

## Review

# Digital inclusion and sustainable development goals: The role of the Libraries

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**This paper examined the concepts of digital inclusion and sustainable development goals, and the roles libraries could play in realizing their objectives. The paper however, acknowledged that the libraries and librarians are the custodian of knowledge. The roles the deferent types of libraries could play, was closely examined. Nevertheless, the Arrangements IFLA had made for Capacity-Building and Technology Transfer were highlighted. The paper therefore, recommended among others that the libraries should be well funded and the librarians trained in ICTs; the paper further recommended that the government should conduct series of sensitizations of the masses, especially in the rural areas. The paper concludes that the library as the custodian of knowledge has an important role to play in realizing the objectives of digital inclusion and sustainable development goals in Nigeria.**

**Key words:** Digital, Inclusive, Sustainable, Development, Goals, Roles, Libraries

## INTRODUCTION

A cursory review of library services delivery system in Nigeria reveals that citizens are not accessing library services adequately (Campbell, 2006). The poor state of libraries in Nigeria is an issue that has been over flogged in literature. The need for government at all levels to consciously develop our libraries to embrace technology for proper information and knowledge management for digital inclusiveness and sustainable development goals in Nigeria is of prime importance. Without this, no meaningful development can take place in Nigeria (Nwaigwe and Onwuama, 2007).

### The concept of digital inclusion

#### Digital divide

Undoubtedly, information and communication technology (ICT) has affected every area of human life. Consequently, the level of deployment of ICT in a country can determine its level of development and placement among the comity of nations. Unfortunately, ICT has become a basis for disparity among nations. This

disparity has been termed as digital divide. Digital divide is inequality in access, distribution and use of information, communication and technologies between two or more populations (Ifijeh et al., 2016). Digital divide may also be viewed as a gap that exists between those who have access to computers and the internet and those that do not have access (Ifijeh et al, 2016). The United Nations posits that though digital divide is mainly a result of income gap, Government, Institutions and individuals must do everything possible to bridge the divide as ICTs are important factors of sustainable human development (Campbell, 2006). Consequently, Campbell (2006) proposed a concept known as digital inclusion which goes beyond the quantitative and technological aspects of the concept of digital divide.

#### Digital inclusion

Digital inclusion is a set of public policies that relates to the installation, administration, expansion, creation and development of content on wired or wireless public networks in countries, regions and communities. This

includes privacy and security, training and incentives to develop new tools (Campbell, 2006). To attain sustainable development, it is very important to take digital inclusion into cognizance because it helps to create an informed society. This can be achieved by transforming members of the society from the “digitally excluded” to the “digitally included”. GOV.UK opined that digital inclusion is a facet of social inclusion and it provides the right access to the digital world for intellectual development and promotes spaces for significant cultural practice that allows individuals to be digitally literate. It further stated that digital inclusion does not only imply being technically capable of acting in the cyber space, but being capable of creating and producing meanings and feelings to it. GOV.UK also viewed digital inclusion as the ability to access, adapt and create new knowledge using ICT. Digital inclusion implies possessing both technical and operational capacity to navigate the world of ICTs (Ifijeh et al, 2016). Digital inclusion revolves round four types of resources (Agustín and Clavero 2010):

- a. Physical (computers and connectivity)
- b. Digital (digital materials available online)
- c. Human (literacy and education)
- d. Social (communication institution and society structures.)

If these resources are well harmonized, then the implementation and reality of digital inclusion is not far fetched. Digital inclusion process emanates from four types of capital:

- i. Social (their identity and political power)
- ii. Intellectual (individual competence)
- iii. Cultural (memory of a society)
- iv. Technical (power of action and communication)

Microsoft opined that technology is a tool and it is the focal point for education, economic development and social wellbeing. Consequently, Microsoft posited that digital inclusion goes beyond being connected or disconnected; it involves formulating and implementing strategies that would culminate in full participation in a digital society. In resonance with Microsoft, Agustín and Clavero (2010) suggested a hierarchical framework for progress as far as digital inclusion is concerned. The frame work comprises of the following:

- a. Technical infrastructure as the essential and fundamental foundation for inclusion
- b. Digital awareness programs and campaigns
- c. The know-how, understanding basic IT skills
- d. digital opportunity
- e. Digital empowerment

### **Benchmarking digital inclusion**

It is important to make comparisons of progress achieved towards digital inclusion. An analysis of a digital inclusion research conducted in 2005 categorized African countries into four:

1. Digital leap-froppers-these are countries with below average level of internet users but are making progress in catching up
2. Digital pacesetters-countries that are both average in levels of internet use and above average in growth level
3. Slow starters-countries with below average levels of internet use and growth rates
4. Successful but slow-countries with above average level of internet use and growing less than average rate.

