Presence-Generating Arts Systems
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Certificate of Authorship / Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of student
Acknowledgements

First and foremost I would like to acknowledge my father David Moss who encouraged and facilitated my career and artistic endeavours with enthusiasm and pride. His encouragement and support was a driving factor in the manufacture of this document and the art system it describes. This work is dedicated to the memory of David who passed away on January 1st 2010 at the age of 65 years. I also thank my sisters, Rachel, Kirran and Jessica who over the years supplied me with a wardrobe most outstanding for an impoverished student. I am also indebted to my children, Matilda Rose and Wridley Rupert whose presence has enriched my life beyound measure. I wish to acknowledge my colleagues and friends at Creativity and Cognition Studios primarily Professor Ernest Edmonds whose advice and guidance has been instrumental to me.

Many people collaborated on the production of the art system described within this practice-based research project. In no particular order I would like to thank: Pria Mitra for insisting, Patrick Troy and Robin Gareus for technical advice, technology specialist’s Dr Michael Donegan and Professor Lizbeth Goodman, editorial advice Dr Linda Candy, composer Marianthe Loucataris, curator Deborah Turnbull, choreographer Wendy Regan and performer Xanthe Waite. Other performers include Stephen Wilson (who also gains credit for the production of the camera shelf, thank you), Annie Bourke, David Rowe, John Thorpe, Kenya Inram, Honora Jenkins, Jane Davis and Erin Masters, Tom Waite and Trent Bowmann aka The Birdmann, for participating in the experiment with such enthusiasm. I am also indebted to the fifty participants who evaluated the system at either the Interaction Lab at Creativity and Cognition Studios, UTS or Beta_Space, at the Powerhouse Museum, Sydney.

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Abstract

In order to advance understanding about presence-generating art systems, artists, researchers and designers, working in the field of immersive environments, create experiences for people. These experiences involve the participant not only through the systems functionality (interaction), but in a psychological way, employing the use of the senses. Designed sensorial experiences account for both the participant’s experience and the system’s functionality. A presence-generating art system facilitates engaging experiences for participants, as both system form and system content compliment each other. These three components; the participant, system form, and system content are reliant upon each other if the outcome is to produce presence-based engagements. Creating meaningful, engaging experiences is one method for generating the experience of presence. This work looks at the process of creating presence engagement by applying in design; previous research into presence, two models for creative engagement and designing low stress environments. It briefly explores participants’ experiences of navigating a projected interface, using a stand alone eye-tracking device. This practice-based research project examines an interactive art system and how it use’s levels of interactivity to engage participants through models for creative engagement, designed for gaining and sustaining attention. The work advances understanding about interaction and experience design, by evaluating participants experiences of the seven features designed to enhance the sense of presence. These features are: designing for creative engagement, the sensation of spatial presence, the experience of ecological validity, the use of narratives, the use of colour and motion, audio and the system response time.
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