

# OPTIMIZING DIGITAL LITERACY FOR SUSTAINABLE DEVELOPMENT IN NIGERIA: ISSUES AND CHALLENGES

BY

**ONYAM, Ijeoma Dora**

University Library, University of Nigeria Enugu Campus

[dora.onyam@unn.edu.ng](mailto:dora.onyam@unn.edu.ng)

(08036146029)

**CHUKWU, Ebele Georgina**

College Library, Enugu State College of Education Technical

[chiebele@yahoo.com](mailto:chiebele@yahoo.com)

(08035861074)

## **Abstract**

*This paper explores the impact of digital literacy on Sustainable Development in Nigeria. Exploratory design was adopted for the study in which qualitative data was obtained through in-depth review of relevant literature and the researcher's personal observation of the scenario. The literature revealed that the poor state of Nigeria's economy is a factor that is responsible for digital illiteracy in Nigeria; the state of infrastructures such as ICTs and digital literacy skills is a serious impediment to digital literacy in Nigeria; inadequate funding of libraries in Nigeria is affecting provision of ICTs and encouraging digital illiteracy, library services are very significant in digital literacy and sustainable development in Nigeria. Inadequate access to computer and internet connectivity could undermine digital literacy and sustainable development in Nigeria.*

*Based on this, the paper made some recommendations including: the Federal and State Governments in Nigeria should show seriousness in addressing the infrastructural problems impeding digital literacy and sustainable development in Nigeria; Federal and State Governments in Nigeria should partner with the private sector in ensuring that the necessary infrastructures that will facilitate digital literacy and sustainable development are provided; the private sector should assist public libraries with ICT facilities that will enable them acquire ICT literacy skills and enhance digital literacy for sustainable development in Nigeria. The position of the paper is that libraries are key actors in the attainment of the SDGs and that the different types of libraries irrespective of nomenclature have a place in the 2030 agenda.*

**Keywords:** Optimize, Sustainable Development, Nigeria, Issues, Challenges, Digital literacy

## **Introduction**

Sustainable Development is a concept that projects the image of a nation among the comity of nations in the world. The United Nations (UN) member states and the UN General Assembly formally agreed in September 2015 on the Sustainable Development Goals (SDGs) and conceived a global agenda for development that is based on “economic prosperity, social inclusion and environmental sustainability” which is known as the 2030 Agenda for sustainable development (UN, Department. of Economic and Social Affairs, 2018; IFLA, 2019). In response to this development, the UN’s Broadband Commission for Sustainable Development, which was established by International Telecommunication Union (ITU) and United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2010 broached the idea of promoting development and empowerment of each and every individual and society through the benefit of broadband (UN Dept. of Econ. Affairs, 2018). Since the creation of the SDGs and the 2030 Agenda, the Commission has been concerned with identifying the ways in which ICT can be applied in the execution of the 17 sustainable Development Goals and 167 indicators to measure their progress (IFLA, 2019). The underlying rationale for such ICT and development initiatives, according to UN Broadband Commission for Sustainable Development is “the expanding body of literature on the correlation between ICT and economic growth and its potentials in poverty alleviation that has emerged since the World Summit on the Information Society a decade ago with the rise of the information society and knowledge economy in the G8 Agenda (UN Department of Economic Affairs, 2018). International Federation of Library Association (IFLA) (2017) have also keyed into this laudable programme by displaying its relevance in the UN 2030 Agenda. In solidarity with the UN, it stated that “The UN 2030 Agenda is a political commitment, which means that everyone, including libraries and civil society, will have a vital role to play in making sure governments are accountable for implementing the SDGs”. This statement implies that libraries in Nigeria have a role in ensuring the success of the implementation of the SDGs.

As earlier stated, Sustainable Development is a concept that projects the image of a nation among the comity of nations in the world. It determines the extent to which a country is concerned with solving survival needs of its citizens such as food, healthcare, poverty alleviation, education and a host of others. In this regard, nations must not only endeavour to satisfy the needs of the present generation but must plan to also solve those of future generations. To achieve this noble objective requires access to information by all citizens of a nation. It is for this reason that Information and Communication Technology (ICT) is considered relevant due to its propensity to disseminate information extensively and rapidly. This also explains why they are being applied in virtually every facet of human endeavour in a bid to fast-track sustainable development in the society. Thus, Digital literacy (a concept that has emerged from ICT utilization) has become a measuring device in determining the level of sustainable development of nations. Nigeria is one of the

developing nations of the world that has keyed into the SDGs Agenda in its bid to ensure the wellbeing of its citizens and the socio-economic growth of the country. However, the question that comes to mind is, to what extent has Nigeria embraced digital literacy in sustaining its developmental efforts? Is digital literacy making any impact on the country's sustainable development? What is the role of libraries in digital literacy and sustainable development in Nigeria? The paper is an attempt to provide answers to these questions and a few others. Owing to this, the paper will consider

