Recent Innovations in Artificial Intelligence and Smart Applications

Augmented reality technology: A systematic review on gaming strategy for medication adherence

R. O. Adetunji (B)

School of Computing, University of South Africa (UNISA), Pretoria, South Africa

e-mail: roseseun2007@gmail.com

M. A. Strydom

Department of Pharmacology, University of Pretoria, Pretoria, South Africa

e-mail: morne.strydom@up.ac.za

M. E. Herselman · A. Botha

School of Computing, UNISA/CSIR, Pretoria, South Africa

e-mail: mherselman@csir.co.za

A. Botha

e-mail: abotha@csir.co.za

https://link.springer.com/chapter/10.1007/978-3-031-14748-7 3#citeas

Abstract

As global health concerns become more complex, technological intervention is needed to achieve the Sustainable Development Goal. This study explores the use of the internet of things (IoT) and augmented reality (AR) applications for medication adherence. IOT devices can collect, transmit, and store up information not including the need for human or computer involvement. It has potential to streamline and improve healthcare. AR, is an advancement in technology which permits patients to interact with virtual objects in a natural way by proactively predicting health conditions, detecting, providing care, and observing patient role while inside and outside the healthcare center. A systematized scoping literature review was conducted on academic databases: Google Scholar, ACM, ScienceDirect, IEEE Xplore, and SpringerLink. The study identified components of IoT, AR, gaming strategy relevant to the healthcare domain and medication adherence. Further discourses applications of AR in the medical disciplines and focus on improving adherence to medication through gaming. The study, point out how AR has enhanced user experience in adherence to medication through gaming. Using AR in health care will provide us with a better understanding of how to deliver health services and how AR technology will be used to enhance global health care in the coming decade.