

Provision of library services during COVID-19 pandemic

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Abstract

This paper explored the library services during coronavirus (COVID -19) pandemic. COVID-19 has been a household name all over the world. All major cities around the globe were lockdown during the pick period and the second wave of the pandemic. The disease has spread rapidly all over the world including African countries. In Nigeria, the first case was diagnosed in late February 2020. Currently there are more than 140,000 diagnosed cases and 1,449 deaths across the country. The paper argued that proper information awareness through advocacy programmes to mitigate increase in COVID-19 cases should be sustained by all stakeholders including the libraries. The role of libraries in raising awareness through public health education, information literacy in Nigeria was discussed. The paper advocated strategies with the provision Internet Services, Social media and digital reference services as a means of providing useful resources that would help library users and general public to be aware on the danger of COVID-19 pandemic. This paper concluded that library services are impediment for improving health awareness of the users through education, information and public enlightenment. It is recommended by this study that libraries should serve as a catalyst in the promotion of public health through information awareness and dissemination.

Keywords: COVID-19, global health information; library services, Internet, social media, digital reference service

Introduction

Coronavirus, technically known as COVID-19, is a severe acute respiratory syndrome transmitted from animals to humans. A study conducted by Heymann and Shindo, (2020), and Lipsitch, et. al, (2020) found that Severe Acute Respiratory Syndrome (SARS) outbreak were found to be the symptoms of COVID-19 pandemic which rapidly spread among countries around the globe. The first cases of COVID-19, name SARS-CoV-2 was first reported by official in Wuhan City, China, in December 2019. Presently, over 190 countries were affected with the virus. Retrospective investigation by medical experts revealed direct physical contact with a probable or confirmed cases, local risk assessment were the major links to the spread of the virus across the globe (World Health Organization, (WHO) 2020). Available evidence indicates that COVID-19

virus is transmitted during close contact through respiratory droplets (such as coughing) and by fomites. World Health Organization (2020) stated that COVID-19 spread from person to person by the same mechanism as other common cold or influenza viruses—i.e. by face to face contact with a sneeze or cough, or from contact with secretions of people who are infected. Other symptoms are fever, cold. Cough, flu, chest pain, difficulty in breath, high temperature and delay in menstrual and severe pain (Sule, 2020). In a publication by the World Health Organization (WHO) (2020), patients who contacted COVID 19 symptoms may suffer damage to the heart, muscles and lung tissues, kidney injuries, high blood pressure, damage to the brain,, nervous system, mental health problems like depression and anxiety (Sule, 2020). Despite that World Health Organization (WHO)

(2020) and National Center for Disease Control (NCDC) (2020) stated that shortness of breath/difficulty breathing, fever, tiredness, cough, chest pain and loss of smell were the major symptoms of COVID 19.

Globally, the United States of America, India, Brazil, Russia, France, Spain and United Kingdom were among the most affected countries around the world. In Africa, South Africa, Egypt, Morocco, Ethiopia and Nigeria were among the leading countries in the continent. Nigeria has a total of 112,004 keeping it on the sixth highest ranked in African countries (NCDC, 2020). Although, 112,004 persons were affected with the coronavirus, 90,004 persons have recovered in the country and were discharged from hospitals and isolation centers. However, with the second wave of COVID-19 in the country, there are presently 20,000 active cases. Unfortunately, the death toll remains 1,449. Currently, Nigeria has tested over 1.1 million of 200 million populations with Lagos, Federal Capital Territory (FCT) Abuja, Plateau, Oyo and Kaduna states among the leading states with those contacted with the disease (NCDC, 2020).

However, despite the scourge of the active cases and risen numbers of death among the populace, low level of information awareness, ignorance and lesser-fare attitude and lack of adherence to the laid down COVID-19 protocols were considered as a major factor for increase of COVID-19 among the people in recent times (Premium Times, 2020). Therefore, Nigerian libraries has a greater role to play in bridging the prevailing information gaps through information literacy, current awareness services, social media services, digital references services and Internet services.