- i. the nature of Digital Literacy and Sustainable Development in Nigeria.
- ii. the impact of Digital Literacy on Sustainable Development in Nigeria.
- iii. the issues and challenges of Digital Literacy and Sustainable Development in Nigeria.
- iv. the role of Libraries in Digital Literacy and Sustainable Development in Nigeria.
- v. strategies that would enhance Digital Literacy and Sustainable Development in Nigeria.

### **Methodology**

The paper adopted the exploratory research design in which qualitative and quantitative data was obtained through in-depth review of relevant literature.

### **Conceptual Clarification**

#### **Digital Literacy**

There are numerous descriptions of Digital Literacy. Some scholars posit that to understand Digital Literacy, one has to first know what digital divide is. This is due to the fact that ICT has affected all facets of human endeavour. According to Ifijeh, Iwu-James and Adebayo (2016) the ability to possess and apply ICT in our daily activities is critical and this is used to determine the level of a country's sustainable development and its status among all other nations. They further stated that it is this disparity that has resulted in the term "digital divide". Digital Literacy therefore is the ability of individuals and groups to access information and communication technologies. Digital Literacy does not only involve access to internet but also availability of hardware and software, relevant content and services; and training for digital literacy skills required for effective use of information and communication technologies (Reder, 2015 cited in Iji and Abah, 2019). Generally, definitions of digital inclusion usually entail areas of access to computers and the Internet.

#### **Sustainable Development**

Sustainable Development has been described in many forms. Udoudoh et al (2019) opined that sustainable development is "ability to make development sustainable, that is to ensure that it meets the needs of the present generation without compromising the ability of future generations to meet their own needs". Adejumo and Adejumo

(2014,cited in Udoudoh et al, 2019) captured sustainable development as being all about resource exploitation at a rate that would not be detrimental to future generations. A concise and lucid version of sustainable development is that further given by Udoudoh et al (2019), that is “not using up resources faster than the planet can replenish or restock –maintaining better quality of life now and for incoming generations to come”.

### **Nature of Digital Literacy and Sustainable Development in Nigeria**

The Predecessor of Sustainable Development Goals (SDGs) being Millennium Development goals (MDGs) was introduced in year 2000 by the United nations (UN) to address the issue of sustainability in development globally. Consequently, eight goals were outlined with the intention of achieving them by 2015. The goals addressed issues to do with poverty and hunger eradication, achievement of universal primary education, promotion of gender equality and empowerment of women, reduction of child mortality, improvement of maternal health, combating HIV/AIDS, Malaria and other diseases, ensuring environmental sustainability and develop a global partnership for development (Ifijeh, Iwu-James and Adebayo, 2016; Gillwald, 2017; Odoudoh, Omame and Adamu, 2019). However, the UN noticed by 2015, that many developing countries (Nigeria inclusive) were far from realizing the MDGs.

It was this scenario that led the UN to summon another meeting of the 189 member countries in 2015 and adopted the 2030 Agenda of a set of 17 sustainable goals that is meant to end poverty, fight inequality and injustice and tackle poverty (Odoudoh, Omame and Adamu, 2019). A prerequisite for achieving sustainable development was prescribed by the UN in which member countries were implored to ensure full participation of their citizens in development programmes and strengthen the capacity of citizens to access and utilize timely information. This in turn informed the application of ICTs in information generation, processing and dissemination in the 21<sup>st</sup> Century, meant to facilitate the achievement of the SDGs (Ifijeh, Iwu-James and Adebayo, 2016).

