

Motion sickness related aspects of inclusion of color deficient observers in virtual reality

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ABSTRACT

Color blindness is one of the most common forms of disability. Virtual reality (VR) development has increased recently, and it is important not to exclude people with impairments or other limitations. Visually induced motion sickness (VIMS) can be worse due to color versus black, white and gray environments. Can non-color factors in dynamic environments be excluded by performing color deficiency impacted tasks and comparing them to the equivalent static and dynamic tasks performed by a color-sighted person? Would a color-based experiment causing VIMS produce different results for a color deficient observer (CDO)? This paper advocates a novel approach to color blindness and motion sickness in VR based on psychophysical experiments. The aim is to find solutions and develop recommendations that will improve accessibility of VR for the colorblind.

Full papers will be published in the Conference Proceedings and will be freely available to delegates at the conference and online on September 20, 2016.