Libraries are essential to learning, research, generation and preservation of knowledge as well as dissemination of information. The challenges of COVID-19 is

considered as opportunity for libraries to foster new thinking and strategies towards information service delivery through public health awareness and the provision of up to date information to the general public. It is believed that there are library services ranging information literacy, public enlightenment, current awareness services, references services and virtual information services (Raju, 2017).

Experts in the field of disease control suggested that the spread of COVID-19 pandemic can be minimized through massive information awareness (Hollander & Carr, 2020). For example, Google trends, Internet services, social media services and online reference services are useful library services for creating awareness to the general public about public health information on COVID-19 (Hu *et. al.* 2020).

Initiatives towards mitigating COVID-19 in Nigeria

The federal and state governments of Nigeria have set up a Coronavirus Preparedness Group (CPG) committee to mitigate the impact of the virus in the country. This effort prompted action plan through sustainable efforts on health care system as well as readiness and strength to prevent the spread of coronavirus in the country. Likewise, the Nigeria Centre for Disease Control (NCDC) also set up a committee to monitor and report coronavirus as well as advice the government to take action that would mitigate the spread of the virus in Nigeria. However, recent report from World Health Organization (WHO) (2020) stated that Nigeria is not prepared to respond to COVID-19 pandemic. This is obviously evident from low testing rates for COVID-19 in the country. Nigeria currently has the capacity to test only 2,500 samples a day, and just half of these actually administered each day because of shortage of human resources, testing kits and laboratories (WHO, 2020). As of 20

January, 2021, only 166,000 samples had been tested in Nigeria for a population of 200 million; in contrast, South Africa-a country of 58 million populations has already conducted over 3 million tests.

Nigeria had just 350 ventilators and 350 ICU beds for its entire population before the outbreak of COVID-19, as at December, 2020, the country acquired 100 more ventilators, but given the growing caseload of the virus, this would not be enough. There has been a continuous rise in the number of cases and health especially during the second wave of the COVID-19 pandemic (Sule, 2020). There were also continuous rise of COVID-19 with Lagos (40,624 cases, 478 deaths), the Federal Capital Territory (14,598 cases, 243 deaths), Plateau (6,753 cases, 56 deaths), Kaduna (6,176 cases, 49 deaths) and Oyo (4,695 cases and 37 deaths). These states account for 61 percent of total conformed cases, and 31 percent of deaths. However, many state in Southwest. North and Southeast are now witnessing an increase in the number of cases, and as of January, 2021, there are more than 1,600 reported COVID-19 cases in state of Rivers, Edo, Kano, Ogun, Delta, Ondo, Ogun, Kwara, Sokoto, Nasarawa, Katsina, Ebonyi, Abia Jigawa, Bauchi, Gombe and Borno (NCDC, 2021).

With the second wave of COVID-19, the Nigerian government has taken numerous health, social and economic measures to cushion the impact of COVID-19 especially with plan to obtain COVID-19 vaccines to be administered to the citizens. However, some of the policy responses have weaknesses. The major strategic responses by the federal government to improve the effects of COVID-19 include:

The Economic Stimulus Bill 2020

The House of Representatives passed the emergency stimulus bill on March 4 2020 to provide support to businesses and individual citizens of Nigeria. The proposed law aims

to provide 50 percent tax rebates business tax registered under the Company and Allied Matters act so that they can use saving to continue to employing their current workers. However, while the bill focuses on providing relief to formal sector businesses, 65 percent of Nigeria total GDP comes from informal sector., which employ more than 90 percent of the workforce, and these workers need support to survive.

Cash transfer

On April, 2020, the federal government of Nigeria announced that transfer of 20,000 Naira to poor and vulnerable households registered in the National Social Treater (NSR). Currently, the NSR has 2.6 million households (about 11 million people) register on its platform. The government hopes to increase this to 3.6 million households during the covid-19. However, 87 million Nigerians live on less than \$1.90 a day. Therefore, the cash payment by the federal government may not reach the poor and vulnerable because of corruption.

