

Librarianship in The Era of Digital Divide: Review of Literature

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ABSTRACT: *Librarianship is an evolving discipline having its feet in partially every profession. It is the foundation upon which all other professions in the world over built their structure of existence. It is no longer news that the application of Information Communication Technologies (ICTs) has revolutionized the practice of librarianship. This paper therefore, examined the place of librarians in the digital divide. Furthermore, the assumption that those who have knowledge of ICTs are adequately equipped with functional information than those who do not was also examined. Who librarians are and their responsibilities, effects of digital divide on librarianship practice, factors contributory to the digital divide and the challenges confronting the practice in the digital divide were highlighted. The paper concluded that training and re-training of librarians in the form of capacity building is inevitable if librarians will occupy their space in the digital era.*

KEYWORDS: librarianship, librarians, digital divide, information communication technologies, university libraries, Nigeria.

INTRODUCTION

One major advantage of the 21st century is in the ways and manners with which information is being captured, processed, disseminated and made available to the user. The world has become a global village where information across the globe is moving with the speed of light. The word information has an ambivalence of interpretation. It can best be defined from the angle with which the handler perceives it. Information is believed to be a catalyst that has potential to change a phenomenon. Meanwhile, the librarian, and other library personnel are gatekeepers of information. Librarian collect, process, organize and disseminate functional information to the library clientele: be it in the physical environment called the library as well as in the virtual environment.

The Information and Communication Technologies (ICTs) has revolutionized the mode and pattern of information capturing and processing and dissemination. Angell (2017) avers that there is a difference between people who can easily accept and profit from advancements in information and communication technology in the 21st century and those who cannot. Meanwhile, despite the enormous benefit derived from the use of Internet for information dissemination and service delivery by the librarians, there are invariably some groups of people who are still lagging behind, when it comes to accessing new technology. This disparity between those who have access to the internet and those who do not is called the digital divide.

The phrase "digital divide" refers to the gap between those who have access to and the ability to use contemporary information technology, such as the telephone, television, and Internet, and those who do not. Between people living in cities and those in rural areas, there is a digital divide. The digital divide also exists between those with and without formal education, between different socioeconomic strata, and between countries with more and less industrial development globally. It can also be used to characterize the disparities between those who can access and utilize contemporary information and communication technology (ICT), such as desktop computers and the Internet, and those who cannot. This covers both people who already possess the requisite talents, knowledge, and skills to use ICT to develop their understanding and accomplish their intended goals.

There have been several factors which may be responsible or further fuel the digital divide. These include level of poverty, level of education, inadequate infrastructure, geographical location, access to social amenities among others. It is worthy to note that despite these factors, the only way out is the provision of functional and efficient library system powered by informed librarians/library personnel.

It is generally believed that the major difference between the developed and the developing nations of the world is their access to information. This is because information has become a critical factor

that differentiates between the rich economy and the poor economy of the world. The information rich countries will continue to exercise dominance on the poor countries of the world because of their access to information. Therefore, there is a critical need for the librarians bridge the gap and be alive to their responsibilities of information provision. This is because, as far as information provision is concerned, the librarians remained the last hope of the society.

Similarly, an informed person is likely to commit fewer mistakes when compared to an uninformed individual. Hence, the library is the last resort and hope where the digital divide can be bridged (Aqili and Moghaddam, 2007; Angell, 2017; Idiegbeyan-Ose., Esse., Fagbohun, Ilo, Osinulu, Adebayo, Olawoyin and Nwokeoma, 2018). In the light of the above, there is a need to look at what role the librarians and libraries can play in the era of digital divide.

Concept of Digital Divide

The digital divide is the difference in access to contemporary information and communication technologies (ICTs), such as computers, the internet, and mobile devices, between people, households, businesses, and geographic areas. Access to computer gear, software, high-speed internet connectivity, and digital literacy are some examples of this divide. The digital divide can have significant implications for individuals and society as a whole. For example, individuals without access to digital technology may be unable to access important services and resources, such as online education, job opportunities, and government services. They may also be left behind in terms of digital literacy and the ability to use technology for communication, entertainment, and other purposes.

Moreover, the digital divide can exacerbate existing social and economic inequalities, as those who lack access to digital technology may be disadvantaged in terms of education, employment, and economic opportunities. This, in turn, can lead to a further widening of the gap between the "haves" and "have-nots" in society.

