



CHALLENGES OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN INFORMATION DISSEMINATION IN ACADEMIC LIBRARIES IN THE ERA OF COVID-19 PANDEMIC

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Abstract

Information dissemination is a vital tool of creating awareness and exposing preventive measures for guiding against a pandemic such as Covid-19. This paper therefore discusses the challenges of information and communication technologies in information dissemination in academic libraries in the era of Covid-19 pandemic. To achieve this, major concepts are identified, discussed and analyzed. It also discusses the importance of ICTs in information dissemination in the era of covid-19 pandemic as well as challenges such as cyber insecurity among others. The paper recommends that strong network securities be provided and mounted for enhanced use of ICTs in information dissemination during Covid-19 pandemic. It concludes that academic libraries utilized ICTs to effectively and efficiently disseminate information in the era of Covid-19 pandemic.

Keywords: ICTs, Information dissemination, Academic libraries, Covid-19, Pandemic

Introduction

One of the most critical and key social processes in academic libraries in modern times are information dissemination. This is because of its ability to enable the academic libraries promote awareness of their existing resources and services to the academic community and create incentives to reduce their emissions and the associated risks. It is in view of this that Karyotis and Khouzani (2016) asserts that information diffusion has been a key social process, but especially in modern information centric societies, it has become one of the most critical ones. This explains the vital role of information dissemination in academic libraries to the academic community in which they are established to serve. For this reason, academic libraries have been in the fore front of information dissemination to meet up with the ever increasing and changing needs of the academic community. With the emergence of a novel virus (Covid-19 pandemic) in December 31, 2020 in Hubei city of Wuhan, China which affected libraries and information centers all over the world, all human activities that require close contact were stagnated. This necessitated the closure of all information centric institutions thereby forcing academic libraries to adopt Information and Communication Technologies as an efficient means of disseminating information to satisfy the needs of the academic community. According to Shonhe (2020), information

repositories have radically changed their information dissemination platforms and employed new techniques. She further expatiates that today, libraries have acquired new roles and are making use of various technologies such as mobile technology and social networks to disseminate information to library users. The use of ICTs by the academic libraries for information dissemination in the era of Covid-19 pandemic provides high speed, efficient and limitless access to the information disseminated. It also saves users time and provides 24/7 connectivity. However, the use of ICTs in information dissemination in the era of Covid-19 does not only offer efficient and effective information dissemination to the academic libraries' publics. It is beset with some challenges. It is against this backdrop that this paper discusses the challenges of ICTs in information dissemination in academic libraries in the era of Covid-19 pandemic and the way forward.

Conceptual Clarification

There are so many different but related views about the concept of academic libraries by different authors and researchers. For instance, Ogunsola (2004) defined academic libraries as established to support the educational objectives of their parent bodies, which include teaching, learning, research, and cultural development. Similarly, Akporhonor and Apojotor (2015) defined academic libraries as libraries attached to tertiary institutions such as universities, polytechnic institutions, colleges of education, colleges of agriculture, colleges of technology and also research institutes. For the purpose of this paper, academic libraries are libraries attached to tertiary institutions such as universities, colleges of education, polytechnics, colleges of health sciences and technologies, colleges of agriculture, schools of nursing and midwifery among others. These definitions imply that academic libraries are complex and significant institutions that occupy a vital place in the life of the universities, colleges of education, polytechnics, colleges of health sciences and technologies, colleges of agriculture, schools of nursing and midwifery among others serving as serve as workshop for the entire academic community. This is buttressed by Ajibola and Tiamiyu (2012) that libraries are becoming more aware that in order to play cartellistic roles in fostering access to information as the basis for the socio-economic development of their countries, they need to exploit ICT to improve the range and quality of service to their clientele. Dike and Edem (2015) opines that it is the aim of the libraries and librarians to ensure that information access tools, including; catalogue cards, indexes, bibliographies, abstract and cardex cards are effectively utilized to facilitate dissemination or access to information. Obotu, Chukwuka and Gambo (2019) summarized that as information procurement and dissemination organizations libraries all over the world have found themselves right in the middle of the ICT driven "Global village" and in order to play active roles in the village, public libraries have no other choice than to boost their effectiveness. This means to achieve the academic libraries' objectives, academic libraries had to develop and maintain information resources and services in order to effectively disseminate information to their academic community. These have been made possible according to Okoncedo, Amusa and Bakare (2014) with the adoption and integration of information and communication technology into the functions and services of academic libraries.

