Equitable Access to Assistive Technology in Nigeria

TTSWG
TELECOMMUNICATION
& TECHNOLOGY
SUSTAINABILITY
WORKING GROUP

BACKGROUND

The world is facing important trends associated with an increase in disability in populations, especially due to a rise in non-communicable diseases (NCDs) and the rapid ageing of the world's population. The level of disability in countries and regions is exacerbated by physical, human-built, attitudinal and socio-political barriers, including a critical lack of access to assistive products. According to data gathered from the World Health Organisation (WHO), one billion people need assistive products today, and more than two billion people (double the number) worldwide are expected to need at least one assistive product by 2030. Studies have also shown that despite the global need and recognised benefits of assistive products, access to assistive products remains limited. Although it is estimated that 1 billion people today need assistive technology (AT) globally, only 1 in 10 have access.

This paper is focused on challenges and issues regarding access to assistive technology in Nigeria. The pressing need and demand for these technologies lie in their ability to provide access to quality education, and improved health and wellbeing while also reducing inequality.

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Most studies that examined the availability of assistive technologies were conducted outside Nigeria; in fact, very few have examined the application of ICT for students with disability within the African context (Farrell & Shafika, 2007; Yusuf & Fakomogbon, 2008). Findings conclude that for sustainability to be achieved as it concerns assistive technology, certain structural changes, including the knowledge of technology as an enabler, should be addressed.

Source: https://www.indiamart.com/proddetail/above-knee-prosthesis-23328596673.html

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OVERVIEW

Assistive technology (AT) can be defined as any piece of equipment or device that a person with diability may use to perform specific tasks, improve functional capabilities, and become more independent (Netherton & Deal, 2006). It is any item, equipment, software program item or product system either obtained off the shelf, commercially or customised that is used to maintain, increase or improve functional capacity for a person with disabilities (Alper, & Raharinirina, 2006).

It has been observed that different disabilities require different assistive technologies. For instance, they could help people with difficulty in speaking, typing, writing, remembering, pointing, seeing, hearing, learning,walking, etc. Since the SDGs focus on the inclusion of the global population, it becomes crucial that AT is accessible to prevent specific populations (especially the elderly and people with disabilities) from being isolated in poverty or poor states of health and quality of life (WHO,2011).

For educational purposes: Findings by Samaila, Chukwuemeka and Babatunde (2020) show that assistive technology has been used as a principal driver of education for individuals with disabilities since the 19th century. Assistive technology, in this case, involves the application of technologies that can assist in the teaching and learning process of students with disabilities, and they widely differ in quality and effectiveness. Some assistive technologies are used to provide individuals with disabilities with educational opportunities while bringing out their cognitive potential. In contrast, some are used to enable the curricula and teachers to achieve their objectives, while the students are active participants in the learning process. Assistive technologies used in the educational process of individuals with disabilities have been grouped in various ways in the special education literature. Nsofor and Bello (2015) grouped assistive technology into low, medium, and high. These sets of technology help students work more quickly and accurately, while simultaneously enabling them to navigate through classroom routines and achieve high goals.

Notwithstanding the legal obligation to offer assistive technology, several barriers have restricted the use of assistive technology. Sami (2016) reviewed present literature on the utilisation of assistive technology and identified several obstacles that included the instructors' views, unavailability of resources due to cost, lack of instructors' training and student abandonment of technology.

Previous studies by Onivehu, Ohawuiro, and Oyeniran (2017) discovered that teachers of students with physical disabilities were not using assistive devices to teach because of their high-tech nature and because they were not adequately available and accessible by teachers. In a study conducted by Ajuwon, Paul M.; Chitiyo, George (2016), in schools in Nigeria, it was discovered that the lack of appropriate assistive technology devices and services in classrooms, and intermittent electricity to operate available devices, were part of the challenge.

Access to appropriate, quality assistive technology at an affordable price would not only deliver access to quality education but also facilitate social participation and integration for its users. These findings also show the necessity for special education teachers to undergo retraining to learn how to use the available assistive technology tools and equipment effectively and efficiently.