### **Nigeria and digital inclusion**

Nigeria, made up of 36 states and 774 local government council areas, with about 150 million people has ICT facilities that are limited to urban areas at exorbitant rates, affordable by the middle and upper classes of society, thus making many of the rural and suburban areas unable to fully participate in the emerging information economy. Digital inclusion revolves round three sequential classifications of the digital divide – opportunity (encompassing accessibility and affordability), infrastructure (network indicators and indices) and utilization (ICT usage and quality). Nigeria falls within the countries with low digital opportunity index scores. The digital opportunity index scores released by International Telecommunication Union revealed that Nigeria was ranked 31 in the African continent with very low score of 0.41, 0.03 and 0.01 for opportunity, infrastructure and utilization respectively (Agustín and Clavero, 2010). In terms of ownership and access to personal computers (PCs), the National Bureau of Statistics reported that only 4.5% of the Nigerian population has access to personal computers. Access implies those who either own a pc or can derive benefits from it. According to the report, only 0.9% of the population can claim ownership of a pc. However, access and usage of the internet have greatly increased among Nigerians in recent times largely due to mobile telephony technology and social media. A published report revealed that about 70% of the Nigerian population uses the internet. The same report also indicated that more than 98% of internet users in Nigeria gain access to the internet through mobile telephone networks. However, internet access and usage may not necessarily imply digital literacy. About 56.9 percent of Nigerians are illiterates (Ifijeh, et al, 2016). It is access to ICTs and ability to find and utilize information from the ICT

platforms that constitute digital inclusion. Going by these reports, a greater percentage of Nigerians maybe classified as non-digital inclusive.

### **Sustainable development goals**

The Sustainable Development Goals (SDGs) are a global agenda, adopted by countries in 2015, with a vision of ending poverty, protecting the planet and ensuring that all people enjoy peace and prosperity.

The 17 SDGs and 169 targets are part of what is known as the 2030 Agenda, which recognizes "that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development." In adopting the agenda, countries resolved to take the "bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path. As we embark on this collective journey, we pledge that no one will be left behind."

The goals and targets are universal, meaning they apply to all countries around the world, not just poor countries. Reaching the goals requires action on all fronts – governments, businesses, civil society and people everywhere all have a role to play.

The 17 sustainable development goals (SDGs) to transform our world are listed as follows:

- GOAL 1: No Poverty
- GOAL 2: Zero Hunger
- GOAL 3: Good Health and Well-being
- GOAL 4: Quality Education
- GOAL 5: Gender Equality
- GOAL 6: Clean Water and Sanitation
- GOAL 7: Affordable and Clean Energy
- GOAL 8: Decent Work and Economic Growth
- GOAL 9: Industry, Innovation and Infrastructure
- GOAL 10: Reduced Inequality
- GOAL 11: Sustainable Cities and Communities
- GOAL 12: Responsible Consumption and Production
- GOAL 13: Climate Action
- GOAL 14: Life Below Water
- GOAL 15: Life on Land
- GOAL 16: Peace and Justice Strong Institutions
- GOAL 17: Partnerships to achieve the Goal

### **The role of the libraries in digital inclusion and sustainable development goals**

The main function of a library is to provide access to knowledge. Based on this, Libraries are agents of social communication. They help to bridge the awareness and information gap among members of the society. Libraries and librarians as information/specialists and brokers have roles to play in bridging the digital divide and improving on digital inclusion for sustainable development of their

clienteles. Libraries and their sphere of influence are defined by the type of community/clienteles they serve. Thus, school and academic libraries cater for students, teachers/lecturers and researchers/scholars. As the name implies, public libraries cater for members of the public. Their roles in digital inclusion for sustainable development follow the same pattern.