Information dissemination has been defined by different authors and researchers in

various ways. For instance, information dissemination is defined by Olabisi (2004) described as activities involving passing information or references to professional people about available current material which may be of interest to them in their work. According to Udofot (2021), it is the process of making information available to the public. From the above definitions, information dissemination is seen as an activity and a process. Regarding it as an activity, Olabisi (2004) states that it involves much more than merely making materials available to clients or showing how to use computerized databases in the library or in their offices and laboratories. Considering it as a process, Udofot (2021) opines that it involves exchange of ideas, facts and opinion. This paper therefore sees information dissemination as exchange of ideas, facts and opinion of passing information to the public of the academic libraries. The implication of this is that information dissemination is all about studying and understanding the various interests of the academic libraries public and updating their interest profiles up. It has also to do with a usual scan of different sources (primary, secondary and tertiary) of information as well as databases of relevant items and forwarding notices to the library public. Information dissemination saves time of the public and academic libraries. According to Olabisi (2004) the value of activities of disseminating information to clients is that the client saves time finding and scanning current published material or data bases. However, technology has according to Lima et al (2016) brought about revolutionary journey from traditional information delivery services to a more dynamic and technologically driven system.

Information and communication technology is therefore described by Dele, Uniogbokkai and Nwadioha (2010) as a short hand for the computers, software, networks, satellites links and related systems that allows people to access, analyze, create exchange and use data, information and knowledge which until recently were almost unimaginable. Akintunde (2004) opined that information and communication technology emphasized the use of the computer and other technology such as telephone to process, transport and transfer voice and other data singularly or mixed with at least interference or dissipation of content.

Importance of ICT in Information Dissemination in Academic Libraries during COVID-19 Pandemic

Information dissemination in the era of covid-19 pandemic involves the use of ICT facilities or tools. Some of these include laptops, smart phones, PDAs, MP3s, social media among others. These ICT tools have played and will continue to play a public awareness role on the prevention, surveillance, diagnosis and treatment. According to Australian Government (2020) a number of ICT-based initiatives have been taken around the world; for instance, developing dashboard or web portal to provide the updated statistical report on COVID-19, digital interactive maps, awareness measures and emergency calling information or hot-line numbers. Utilization of ICTs tools enhances partnership and authentic information dissemination. For instance, Jin (2020) notes that WHO has gone into partnership with different social media platforms such as Facebook, WhatsApp to provide authentic information as well as health alert messaging services. ICTs are important in information dissemination for their ability to enable initiation and development of interventions in the containment of COVID-19 such as development of

groups in social media online system for testing corona virus, national Corona information portal and others. For instance, the government of Bangladesh has initiated ICT interventions in the containment of COVID-19 such as developing awareness groups in social media, online system for testing Corona virus, national Corona information portal, and others.

Social media according to George, Rovniak, Kraschnewski and Dangers (2013) had created a wild range of global networks that makes it very easy for information spread and the mobilization of large number of users of this media to facilitate greater progress all in a bid to attain higher public health goal. The implication of this is that social media is a powerful tool for managing public health through public education and advocacy. Social media as asserted by Farnan, Snyder, Worster, et al (2013), George, Rovniak, Kraschnewski and Dangers (2013) had created a wild range of global networks that makes it very easy for information spread and the mobilization of large number of users of this media to facilitate greater progress all in a bid to attain higher public health goal. This clearly demonstrated the importance of ICTs in the dissemination of information for managing public health through public education and advocacy.

Usage of information and communication technologies as presented by Shonhe (2017) present information seekers with a variety of advantages such as; 24/7 connectivity, self-service platforms, limitless access and it is time saving. Efficiency and effectiveness of information distribution by information repositories and access by information users as revealed by Andrianaivo and Kpodar (2011) as well as Delponte, et al. (2015) will potentially help developing countries to eliminate extreme poverty and combat serious diseases.