Sustaining Access to Assistive Technology

Sustainability has remained a vital source of concern for the use of assistive technology globally, and assistive products can greatly reduce inequalities experienced by all people living with impairments - children and adults with disabilities and those living with chronic conditions and functional decline - by enabling them to be productive and participate in all areas of life. It would be impossible to achieve the SDGs and "leaving no one behind" if those who need essential assistive products cannot access them.

The WHO (2018) report on assistive technology needs across the globe indicates that in many low- and mid-income countries like Nigeria, national assistive product service delivery does not exist,

with poorer segments of the population having to wait for inconsistent donations and or charity services, which deliver large quantities of low quality or used products. This is indicative of poor access to assistive technology in Nigeria.

Another significant part of the challenge we see has to do with finance, with many people, especially in the developing world, unable to purchase ATs that are provided in the private marketplace; and, even in developed societies, many elderly individuals are unable to afford more expensive available ATs (de Witte et al., 2018).

Chavarria and K. Schönenberger (2021) gives an insight into the culture of sustainability within the framework of assistive technology. Their study discovered that in Uganda, the government enacted the National Policy on Disability (2006) which — among other things — established a rehabilitation and resettlement scheme that includes vocational rehabilitation services and sheltered workshops that focus on employable skills training and orthopaedic workshops for the provision of assistive technology devices such as callipers, wheelchairs, and white canes to facilitate the mobility and independence of persons living with physical impairments (MOGLSD, 2006). The policy, according to Dr Tedros Ghebreyesus, would be called "an applaudable feat to achieving equitable access", creating an avenue for assistive products to be manufactured with parts that can be repaired, maintained and replaced locally (Director General WHO, 2017).

The culture and practice of initiating policies by the government that encourage sustainability and enhance the production of assistive technology devices in Nigeria will ultimately facilitate access to assistive technology. It is essential to localise AT production more to make AT repair services possible. Developing local production and expertise also makes product design more climate- and context-specific. In addition, money earned could be used to create firms that are self-sufficient and independent of aid. (Neumayer, E, 2010).

Building local ecosystems is widely acknowledged to encourage economic growth by generating new business and employment opportunities, lowering material costs, reducing price volatility, and enhancing supply security, all while minimising environmental pressures and impact (Patwa et al., 2021).

The need for a paradigm shift in international protocols and laws regarding people living with disability (PWD) will go a long way in significantly affecting the sustainability of assistive technology. Chavarria and K. Schönenberger (2021) further substantiated these claims while they argued that shifting assistive technology design would require full and meaningful participation of the variety of voices and realities existing among PWDs. International and domestic disabled peoples' organisations have a crucial role in using international standards as emancipatory tools. The articles of the Convention on the Rights of Persons with Disabilities (CRPD) and other international standards related to disability need to be reconstructed to make sense of the priorities, needs, and struggles of PWDs in low and middle-income countries (LMICs). Access to assistive technology will be less effective where the extant international laws and protocols are not sustainable due to a lack of constant reviews.

While the technology industry in Nigeria has shown many positive and fast adapting techniques, several businesses are yet to factor inclusivity and accessibility into their products. Technology can be utilised further as an enabler of inclusivity at all levels. Smartphones are already promoting digital inclusion and serve as cost-effective and bespoke tools for people with disabilities. Therefore, a sustainability-driven brand would work on integrating technology and data to create features that help differently abled individuals to move and function independently, directly driving social inclusion and participation.

CONCLUSION AND RECOMMENDATIONS

Mudasiru, Michael and Ahmed (2012) recommend that all special education institutions in Nigeria provide assistive technology hardware and software. However, this can only be achieved if these products are available, accessible and affordable (3As). This may be achieved through:

- Localised AT production: This would promote user- and context-specific AT developments while enabling modular strategies that lessen their environmental impact and financially benefit local communities.
- Reuse, repair and recycling would increase stable, dependable access to devices, extend their useful lives, and lessen the environmental effect of AT. Localised production would also offer the potential for these much-needed maintenance components of AT provision.

In the interim, the provision of assistive technologies and their maintenance could be incorporated within institutional strategies and associated operational plans.

Also, non-governmental organisations concerned with people with disability should be involved in promoting and integrating assistive technologies in Nigeria by lobbying the government and businesses to see the value of providing these devices and equipment, as they promote equitable living for all.

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