

**Magnus Osahon Igbinovia**

Ambrose Alli University, Ekpoma, Edo State, Nigeria

E-mail: Magnus.igbinovia@aauekpoma.edu.ng

ORCID ID: 0000-0001-9104-2991

**Afebuameh James Aiyebelehin**

Ambrose Alli University, Ekpoma, Edo State, Nigeria

E-mail: aiyebelehin@aauekpoma.edu.ng

ORCID ID: 0000-0002-8092-9949

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# Libraries as Facilitators of Digital Inclusion for Sustainable Development: The Nigerian Experience

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Magnus Igbinovia is currently the Head of Electronic Library at Ambrose Alli University, Ekpoma. He is also an Adjunct Lecturer at the Department of Library and Information Science, Ambrose Alli University. He is currently undertaking a PhD program at the University of Ibadan, Nigeria. The author has written over fifty (50) scholarly articles published in reputable international and local journals. He has co-edited a book entitled "Global Perspectives on Sustainable Library Practices" published by IGI Global. He has also presented papers on Library and Information Science related conferences. He is a member of a few professional bodies like the Nigerian Library Association (NLA), Library Advocacy Group (LAG) and certified by the Librarians' Registration Council of Nigeria (LRCN). He is the recipient of the 2016 Young Library and Information Professionals (yLIPs) award by the Nigerian Library Association. He also received the award of 'Best Paper Presenter at the 55<sup>th</sup> National conference / AGM, Nigerian Library Association (NLA)' in 2017. Google scholar: [https://scholar.google.com/citations?user=7C\\_Br5QAAAAJ](https://scholar.google.com/citations?user=7C_Br5QAAAAJ)

Dr. Afebuameh James Aiyebilehin is currently a lecturer, and postgraduate Coordinator at the Department of Library and Information Science, Ambrose Alli University, Ekpoma. He holds a Bachelor's degree (First class), Masters of LIS (Distinctions) and a PhD in Library and Information Science. He has published quality papers in both local and international journals. He can be reached via [aiyebilehin@aauekpoma.edu.ng](mailto:aiyebilehin@aauekpoma.edu.ng).

**K**eywords: Digital acceptance; digital accessibility; digital inclusion; digital literacy; libraries; Nigeria

**A**bstract. **Background:** Inclusive access and use of technology are germane to sustainable development as contained in the United Nations' transformation agenda. As such, the need to bridge the digital gap through digital inclusion has become a critical goal for developmental institutions like libraries.

**P**urpose: This article seeks to theoretically explore how libraries can facilitate digital inclusion for sustainable development, from the Nigerian perspective.

**M**ethod: The study's theoretical assumption hinges on the resources and appropriation theory of the diffusion, acceptance and adoption of new technologies by van Dijk (2013). The conceptualisation was based on the critical dimensions of digital inclusion (acceptance, literacy and accessibility); upon which the specific objectives of the study were structured. The opinions of the authors were situated in the context of relevant literature.

**R**esult: The study established libraries as facilitators of digital inclusion across the lines of digital acceptance, literacy and accessibility. This invariably impacts on the digital equality for sustainable development of all and sundry.

**C**onclusion: Libraries in Nigeria, especially those attached to academic institutions are at the forefront of championing the course for digital inclusion which is a vehicle to achieving sustainable development.

## Introduction

The sustainable development framework provided by the United Nations (UN) is expected to stimulate holistic development, growth and progress among members States. Therefore, Nations, organisations, institutions and individuals are striving to accomplish this agenda to transform our world through diverse programs, projects and structures. It is considered that Information and Communication Technologies (ICTs) is a key driver to achieving this sustainable development. These technologies have the capacity to accelerate progress across all goals in the development framework (Tjoa & Tjoa, 2016; Jones, et al., 2017). Consequently, availability and access to ICT infrastructures, services and skills,

enable individuals to become citizens in the 'global village' and participants of the global economy (The International Telecommunication Union, 2017); which is the goal of digital inclusion.

Digital inclusion which encompasses the activities required to ensure the access to and the use of ICTs by all and sundry (individuals and communities) is targeted towards the attainment of digital equality, which is the state where everyone has access and possesses the capacity to fully utilise ICTs for socioeconomic gains (National Digital Inclusion Alliance in Frank, et al., 2021). Regardless of the social and economic benefits of digital inclusion to individuals and the society (Bradshaw, 2011) and the upsurge of advocacy for it (Sanders & Scanlon, 2021), digital gaps still exist across the social stratification and development taxonomy of nations. Studies have revealed that the digital inequality gap keeps widening especially between high and low income people (van Deursen & van Dijk, 2019); between urban and rural areas (Prieger, 2013), and between developed and developing countries (Ho & Tseng, 2006; Dijk, 2020). However, the digital inclusion index, which measures the accessibility, affordability and usability, varies from one country to another.