Central Bank of Nigeria stimulus package

The CBN stimulus package offers a credit of 3 million Naira to poor families impacted by COVID-19. The loan requires collateral and is not interest free. The loans could be made available free of collateral to benefit the poor households. However, not many households and businesses in the informal sector know about the available economic package and policies implemented by the government.

Food assistance

After the President Muhammed Buhari imposed the lockdown in the country in 2020, the Federal Ministry of Humanitarian Affairs Disaster Management and Social Development, announced measures to provide food rations to poor vulnerable households. The extent of lockdown led to people facing hunger in many parts of the

country. The government has not been able to provide food support to everyone who needs it, as distribution system was marred by corruption which led to stolen of the foods and destruction of food reserve center across the country during the end Special Anti-Robbery Squad (SARS) campaign period in October, 2020 (Premium Times, 2020).

Roles of library services in COVID-19 pandemic

With the advancement in library services especially with the emergence of virtual /digital technologies, Internet services and social media platforms, creating awareness on COVID-19 to the general public on health safety is important to intellectual development. Literature identifies some of the ways libraries can provide effective information services to the public as follows:

Promote public health awareness regarding COVID-19

To succeed public health strategies, it requires social acceptance of measures such as school closures, remote working, home isolation, the monitoring the health of symptomatic individuals using telephone or online health consultations (Heymann & Shindo, 2020). There are various topics which need to be embedded in awareness campaigns about COVID-19 – for example the steps individuals can take to prevent transmission - general instructions on using face masks, handwashing, and the use of sanitizers, the avoidance of handshakes and various other ways to control the spread of the virus. It is responsibility of libraries irrespective of public, special, academic and national to disseminate evidence-based information about the epidemic.

Importance of social distancing

As part of library services, information literacy and education are essentials to

reduce transmission of the COVID-19 pandemic. Persons who are suspected of being infected with COVID-19 needs to adopt social distancing and staying at home as measures to maintain social distance from family, friends, and strangers. In most part of Nigeria, staying at home measure was imposed to prevent the spread of the COVID-19 pandemic during the lockdown. Although, even after the lockdown, the coronavirus is still a threat to the lives of the people as lives gradually returned to normalcy, adherence to the COVID-19 protocols in terms of social distancing in schools, markets, churches, mosques and other social gathering is still a challenge. Therefore, libraries have a big role to play in sensitizing the general public on the danger of adhering to social distancing as a strong preventive mechanism of COVID-19 in the country. Similarly, quarantine is one of the oldest and most effective tools of controlling communicable disease outbreak. Quarantine was used as an effective step during the pandemic situation in China. It is also an effective measure to control a pandemic of influenza (Wilder-Smith & Freedman, 2020). It is important for libraries to educate the public on the importance of quarantine as a major safety to help in the spread of the virus. Any person suspected to be having symptoms of COVID -19 as indicated by WHO should isolate and quarantine himself/herself for safety of others especially the old age, children and people with severe cases of illness such as diabetics, heart related diseases and other communicable diseases. Although, experts indicates that coronavirus transmit through droplets, however, providing adequate information to the public and adhering to preventive measures like self-quarantine through awareness would help in the spread of the disease.

Strategies for libraries to promote COVID-19 Pandemic

During the recent lockdown many libraries in the United States of American, Britain, Canada, India and Pakistan have manage to provide virtual support to their users, such as provision of references, document delivery, literature searches and systematic reviews (Ali, 2020; Hu & et, al, 2020). Some libraries have initiated online webinar and sessions to keep in touch with their users via Google Classroom, Google Hangouts, Skype, or Zoom. However, in Nigeria, poor power supply, poor Internet connectivity and adequate funding were still a challenge in effective library services to assists users in the spread of coronavirus in the country (Ali, 2020). Interestingly, the use of Television and Radio programmes has assisted in closing the gaps in providing information, learning and education on preventive mechanism of COVID-19 in the country. Some of the strategies adopted by libraries to educate public include:

Virtual/digital services

Virtual awareness service is one of the library services offered to develop new thinking and information about COVID-19. Effective virtual awareness services of the general public especially library users on the danger of COVID 19 through electronic resources, computer, database, electronic books, electronic journals, electronic dictionaries, electronic encyclopedias and other digital resources would assist in the spread of the virus. Reynolds (2016) maintains that understanding virtual services involves using emerging digital technologies to create awareness across various digital resources, language, social, cultural and intellectual barriers on the effects of the COVID 19 pandemic. Virtual awareness services needs to be imbedded into the library activities to ensure that preventive mechanism are disseminated to users on a daily basis. This can be achieved through the following:

1. Ability to identify: This has to do with the library awareness of various digital resources and its importance to facilitate search for online information services on COVID- 19 pandemic.
2. Ability to access: Library services in creating awareness to find and retrieve digital technologies from a variety of sources that would assist the general public about COVID 19.
3. Ability to manage: Library services in providing awareness to organize digital resources for information retrieval that would be readily available to the general public about COVID 19.
4. Ability to Integrate: the services of creating awareness to synthesize digital technologies from a variety of sources that would assist users about COVID- 19 pandemic.
5. Ability to create: Library services to build digital technologies to express and support information service delivery to the general public about COVID- 19.
6. Ability to communicate: This entails services to connect and interconnect digital technologies for delivery via a different medium such as email, presentation software, word documents, and spreadsheets that would enrich the mind of the public about COVID 19 pandemic.
7. Ability to make impact: This entails services to understand the power of digital technologies for library operations and services on the importance of guiding the public on preventive mechanism of COVID - 19 pandemic.

Social media services

The importance of social media as tools for creating awareness in preventing the spread of COVID 19 in libraries cannot be

overemphasized. This is because it has become a pivot in which libraries depends around the world to provide fast and up-to-date information (Ansari, 2013). Ezeani and Eke (2011) and Ali (2020) listed some examples of the social media to include:

1. Facebook: Most modern libraries are popular in using Facebook because it is librarian- friendly, with many applications like JSTOR search, World Cat, and much more. Librarians can interact with users to know their information need. Libraries try to link some of these specialized library applications to Facebook. Interesting, the digital library section and the National Library of Nigeria recently open a Facebook platform to educate the general public about COVID 19. It is expected that other libraries would use this media to enlighten the public about COVID 19 pandemic.
2. Myspace: Libraries have taken advantage of this site to improve their presence and marketing their information services to the general public. For example, opening a site that would educate the public on COVID 19 pandemic would assist in the spread about the virus.
3. Ning: Libraries have also taken the benefits of Ning platform to connect to its users, library associations, and the general public. Many worlds' leading library association like International Federation of Librarianship (IFLA), American Library Association (ALA), African library Association, and the Nigerian Library Association utilizes this platform to discuss important topical issues about COVID 19 among its members and the public.
4. Wikis: This is a free online encyclopaedia that gives background knowledge and definition of concepts. It offers a platform for users to access, edit and contribute to content. This is a collaborative web page for developing web content. This platform assists libraries institutions and stakeholders such as WHO, NCDC in sharing information about COVID- 19.
5. Twitter: This means a micro blogging application that assist to keep staff and patrons updated on daily activities, like frequently updated collections. Librarians can utilize this platform to type in short messages or status update on the daily information about COVID 19. Libraries can use this platform to give users current information on the preventive mechanism of COVID 19. Users can also send Instant Messages (IM) on complaints or ask questions on issues regarding COVID 19 and gets feedback on the spot using twitter.
6. YouTube: The services of utilizing You Tube platform by libraries to showcase events such as lectures, conferences and workshops on COVID-19. This is a good platform that shows health information on COVID-19 and its implications to the health of the people as part of public health awareness.