Efforts to bridge the digital divide have included initiatives to increase access to digital technology in underserved areas, provide digital literacy training, and expand high-speed internet connectivity. However, despite these efforts, the digital divide remains a significant challenge in many parts of the world, particularly in developing countries and rural areas.

Library's Role in Curbing Digital Divide

With the rapid development of information and communication technologies, access to digital information has become increasingly crucial. However, not all individuals and communities have equal access to this technology, which has created a digital divide that affects many aspects of society.

As information professionals, librarians play a critical role in addressing the digital divide. Librarians can help bridge this gap by providing access to digital resources, promoting digital literacy, and ensuring that their communities have the necessary skills to navigate and use digital technology. Librarians can also work to create more inclusive and equitable access to digital resources, particularly for marginalized communities (Fourie, 2007).

One way librarians can address the digital divide is by partnering with community organizations and other stakeholders to provide digital literacy training and resources. This can include offering computer classes, providing access to online resources, and working with schools and community centers to ensure that everyone has access to the digital tools and resources they need.

Moreover, National Telecommunication and Information Administration (2019) avers that librarians can promote equitable access to digital resources by advocating for policies and initiatives that address the digital divide. For example, librarians can work with policymakers to develop and implement programs that provide funding for broadband infrastructure in underserved areas or provide low-cost internet access to low-income individuals and families.

Libraries have traditionally served as gatekeepers of knowledge, providing access to information and resources for the betterment of society (Ogunmodede, Adio, Aboyade, Ebijuwa and Oyetola (2023). However, in the era of the digital divide, where there is a disparity in access to digital technology and the internet, the role of librarianship has evolved to address the challenges posed by this divide. Librarians play a crucial role in bridging the digital divide by providing access to digital resources and services to underserved communities. They serve as intermediaries, facilitating access to information and technology for those who may not have the means or skills to do so on their own. Libraries often provide free access to computers, the internet, and digital tools, allowing individuals to search for jobs, access educational materials, and engage in online communication. (Koontz, 2016).

In addition to providing access, librarians also play a pivotal role in digital literacy training. They offer programs and workshops on digital literacy skills, including computer literacy, online navigation, critical evaluation of digital information, and data privacy. Librarians assist individuals in developing the necessary skills to effectively use digital technology, empowering them to be active participants in the digital world (Subramaniam and Taylor, 2017; American Library Association, 2013).

Moreover, librarians are advocates for equitable access to information and technology. They work towards minimizing the barriers that prevent individuals and communities from accessing digital resources, such as advocating for increased internet connectivity in underserved areas and promoting policies that support net neutrality and open access to information.

Julien, Pecoskie, & Reed (2015) examines the role of rural libraries in bridging the digital divide. The authors argue that rural libraries can serve as important community digital hubs by providing access to technology, digital resources, and digital literacy training. Subramaniam& Taylor (2017) proposed a framework for understanding digital literacy and its role in addressing the digital divide. The authors argue that digital literacy encompasses a range of skills, including the ability to use digital technology effectively, evaluate digital information critically, and participate in digital communication and collaboration.

Koontz (2016) examines the role of libraries in addressing the digital divide and argues that libraries can serve as community technology hubs by providing access to technology, digital resources, and digital literacy training. The author discusses examples of successful library initiatives that have helped bridge the digital divide in various communities. American Library Association. (2013) report by the American Library Association's Office for Information Technology Policy examines the role of libraries in promoting digital literacy and addressing the digital divide. The report highlights examples of successful library initiatives, provides recommendations for policy makers, and emphasizes the importance of collaboration between libraries, government agencies, and other organizations in addressing the digital divide.

Bertot, Jaeger, Langa, McClure & Ryan (2006) examines the role of public libraries in providing access to public computing and the internet, particularly in emergency situations. The authors argue that public libraries play a crucial role in bridging the digital divide by providing access to technology and information to underserved communities, including during emergencies such as natural disasters.

Librarians Responsibilities

Librarianship as a profession is saddled with the responsibility of information provision, management and dissemination to the citizenry so as to make an informed society. Ogunmodede and Nwalo (2015) submit that a librarian is an information professional trained in the art of information provision. Librarians work may be in a public, academic, school or special library depending on where they are able to secure employment opportunity. Librarians working in public library serve the general community of users, those in the academic community provide teaching, learning and research assistance to the community they serve, those that work in the school library are basically interacting and instructing the pupils at elementary, primary and secondary school levels, supporting the teachers and the students with information materials while librarians working in special library are confined to industry or organisation where special information that supports the industry/organization they serve is a priority. Other librarians include independent entrepreneurs working as information scientists, cataloguers, indexers, information brokers, abstractors and other professionals in specialized capacities (Crosby, 2008; Emwanta and Igiomoh, 2012) Therefore, it is never an understatement that librarians occupies a functional place as an information providers to both the educated and the uneducated in the era of digital divide.