In Nigeria, though Internet usage penetration has increased from 26% in 2018 to over 38% in 2022 (Kamar in Statista, 2022), and broadband penetration also increased from 19.97% in January 2018 to 44.32% in June 2022 (NCC, 2022); the country's fixed line penetration according to World Bank has been on a continuous decline to 0.052% in 2020 (Helgi Analytics, 2022). The goal of digital inclusion is to ensure that no one is left out in the access and use of ICTs, which implies that the current 38% Internet usage penetration shows the presence of an enormous digital gap in Nigeria. Moreover, 4 in 10 (40%) of Nigerians are below the national poverty line (The World Bank, 2022) which hinders their affordability of digital infrastructures and data subscription to access the Internet. In addition, the average digital literacy level of the populace, which is currently uncertain; could be influenced by the total literacy rate which was reported by Nielsen (2021) to be 28%. Therefore, it can be implied that enhancing the accessibility, affordability and 'ability-to-use' or usability of individuals is vital to the realisation of digital inclusion, which is a tool for sustainable development.

In the declaration of the United Nations' 2030 agenda for sustainable development, it is noted that ICTs and global interconnectedness is capable of engineering progress of humans and bridging existing digital divide (United Nations, 2015). This explains the prominence of ICTs in the agenda (specifically goals 4b, 5b and 9c), in an inclusive manner. The United Nations' Department of Economic and Social Affairs (2021) affirmed that by 2030, every individual must have affordable access to the Internet in order to eliminate the digital divide. Governments must support universal access to ICT infrastructures, develop digital literacy and skills, and increase the relevance and understanding of the advantages of using the internet. Libraries as a major stakeholder in the development agenda must,

therefore, strengthen their roles in digital inclusion as a stride towards promoting the attainment of sustainable development. Consequently, the main objective of this research is to examine libraries as a facilitator of digital inclusion for sustainable development, from the Nigeria's experience. The specific objectives of the study were to examine:

1. Libraries as a facilitator of digital acceptance in Nigeria;
2. Libraries as a facilitator of digital literacy in Nigeria;
3. Libraries as a facilitator of digital accessibility in Nigeria; and
4. Digital inclusion as a predictor of sustainable development.

## Theoretical Framework

The theoretical assumption guiding this study was that certain factors are responsible for widening the digital divide and when these factors are favourably adjusted they will facilitate digital inclusion which will invariably enhance individuals' participation in the global society for sustained progress and development. This assumption and by extension, this study; is hinged on the van Dijk's theory propounded in 2005, informed by the relational view of inequality. van Dijk called the theory "a resources and appropriation theory of the diffusion, acceptance and adoption of new technologies" (van Dijk, 2013). According to Pick and Sarkar (2016, p.3890), the theory posited that "inequalities of personal position and background result in inequalities in resources for the individual, which lead in turn to inequalities of access and finally to disparities in participation by the individual in society". A graphical representation of the theory is seen in Figure 1.

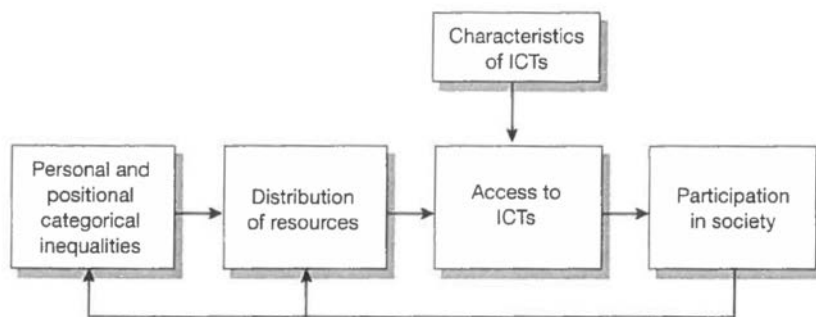


Figure 1. A casual model of van Dijk's resources and appropriation theory

Source: van Dijk, 2013

The model explains that certain personal and positional categorical inequalities will affect the distribution of resources which will in turn affect the access to ICTs. Also access to ICTs will be determined by ICTs characteristics and

this access will determine individuals' participation in the society. The clusters or variables in the model were broken down into sub-variables and presented as a modified model by Pick and Sarkar (2016) as seen in Figure 2.