### **School and Academic Libraries**

School libraries are libraries established to cater for the information and academic needs of students and teachers in the lower levels of education – primary, secondary and technical schools. Academic libraries are established to meet the information, academic and research needs of students and faculty/staff in higher institutions of learning – Colleges of Education, Mono/Polytechnics and Universities. They could play intervention roles in digital inclusion in the following ways.

### **Acquisition and Provision of Access to Digital Content**

We are in the era of digital media and e-books distributed via the Internet. While maintaining their role in collection and provision of print materials, libraries all over the world must have renewed determination to support access to digital content, technology and services. To provide access to 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/lecturers and other users of the library. To this end, school and academic libraries should:

1. Offer classes in general computer skills and technology training either online or within the library.
2. Provide designated spaces, equipped with smart devices for tutorials within the library.
3. Accelerate digitization of library resources.
4. Help students to enjoy learning by introducing them to the use of open content. This implies editing and combining various digital resources (including pictures and sound) to make learning interesting.
5. Ensure that digital content is discoverable via any interface.
6. Ensure provision of digital content via mobile devices, social media, virtual research environments.
7. Support and encourage open publishing platforms, wikis, blogs, social media, citation tools, instructional technologies, data visualization tools, etc.
8. Teach students and teachers how to navigate library catalogues and databases in order to search and find information.

9. Teach users how to search and locate required information from internet platforms like search engines and databases. Students need to learn about search engines and Boolean logic; the need to define concepts and keywords. Library users need to be able to critically evaluate resources relevant for them.
10. Students should be introduced to different types of digital resources and content
11. There is need to teach students how to engage the social media sites such as twitter both for research and to consider ways in which they can share, network and even crowd source for information.
12. Students should be taught ways to be up to date with research findings in their field by using journal TOCs (table of contents) which alerts you when issues of your followed journals are published, 9 Introduce students to the advantages of referencing software.
13. Digital inclusion can be encouraged when students are taught the beauty of creating blogs to discuss their research findings. This will help them to build confidence and enhance their digital identities.

Librarians in school and academic libraries can collaborate with teachers, and other stakeholders to train students and equip them with the required skills needed to be digitally included. They should also be equipped with computer and digital literacy skills necessary to help them drive digital inclusion and sustainable development among library users.

### Public libraries

As the local gateway to knowledge, Public libraries provide resources for lifelong learning, independent decision making and cultural development of the individual and social groups. In rural areas, public libraries are designed to provide information on agriculture, building, trade, health care and other aspects of human activities which are required mostly by the rural dwellers because they lack access to other sources of assistance. Rural communities in Nigeria are faced with low literacy rate and absence of information and communication technologies. Perhaps, one of the most important role public libraries can play in digital inclusion is provision of internet services to their users. A recent study of libraries as internet providers showed that library users tend to access more information about health, government, language and culture than people who access the internet from other public locations. Public library users also report a higher positive impact of the internet on their lives in areas such as health, education, time savings, income and financial savings. Public

libraries can also play the following roles in digital inclusion:

1. Offer free classes on general internet use, teach specific access skills which should impact the economic, social, and cultural lifestyle of the people.
2. Teach basic computer skills.
3. Participate in programmes to combat illiteracy.
4. Provide information resources in various formats and teach the proper use of the information resources.
5. Offer free or subsidized internet access alongside support and training of users.
6. Play vital roles in any Digital Inclusion initiative. Libraries should champion programs aimed at equipping people with digital skills which would meet their information needs and increase their chances of enjoying sustainable development.
7. Libraries should carry out awareness campaigns on the need for people to acquire basic digital literacy skills for sustainable development as more essential services are gradually going to be online. Applying for admission, obtaining and verifying validity of driver's license, checking pension details and other essential services are going online.