In their study on the role of librarians and information professionals in closing the digital divide in the third millennium, Aqili and Moghaddam (2007) claimed that librarians can assist people in interacting intimately and effectively with new information technologies in order to locate, use, process, organize, create, communicate, and manipulate information and information resources as well as somehow find a sense of identity and status in the virtual world.

Similar to this, Mphidi (2004) asserts that librarians must teach their clients how to use contemporary information search techniques, especially when using the internet, the World Wide Web, electronic databases, and several other modern innovations. Although internet facilities seem to be everywhere, most especially in the era when almost everybody is armed with smart phones and other new communication hardware, it should be noted that the ability to possess Personal Computer (PC) or smart phone that are internet compliant does not translate to the actual use of the internet. According to Mphidi (2004), libraries should stock up on reliable online databases and other electronic resources. This will make it easier for library users to access the information, communications, and technologies necessary to effectively close the digital divide. The librarians, by the virtue of their training in information service delivery can engage and contribute to micro-level on how to reduce technological problems.

Others areas where librarians can curb the digital divide is in the area of resource sharing. Librarians need to establish functional resource sharing schemes. A critical examination of the present age, that is characterized by information explosion and proliferation of information, engulfed by high costs of information resources bedeviled by budget cuts may demand that librarians share what they have efficiently. Once people are equipped with correct information, the challenges of the era of the gap in knowledge occasioned by the use of internet will drastically be reduced.

Idiegbeyan-ose, Nkiko, Idahosa, and Nwokocha, (2016) argue that librarians at all levels, and most especially public libraries can play an effective role in this era through the provision of access to the internet and computer system. Public libraries, being a social system can organize training from time to time for the members of the society on how to use computer system. It is to be noted that the population of those who cannot handle mouse or know how to surf the internet are far more than those who can use information communication gadget effectively. It is high time librarians reminds themselves that libraries are for everyone: the rich and the poor, the educated as well as the illiterate. Therefore, the insinuation that the library is for the enlightened in the society must be thrown into abyss.

1. Additionally, Aqili and Moghaddam (2007) cited the statements made by the Governing Board of the IFLA at its anniversary meeting in Glasgow, Scotland 2002. 1. Libraries may make sure that the services they provide respect equity, the general standard of living for everyone, and the environment.

2. Access to information, concepts, and imaginative works in a variety of formats is made possible by library and information services, fostering the personal growth of people of all ages and their active engagement in society and the political process.

In addition to promoting and protecting intellectual freedom, libraries and information services also support basic democratic values and universal human rights. Informational resources and services provided by the library are crucial for everyone's ability to learn continuously, make their own decisions, and advance their culture.

The development and preservation of intellectual freedom as well as the preservation of fundamental democratic principles and human rights are all facilitated by library and information services. They do not discriminate when it comes to respecting the identity, autonomy, and privacy of its users.

The diversity and cultural diversity of society as well as the richness of our environs are reflected in the wide range of information materials that libraries and information services purchase, preserve, and make accessible to library patrons without discrimination.

Library and information services acquire, preserve and make available to library patron without discrimination the widest variety of information materials, reflecting the plurality and cultural diversity of society and the richness of our environments.

The rising information gap and the digital divide are two examples of how libraries and information services are addressing information inequality. Information about research and innovation is made available through their network of services to improve sustainable development and the wellbeing of people everywhere.

A critical examination of the above listed declaration of IFLA portends that librarianship has a major role to play in the digital divide, especially in the area of providing equity in the dissemination of information to every member of the society regardless of race and colour. The assumption behind the dichotomy between those who have access to information and those that does not is that those with access to internet are bound to be equipped with information than those who do not. Examining the role of library, one can assume that everyone ignoring the library facilities and services in his/her domain does it at their own peril.

Impact of Digital Divide on Libraries

Chinn and Fairlie (2007) conducted a cross-country analysis of computer and internet penetration and found that access to technology, including computers and internet, significantly impacts an individual's ability to participate in the digital world. The study identified income, education, and infrastructure as key determinants of the digital divide.