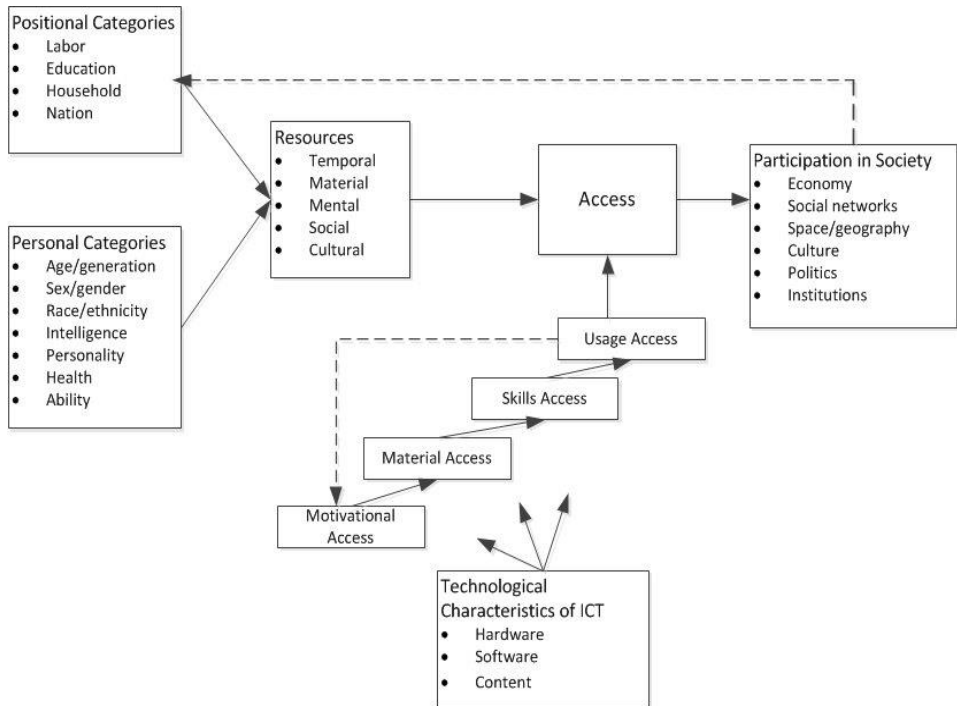


Figure 2. Modified model of the van Dijk's theory

Source: Pick & Sarkar, 2016

Figure 2 shows the various elements in the personal and positional categories which could influence the distribution of resources (even or uneven), where the temporal resource connotes time, while the mental resource connotes knowledge. The distribution of resources will determine individuals' access to ICTs. Access to ICTs is measured by usage access (actual use, usage time, broadband use and creative usage), skill access (computer skill and information literacy skill), material access (physical, mental and social resources), and motivational access (reasons to (not) get access).

In juxtaposing this theory with the theoretical assumption and ascertaining its relevance to this study, the positional and personal characteristics of people differ, causing a variance in their resources. This variation or discrepancies in their resources will affect the extent to which they can access ICTs. This results in an uneven access to ICT, consequently widening the digital divide. Given that people's access to ICTs predicts their participation in the society, there will be unequal access to social, economic, environmental, political and cultural progress, which

contravenes the tenets of inclusive sustainable development. Therefore, there is a need to provide resources to all regardless of their positional and personal categories, in order to access ICTs and become members of the global society for sustainable progress. This is the call that libraries across all types are striving to obey.

## Conceptualisation of the Study

The study of Nguyen, et al. (2020) provides a thorough analysis for the concept of digital inclusion. It employed the conceptual-to-empirical approach in conceptualising the critical dimensions and characteristics or indicators of digital inclusion. According to them, the critical dimensions of digital inclusion are digital accessibility, digital literacy and digital acceptance. They also suggest indicators for each dimension, which is used to develop the conceptual model for this study, as seen in Figure 3.

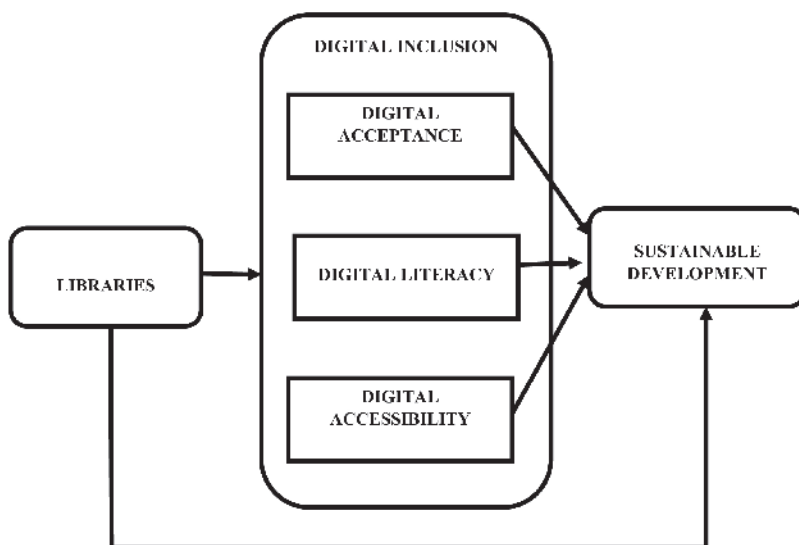


Figure 3. Conceptual model for the study (dimensions of digital inclusion)