Be that as it may, the nature of Digital Literacy and Sustainable Development in Nigeria leaves much to be desired. Albeit there are institutional frameworks on ground that are meant to facilitate the attainment of the SDGs, their functionality and efficacy cast doubts on their ability and capacity to help in achieving the SDGs. The Nigeria Communication Commission (NCC), National Information Technology Development Agency (NITDA), Federal Ministry of Information and Culture and a host of others are not performing up to expectation. Adejumo and Adejumo (2014) cited in Udoudoh, Omame and Adamu (2019) observed that, changes in the integrated approach, to social, economic and environmental issues have not really facilitated the development goals in Nigeria. The authors confirmed that problems such as low per capita income, inequitable distribution of homes, low capital formation, inefficiency in the mobilization of resources, overdependence on a single commodity (oil) as a major source of income,

unemployment, inflation, flooding, ethnicity, environmental pollution, corruption and lopsided income distribution have always been on the increase. The most recent, according to the scholars is economic recession in the country, which has worsened and continues to worsen the economic situation of the masses in terms of general increase in prices and quality of goods. This narration appears to be the nature of digital literacy and sustainable development in Nigeria presently. It is perhaps for this reason that the Federal Government of Nigeria established the Ministry of Communication and Digital Economy in 2019, which is meant to create the desired digital awareness and encourage digital literacy among its citizenry. This in turn is likely to foster the development of a digital economy in the country.

### **Impact of Digital Literacy on Sustainable Development in Nigeria**

Given the poor state of digital inclusiveness in Nigeria, the sustainability of its development becomes questionable. This is due to the apparent inadequacy of essential infrastructure that would drive sustainable development. Critical infrastructure such as ICTs and digital literacy skills are grossly inadequate. Joryesimi (2006) supports this assertion when he said: “The implementation of SDG goals can be very challenging, especially for countries that are faced with serious infrastructural problems”. Lamenting further on this situation, Ifijeh, Uwu-James and Adebayo (2016) stated that “Sustainable development will remain a mirage in any country whose citizens cannot effectively and efficiently deploy the use of ICTs to access and utilize quality information”. Apparently, this statement reflects the true scenario in Nigeria. It can therefore be deduced from the foregoing that digital literacy is impacting on sustainable development in Nigeria to a low extent.

### **Issues and Challenges of Digital Literacy and Sustainable Development in Nigeria**

Some of the issues and challenges of Digital Literacy and Sustainable Development in Nigeria include:

**Affordability:** As indicated by Ifijeh, Iwu-James and Adebayo (2016), cost of ICT services is a major barrier to effective use of internet and broadband. They averred that, majority of those who access internets do so through mobile devices such as smart phones and tablets. Citing a survey on availability of internet in Nigeria (2014), Ifijeh, Uwu-James and Adebayo reported that 70% of the respondents who could not access internet services adduced this to the high cost of internet services. According to the report, as cited by Ifijeh, Uwu-James and Adebayo “only 3.4% of households or 747.025% have internet connectivity, while 62% of internet users depended solely on their mobile phones for online access”. Similarly, digital literacy requires that citizens be digitally literate. However, in Nigeria, statistics show that 95% of Nigerians do not own a personal computer, yet sustainable development, which hinges on digital literacy and access to ICT facilities, is indispensable (Olufuye, 2018).

**Literacy and Language Barrier:** The literacy rate in Nigeria is 56.9% (Ifijeh, Uwu-James and Adebayo, 2016; Gillwald, 2017). The authors also lamented that one-third of the adult population in Nigeria still lack basic literacy and a considerable number can only speak and write in the local languages other than English; and because most ICT facilities are produced or configured in English, this category of the population is digitally excluded. From this researcher's observation, the emphasis should not be on literacy in general alone, but computer literacy needs to be thought simultaneously with literacy programmes that are conducted all over the country. This would enhance the acquisition of digital literacy.

**Disparities in Urban and Rural Areas:** The obvious differences in the availability of infrastructure in urban and rural areas are a hindrance to digital literacy and sustainable development in Nigeria. Urban areas appear to have better infrastructure than rural areas. This results in the exodus of young people to urban areas in a bid to benefit from better infrastructures and services. A publication on "Trading Economics: Rural Population in Nigeria (2014, cited in Ifijeh, Uwu-James and Adebayo, 2016) reported that 84% of urban dwellers have access to mobile phones, while only 58.5% of rural dwellers have access to mobile phones". They further stated that majority of phone owners in rural areas use them for making calls rather than for accessing the internet in searching for important information. This researcher, however observed that, some rural settlers who can afford data use their phones in accessing the internet and do other online transactions such as e-banking, e-commerce and a few others.

