Title: An investigation on how virtual reality can influence perceptions of reality.

Introduction

What

Virtual reality provides visual experiences via optical immersion. The key goal of VR is to emulate presence. When executing trivial activities in both real and virtual domains, similarities in user performance (Heydariana, 2015) is one factor which suggests presence in VR. If a user believes they are within their virtual domain, the domain itself could be altered to enhance their experience, without reducing immersion. For this reason, the focus of this project it is to discover how virtual reality can influence perceptions of reality.

Essentially, this project has a single goal; to make a participant believe they’re doing something they’re not. Therefore, the project experiment attempts to influence a user’s perception of reality in such a way, which leads them to unknowingly perform a given act.

How

This dissertation will comprise two separate experiments. Both experiments will exhibit a scenario in both a real and virtual environment. The virtual domain however, will dynamically alter in order to divide real and virtual world perception. From this, differences in participant actions between the two domains will be exhibited. Therefore VR’s influence on a user’s reality can be evaluated and discussed.

Initially experimental scenarios have to be defined, this will require research into how perception can influence a human’s decisions. Next, the Unity 5 game engine will be utilised in order to create and animate a virtual environment. A HTC Vive headset will place a user in the virtual environment. Its software plugins will be added to ‘Unity 5’ in order to create an intractable domain. Depending on scenario choices, real world apparatus will likely need to be sourced for interaction in real and virtual planes.

Why

For the future, VR has potential applicability within the gaming industry. However, its emancipatory confounds restrict exploration and varied motion, which in turn breaks the illusion of walking around a real domain. This problem has been addressed with add-on hardware such as the Virtuix Omni. However two key obstacles face a 3rd party hardware solution (such as the Omni). Metaphorically its integration with developed software and literally its potential size. This indicates the need for a different solution. One way investigating VR’s influence on real perception could form a solution, is by examining how virtual motion could simulate real motion. Therefore giving a player the sensation of traveling a long distance virtually than that in reality, and thus increasing the perceptive size of the virtual domain.

Talk about in

We need more detail, its needs to say what I am going to do and why. We need to talk about the applications. VR has matured to such a point where it makes a user feel like they are doing something when they are not.

How VR can influence perceptions of reality.

Break up development into more steps, i.e. scene creation.