Source: Made by Authors in based on: Nguyen, et al., 2020

In the context of this study, digital accessibility is the extent to which digital devices and infrastructure are available and navigable to everyone (Kulkarni, 2019), in order to provide a level playing ground for all and allow for productivity and inclusion (Kent, 2015). The definition of digital literature that best suits this study is provided by *Law, Woo, Torre and Wong* (2018, p.6), which states that “digital literacy is the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately through digital technologies for employment, decent jobs and entrepreneurship. It includes competences that

are variously referred to as computer literacy, ICT literacy, information literacy and media literacy". It includes skills and abilities required to access available technology (Jaeger, et al., 2021) and has been adjudged to be a critical part of digital inclusion required to enable people to navigate the digital world for global opportunities (Jaeger, et al., 2012). Whereas, understanding of and attitudes regarding the usage of digital technology are referred to as digital acceptance (Nguyen, et al., 2020).

Figure 3 shows the relationship between the concepts of the study. It suggests that libraries have roles to perform in ensuring digital inclusion defined by digital acceptance, literacy and accessibility. In turn, digital inclusion is fundamental in the realisation of sustainable development. Thus, libraries through digital inclusion can contribute to the realisation of sustainable development.

## Review of Literature

Based on the objectives guiding the study, review of literature is carried out under the following headings:

### Libraries as facilitators of digital acceptance in Nigeria

Digital acceptance is a critical factor in technology adoption and use. According to Teo (2011), technology acceptance is the willingness of a user to use technology for the purposes it is intended. Due to the adoption of technology in an effort to boost organisational performance, the need to evaluate technology acceptability is more important than ever (Park, et al., 2022). In Nigeria, efforts have been made to promote digital acceptance in the banking sector (Awoniyi, 2022) as well as in the small and medium scale sectors (Okundaye, 2016). However, one of the most prominent sectors has been the educational sector, where libraries are at the forefront of promoting digital acceptance, inclusion and utilisation through the provision of digital tools, resources and training. This is in line with the global practice, where libraries are performing crucial roles in facilitating access to technologies and other resources for development. Irrespective of its type, these libraries are organised to provide critical support to their clientele with regards to teaching, learning and research activities through the provision of access to information resources, and facilities. Aiyebelehin et al. (2018) emphasised that, as development partners, libraries are a natural environment for introducing citizens to new innovations and technologies. In this regard, Adeleke, Ojokuku, and Ojo (2022) pointed out that libraries take initiatives to integrate digital technologies with their operations and services in order to completely meet the ever-changing needs of their clientele.

In Nigeria, many libraries are making efforts to promote digital acceptance by providing access to digital resources, offering training and workshops, collab-

orating with technology companies and creating digital spaces. Gani and Magoi (2014) reported evidence from Nigerian libraries where digital acceptance has been facilitated through the provision of access to digital resources and tools. Similarly, Urhiewhu and Emojorho (2015) reported that African universities (Nigeria inclusive) have started using technology in their daily activities. Despite previous findings of challenges resulting in low digital acceptance and use in Nigeria, many of the libraries in Nigeria have now transcended the basic and initial stages of digital maturity, while some others are at the e-Enabled level (Adeleke, Ojokuku & Ojo, 2022). This suggests that libraries in Nigeria have come of maturity digitally, to begin to pave the way or facilitate digital inclusion by creating awareness of digital technologies, making people see the benefits of using these technologies, and equipping them with the required skills increasing perceived usability.

One critical strategy Nigeria libraries have adopted for promoting digital acceptance is the creation and provision of access to technologies and networks that are mostly not accessible or too expensive for average citizens. Studies like Sadiku, et al. (2021) and Igbo, et al. (2022) provided recent evidence that shows an increasing number of libraries in Nigeria that provide access to digital resources and services aimed at driving digital acceptance. It should be noted that the efforts at promoting digital acceptance have not been championed across the board, as most of it is happening in the banking and educational sectors. This seems to exclude citizens who are not participants in these sectors. The exclusion of the vast majority from the platforms for promoting digital access and acceptance has resulted in the continuous decline in digital penetration in Nigeria (Helgi Analytics, 2022). There is a need to enlarge the mandates of libraries to include other individuals outside their immediate scope. This could be effectively done by empowering public libraries, that have broad-based objectives (Aiyebilehin, et al., 2018), to create more awareness and provide better access to digital technologies. Until this is done, the efforts of mostly academic libraries at promoting digital acceptance will not produce national effects.