**Lack of Digital Literacy:** Lack of basic digital literacy has been considered to be a major setback to sustainable development in Nigeria. Digital literacy, according to Ifijeh, Uwu-James and Adebayo (2016) "is the ability to identify, search and utilize required information in multiple formats from a wide range of sources presented through information and communication technologies". Current events show that ICTs are increasingly dominating our activities. Those that do not have access to internet and digitalized services have therefore been excluded from benefitting from the privileges offered by ICT facilities. This researcher also observed that, the wide publicity that is given to digital literacy and ICT over the media presently is gradually improving the situation of digital illiteracy in the country.

**Cybercrimes:** Cybercrimes have become rampant in the cyber space. Hackers are increasingly succeeding in hacking into personal and organizational files. Apparently, this has resulted in crimes such as identity theft and exposure to hate sites. This development has resulted in reduction in the use of internet and online services by a portion of the population (Olufuye, 2018). There is no doubt that if this is not checked, it will constitute a danger because as more people become digitally literate, the rate of cybercrime will likely increase, especially among young people. This is due to the large

number of unemployed youths that are turned out in our higher institutions of learning in the country every year, who are mostly digitally or ICT literate (Udaudoh, Omame & Adamu, 2019)

### **Libraries, Digital Literacy and Sustainable Development in Nigeria**

Libraries and Librarians/Information Professionals have a crucial role to play in bridging the digital divide and ensuring digital literacy in the society. This can be achieved through effective dissemination of relevant information that would foster digital literacy. As IFLA (2017) rightly noted, “Libraries support many aspects of the UN 2030 Agenda’s vision and the SDGs; libraries are key public institutions that have a vital role to play in development at every level of society”

Furthermore, citing a survey on digital literacy (2014), Ifijeh, Iwu-James and Adebayo (2016) averred that “Libraries all over the world have renewed determination to support access to digital content, technology and services”. In doing this, according to the scholars, digital content libraries must go beyond the level of acquisition to information and digital literacy, dissemination of information resources through various ICT media and training for students, teachers and other users of the library.

The various types of libraries have a role in ensuring digital literacy for sustainable development as highlighted here.

#### **Academic Libraries**

In ensuring digital literacy and sustainable development in Nigeria, academic libraries should:

1. Provide lessons in computer skills and technology training. This could be online or within the library.
2. Enhance efforts of digitization of library resources.
3. Ensure the provision of digital content through mobile devices, social media, and virtual research environment.
4. Support and encourage open publishing platforms, wikis, blogs, social media, citation tools, institutional technologies, data visualization tools, etc.
5. Teach students and teachers how to navigate library catalogues and databases in order to search and find information.
6. Teach users how to search and locate required information from internet platforms, such as search engines and data bases. Students need to learn about search engines and Boolean logic; they need to define concepts and key words; library users need to be able to critically evaluate resources relevant to their needs.

7. Students should be taught how to use social media sites such as twitter, for research and for considering ways in which they can share, network and source for information.
8. Students should be introduced to different types of digital resources and content.
9. Students should be taught ways to be up to date with research findings in their fields by visiting journal table of contents, which alerts one on recent updates on journals of their interest as soon as they are published.
10. Digital literacy should be encouraged in students by teaching them the art of creating blogs in order to enable them discuss their research findings. This will encourage and build confidence in them and enhance their digital competence.

### **Public Libraries**

Public libraries, in their bid to encourage digital literacy and sustainable development in Nigeria should:

- i. Offer free classes on internet use, teach access skills that would impact the economic, social and cultural heritage of the people.
- ii. Encourage basic computer skills in users.
- iii. Provide information resources in various formats and guide in the proper use of the information resources.
- iv. Provide free internet services and training for users.
- v. Be part of any Digital Literacy Initiatives; participate in programmes aimed at developing people with digital skills, as this would enable them satisfy their information needs and also enhance their capacity to contribute to sustainable development.
- vi. Engage in awareness campaigns on the need for people to acquire basic digital literacy skills. This is due to the apparent migration of essential services to online platforms. Some of these essential services include: admission issues, drivers license requests and renewals, pension's enquiries, etc (Ifijeh, Uwu-James and Adebayo, 2016; Adebayo, Ahmed and Adeniran, 2018).

**Special Libraries**—These libraries exist within organizations and serve the information needs of staff in their parent body. In their attempts to encourage digital inclusion and sustainable development in Nigeria, special libraries should:

- i. Provide information resources in digital format and encourage their use;
- ii. Ensure regular provision of internet services;
- iii. Organize ICT literacy skills acquisition programmes;
- iv. Organize workshops, seminars, symposiums and the like on ICT/digital resources application in libraries;

- v. Reward staff that display high competences in digital resources application in job performance.

