IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 3, December 2023

Balance in Virtual Reality : Predicting VR Sickness and Presence Statistically

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Abstract: *When a person interacts with virtual reality (VR), they may experience discomfort or nausea called VR sickness Conversely, VR presence refers to the sensation of being totally present or submerged in the virtual world. This research seeks to comprehend the intricate link between VR sickness and presence and how best to balance them in VR design. As part of this study, we will create a database of VR sickness and presence that will include n VR videos and a user-submitted rating for each. In order to predict VR sickness and VR fatigue, a statistical model concentrating on spatiotemporal and rotational frame difference maps may be created utilizing this resource and regression analysis. To obtain qualitative insights that supplement the quantitative data and provide a more complete picture of the virtual reality user experience, think about doing focus groups or user interviews.*

Keywords: Regression analysis, statistical model, presence in virtual reality, sickness in virtual reality.

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