## **Libraries as facilitators of digital literacy in Nigeria**

Digital Literacy is a critical survival skill in this fast-paced, technology-driven world where the ubiquity of technologies makes it almost mandatory that everyone acquires digital skills in order to function effectively and participate actively in societal activities. In response to this necessity, the Nigerian National Information Technology Development Agency in 2021 came up with a draft framework tagged the National Information Technology Development Agency Framework (NITDA), aimed at setting the agenda for training Nigerians from all walks of life to become active participants in the 4<sup>th</sup> economic revolution built solely on digital technologies. The NITDA clearly stated that:



*In order for Nigeria to improve its digital advantage and build sustainable prosperity, it must prepare for the challenges of a 21<sup>st</sup> century dynamic work environment. Building a digitally-skilled workforce will accelerate Nigeria's economic growth and development (NITDA, 2021, p. 9)*

The implementation of this framework is aimed to help the Government achieve its ambitious desire to take the digital literacy rate from around 50% to 95% (Adepetun, 2022) by 2030. There is currently positive evidence of digital capacity among young people in Nigeria. Beyond government direct efforts, the actions of other stakeholders, especially in the education sector, have started yielding good results among the younger generation. Adeoye and Adeoye (2017) reported a growing level of digital literacy skills among undergraduates in Nigerian universities. This is evidence of the cumulative activities of Nigerian university libraries towards promoting digital literacy among students and faculty members. Similarly, Ikenwe, Aiyebelehin and Adjarho (2022) affirmed the need for libraries to expose students to digital learning in order to amass a considerable level of digital literacy skills.

Tyohemba (2023) reported that Tertiary Education Trust Fund (TETFUND), a government agency responsible for funding infrastructure and human capacity development in Nigeria, has made digital literacy development a major mandate for universities. Consequently, the libraries in the universities have become the centres of facilitation for these TETFUND supported initiatives. This is due, primarily, to the fact that Nigerian libraries have strived to serve as facilitators and enhancers of digital skills development, despite deficit in facilities.

Adeleke, Ojokuku and Ojo (2022) asserted that in order for Nigeria to achieve its vision of transforming into digital economy for prosperity and security, collaboration between academia and the industry is crucial. This underscores the roles the library institution must perform in ensuring that technologies are not just available and accessible but that the general populace has the digital capacity and skills to effectively utilise them for personal and national development.

The National Library of New Zealand (2023) specifically outlined the specific ways libraries facilitate digital literacy to include:

- Positioning the library as an information ecosystem
- Helping students, and teachers, learn digital literacy skills
- Supporting members of the school community to learn digital literacy skills
- Ensuring your library is digitally inclusive.

In order to effectively carry out these functions, Adeleke, Ojokuku and Ojo (2022) asserted that Nigerian universities and, by extension, its libraries need to improve their strategies for capacity development to catch-up with the fast-changing digital innovations in order to solve societal problems and challenges.

The majority of the digital natives who dominate the campuses of Nigerian universities have had the opportunity of being impacted by libraries, with useful digital skills, through the facilities and resources available at the electronic libraries. Despite the efforts of Nigerian libraries to provide digital resources and tools for enhancing digital literacy, there is still the problem of poor digital skills among library users (Odu, & Omosigho, 2017). Libraries of all types have now taken on the mandate to facilitate digital literacy through the provision of learning platforms that equip people with hands-on ability or skill in both information and media literacy, and computer literacy. However, while on this mandate, it is critical to note that Nigerian libraries still have the challenge of inadequate facilities/poor infrastructures, dearth of skilled manpower and robust digital literacy policiesto contend with in facilitating digital literacy as a stride towards digital inclusion.

## **Libraries as a facilitator of digital accessibility in Nigeria**

Promoting digital accessibility in Nigeria is a fundamental path to ensuring that Nigeria fully participates in the global digital economy as well as provide opportunities for rapid development. The World Bank (2019) asserted that “with improvements in digital connectivity, digital skills, digital financial services and other core areas of digital development, Nigeria can fully unleash new economic opportunities, create jobs and transform people’s lives”. Although considerable progress has been made with regards to access to digital tools and technologies, almost 60% of the Nigerian populace still lacks access to modern digital tools (Ogune, 2021). At the forefront of promoting digital inclusion through digital accessibility in Nigeria have been the Nigerian libraries.

To facilitate digital accessibility, Nigerian university libraries have been actively engaged in the adoption of platforms for providing digital information resources and tools as far back as in the 1970s, when librarians began to integrate ICTs for library service delivery (Gani& Magi, 2014). Similarly, the Nigerian Universities Commission (NUC) has made concerted efforts over the years to make policies, as well as come up with frameworks to encourage university libraries to facilitate digital accessibility “through the Virtual Library Project and the more recent Nigerian Research and Educational Network (NgREN) Initiative” (Asogwa et al., 2015).

