The Power of Augmented Reality and Artificial Intelligence During the Covid-19 Outbreak

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Abstract

The Covid-19 outbreak, the disease elicited by the Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2), poses many significant challenges to scientific communities around the world, including computer scientific communities. At the same time, the rise of computer science fueled by advanced in connectivity of social media and smartphones throughout the world, the fields of augmented reality (AR) and artificial intelligence (AI) have recently grown very rapidly. Augmented reality is an emerging field of a physical scene where the things that reside in the physical world are mixed by virtual world, while artificial intelligence is a popular field for the machine simulation of human intelligence that is programmed to see, think and understand like humans. This paper presents the current development of augmented reality and artificial intelligence during the Covid-19 outbreak. First, we highlight a summary of recent tools using augmented reality to tackle the Covid-19 crisis. For instance, augmented reality-based thermal imaging glasses for detecting virus symptoms and methods of augmented reality on educational tasks that help people overcome the isolation for online learning effectively are reviewed. Second, we discuss an overview of recent tools using artificial intelligence to smartly fight against the Covid-19 pandemic. Our discussion include the artificial intelligence methods to approximate and prepare people for prevention the virus, a method for forecasting of the Covid-19 outbreak using non-linear regressive network (NAR) to predict the size, lengths and ending time of the virus, and susceptible-exposed-infectious-removed (SEIR) model for estimating the outbreak trend of the deadly virus. Finally, we suggest benefits and promising future integrations between augmented reality and artificial intelligence to tackle the research problems after the Covid-19 crisis.

Keywords

Augmented reality Artificial intelligence Data-driven Covid-19 Coronavirus Non-linear regressive network Susceptible-exposed-infectious-removed

Notes

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