Chapter 4
Infusion of Digital Technologies in the Sustainability of Academic Libraries:
Opportunities and Threats

Rexwhite Tega Enakrire

https://orcid.org/0000-0001-6523-5669

Department of Information Science, University of South Africa, South Africa

Joseph Kehinde Fasae

Afe Babalola University, Ado-Ekiti, Nigeria

ABSTRACT

Digital technologies are now incorporated into organizations for effective and efficient operations of their job performance. Many African countries are yet to advance into the technology phase whereas other parts of the world are already adopting digital technologies in their operations and service delivery. The qualitative research approach was applied in this study using a literature review to harvest different articles in online databases of Scopus and Web of Science. Findings indicate that digital technologies could be used in the sustainability of academic libraries through accessing, processing, gathering, manipulating, presenting, and communicating information in different format such that library users' information needs are met. Digital technologies such as smartphones, ebooks, blogs, social media, digital computers, scan machines, digital cameras, robotics, drones, etc. were used to support library and information services. The study recommends proactive steps by parent bodies to provide libraries with financial support to acquire necessary digital facilities.

INTRODUCTION

Two decades ago, an academic library served merely as a quiet study space and a huge repository of tangible materials such as books, journals, and reports, among other things, that could be collected, issued,

returned or studied (Kadli, 2020). Due to the changes brought by digital technologies into the library space, individual users have infused it into their work routines for effective and efficient operations on daily basis in their activities. Librarians now use technology to acquire, catalogue, preserve, diffuse, and provide reference services and other services. Libraries have extended, rethought, and reinvented themselves, and now offer a wide range of information services utilizing cutting-edge technology, as well as reaching out to its users through social networking and digital media in ways they never had before. The world has advanced into the information age, which is characterized by technical developments, expanded access to digital information resources, cloud storage, and social media. These technologies have an impact on libraries, and the usage of information and communication technology (ICT) has a dynamic impact on modern library services. Similarly, digital technologies have changed not just how information is packed, processed, saved, and broadcast, but also how users may access the information they need from anywhere, at any time, and in a personalized fashion (Prasad, 2017).

The scholarly information environment has changed drastically as a result of the digital age. Teachers and students now rely on its utilization coupled with libraries. Library users have a wide range of information needs, and libraries around the world are adapting to the digital age's challenges by rethinking library infrastructure, services, and collections (Anuradha, 2018). New and emerging technology has played an important role in influencing the various library services. These technologies not only benefit users by providing speedy, high-quality, and efficient services but allow library and information workers to be innovative in order to improve the effectiveness and responsiveness of their services (Kadli, 2020). Students are using digital technology for learning in higher education, exposing a collection of tools chosen to combine formal learning contexts (Pinto & Leite, 2020). Digital technology, according to Selwyn et al. (2016), can include but is not limited to, computers, tablets, smartphones, Facebook, Moodle, online library services, Google, YouTube, and composing essays on Microsoft Word. People may now access the Internet from anywhere using portable devices thanks to digital technology. Libraries may utilize such technology to promote library services, improve information access, redecorate libraries with new facilities, encourage cooperation, share and establish communities, solicit user input, communicate with one another, and publicize events, services, and news (Prasad, 2017).

Digital technology has broken into our daily lives and has become an unavoidable and normal part of our life. However, the dramatic changes generated by their arrival continue to be a matter of heated dispute in the literature in a variety of professions (Mierzecka, 2018). Universities and university libraries have been impacted by massive technological change in recent years. The impact of technology advancements on all aspects of the academic library activity, including systems, services, collections, the physical library environment, marketing, and support for university teaching, learning, research, and administration, has become highly significant (Atkinson, 2020). With the current COVID-19 pandemic and its mitigating effects resulting in diminished human contact and remote engagement, academic libraries can ride the wave of new norms like virtual and open distance learning by, employing digital technologies to turn a difficult circumstance into an opportunity.

RESEARCH OBJECTIVES

This study is anchored on the following research objectives:

- Examine the infusion of digital technologies in the sustainability of academic libraries.

Related Content

Dependency Graph Based Detection of Semantically Equivalent Questions in Online Forums
Parmeet Kaurand Shrutika Gulati (2019). *International Journal of Information Retrieval Research (pp. 50-64).*
www.irma-international.org/article/dependency-graph-based-detection-of-semantically-equivalent-questions-in-online-forums/217483

A Similarity Measure Across Ontologies for Web Services Discovery
Aissa Fellah, Mimoun Malkiand Atilla Elci (2018). *Information Retrieval and Management: Concepts, Methodologies, Tools, and Applications (pp. 1097-1120).*
www.irma-international.org/chapter/a-similarity-measure-across-ontologies-for-web-services-discovery/198590

Supporting Position Change through On-Line Location-Based Skyline Queries
Marlene Goncalvesand Alberto Gobbi (2016). *Handbook of Research on Innovative Database Query Processing Techniques (pp. 325-362).*
www.irma-international.org/chapter/supporting-position-change-through-on-line-location-based-skyline-queries/138703

An Efficient and Flexible Approach of Keyword Search in XML
Weidong Yangand Hao Zhu (2013). *Design, Performance, and Analysis of Innovative Information Retrieval (pp. 17-30).*
www.irma-international.org/chapter/efficient-flexible-approach-keyword-search/69125

Accuracy Enhancement for Breast Cancer Detection Using Classification and Feature Selection
Somil Jainand Puneet Kumar (2022). *International Journal of Information Retrieval Research (pp. 1-15).*
www.irma-international.org/article/accuracy-enhancement-for-breast-cancer-detection-using-classification-and-feature-selection/299931