Rabiu, Ojukwu and Oladele (2016) carried out an extensive review of the provision of accessibility to digital resources and tools by Nigerian libraries, and found that though efforts have been made by the various libraries, access to digital resources is quite low. In a similar study by Tayo, Thompson and Thompson (2016), it was revealed that the level of access to digital access by people in most rural and

suburban areas of Nigeria was very low. In view of the low digital access rate, several investments have been made primarily in the education subsector, and as reported by Igbo, et al., (2022), most Nigerian university libraries now have websites, institutional repositories, Web-OPACs, online databases and electronic resources. The provision of these tools and resources has facilitated digital accessibility.

## Digital Inclusion as a Predictor of Sustainable Development

Governments and institutions are making efforts towards the realisation of sustainable development from different angles, with the common goal of making the world a better place. They are setting up strategies and making actionable plans to achieve success across the development framework within the specified timeline. However, one vital approach to achieve this global agenda that has not received enough attention is digital inclusion. The SDG Digital Inclusion Framework by Media Ethics Lab (2020) exhaustively revealed the connection between digital inclusion and the SDGs. The framework shows that equitable digital access through digital inclusion will help to advance the UN global goals. The framework shows that digital inclusion will directly benefit 24 SDG targets and their indicators (Appendix A). It also showed how components of digital inclusion will help achieve this global agenda. For instance, digital access in healthcare will help reduce premature mortality. It will also strengthen the capacity of countries, especially of the Global South like Nigeria, for early warning, risk reduction and crisis management. Also, digital literacy equips youth and adults with relevant skills for employment, entrepreneurship and decent jobs. All of these start from the willingness of people to use technology to drive sustainable development (digital acceptance). Consequently, an effort towards digital inclusion is a remarkable stride towards the realisation of sustainable development goals. Digital inclusion can thus be considered as one of the vehicles that drives the actualisation of the UN global agenda.

The nexus between digital inclusion and sustainable development was reinforced in the study of Mamman (2020). The author claimed that the low level of digital inclusion in Nigeria, which is reflected in poor digital access, unavailability of digital infrastructures and low digital literacy, is largely attributed to the nation's poor economy, and will adversely impact on sustainable development. This is corroborated by the study of Onyam and Chukwu (2022) where they affirmed that the poor state of digital infrastructures and low digital literacy would adversely impact the sustainable development. They also revealed that libraries in ensuring digital literacy become key actors in the actualisation of sustainable development. Although digital policies and frameworks already exist in Nigeria (for example, National Digital Literacy Framework, NDLF and NITDA), to ensure digital inclusion; they were not drafted with the goal of achieving sustainable development. However, concentrated focus of these frameworks with the intention to achieve sustainable development could be more productive.

## Conclusions and Recommendations

The digital era has ushered in new opportunities and challenges for individuals and nations. With access to digital tools and resources, individuals are rising above the limitations of their environments to conquer age long hindrances to economic freedom. In fact, the digital economy is becoming the major economy, and only nations who promote digital inclusion are making profits out of the digital opportunities. The key factor in benefiting from the digital economy is participation. Hence, libraries especially those attached to academic institutions are at the forefront of facilitating digital inclusion by promoting digital acceptance, digital literacy and digital accessibility. Public libraries in Nigeria have not achieved so much in this regard due to low funding, paucity in digitally skilled manpower and digital infrastructures for facilitating digital inclusion. Despite the challenges facing the Nigerian libraries, efforts have been put into promoting digital inclusion over the years. Results from these efforts have not yet matched expectations, hence, the following are recommended:

1. Public libraries should advocate for funding to provide digital access to those in local communities.
2. Academic libraries should integrate digital literacy into their users' orientation/education programmes in their respective institutions of learning.
3. Nigerian government through the National Communications Commission (NCC) should liaise with communication companies to subsidise data tariff.
4. The import duty levied on digital infrastructures should be reviewed downwards to lessen the cost of acquiring them.
5. Libraries of all types should draft and implement a digital inclusion framework that will accommodate all components of digital inclusion and take sustainable development into cognizance.

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## APPENDIX A

## SDG Targets Overview

THE REPORT EXAMINES 24 SELECTED SDG TARGETS AND THEIR INDICATORS, which were chosen based on the potential benefits that digital inclusion initiatives bring to them.

- 1.4** By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.
- 3.4** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
- 3.7** By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.
- 3.d** Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.
- 4.4** By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
- 4.5** By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
- 4.a** Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all.
- 5.5** Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
- 5.b** Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women.
- 8.2** Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors.
- 8.3** Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.
- 8.8** Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.
- 9.1** Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
- 9.c** Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020.
- 10.1** By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average.
- 10.2** By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.
- 11.1** By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- 11.3** By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
- 11.4** Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 12.8** By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature.
- 16.7** Ensure responsive, inclusive, participatory and representative decision-making at all levels.
- 16.10** Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.
- 17.6** Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism.
- 17.17** Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.

