

Toward Sustainable Domestication of Smart IoT Mobility Solutions for the Visually Impaired Persons in Africa

A.F. Salami, E.M. Dogo, N.I. Nwulu, B.S. Paul

According to World Health Organization (WHO) estimates, Africa accounts for 10% of the global visually impaired persons (VIPs). This visual impairment burden is exacerbated by the shortage of specialist medical human resources, orientation and mobility specialists, and high cost of assessing primary eye care services. These render the majority of VIPs to rely heavily on human-assisted guides and ineffective navigation aids for their daily routines and movements. A viable technological solution that can fill this void and meet these mobility needs is the Internet of Things (IoT). This chapter provides an assessment of smart IoT mobility solutions pertinent to the African context. Furthermore, the barriers to the realization of technology domestication as well as growth catalysts are examined. Lastly, this chapter proffers technical recommendations for sustainable domestication of smart IoT mobility solutions for VIPs in Africa.

https://doi.org/10.1007/978-3-030-16450-8_11