In summary, the findings of this paper include the following:

1. The nature of digital literacy and sustainable development in Nigeria is not impressive.
2. The poor state of Nigeria's economy is a factor that is responsible for digital illiteracy.
3. Digital literacy is impacting on sustainable development in Nigeria to a low extent.
4. The state of infrastructures such as ICTs, and digital literacy skills is a serious impediment to digital literacy in Nigeria.
5. The numerous challenges such as lack of access to internet, digital illiteracy, disparities in access to infrastructures in urban and rural areas, cybercrimes, etc are great obstacles to digital literacy and sustainable development in Nigeria.
6. Inadequate funding of libraries in Nigeria is affecting provision of ICTs and fostering digital illiteracy.
7. Library services are very significant in digital literacy and sustainable development in Nigeria.

### **Recommendations and Conclusion**

The paper has attempted to explore the impact of digital literacy on sustainable development in Nigeria. It first gave a generic scenario of digital literacy and sustainable development from the perspectives of the UN and other international organizations. Attempt was then made to discuss the topic based on the objectives stated in the paper. It highlighted the summary of major findings and concludes that the state of digital literacy for sustainable development in Nigeria leaves much to be desired, and if Nigeria is to make meaningful headway in this direction, the public and private sectors of the economy must go into partnership in ensuring that all the necessary infrastructures that will facilitate digital literacy for sustainable development in Nigeria are provided.

In view of the findings in this paper, the following recommendations are proffered:

1. The Federal and State Governments of Nigeria should show seriousness in addressing the infrastructural problems impeding digital literacy for sustainable development by repositioning the institutional frameworks that would ensure effective and efficient digital literacy for sustainable development in Nigeria.
2. The Federal and State Governments of Nigeria should partner with the private sector in ensuring that the necessary infrastructures that will facilitate digital literacy and sustainable development are provided.

3. The Federal and State Governments of Nigeria should establish a Special Fund for Public Libraries in the country to enable them procure the necessary infrastructure that would facilitate digital literacy for sustainable development in Nigeria.
4. TETFUND should encourage beneficiary institutions to give more attention to libraries in their domain in order to enable them acquire the necessary facilities that will encourage or enhance digital literacy for sustainable development in Nigeria.
5. The Private Sector should assist public libraries in acquiring the necessary facilities that will enable them promote digital literacy and sustainable development in Nigeria.

## References

- Adebayo, O.A.; Ahmed, Y.O. & Adeniran, R.T. (2018). The Role of ICT in Provision of Library Services: A Panacea for Sustainable Development in Nigeria, Lincoln: Digital Cannon University of Nebraska.
- IFLA (2017). Tool Kit: Libraries Development and the United Nations 2030 Agenda.
- Gillwald, A. (2017). From the Digital Drive to Digital Inequality, Paper presented at the Law and Development Research Conference, University of Automap, Belgium, 20th-22<sup>nd</sup> September, 2017.
- Ifijeh, G., Iwu-James, J. & Adebayo, O. (2016). Digital Inclusion and Sustainable Development in Nigeria: The Role of Libraries. Available at <http://eprints.covenantuniversity.edu.ng/id/eprint/6631>
- Iji, G.O., & Abah, J.A. (2019). Internet skills as measure of Digital Inclusion among Mathematics Education Students: Implications for Sustainable Human Capital Development in Nigeria; *International Journal of Education and Knowledge Management*, 2(i), 1-16.
- Joriyesimi, R. (2016). The challenge of Implementing Sustainable Development Goals in Africa: The Way Forward. *African Journal of Reproductive Health*, 20(3), 13-18.
- Olufuye, J. (2012). Digital Literacy and Public Access Policy Issues: As measures for Promoting Open Knowledge Environment (OKE) in Nigeria, Nigerian Internet Governance Forum.
- Sustainable Development Challenges: World Economic and Social Study (2013). Department of Economic and Social Affairs.
- Udaudoh, S.J.; Omame I.M. & Adamu A.L.G. (2019). Digital Economy: Harnessing the Benefits Tackling the Challenges for Sustainable Development in Nigeria, *International Journal of Arts, Languages and Business Studies*. 2(1), 20-29.