

The Use of Augmented Reality in Tabletop Exercise for Disaster Preparedness Training: A Descriptive Abstract

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Abstract

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Abstract

Introduction: Augmented reality (AR) is a valuable tool in disaster preparedness training such as tabletop exercises that enhances the exercise by overlaying digital information and virtual objects.

Objective: This study intends to develop an application using AR to be used during the exercise.

Methods: The data is collected through interviews on the opinions and views of the experts from five main agencies in a disaster response; the National Disaster Management Agency, the Royal Malaysia Police, the Fire and Rescue Department of Malaysia, the Ministry of Health, and the Malaysia Civil Defence Department, discussing their duties during a flood scenario. The consensus achieved after series of interviews with the experts, including document reviews guided by National Security Council Directive 20.

Results: The AR approach is created through 'marker-based' which use an image recognition to build up an engaging 'storyline' of flood scenario. It includes the updates on the changing plot during the exercise using an 'inject' meant to progress the plot and provide fresh data to evaluate and react to.

Discussion: Integrating virtual objects and entities into the tabletop exercise is made possible by AR, where it revolutionises how disaster responders being trained using an approach that more engaging and effective.

Supplementary material. The supplementary material for this article can be found at <http://doi.org/10.1017/dmp.2024.237>.