybody can go without the expectation of having to buy something. They have long history of serving as unofficial day shelters for people experiencing homelessness or housing inability.

Furthermore, it was established that where libraries have closed, the demand for certain services dropped, library personnel have been active in taking up other roles. In Ireland, for example, library staff have been seconded to help with contact tracing. Also, the work of libraries to support research continues, with the information service department at the University of Kuwait for example helping to lead research into the way in which information spreads on social media concerning COVID-19 pandemic. Findings also revealed that the role of libraries as guardians of historical record is as strong as ever. There are various initiatives to collect and preserve materials about the pandemic, while the International Internet Preservation Consortium is looking into coordinating the efforts. Colombia University has launched an archiving programme, as has the National Library of Spain.

Librarians are already being recruited as COVID-19 hunters in the areas of information gathering, educating patrons hunting down hand-to-find items. For this reason, some cities in America are turning to them to serve on the front lines of the coronavirus pandemic as contact tracers. It was confirmed that about 40 to50 librarians from San Francisco Public Library are now working as contact tracers. Their skill set dovetails with the work because librarians are already trained on the ethics of maintaining patron privacy, and they also make a practice of asking open-ended questions to help identify patrons' needs.

Findings revealed that libraries are encouraged to provide pages with useful links to reliable information for users on their website and promoting media literacy faced with potential misinformation online (IFLA, 2020). More so, it was revealed that the roles of libraries in the course of the novel COVID-19 pandemic include the following:

- i. Librarians are being reassigned other duties in other departments within their municipalities, for example using information management skills to support healthandsocial services.
- ii. Providing ongoing communication with users about opportunities to use library resources or services.
- iii. Organising digital story-times where copyright permits.
- iv. Promoting use of digital libraries and other tools including potentially investing in more content/licences.
- v. Offering amnesty on borrowed physical books and increasing the number of eBooks users can borrow.
- vi. Raising awareness of digital offers, both on the front pages of their websites, and through putting up posters in the windows of library buildings.

Corsillo (2020) identified the impact of COVID-19 on Public Libraries thus: because libraries play such a vital role in keeping their patrons educated, connected, and entertained, librarians have been working round the clock to find ways to keep services going despite being closed to the public. This the scholar explained they do by providing remote access to databases typically restricted to onsite use, and promoting or easing restrictions digital content. Also, some libraries are delving into the world of virtual programming. Offering children's events such as story times, through virtual outlets like Facebook Live or Instagram's IGTV can provide kids not only with a fun and enriching experience, but also the comfort of seeing a familiar face during an otherwise scary and isolating time. Related to this, other ideas for virtual programming across various age groups can include book clubs or other discussion groups, collaborative projects such as crafts using common household items, and technology tutorials. The scholar added that many libraries have also promoted services from existing connections, such as virtual exhibits from their museum pass partners or local businesses. Information Technology (IT) plays a major role in modern day libraries as such most of the innovations are driven by the platform created by IT

It was established that libraries have always been trusted sources of information. Fallows (2020) states that many libraries are reversing their websites and scaling up their social media for multiple purposes: bringing in more users and broadcasting the message of their diverse, digitally-available holdings; posting timely, accurate, curated information; and offering

up-to-date public service information on local efforts and issues like city services, public advisories, health directives and requests, tax and unemployment issues, and of course, COVID-19 resources. Similarly, the use of Drone Technology for home delivery of books to school children is being employed by librarians in the city of Virginia. Now students in Montgomery County can also choose from more than 150,000 titles in the library and have the books delivered right to their home yards using drones (CBS, 2020). This is a strategy that can be used during and after COVID-19 pandemic to provide physical information resources to both city and remote communities by librarians in Nigeria.

# c. Constraints Faced by Libraries in Nigeria Amid the COVID-19 Pandemic

Most libraries in Nigeria have been shut down due the fast spread of the virus most especially in public places with very few providing digital information on their websites or via social media platforms. This has left the Nigerian Library not contributing to the fight against the pandemic and the non-engagement of librarians in the fight against the coronavirus. These Librarians have neither provided information to the medical personnel on the frontline nor to the Nigeria Medical Association. Because of the on-going digitisation of the Nigerian economy, libraries are faced with a major challenge of providing support information digitally to Nigerians, this has posed a great challenge to a developing nation like Nigeria. Though, according to Pham *et al.*, (2020) aspects of Digital economy such as the Artificial Intelligence and Big Data could play a major role in managing the COVID-19 pandemic by predicting outbreak, virus spread tracking and diagnosis. Furthermore, Pandey and Pal (2020) argue that the advent of coronavirus will entail the adoption of internet driven technologies, though the internet should be regulated as a post Covid pandemic measure in curtailing internet fraud and controlling cybercrime.

The National Library has failed to effectively expand to 36 State capitals of the federation as designated by the Library decree of 1970. In concert with the lack of facilities in the state capitals, a lack of adequate social amenities for the library staff is another obstacle to the library's development (Nwokocha, 1998). Further to this is low patronage, almost total absence of current materials, inadequately trained personnel and inadequate funding are constraints Nigerian libraries face.

