

# Chapter 6

## Digital Technologies and Resources for Learning Under Lockdown

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### ABSTRACT

*Digital technologies like smartphones, social media, the internet, software applications, websites, and e-books are redefining the educational landscape, which was accentuated amid the COVID-19 pandemic. This chapter discussed the impact of digital technologies in enabling academic institutions to perform their noble responsibilities in delivering instructions virtually during the lockdown. The effects of using these technologies and the challenges encountered by developing countries in migrating to the digital environment amid the lockdown with particular reference to the educational ecosystem in Nigeria was the focal point in the chapter. Striking among these challenges is the issue of compatibility, the high cost of internet data, inadequate digital literacy skill, and environmental distraction. Thus, it was recommended that administrators of academic institutions and regulatory bodies such as the National Universities Commission (NUC) must provide lecturers and students at all levels with adequate training to ensure operational productivity in the use of digital technologies and resources.*

### INTRODUCTION

The phenomenon of the digital revolution is universally accepted as one of the most transformational innovations in recent human history. Digital innovation has enabled smarter service delivery across various sectors of our society, particularly the educational landscape. In support of this assertion, Bresciani,

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Ferraris, Romano, and Santoro (2021) affirmed that all sectors and types of organizations are somehow affected in one way or the other by digital technologies such as social media, mobile devices, and cloud computing which offer unique opportunities in unprecedented ways. Interestingly, more of these technologies are being developed yearly by tech giants and introduced into the market to create more value and improve competitiveness among users (Majchrzak, Markus & Wareham, 2016). This paper focuses on the realistic effect of digital technology on learning settings, in which the physical learning environment is replaced by cyberlearning environments through the use of smart electronic devices which according to Mogas, Palau, Fuentes and Cebrian, (2022) are all hinged on the 4<sup>th</sup> Industrial Revolution (4<sup>th</sup> IR), thus creating paradigm shifts in the educational ecosystem.

The unique functionality of these devices is most appreciated in providing improved communication between people across various geographical locations and time zones, thus barring all geographical limitations. This submission was well enunciated by Bakare (2018) who asserted that the use of digital technologies (such as social media) is not inhibited by time, means, and location due to its ubiquitous nature. Jobirovich (2021) referred to these technologies as a set of combined methods, production processes, and software and hardware for editing, storage, distribution, and use aimed at redefining the phase of the educational landscape. As noted already, this technology is a tool for remote communication between teachers and students for knowledge sharing and information dissemination as it supports face-to-face communication through teleconferencing.

More appealing about this digital innovation is its ability to make information accessible in other formats (e-resources) and also the convenience it brings to bear in the learning processes. Students' can attend classes from the comfort of their homes, and the tutor can provide them with the relevant information resources from any location just with the click of a button. In addition, digital technology allows lecturers to configure their instructional material to suit the new digital learning environment, and assess as well as grade students online seamlessly. The need for effective integration and utilization of this system became reinforced by the global pandemic in 2019 (Obiakor & Adeniran, 2020) which redefined the educational scenery globally. This paradigm shift in the worldwide educational ecosystem was not herculean for academic institutions in developed countries. But on the other hand, was a struggling process for most African countries of which Nigeria was not an exception (Bakare & Ademakinwa, 2020) as the infusion of these technologies into the nitty-gritty of the instructional life-cycle was alien since the system had been weaved round face-to-face form of teaching methodology (Agbele & Oyelade, 2020).

## **The COVID-19 Pandemic**

The discovery of Covid-19 in China threw the world into serious pandemonium. Medical experts and front-line regulatory agencies such as the World Health Organization (WHO) after several clinical analyses declared the virus a pandemic and warned the world of its severity. According to the World Health Organization (WHO, 2020), the virus spread through contact from the droplets (saliva or discharge) of an infected person to another, through the process of coughing or sneezing. Covid-19 as it is widely known is a shortened version of Corona Virus Disease-19. The virus can spread quickly from one host to another, invariably the virus is transmitted when an infected person touches or exchanges body fluids with an individual (WHO, 2020).

The proposed precautionary measure includes wearing a nose mask, regular hand washing, maintaining a social distance of at least 1 meter, and avoidance of large gatherings. Also, most institutions involving human interaction except essential service providers such as medical centres and media houses were

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