Internet Services

Internet services in libraries are meant to assist librarians in bridging the prevailing information provision gaps in the teaching, learning and research needs of the users (Elizabeth & Ronke, 2015). The COVID 19 has brought drastic change in information dissemination and the emergence of the Internet has opened opportunities for libraries to provide health information (Ali,

2020). Libraries in developed countries are at the forefront of providing Internet services to facilitate information literacy among the people on COVID 19. Similarly, libraries from developing countries have also joined their counterparts from the developed countries to provide effective library services with Internet with the view to remain relevant in the digital era (Rose, Eldridge & Chapin, 2015).

Internet services assist librarians to facilitate easy access to information beyond the traditional service delivery (Abubakar & Adetimirin, 2015). Okiki (2011) posits that libraries have been transformed into digital and virtual environment where books and journals are now available as e-books and e-journals. This platform assist library to provide various information to users on COVID 19 which are provided in various digital formats. Despite the importance of the Internet services to help librarians to promote public health awareness by creating and disseminating information relating to preventive measures and to support research by providing information regarding the latest developments on COVID 19, challenges of learning new technologies with Internet services still posed challenge persist in developing countries and Africa in particular due to expensive bandwidth, poor Internet connectivity and poor power supply. For example, Ansari (2013) has observed that librarians in Pakistan find it difficult to keep pace with new challenges of utilizing the Internet services to provide current and up-to-date information. In Africa, a review of literature reveals that libraries are still facing challenges of providing library services using Internet (Echezona, 2010).

Digital or online reference services

The role of digital reference resources to research activities on COVID 19 has great impacts on library development. Report by IFLA (2017) states that digital reference resources generation and transmission of

information for research has long been recognized as essential tools for librarians' to solve academic problems. According to Shariman, Razak, and Noor (2012), librarians now use knowledge of online reference services to access, search, browse, navigate, retrieve, index, store, organize and disseminate digitized information. Digital or online reference services provide current information services via the Internet including DVDs, electronic dictionary (e-dictionary), online encyclopaedia, and chat reference and virtual reference services (Ugwu and Onyegiri, 2013).

According to Ekere, Omekwu and Nwoha (2016), online reference resources also assist reference librarians to answer reference enquiries and deliver information through World Wide Web; WIFI; search engines; digital video disc (DVD) and VSAT based Internet connectivity. COVID 19 has brought new order which assist librarian to provide services that will ensure better access to information, resource sharing, improved productivity, up-to-date information services, efficient and affective delivery of service of preventive mechanism of effective information about COVID 19 to users. Ugwu and Onyegiri (2013) maintain that the reference librarian must be familiar and competent in the use of computer and Internet based technologies in the provision of information online reference resources to facilitate current services to improve information and knowledge about COVID 19 pandemic. However, gaps still exist as not all librarians in Nigeria have the knowledge to use online reference tools to provide library services. For example, in Nigeria, the inability of some reference librarians to use knowledge of digital reference services to acquire, store, process, retrieve, and disseminate information appropriate for search strategies and research development on COVID 19 is still a challenge.

Challenges of handling COVID-19 pandemic in Nigeria

The following are challenges of handling COVID-19 pandemic in Nigeria.

Fake news phenomenon

Fake news spread like wide fire in the country. So many unreliable and unconfirmed sources of information have become norms in the society. Lies, falsehoods and propaganda about COVID-19 were spread in social media. For example, information were spread that COVID-19 does not killed black people. Some advises that the use face masks should be discourage because it does not prevent the spread of COVID-19. Others claimed that COVID-19 vaccines were produced to eliminate African. Therefore, it is the responsibility of libraries to critically evaluate the authenticity and credibility of information from reliable source and disseminate to the right users at a right time through digital technology as means of information service provision.