### **Sustainable Development Committee which was constituted in 2015 also stated its Implementation methodologies as described below:**

Worldwide, 320,000 public libraries and more than a million parliamentary, national, university, science and research, school, and special libraries ensure that information and the skills to use it are available to everyone – making them critical institutions for all in the digital age. Libraries provide information and communication technology (ICT) infrastructure, help people develop the capacity to effectively use information, and preserve information to ensure ongoing access for future generations. They provide an established, trusted network of local institutions that effectively reach new and marginalized populations. Access to information is a cross-cutting issue that supports all of the SDGs. Library services contribute to improved outcomes across the Sustainable Development Goals (SDGs) by:

- Promoting universal literacy, including media and information literacy, and digital literacy skills;
- Closing gaps in access to information and helping government, civil society and business to better understand local information needs;
- Providing a network of delivery sites for government programmes and services

- Advancing digital inclusion through access to ICT, and dedicated staff to help people develop new digital skills
- Serving as the heart of the research and academic community
- Preserving and providing access to the world's culture and heritage, more specifically, libraries can support the implementation of the SDGs by providing access to information, support for literacy and ICT skills, and access to community space. Some examples:
  - UN Depository Libraries support dissemination of information and research to help decision makers achieve the SDGs.
  - Access to health, environmental, and agricultural information are targets of the SDGs, and libraries provide access to research and infrastructure related to them, including Open Access resources.
  - Media and information literacy and literacy programmes for children, women, adults and other marginalized populations make an important contribution to achieving universal literacy.

### **The Position of IFLA on Capacity-Building and Technology Transfer**

IFLA will build the capacity of its members through toolkits to ensure that all librarians are ready to support the SDGs, and through workshops and meetings in the regions and 150 countries where our members work, including Africa, Asia and Oceania, Europe, North America, Latin America and the Caribbean. The toolkit is freely available to all: <http://www.ifla.org/node/9989> Libraries are proven, cost-effective partners for advancing development priorities. Many countries have designated libraries as UN depositories, making them an important venue for information about the UN and the SDGs. Through a diverse range of programmes and services tailored to the needs of their community, libraries are already supporting progress toward the SDGs:

- Increasing income for small-scale food producers (SDG 2): In Romania, public library staff trained by the Biblionet programme worked with local government to help 100,000 farmers use new ICT services to apply for agricultural subsidies, resulting in US\$187 million reaching local communities in 2011-2012.
  - Promoting lifelong learning opportunities (SDG 4): In Botswana, public libraries have taken large strides toward supporting government objectives under its National Vision 2016, including introducing ICT access, improving the computer skills of library users, and enabling users to be successful in business, education, and employment.
  - Empowering women and girls (SDG 5): The National Library of Uganda has provided ICT training specifically designed for female farmers, ensuring that these women can access weather forecasts, crop prices, and support to set up online markets, in their local languages.
    - Ensuring productive employment and decent work (SDG 8): In one year, 4.1 million adults in the European

Union used public library computers to support employment-related activities – 1.5 million used library computers to apply for jobs, and more than a quarter of a million secured jobs this way.

### **CONCLUSION AND RECOMMENDATION**

For libraries to effectively contribute to the achievement of Sustainable Development

Goals and targets, they need support especially from their parent institutions to improve their facilities especially the digital platforms for greater services. Some elements have been identified which must be invested in and developed to empower easy flow of information. Availability and accessibility of information resources that cover all subjects and specialties are adjudged to be prerequisite for dissemination of literacy formation (Nworie et al., 2018). These resources include relevant and quality open access resources, subscription based resources and other standard resources found in various libraries. It should be noted that the application of ICT to Information dissemination in recent times has changed the way information is seen and handled (Anyaku, 2016). This is particularly important in the education sector where digital resources are most necessary in the libraries. Thus in recognition of the importance of the digital media in the library of today, libraries need to improve on their digital acquisition of e-books and e-journals. Most importantly, Information literacy programmes which are well organized and aimed at creating awareness of library and Internet resources on Sustainable Development Goals as well as skills to access them are needful for library personnel. This would enable them to conduct quality research that would help in training the boy and girl child, eradicate illiteracy, poverty and grant a universal access to quality life. Furthermore, Information literacy can also be taught formally during meetings, workshops and seminars organized by the various education professional groups.

Staff training is another vital area that would improve the skills of librarians and equip them better for disseminating information for attaining the SDGs. Staff should also be supported to attend workshops and trainings organized by Library associations. This will keep them updated in the practice. There is need for a specialty course within this few years remaining before 2030 on the roles of libraries in using digital platforms to achieve quality education towards Sustainable Development Goals. Library schools should develop this curriculum to build graduate manpower that has requisite skills and knowledge to work in the education environment. This will improve services.

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