

Applicability Investigation of Augmented Reality-based Softwares*

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Abstract

Augmented Reality is a current, popular technology, which is able to extend the real physical environment with computer generated virtual elements. These elements could be 3D models, videos, animations, among others. According to the most widespread definition, an Augmented Reality system combines real and virtual reality; is interactive in real-time and is registered in 3 dimension [1]. The primary objective of this paper is to investigate Augmented Reality development kits in terms of applicability. The available software development kits were examined during the research and several solutions were designed based on this investigation. In addition, an Augmented Reality prototype was implemented based on our examination which can be used in practice as well. The implementation was made on three platform: web application on PC, on Android as well as on iPhone. The prototype is able to display 3D models, animations and to play videos. With the help of prototype, one can be easily made different Augmented Reality applications in field of education, entertainment, etc. Semantic Web technologies can be used for data providing as well. The applicability of the prototype has been clearly confirmed through a case study: we made an Augmented Reality application for the Horse World Cup 2013. Due to this application, the official magazine of this event has become more interactive with active images.

Keywords: Augmented Reality, Mobile Application, Semantic Web

MSC: 68N19, 68T35, 68U05

References

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