**Magnus Osahon Igbinovia**

Ambrose Alli University, Ekpoma, Edo State, Nigeria

E-mail: [Magnus.igbinovia@aauekpoma.edu.ng](mailto:Magnus.igbinovia@aauekpoma.edu.ng)

ORCID ID: 0000-0001-9104-2991

**Afebuameh James Aiyebilehin**

Ambrose Alli University, Ekpoma, Edo State, Nigeria

E-mail: [aiyebelehin@aauekpoma.edu.ng](mailto:aiyebelehin@aauekpoma.edu.ng)

ORCID ID: 0000-0002-8092-9949

## Biblioteki jako moderatorzy włączenia cyfrowego na rzecz zrównoważonego rozwoju: doświadczenie nigeryjskie

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Magnus Igbinovia jest obecnie dyrektorem Biblioteki Elektronicznej na Uniwersytecie Ambrose Alli w Ekpoma. Jest także adiunktem na Wydziale Bibliotekoznawstwa i Informacji Naukowej Uniwersytetu Ambrose Alli. Obecnie odbywa studia doktoranckie na Uniwersytecie w Ibadanie w Nigerii. Jest autorem ponad pięćdziesięciu (50) artykułów naukowych opublikowanych w renomowanych czasopismach międzynarodowych i lokalnych. Jest współredaktorem książki „Global Perspectives on Sustainable Library Practices” wydanej przez IGI Global. Wygłaszał również referaty na konferencjach związanych z bibliotekoznawstwem i informacją. Jest członkiem kilku organizacji zawodowych, takich jak Nigerian Library Association (NLA), Library Advocacy Group (LAG) i certyfikowany przez Librarians’ Registration Council of Nigeria (LRCN). Jest laureatem nagrody Young Library and Information Professionals (yLIPs) przyznanej w 2016 roku przez Nigeryjskie Stowarzyszenie Bibliotek. Otrzymał również nagrodę “Best Paper Presenter na 55th National Conference / AGM, Nigerian Library Association (NLA)” w 2017 roku. Google scholar: [https://scholar.google.com/citations?user=7C\\_Br5QAAAAJ](https://scholar.google.com/citations?user=7C_Br5QAAAAJ)

Dr Afebuameh James Aiyebilehin jest obecnie wykładowcą i koordynatorem studiów podyplomowych na Wydziale Bibliotekoznawstwa i Informacji Naukowej Uniwersytetu

Ambrose Alli w Ekpoma. Posiada tytuł licencjata (I klasa), magistra LIS (wyróżnienia) oraz doktora w dziedzinie bibliotekoznawstwa i informacji naukowej. Publikował wysokiej jakości artykuły zarówno w lokalnych, jak i międzynarodowych czasopismach.. Można się z nim kontaktować pod adresem [aiyebelehin@aauekpoma.edu.ng](mailto:aiyebelehin@aauekpoma.edu.ng).

**S**łowa kluczowe: akceptacja cyfrowa; dostępność cyfrowa; włączenie cyfrowe; umiejętności cyfrowe; biblioteki; Nigeria

**S**treszczenie. **Tło:** Inkluzyjny dostęp do technologii i korzystanie z niej są niezbędne dla zrównoważonego rozwoju zawartego w agendzie transformacji Organizacji Narodów Zjednoczonych. W związku z tym potrzeba wypełnienia luki cyfrowej poprzez integrację cyfrową stała się kluczowym celem dla instytucji rozwojowych, takich jak biblioteki.

**C**el: Ten artykuł ma na celu teoretyczne zbadanie, w jaki sposób biblioteki mogą ułatwić integrację cyfrową dla zrównoważonego rozwoju, z perspektywy Nigerii.

**M**ethod: Teoretyczne założenie badania opiera się na teorii zasobów i zawłaszczenia dyfuzji, akceptacji i przyjęcia nowych technologii van Dijka (2013). Konceptualizacja opierała się na krytycznych wymiarach integracji cyfrowej (akceptacja, umiejętność czytania i pisanie oraz dostępność); na podstawie których zorganizowano szczegółowe cele badania. Opinie autorów sytuowały się w kontekście odpowiedniej literatury.

**W**ynik: W badaniu ustalono, że biblioteki ułatwiają integrację cyfrową w zakresie akceptacji cyfrowej, umiejętności czytania i pisanie oraz dostępności. Niezmiennie wpływa to na równość cyfrową dla zrównoważonego rozwoju dla wszystkich.

**W**nioski: Biblioteki w Nigerii, zwłaszcza te związane z instytucjami akademickimi, przodują w promowaniu integracji cyfrowej, która jest narzędziem do osiągnięcia zrównoważonego rozwoju.