With the use of technology, individuals, organizations and government agencies are able to share ideas and work on projects from across continents. The emergence of the information revolution as championed by information and communication technology (ICT) according to Igwe (2010) has enabled libraries to devise viable strategies for improved service delivery.

Challenges of ICT in Information Dissemination in Academic Libraries in the Era of Covid-19 Pandemic

In spite of the importance of ICT use in information dissemination during Covid-19 pandemic, the following challenges are identified and discussed.

Cyber insecurity: Literature attests that rising utilization of ICT resources for information dissemination during the pandemic time exposes information content to network attack. This is attested by Deloitte (2020) that the rising use of digital services increases exposure to cyber attacks. In Nongo, Ojobor and Nwachukwu (2020), they asserted the need to include modern technology to avert insecurity in academic libraries. In South Africa for instance, CISOMAG (2020) has it that up to 300,000 mobile devices suffered from various network attacks in one week during the lockdown. This may also limit technology start-ups by way of reinforcing first-mover advantage positions.

Constant monitoring and stay on the job: Although, anecdotal early evidence in literature by Ayyagari, Grover, and Purvis (2011) attests that constant monitoring and stay on the job increases productivity, it has also led to increased techno stress where employees

must learn new technologies, be available for work at almost all times, stay with ICT devices all the time, and cope with multitasking (Tarafdar, Tu, Ragu-Nathan, and Ragu-Nathan, 2007). This means techno stress is a situation that forces information disseminators to learn new information dissemination techniques, be with ICT devices and at work at all times to meet up with different task and employ self service method to disseminate information. Self service methods or techniques as identified by Shonhe (2017) include: Online Public Access Catalogues and networked database, personal space/my library, short Message Service (SMS) notification, Social media networks, Quick Response (QR) codes, Online reference services, Online VOD (MVOD) system and library web sites mailing lists.

Slow nature of information dissemination and accessibility: It has been observed that a reasonable number of Nigerian populace are offline therefore disseminating information to them through ICT during Covid-19 becomes difficult if not impossible. According to GSMA Intelligence (2016) nearly three billion people in emerging markets are still offline and majority of them) are women, who are 20% less likely than men to use mobile internet and less likely to use digitization to mitigate the economic impact of the pandemic. This digital divide could widen further with COVID-19, potentially limiting information dissemination among some category of people.

Disappearance of skill work: Owing to the closure of all public places in Nigeria during Covid-19 pandemic, organizations such as the big gig economy was driven by online platforms which have immensely grown as a result of the advent of smart phones availability employed ad-hoc workers without any guarantee incentives. According to Bhattacharya, (2020) workers employed by these platforms have suffered heavily, as the demand for their services, taxi rides, rentals, or skill work has disappeared during lockdown.

Unfamiliarity with new technology: Academic libraries provide better services to their user community as well as access to deliver to the online reliable information and educational guidance in pandemic times. It is therefore disheartening to note that information disseminators in academic libraries are mostly unfamiliar with the evolving (latest) technology needed to disseminate information. This unfamiliarity with latest technology affects building of professionalism through the adoption of ICT skills.

Lack of system development according to the new environment: Information dissemination in times of pandemic such as Covid-19 requires adequate improvement for the development of the academic library system. Consequently, academic libraries were challenged with inadequate financial allocation and release by the concerned bodies in the era of Covid-19 pandemic.

Recommendations

Based on the discussed challenges of ICTs in information dissemination in academic libraries during Covid-19 pandemic in Nigeria, the following recommendations are made

1. Strong network securities be provided and mounted for enhanced the use of ICTs in academic libraries for information dissemination during Covid-19 pandemic

2. Staff should be encouraged to adopt self service method to disseminate information during the pandemic
3. Digital divide should not further widened the potentiality of limiting information dissemination to some people during the pandemic
4. Workers salaries should be guaranteed to regain their work skills during Covi-19 pandemic
5. Information disseminators in academic libraries need to rebuild their professionalism through the adoption of ICT skills
6. Proper allocation of funds for academic libraries should be made by authoritative bodies.