Hargittai (2010) investigated the digital skills and internet usage patterns among young people and found that access to technology, including computers and internet, played a crucial role in

determining their digital skills and online activities. The study identified socioeconomic factors, including income and education, as key predictors of digital skills and internet use.

Warschauer (2003) discusses the role of technology in social inclusion and highlights the significance of access to technology in bridging the digital divide. The author argues that access to technology, including computers and internet, is a critical factor in determining an individual's ability to participate in the digital age and emphasizes the need for policies and interventions to address the issue of access.

Brown (2018) investigated the impact of the digital divide on public library usage and found that individuals with limited access to technology and the internet were more likely to use public libraries for internet access and other digital resources. The study highlights the important role that public libraries can play in bridging the digital divide and ensuring that everyone has access to digital resources.

Delli Carpini (2004) investigated the impact of the digital divide on public library usage and found that access to the internet and digital resources through public libraries can help bridge the digital divide and promote digital inclusion. The study emphasizes the importance of public libraries in providing access to technology and digital resources for all members of the community. Harrison & Raine (2018) investigated the impact of the digital divide on academic library usage and found that individuals with limited access to technology and the internet were less likely to use academic libraries for digital resources and research. The study emphasizes the need for academic libraries to address the issue of the digital divide and ensure that all patrons have equal access to digital resources and services.

Effects of Digital Divide

Digital gap contributes to economic inequality because it makes it simple for people with access to cutting-edge technology to get important economic data. The level of success a person can achieve in life depends on the quantity of knowledge they possess. It is believed that information is development. It is the main ingredient for transformation. Therefore, for the gap created in the digital divide to be ameliorated, library and information professional has a role to play.

Education is greatly impacted by the digital divide since students who have access to computers and the internet can learn more valuable information online. This is where Nigerian education policy needs to be reviewed. In most universities in the advanced nation of the world, the university community is provided with free Wi-Fi for the use of faculty and student. The case is not the same in most universities in Nigeria. Therefore, the researchers is proposing that library in the universities be equipped with adequate computer facility that are connected to the internet, where people can tap information they need.

The usage of the Internet, particularly in a booming economy, can result in more social equality, greater voter turnout in elections, and enhanced decision-making processes. It also has advantages of reducing the cost associated with governance. Information can be given to the larger community with minimum cost.

The digital divide has an impact on economic growth since enterprises using information technologies may benefit and be more competitive and productivity improvements are frequently linked to their use. Likewise, computers and computer networks are becoming more and more significant in people's learning, professional growth, and career advancement. On Social mobility: computers and computer networks are playing an increasingly important role in people's learning, professional work and career development.

Contributing Factors to the Digital Divide:

The digital gap is a result of a number of things. It is said that women generally have less access to the internet than men do in several nations and organizations. Female education is not approached in the same form and manner as male education, particularly in underdeveloped nations. Lack of telecommunications infrastructure with sufficient reliable bandwidth for internet connections, cost and the ability to purchase the necessary equipment could create barrier. Behavioral and cultural attitudes toward technology in some quarters can be a hindrance in this regards. There was a widespread belief that young people should avoid using modern technologies. Information overload can also lead to the digital divide. Most of the contents on the internet are adjudged to be irrelevant. This is where information specialists like librarians can help.

Younger generation feel more contented with the modern technology and are able to benefit from it more than older people. Older people are less likely to have a computer and are less likely to be interested in using the Internet. Public libraries therefore need to create awareness and further sensitize the society on the use of internet facilities. Similarly, there are people who don't utilize computers just because they are not motivated to do so or may not find a compelling reason to do so. One of the critical factors encouraging gap in knowledge is the notion that things must continue the way they have been before. Majority find it difficult to blend, most especially, with technological innovation.

Inability to access computers, smartphones, and high-speed internet is one of the main factors contributing to the digital divide. Individuals who live in rural or remote areas, low-income households, and communities with inadequate infrastructure are more likely to have limited access to technology. Access to technology is a key factor contributing to the digital divide. Individuals who lack access to computers, smartphones, and high-speed internet are at a disadvantage in terms of their ability to access digital resources, participate in online communities, and engage in e-commerce and other online activities. This is particularly true for individuals who live in rural or remote areas, low-income households, and communities with inadequate infrastructure.