**Magnus Osahon Igbinovia**

Ambrose Alli Universität in Ekpoma, Bundesstaat Edo, Nigeria

E-Mail: Magnus.igbinovia@aauekpoma.edu.ng

ORCID ID: 0000-0001-9104-2991

**Afebuameh James Aiyebelehin**

Ambrose Alli Universität in Ekpoma, Bundesstaat Edo, Nigeria

E-Mail: aiyebelehin@aauekpoma.edu.ng

ORCID ID: 0000-0002-8092-9949

# Bibliotheken als Förderer der digitalen Integration für nachhaltige Entwicklung: Die nigerianische Erfahrung

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Magnus Igbinovia ist derzeit der Leiter der Elektronischen Bibliothek an der Ambrose Alli Universität in Ekpoma. Er ist auch Dozent am Lehrstuhl für Bibliotheks- und Informationswissenschaft an dieser Universität. Derzeit absolviert er ein Promotionsstudium an der Universität in Ibadan, Nigeria. Er ist Autor von über fünfzig (50) wissenschaftlichen Artikeln, die in angesehenen internationalen und lokalen Fachzeitschriften veröffentlicht wurden. Er war Mitherausgeber des Buches „Global Perspectives on Sustainable Library Practices“ („Globale Perspektiven nachhaltiger Bibliothekspraktiken“), das von IGI Global herausgegeben wurde. Außerdem hat er Vorträge auf Tagungen im Bereich Bibliotheks- und Informationswissenschaft gehalten. Er ist Mitglied mehrerer beruflicher Organisationen, darunter des Verbands der Nigerianischen Bibliotheken (Nigerian Library Association, NLA), der Bibliotheksinteressengruppe (Library Advocacy Group, LAG) und ist vom Registrierungsrat der Bibliothekare Nigerias (Librarians' Registration Council of Nigeria, LRCN) zertifiziert. Im Jahr 2016 erhielt er den Preis für junge Bibliotheks- und Informationsfachleute „Young Library and Information Professionals (yLIPs)“ von der NLA. Im Jahr 2017 wurde er als „Bester Vortragender“ auf der 55. Nationalen Jahreshauptversammlung des Nigerianischen Bibliotheksverbands (NLA) ausgezeichnet. Google Scholar: [https://scholar.google.com/citations?user=7C\\_Br5QAAAAJ](https://scholar.google.com/citations?user=7C_Br5QAAAAJ)

Dr. Afebuameh James Aiyebelehin ist ein Dozent und Koordinator für postgraduale Studiengänge am Lehrstuhl für Bibliotheks- und Informationswissenschaft an der Ambrose Alli Universität in Ekpoma. Er hat einen Bachelorabschluss (erste Klasse), einen Masterabschluss in Bibliotheks- und Informationswissenschaft (mit Auszeichnung) sowie einen Dokortitel in diesem Bereich. Er hat qualitativ hochwertige Artikel in lokalen und internationalen Fachzeitschriften veröffentlicht. Google Scholar: <https://scholar.google.com/citations?hl=pl&user=U6GnnacAAAAJ>

**S** **chlüsselworte:** digitale Akzeptanz; digitale Zugänglichkeit; digitale Integration; digitale Fähigkeiten; Bibliotheken; Nigeria

**Z** **usammenfassung. Kontext:** Inklusiver Zugang zur Technologie und ihre Nutzung sind wesentlich für die nachhaltige Entwicklung gemäß dem Transformationsprogramm der Vereinten Nationen. Daher ist die Schließung der digitalen Kluft durch digitale Inklusion zu einem Schlüsselziel für Entwicklungsorganisationen wie Bibliotheken geworden.

**Z** **iel:** Dieser Artikel zielt darauf ab, theoretisch zu untersuchen, wie Bibliotheken die digitale Integration im Kontext der nachhaltigen Entwicklung aus nigerianischer Perspektive erleichtern können.

**F** **orschungsmethode:** Die theoretischen Grundlagen dieser Studie basieren auf der Ressourcen- und Aneignungstheorie der Diffusion (resources and appropriation theory of diffusion) sowie auf den Konzepten der Akzeptanz und Adoption neuer Technologien von van Dijk (2013). Die Konzeption wurde auf den kritischen Dimensionen der digitalen Integration (Akzeptanz, Lesen und Schreiben sowie Zugänglichkeit) aufgebaut, auf deren Basis detaillierte Forschungsziele entwickelt wurden. Die Ansichten der Autoren wurden im Kontext der relevanten Literatur verortet.

**F** **orschungsergebnisse:** Die Studie hat gezeigt, dass Bibliotheken die digitale Integration hinsichtlich der digitalen Akzeptanz, der Lese- und Schreibfähigkeiten sowie der Zugänglichkeit fördern. Dies trägt kontinuierlich zur digitalen Gleichstellung im Sinne einer nachhaltigen Entwicklung bei.

**S** **chlussfolgerung:** Bibliotheken in Nigeria, insbesondere solche in Verbindung mit akademischen Institutionen, spielen eine führende Rolle bei der Förderung der digitalen Integration, die als Instrument zur Erreichung nachhaltiger Entwicklung dient.