DESKTOP VIRTUAL REALITY AS A NEW LEARNING TOOL: 
A STUDY OF ITS TECHNICAL DIMENSIONS

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Abstract

Virtual reality is predicted to be the most significant technological transformation in educational media. It is a powerful tool that provides a far more stimulating learning environment and will have profound impact on the future shape of education. However, current immersive virtual reality systems are still of very high cost and hardly affordable within the educational sector. Moreover, some limitations in the immersive virtual reality technology are still observable. The recent development of desktop virtual reality, however, enables virtual reality to be accessible on low-cost computer platforms. This paper introduces this kind of virtual reality system. This system can provide a cost effective, but nevertheless stimulating educational tool. More importantly, it will provide the opportunity for learning experiences that would not otherwise be available. Based on a study that has been carried out, this paper also addresses the various aspects of the technical dimensions of desktop virtual reality that have to be taken into account when using this mean as a learning tool. This study also leads to the construction of a set of guidelines or considerations that is useful for creating educational applications that would harness the benefits offered by desktop virtual reality.