

Phenomenological Prototyping for Virtual Reality: Storyboarding as Imaginative Variations

Virtual Reality (VR) applications, through their presented three-dimensional environments, offer rich affordances for orientation, navigation and interaction. As VR closes off the perceptual horizons of our physical environment, designing a virtual world necessitates presenting a space, place, or site for the user to “exist.” Designers of interactive VR systems, therefore, have to consider a range of experiential factors that are not as crucial to designers of traditional audiovisual artefacts, websites or mobile applications. In this paper, we present prototyping approaches to Virtual Reality that attempt to convey the bodily experience of virtual environments in a maximally sensitive way. These prototyping techniques were developed and refined by students and researchers during two iterations of an undergraduate course in VR production. Starting from a phenomenological perspective we argue that VR applications should be developed iteratively with a focus on the lived experience of the environment. Prototyping techniques for VR should be dynamic and interactive, heeding the changing subject positions, actions and affordances of the virtual environment. We discuss our prototyping approaches as Imaginative Variations in that they aim to uncover the multistability of the virtual environments they represent. Postphenomenologically informed, the prototype should act as a mediator, and to the degree that it can mediate different experiences and allow exploration of stabilities, the prototype can be said to be successful in terms of its phenomenological aims. We frame our techniques as preliminary steps to a design approach of VR applications that focuses on the lived experience of virtual environments.