Conclusion

Information dissemination in academic libraries is very vital particularly in times of pandemic such as Covid-19. This is because it helps in creating awareness of the pandemic not only to library users but to the entire academic community and the measures to prevent or guide against the pandemic. Academic libraries utilized ICTs to effectively and efficiently disseminate information in the era of Covid-19 pandemic. However, challenges such as cyber insecurity and constant monitoring and stay on the job, slow nature of information dissemination, and disappearance of skills work were recorded. The paper concludes that there is need for strong network securities to be provided and mounted for enhanced information dissemination in the era of Covid-19 pandemic.

References

- Ajibola, B. & Tihamiyu, M. (2012). Library automation for the information age. In B. Ajibola, & M. Tihamiyu (eds.). *Library Automation for the Information Age: Productivity* (Pp. 112-119). Ibadan: Evi Colman
- Akintunde, F. (2004) Positioning vocational and technical education in alleviating poverty. Proceedings of NATT 14th Annual conference held at Umunze.
- Andrianaivo, M., & Kpodar, K. (2011). ICT, financial inclusion and growth: Evidence from African countries. Washington, D.C.: International Monetary Fund.
- Andrianaivo, M., & Kpodar, K. (2011). ICT, Financial Inclusion, and Growth: Evidence from African Countries. Washington, D.C. International Monetary Fund.
- Australian Government (2020). D Corona virus (COVID-19) health alert. Retrieved from https://www.health.gov.au/news/health-alerts/novel-coronavirus-2019-ncov-health-alertutm_source=health.gov.au&utm_medium=redirect&utm_campaign=digitaltransformation&utm_content=health-topics/novelcoronavirus-2019-ncov [Accessed April 2, 2020].
- Ayyagari, R., Grover, V., & Purvis, R. (2011). Technostress: Technological antecedents and implications. *MIS Quarterly*, 35(4), 831-858
- Bhattacharya, A. (2020). Corona virus lockdown has exposed the serious flaws of India's gig economy. April 28, Retrieved from; <https://qz.com/india/1843807/bigbasket-delhivery-reveal-indias-gig-economy-problems/>. (Accessed on 6th June, 2020)
- CISOMAG. (2020). Hackers attack around 300,000 devices in South Africa amid COVID-

- 19 Crisis. Retrieved from <https://www.cisomag.com/hackers-attack-around-300000-devices-in-south-africa-amid-covid-19-crisis/>.
- Dele, B., Uniogbokkai, A and Nwadioha, E. (2010). Challenges of applying information and communication technology (ICT) in the use of academic libraries in Nigeria. *The Nigerian Academic Forum*, 19 (2), 1-6
- Deloitte. (2020). COVID-19's Impact on Cyber security. Retrieved from <https://www2.deloitte.com/content/dam/Deloitte/ng/Documents/risk/ng-COVID-19-Impact-on-Cybersecurity-24032020.pdf>
- Delponte, L., Grigolini, M., Moroni, A., Vignetti, S., Claps, M., & Giguashvili, N. (2015). ICT in the developing world. Scientific Foresight Unit. doi:10.2861/52304
- Dike, C. A. & Edem, A. (2015). The library catalogue as a retrieval tool in academic libraries: A case study of Federal University of Technology Owerri Library (FUTO). *The Information Technologist: An International Journal of Information and Communication Technology (ICT)*, 12 (2), 47-53. Retrieved from: <http://www.ajol.info>.
- GSMA Intelligence. (2016). Consumer barriers to mobile internet adoption in Africa. Retrieved from <https://www.gsma.com/subsaharanafrica/resources/consumer-barriers-mobile-internet-adoption-Africa>.
- Ishtiaq, S., Sehar, N and Shahid, A. (2020). Information dissemination during Covid-19 and lockdown: The role of University libraries of Sindh, Pakistan. *Library Philosophy and Practice (ejournal)*. 4280. Retrieved from
- Jin, K. X. (2020). Facebook: keeping people safe and informed about the Corona virus. Retrieved from <https://about.fb.com/news/2020/04/coronavirus/> [Accessed April 2, 2020].
- Karyotis, V and Khouzani, M.H.R. (2016). Information dissemination: Applications of state of the art malware modeling frameworks. Retrieved from
- Nongo, C.J., Ojobor, R.O. & Nwachukwu, V.N. (2020) *Vandalism in Academic Libraries: Technologies to the Rescue*. In Management of Library and Information Centres in the Era of Global Insecurity. Ilorin. Nigeria. p138-150.