Ochogwu (2007) revealed that the problems of library development in Nigeria include: the nature of professional practice which is riddled with passive professionals; the library profession lacks political base for itself in the comity of other professions in the country; inadequate/poor information literacy skills; negative, disposition towards library and information issues, poor demand for the establishment of libraries and information centres; poor funding for library education and library development: poor technologically driven library and information services.

Some other challenges include poor funding, indifferent attitudes of library managers, absence of well-defined and uniform library policies and non-compliance with the demands of ICT (Nkechi et al., 2018). With the devastation the COVID-19 has perpetuated on Nigeria and inadequate ICTs in Nigerian libraries to drive digital libraries in Nigeria, Nigeria would find it

extremely difficult to provide any form of meaningful service to the public and more so provide adequate information about the pandemic to the public.

## d. Measures to Tackle Constraints

Advancement is critical to any discipline and librarianship is no exception. Librarianship is a knowledge producing and knowledge utilising area. Going by the bibliography paradigm traditionally libraries have developed sophisticated systems for collecting, organising, and retrieving texts and have applied advanced technology to provide access to vast sources of information.

Findings revealed that one of the fundamental functions of a library is the provision of the right information, in the right quantity and quality, at the right time and in the right place (Kuhlthau, 2004). Additionally, providing access and connecting knowledge to the needs of individuals and the community have always been at the centre of the mission and purpose of libraries. It was established that in any pandemic, there are three dimensions to a librarian's role: promoting awareness by creating and disseminating information relating to preventive measures; supporting research team and researchers by providing information regarding the latest developments, research and literature; and meeting the core needs of regular library users (Ali, 2020). Amid the pandemic, the Nigerian Library Association should direct its members and Libraries to run skeletal services via the internet or through digital means, support of public health awareness and the researches on COVID-19 by documenting outcomes of such study for the easy access by the policy organ of the Nigerian government.

Finally, it was established that transformation of library and information centres is all about improving product and services offered in Nigerian libraries to meet the needs and demands of the knowledge society (Nkechiet al., 2018). It is therefore suggested that there is a need for strategic, creative and innovative planning for library and information services in Nigeria.

## 5. Conclusion

The COVID-19 pandemic is having significant impact on governments, organizations and individuals across the world and libraries/librarians are not left out. Libraries of all types and sizes across the world are doing their best to contribute to mitigate the phenomenon of the novel COVID-19 pandemic. This has prompted them to evolve new programmes, resources and services.

Libraries are providing authentic news sources, databases, and links to support research and medial scientists. They are creating special programmes and operations including virtual story-telling and digital contents, they are more forgiving about item return dates and have various initiatives to collect and preserve materials about the pandemic. They are providing space for the vulnerable during the pandemic, serving as contact tracers and are offering literacy and learning services to the clients in order to combat the new disease. These innovations did not just happen in those climes. With diligence and endurance, they were able to propel into the unknown to deliver breath-taking innovations to face new circumstances that arise like the COVID-19 pandemic. Therefore, libraries and librarians in Nigeria need to take a cue from

these exploits and ensure that proper attention is given to libraries in terms of adequate policy framework so they can receive adequate funding and function effectively.

Government provision of appropriate legislation will improve library services and accord it proper recognition in development. The introduction of a percentage of deduction from companies' annual profits as "Library Development Tax" will pool resources to promote library services across the country. Funds so generated can be devoted to training of librarians and building and equipping of state-of-the-art libraries with prints and digital contents. Sponsored promotion of libraries on television and social media will no doubt but put the library on a high pedestal in line with international best practices. The library is not just a resource centre for any piece of information or knowledge sought after. They have always been trusted sources of information and knowledge. Libraries in Nigeria must join the rest of libraries in the world to be innovative especially in this COVID-19 era in order to help mitigate the effect of the pandemic.

## 6. Recommendations and Implementation Strategies

In the light of the foregoing discussion, the following recommendations and implementation strategies are proffered.

- Libraries in Nigeria should be automated and services made available on the Cyberspace. This will announce the presence of Nigerian libraries on the Internet and assist the public to easily source for information both in COVID-19 and post COVID-19 era. Librarians and information professionals in Nigeria, the NLA and LRCN, should liaise with the federal government and philanthropists for the automation of libraries in Nigeria. This would include tax and tariff relieves for ICTs and Infrastructure.
- ➤ Libraries in Nigeria should move from transactional services to relational services to create more values for users. The Nigeria Library Association through the Head of Civil Service in conjunction with the Library Registration Council of Nigeria to ensure the immediate training and retaining of librarians in identifying unique programmes and services that create more values for their users to mitigate COVID-19 impact.
- ➤ Nigerian libraries should embark on creating new digital contents and databases on their websites to support educational programmes research and create greater awareness on COVID-19 Pandemic. Thus, the Nigeria Library Association to collaborate with other international libraries in various countries for easy access/dissemination of information on the COVID-19 Pandemic.
- ➤ Ministry of Science and Technology and Nigerian libraries should collaborate to explore and deploy Drone Technology in the delivery of library materials to communities all over Nigeria.
- ➤ The creation of a synergy between the Nigerian Library Association and the Ministry of Health to provide selective dissemination of information and current awareness services on COVID-19 to Medical Scientists both on/off the frontline.

