Where You're Looking, Who You're With and How You Get There: Designing a Virtual Reality Art Game for Inclusion and Emotion

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EXTENDED ABSTRACT

While many virtual reality game projects are attempting to reproduce traditional screen-based digital game mechanics and genres, the authors of this paper used their appreciation for experiential games and participatory art to explore new experimental design approaches and phenomenological impacts for virtual reality experiences. In doing so, they made several discoveries that they believe will be of unique value to other practitioners designing virtual reality games for entertainment, social impact and artistic effect. Richard Lemarchand is a game designer and producer with over twenty years of professional experience working in the console video game industry, and is now full-time faculty at the University of Southern California, teaching game design and production. In August of 2014, Lemarchand began work with scholarship-winning graduate student Martzi Campos on a project called The Meadow as part of the USC Game Innovation Lab. They have completed four semesters of work on the project, culminating in the nomination of the project as a finalist in the IndieCade Festival of Independent Games, and a showing at the UCLA Game Art Show at The Hammer Museum in Los Angeles.

The authors began work on The Meadow with an open design brief. To provide a basic game design framework for the project, the authors decided to use Lemarchand's longstanding interest in virtual reality and live-action roleplaying alongside Campos' interest in experience design and her undergraduate degree in painting and installation art. As development progressed through its first 'ideation' phase, the authors focused on several specific design and experience goals to provide a framework for further work. The first design goal was a focus on accessibility. The authors identified a major barrier to accessibility in a virtual reality art game project as the problem of "simulator sickness": the feelings of nausea that many people experience when using virtual reality,

and which disproportionately affects women. To counter this problem, the authors embraced the design constraint of keeping the player still within the virtual world, and causing the events in the world to "come to them," instead of the other way around. In doing so, they successfully obviated the problem of simulator sickness in every one of the players that has tested or used the game. A secondary barrier to the accessibility of virtual reality experiences arises when action is taken in the virtual world using game controllers or other peripherals that are prohibitively complex and counterintuitive to a general, non-console gaming audience. To combat this problem, the authors embraced the use of "gaze control," a mechanic whereby players interact with the world by fixating the forward direction of the virtual reality headset on interactive objects (in other, less precise words, by "looking at" objects steadily), in order to cause changes of state in them. These approaches presented challenges and yielded discoveries that will be described in the final paper and which will be of value to others designing and researching in this field.

The second design goal was prompted by the authors' perception that designers for virtual reality often miss a major creative opportunity when they fail to honor the powerful moments of transition from the real to the virtual, and back again. Drawing on their backgrounds in theater and art installation design, the authors designed a physical, "real world" component to their game, using set design, prop design, costume design, tactile design, olfactory design and live actors. By using techniques of "environmental storytelling" in both the real world and the virtual world, these design elements serve to gradually and discreetly ease the player into the narrative and interactive world of the virtually immersive part of the game, beginning in the moment that the player first sees the game installation. This seems to have an emotionally deepening effect on the virtual reality experience as reported anecdotally by players. In this way, The Meadow can be seen as an accessible kind of interactive theater or "live-action role playing" ("LARPing"). Lemarchand has coined the term "ambient LARP" to describe a mode of interactive theater that he has pursued in his experimental game design practice. In "ambient LARP" the barrier to entry that many people face when encountering participatory art (caused by shyness or other kinds of social reticence) is very low. Furthermore, the game is "puppeteered" by team members who watch the player's actions in the virtual reality part of the game. By making keyboard inputs and using tactile props, they trigger game events when they see that it is an appropriate moment do to so, usually because of where the player is looking. This adds to the narrative co-authorship and attentional interplay between player and actors already existent in the game, which the authors find interesting and will discuss in the final paper.

A third design goal was to investigate "experiential gameplay" for virtual reality. "Experiential gameplay" is gameplay that emphasizes expressive play in the systemic richness of playful interaction patterns, and that de-emphasizes goal-oriented behavior. This kind of gameplay can be used to expand the possible emotional space of a game, amplify the narrative impact of a game, or inculcate mindfulness on the part of the player. The authors' backgrounds as game designers of traditional goal-oriented games and their inclination to create experiential gameplay has provided a valuable dynamic tension that continues to yield unique insights in the ongoing development of the game. The creation of The Meadow has provided a rewarding journey for the authors, who hope to share their story and the lessons learned with the DiGRA and FDG communities.

Keywords
game design, virtual reality, simulator sickness, interactive theater, participatory art