

Digital Inclusion in Education Using Cloud Computing and Augmented and Virtual Reality

Cyncia Matsika, Munyaradzi Zhou and Gilbert Mahlangu

Abstract

Information communication technologies (ICTs) to support teaching and learning in marginalized communities is a major drawback that alienates developing countries from the digital space. This chapter proffers digital inclusion in education for marginalized communities by using and merging cloud computing, augmented, and virtual reality (AVR) technologies. A systematic review of the literature was conducted. Diana Laurillard's six learning types in the conversational framework was used to establish how digital technology is utilized and widely adopted in education in the context of marginalized communities. AVR technology embedded in the cloud supports all the six learning types and promote digital inclusion in education. A model that marginalized communities can utilize was developed. Future research can develop a model that captures the university-wide curriculum needs of higher institutions of learning in marginalized communities and the training of the educators to use ICTs to reduce the digital divide and improve digital literacy.