Illiteracy and ignorance

Illiteracy and ignorance still remain a big challenge on the fight against COVID-19 in Nigeria. Despite government pronouncement to ban social and religious gatherings such as marriages, funerals, demonstrations, clubs, open markets, malls, people still ignore this order because of high rates of illiteracy and ignorance which makes it difficult to curtail the spread of COVID-19.. The high level of illiteracy, especially among the rural dwellers have also undermined the call for social distancing, which is seen as one of the major steps to curb the spread of covid-19 pandemic

Hunger and poverty

Despite intervention from the Nigerian government to assist poor and vulnerable Nigerians to cushion the impact of COVID-

19 through provision of food security, hunger and poverty still remain a big challenge to the people. Several government across the world have made efforts to provide food basket to its citizens, For example, in the United State of America, the United Kingdom, Canada, France, Italy, South Africa and Egypt, the government provided food and other financial assistance to curtail hardship caused by COVID-19 during lockdown. Surprisingly, the extent of lockdown led to people facing hunger in many parts of the country. The government has not been able to provide food support to everyone who needs it, as distribution system was marred by corruption. The situation force people to violate the stay at home order of the government to look for food due to poverty and hunger in the country. Many people went to farm and market. In this process, so many people were infected with COVID-19.

Religious beliefs

Religion plays a vital role in the lives of the people in Nigeria. Some religion leaders believed that, COVID-19 contravene the teachings of religion especially crowd gathering. Some of the religious leaders both in Islam and Christianity do not accept the reality of COVID-19. They believe that COVID-19 is an invention by China/US or Israel to achieve their political and economic will and to depressed Islam religion and Islamic states. It was reported that some of the leaders emcouraged their followers to ignore all COVID-19 protocols by government.

Conclusion

The scourges of COVID-19, especially the rise in number of active cases as well as rise in number of death among the populace, are worrisome. This can be attributed to illiteracy and ignorance, poverty and hunger,

low level of information awareness, lesser-fare attitude and lack of adherence to the laid down COVID-19 protocols. Despite efforts by the government to mitigate COVID-19 with assistance in cash transfer strategies and food security, the effects of COVID-19 pandemic still affect the lives of the people. Therefore, Nigerian libraries has a greater role to play in bridging the prevailing information gaps through advocacy and awareness in information literacy, health information system through virtual/digital technology services, Internet, social media services and digital references services as a strategies to combat COVID - 19 in Nigeria.

Based on what has been presented in this paper so far, the following are recommended:

1. Information literacy and education on public health awareness campaign should be mounted and sustained by libraries to support the health institutions on preventive mechanism of COVID 19.
2. Digital technology app should be develop to enhance information dissemination on COVID-19 pandemic and its implications to the general public so as to mitigate the spread of the virus among the people
3. Libraries should provide training and re-training of librarians and other information professionals to acquire skills on Internet services to assist users and general public in bridging the prevailing information provision gaps on COVID-19.

References

Abubakar, D. and Adetimirin, A. (2015). Influence of computer literacy on postgraduates use of e-resources in Nigerian university libraries. *Library Philosophy and Practice*. Retrieved from

<http://digitalcommons.unl.edu/libphilprac/>.

Ali, M. Y. (2020). The COVID-19 (coronavirus) pandemic: Reflections on the roles of librarians and information professionals. Retrieved from www.researchgate.net/publications.

Ansari, M.N. (2013). ICT skills proficiency of library professionals: A case study of the University of Karachi, Pakistan, *Chinese librarianship of International Electronic Journal*. Retrieved from <http://www.iclc.us/cliej/cl36ansari.pdf> accessed on 8/10/2020.

Ashrafi-Rizi, H. & Kazempour (2020). Z. Information typology in coronavirus (COVID-19) Crisis; a Commentary. *Archives of Academic Emergency Medicine*, 8(1), 19. 2.

Chiara F. (2020) Italian Biomedical retrievers. Retrieved from <https://gidifrbm.org/2020/03/19/covid-19-la-ricerca-nei-database-e-le-risorse-open-degli-editori/>.