Socioeconomic status can also contribute significantly to the digital divide. Individuals from low-income households and marginalized communities often face barriers to accessing technology due to financial constraints, limited education, and other socioeconomic factors. There are people who have access to technology, but lack the digital literacy skills required to effectively use it. This can include basic skills such as navigating the internet, using email, and creating digital content. Language can also constitute a barriers fueling the digital divide. Individuals who do not speak the dominant language in their community or country may face challenges in accessing and using digital resources. Poor or inadequate infrastructure, such as limited access to electricity and telecommunications, can also limit access to technology in certain regions.

Challenges and Obstacles to Closing the Digital Gap

The idea of the "digital divide" is critically analyzed by Warschauer (2002), who contends that there are other factors at play in addition to access to technology, such as a lack of resources, skills, and drive. The author sees significant obstacles to closing the digital divide as being social, economic, and political. A summary of the studies on the digital divide, its causes, and its effects is given by Van Dijk (2006) as problems with participation, attitudes, skills, and access. The article also addresses the shortcomings of the present methods for closing the digital gap and offers substitute strategies

Mossberger, Tolbert & Stansbury (2003) provides a comprehensive analysis of the digital divide and its impact on society. The authors argue that the digital divide is not just a matter of access to technology but also includes issues such as quality of access, affordability, relevant content, issues related to infrastructure, policy, and social inequality. Warschauer & Matuchniak (2010) examines the impact of new technologies on the digital divide and identifies challenges to achieving equity in access, use, and outcomes. The authors argue that the digital divide is a multifaceted problem that requires a comprehensive approach that addresses issues such as infrastructure, skills, and social and economic inequality.

The working paper by DiMaggio and Hargittai (2001) offers a critique of the idea of the digital gap and suggests a fresh framework for comprehending digital inequality. The authors contend that the digital divide is a complicated, multifaceted issue that cannot be boiled down to a simplistic have-and-have-nots dichotomy. The study cites obstacles to closing the digital divide, such as problems with participation, skills, and access.

Another difficulty in Nigeria is that most people lack basic digital literacy abilities in addition to not being able to read and write. Digital literacy abilities are the ability to locate, search for, and use the necessary information from a variety of sources offered by information and communication technology. Lack of digital literacy skills can provide a significant barrier for both librarians and library patrons in that it can be difficult for librarians to make information available to patrons

while patrons are unable to fully utilize that knowledge due to their inability to comprehend and apply it.

Infrastructure issues Even though there are numerous modern and cutting-edge internet and telecommunications technologies available today, many developing nations like Nigeria still lack current technology and adequate bandwidth for internet connections. It should be noted that expensive computer gear and data are also a risk. The majority of individuals in underdeveloped countries were unable to use computers and internet connections due to the greater cost of internet connections and contemporary technologies.

Barriers related to literacy and skill are another issue. The majority of the population in rural areas is illiterate, unable to read or write, and cannot get modern literacy assistance. They also lack the necessary computer skills. A digital divide is also a result of limited access to computer and communication technology because those with lower incomes lack the resources to patronize cybercafés or own personal computers.

The majority of internet content is written in English. People from third-world countries will undoubtedly find it difficult to understand this, which will contribute to the digital gap. In this situation, we must create our own online content. Digital divide is also a result of the high cost of internet connections and their poor connectivity.

CONCLUSION AND RECOMMENDATION

In conclusion, librarianship in the era of digital divide is a critical topic that requires the attention and action of information professionals. By providing access to digital resources, promoting digital literacy, and advocating for equitable access to technology, librarians can help bridge the digital divide and ensure that everyone has the opportunity to access and benefit from digital information. The challenges of Corona virus pandemic which has necessitated change in the order and pattern of work demands that libraries and library professionals should brace-up. With the new normal, Learning Management System (LMS) is gradually replacing the physical teaching environment where physical access was the major points of emphasis; Librarians must also put all hands on deck, to ensure that library patrons maximally enjoy the benefit of the digital economy. To close the artificial gap created by the digital divide, the following recommendations are imperative:

1. **Training and re-training of librarians:** Training of librarians in the use of emerging technologies must be given priority by library administrators; when this is done, the gap created by the divide would have been reduced, if not completely eliminated.
2. **Provision of fund for library project:** Libraries must be provided more fund for capacity building and procurements of new technological equipment that will help librarians to function optimally.

3. **Public private partnership:** Private sectors and philanthropists are hereby encouraged to collaborate with libraries to ensure things are done the right way.

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