#### References

- African Library and Information Association and Institutions (AFLIA) (2020). *Misinformation on COVID-19: Call to action*. Retrieved from web.aflia.net/misinformation-on-covid-19-call-to-action. Accessed June 1, 2020.
- Ali, M.Y. (2020). The COVID-19 (Coronavirus) Pandemic: Reflections on the role of libraries and information professionals. *Health Information and Libraries Journal.https://doi.org/10.1111/hir.12307*, Accessed 27 August, 2020.
- BBC,(2020) Coronavirus: Why some Nigerians are gloating about COVID-19.Retrieved from https://www.bbc.com-news. Accessed June 24, 2020.
- Chatham House, (2020) Nigerian's political leaders need to win trust to tackle Covid19. Retrieved from hhtps://www.chathamhouse.org.2020/04 Accessed 23/02/202.
- CGTN (2020). China's National Library launches 'Collective Memory Bank' to document coronavirus outbreak stories. Retrieved from https://news.cgtn.com/news/2020-04-25/China-s-national-library-launches-project-to-record-COVID-19-stories-PYZLBm4vZu/index.html. Accessed August 27, 2020.
- Dar, M. (2020). Librarian volunteers help WHO make sense of COVID information. *Library Journal*. Retrieved from libraryjournal.com/?detailstory=librarian-volunteers-help-who-make-sense-of-covid-information. Accessed May 15, 2020.
- Duke University (2020).2019 Novel coronavirus (COVID-19). Retrieved from https://coronavirus.duke.edu/accessed 12 September, 2020.
- Fallows, O. (2020) Public libraries' novel response to a novel virus. *The Atlantic*. Retrieved from the atlantic.com/notes/2020/03/public-libraries-novel-response-to-a-novel-virus/609058/ Retrieved March 31, 2020.
- International Association for Medical Assistance to Travellers (IAMAT), (2020). Nigeria: Coronavirus COVID-19.Retrieved from iamat.org/country/Nigeria/risk/coronaviruses. Accessed May 8, 2020.
- International Federation of Library Associations (IFLA), (2020).COVID-19 and the global library field.Retrieved from ifla.org/COVID-19-and-libraries. Accessed May 11, 2020.
- Kalu, B.(2020). COVID-19 in Nigeria: A disease of hunger. *The Lancet Journal of Respiratory Medicine*. 8(6): 556–557.doi: 10.1016/S2213-2600(20)30220-4.
- McCombes, S. (2021). How to write a research design. Retrieved from http://www.scribbr.com/research-process/researcrch-design/. Accessed March 21, 2021.

- Nkechi, A., Eweani U.V. and Eke C. C. (2018). Challenges to library and information services (LIS) delivery in the 21<sup>st</sup> Century: The situation in three academic libraries in Imo State, Nigeria. *Library Philosophy and Practice (e-journal)*. 2075.
- NAPLE (2020). NAPLE sister libraries Annual Report 2020. Retrieved from https:// https://www.naplesisterlibraries.org/.Accessed May 19, 2020
- Ochogwu, M.G. (2007). The internalities and externalities of library and information delivery services in Nigeria by the year 2015. *Nigerian Libraries*. 40:15-26.
- Olden, A. (1985). Constraints on the Development of Public Library Service in Nigeria. The Library Quarterly. 55(4): 398-423. Retrieved from http://www.jstor.org/stable/4307895. Accessed May 19, 2020
- Pandey, N. & Pal A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Managamentdoi:10.1016/j.infomgt.2020.102171*
- Pham, Q., Nguyen, D. C., Huynh-The, T., Hwang, W., & Pathirana, P.N. (2020). ArtificialIntelligence(AI) and Big Data for coronavirus (COVID-19) pandemic: A survey on the state-of-the-arts*in IEEE Access*, Vol. 8. Pp 130820-130839.
- The Republic, (2020). "COVID-19 is a big scam". Retrieved from https://republic.coming. Accessed June 24, 2020.
- The New York Times, (2020). Most libraries are closed. Some still have to go in. Retrieved from https://www.nytimes.com/2020/04/arts/library-workers-us-coronavirus.html. Accessed 04/01/2021.
- Think Global Health, (2020). Coronavirus in Nigeria: A case for community engagement. Retrieved from https://www.thinkglobalhealth.org. Accessed June 24, 2020.
- World Health Organisation, WHO (2020). Q&A on coronaviruses (COVID-19). Retrieved from who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hubq-a-detailq-a-coronavirus/. Accessed October 28, 2020