Ekere, Omekwu & Nwoha, N. (2016). Users' Perception of the facilities, resources and services of the MTN digital library at the University of Nigeria, Nsukka. *Library Philosophy and Practice (e-journal)*. 1390. Retrieved from <http://digitalcommons.unl.edu/libphilprac/1390>.

Ezeani, C. N. & Eke, H. N. (2011). Transformation of Web 2.0 into Lib 2.0 for driving access to knowledge by academic libraries in Nigeria. In the 48th National Conference and Annual General meeting of the Nigerian Library Association Theme: Knowledge management for national development. Ibadan: HEBN Publishers, p.80

Heymann, D. L., & Shindo, N. (2020). COVID-19: what is next for public

- health? *The Lancet*, 395(10224), 542-545. 4.
- Hollander, J. E., & Carr, B. G. (2020). Virtually perfect? Telemedicine for Covid-19. *New England Journal of Medicine*. DOI: 10.1056/NEJMp2003539
- Hu, D., Xiaoqi L., Zhiwei Xu, Nana M., Qiaomei X., Man Z., Yanfeng Z., Jiatao, L., Guo-Ping Sun, and Fang Wang.(2020). More effective strategies are required to strengthen public awareness of COVID-19: Evidence from Google Trends. Available at SSRN 3550008 (2020).
- IFLA (2017). Joint statement on digital literacy. Retrieved from <https://www.ifla.org/document/joint-statement-on-digital-literacy>.
- Jain, P. & Jorosi, B. N. (2015). LIS education in Botswana: A case of DLIS at the University of Botswana. Retrieved from <http://creativecommons.org/licenses/by/3.0/>.
- Lipsitch, M., Swerdlow, D. L., & Finelli, L. (2020). Defining the epidemiology of Covid-19— studies needed. *New England Journal of Medicine*. 382,1194-1196 7.
- National Centre for Diseases Control (NCDC) (2020). COVID-19 updates in Nigeria. Retrieved from www.ncdc.gov.ng.
- National Centre for Diseases Control (NCDC) (2021). COVID-19 updates in Nigeria. Retrieved from www.ncdc.gov.ng.
- Okiki, O. C. (2013). Availability of information resources for research output: Perception of academic staff in Nigerian federal universities. *International Journal of Computer Science and Telecommunications*, 4 (8), 26-33.
- Premium Times (2020). HIV and its implications to COVID-19 patients. Retrieved from <http://www.premiumtimesng.com/news/>.
- Raju, J. (2017). LIS professional competency index for the higher education sector in South Africa. Retrieved from www.creativecommons.org.
- Reynolds, R. (2016). Defining, designing for, and measuring social constructivist digital literacy development in learners: A proposed framework. *Education Tech Research Dev*. doi:10.1007/s11423-015-9423-4.
- Rose, K; Eldridge, S., and Chapin, L. (2015). The Internet of things and overview: understanding the issues and challenges of a more connected world. Retrieved from www.internetsociety.org/sites/default/files/ISOC/pdf.
- Shariman, T. P., Razak, N. A. & Noor, N. F. (2012). Digital literacy competence for academic needs: An analysis of Malaysian students in three universities. *Procedia Social and Behavioural Sciences*. doi:10.1016/j.sbspro.2012.12.090 69, 1489-1496.
- Sule, H. (2020). Blood and Virus: Is COVID-19 affecting menstrual health of Kano women who tested positive? *Daily Trust Newspaper*. November 28, 2020. p.3
- Ugwu, C. I. and Onyegiri, D. C. (2013) Management problems of electronic information resources: A case study of UNN Library. *International Journal of Library and Information Science*.5(5), 126-133. Retrieved from <http://www.academicjournals.org/IJLIS>.
- World Health Organization (2020). Isolation, quarantine, social distancing and community containment: Pivotal role for old-style public health measures in

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the novel coronavirus (2019-nCoV) outbreak. *Journal of Travel Medicine*, 27(2).