Chapter 25
COVID–19 and the Digital Transformation of Education Lessons Learnt on 4IR in Zimbabwe

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ABSTRACT

This study assessed the influence of the COVID-19 pandemic in motivating digital transformation in the education sector in Zimbabwe. The study tracked the rate at which the Fourth Industrial Revolution (4IR) tools were used by various institutions during the COVID-19 lockdown. Data were obtained from secondary sources. The findings are that, in Zimbabwe, during the lockdown, a variety of 4IR tools were unleashed from primary education to higher and tertiary education where educational activities switched to remote (online) learning. These observations reflect that Zimbabwe generally has some elements of excellence to drive the education sector into the 4IR, which has the potential to increase access. Access to education, particularly at a higher education level, has always been a challenge due to a limited number of spaces available. The pandemic has presented an opportunity to assess successes and failures of deployed technologies, costs associated with them, and scaling these technologies to improve access.

INTRODUCTION

The spread of COVID-19, among several disruptions to normal life, necessitated more than 160 countries to effect temporary closure of schools. The World Bank (2020a) estimates that the closure of schools has left 1.6 billion children and youth out of school. Uscher-Pines, Schwartz, Ahmed, Zheteyeva, Meza, Baker, and Uzicanin, (2018) admit that during communicable disease outbreaks, community mitigation strategies such as social distancing can slow down virus transmission in schools and surrounding communities. On March 30th, 2020 the Government of Zimbabwe implemented a country-wide lockdown in response to the COVID-19 health crisis. On the 17th of May 2020, the lockdown was extended indefinitely. There was confusion on the way forward and Zimbabwe spent the greater part of 2020 under lockdown with schools and colleges closed. As a result, about 4.6 million learners, and 127,000 teachers in 9,625 schools were affected by the COVID-19 induced lockdown (Ministry of Primary and Secondary Education [MoPSE], 2020). This caused a halt to the learning process with need to move away from using the usual face-to-face pedagogical methodologies and adopting innovative methodologies feasible using digital technologies. Hence, this study assessed the influence of the COVID-19 pandemic in motivating digital transformation in the education sector in Zimbabwe.

Despite the different practices introduced to mitigate the transmission of the disease in schools, the ultimate method to promote social distancing resulted in prolonged school closures (Jackson, Mangtani, Hawker, Olowokure & Vynnycky, 2014). However, little attention was paid to the identification and feasibility of other sustainable interventions that could not impact on the loss of learning. There was concern that the widespread school closures would lead not only to loss of learning, but also loss of human capital and diminished economic opportunities in the long run (World Bank, 2020b). Due to the unpredictable length of the pandemic, most education institutions adopted emergency remote learning (ERL) via online learning platforms, to replace most, if not all, face-to-face theoretical and practical lessons (Moser, Wei, & Brenner, 2021; Shim & Lee, 2020; World Bank, 2020a). However, it is acknowledged that the transition to the use of online teaching methods has not been easy in many countries due to the challenge of digital resources to support the new technologically based learning methodologies (Hondonga, Chinengundu & Maphosa, 2021). According to UNESCO (2020), 89% of learners in sub-Saharan Africa did not have access to household computers, and 82% lacked internet access. Even traditional tools such as radio and television could not be accessed by many (Afrobarometer, 2020).

In this sense, this study tracked the rate at which the Fourth Industrial Revolution (4IR) tools were used by various institutions in Zimbabwe during the COVID-19 lockdown to support teaching and learning continuity.

Zimbabwe launched a Presidential e-learning programme back in 2012 at Chogugudza Primary School in Goromonzi District, Mashonaland East Province, which spread to 100 more schools under the pilot project in 2013 (Kabanda, 2014). This shows that Zimbabwe, as a nation, had embraced the diffusion and adoption of Information and Communication Technologies (ICTs) in teaching and learning even before the COVID-19 pandemic. However, Kabanda (2014) noted that the adoption of the national e-learning programme exhibited disintegrated efforts in implementation of computerisation projects in the various schools. For instance, there were notable cases of high marginal digital divide amongst schools, as there was little evidence of integration of e-learning into the school curricula and shocking levels of inadequate networked computing facilities. If these efforts had been sustained, the country could have been prepared on the onset of the COVID-19 health crisis.

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