

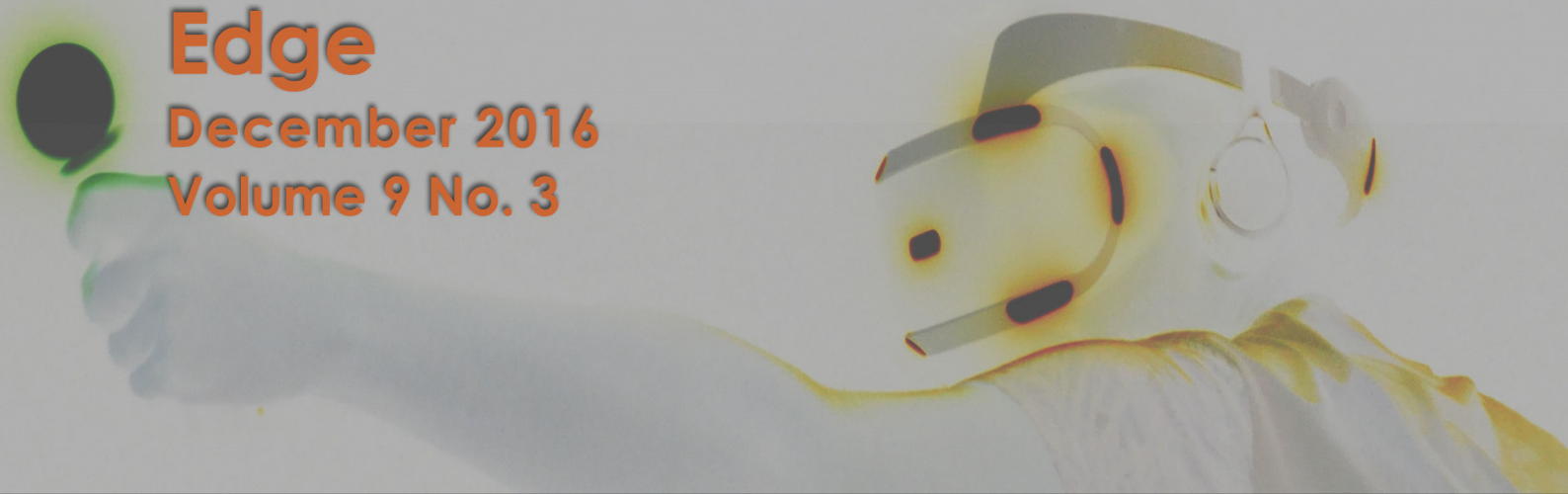
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Learning from the “Edge” of Virtual Worlds

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During 2016 we got many JVWR submissions that dealt with the future of virtual worlds. Of them, a group of papers seems to suggest new angles and unique points of view. We packed these top five papers into this Edge issue. Each of them pushes the boundaries of the disciplines in a different way.

1. **Pokémon GO 2016: Exploring Situational Contexts of Critical Incidents in Augmented Reality** by Tuomas Kari. Pokémon GO, an augmented reality mobile game, captured the attention of millions of people around the world in July 2016. Various sources from around the globe have reported both positive and negative incidents and outcomes related to the game. Some of the incidents have been particularly remarkable for the player, i.e., critical incidents. A critical incident is a single experience, which a person perceives or remembers as unusually positive or negative. Critical incidents typically are highly influential for human behaviour, and thus, important to study. Playing augmented reality games can take place in varying situational contexts. Situational context includes information that can be used to characterize the situation of a person, place, or object, and has been shown to be influential in mobile use context. This study investigates in which kinds of situational contexts do critical incidents of augmented reality game Pokémon GO take place. The study is based on analysing an online survey sample of 226 responses. The findings pose insights and implications regarding augmented reality applications and games in general, and thus, assist the developers in their efforts to provide the users with meaningful and positive experiences with games and other augmented reality applications.
2. **Flow in Virtual Worlds: The Interplay of Community and Site Features as Predictors of Involvement** by Valerie Elizabeth Barker. Cultivating involvement within virtual worlds, where interactivity and community are salient, represents a key goal for virtual world leaders. This online survey of virtual world visitors conducted in 2013 (N = 244; 37% of whom use Second Life) assessed whether the interplay of community and site features facilitates a form of intense involvement known as flow. Flow is an affect-based response to types of pursuit that involve intense enjoyment and high psychological engagement. Prior research shows that flow often leads to positive outcomes for virtual world visitors, including learning, satisfaction and loyalty. Therefore, it is important to

understand more about potential antecedents to the reported flow experience in virtual worlds. The study findings showed that site features such as a level of interactivity mediate the relationship between sense of community and reported flow experience among virtual world visitors. This suggests that site designers can intensify involvement by encouraging community spirit via interactivity, feedback, content variety and ease of use.

3. **The Experience Machine: Existential reflections on Virtual Worlds** by Stefano Gualeni. This article integrates and supplements some of the interrogatives proposed in Robert Nozick's thought experiment. More specifically, through the lenses of existentialism and philosophy of technology, this article tackles the technical and cultural heritage of virtual reality, and unpacks its potential to function as a tool for self-discovery and self-construction. Ultimately, it provides an interpretation of virtual technologies as novel existential domains. Virtual worlds will not be understood as the contexts where human beings can find completion and satisfaction, but rather as instruments that enable us to embrace ourselves and negotiate with various aspects of our (individual as well as collective) existence in previously-unexperienced guises.
4. **Playful Constructivism: Making Sense of Digital Games for Learning and Creativity Through Play, Design, and Participation** by Vittorio Marone. The goal of this article is to provide a conceptual framework to better understand digital games in learning and creative contexts through the dimensions of play, design, and participation. This framework can be used as a guiding tool for the selection, implementation, and evaluation of game-based approaches in formal and informal educational settings, as well as a blueprint for making sense of playful learning and creativity in virtual worlds and technology-mediated environments. In essence, this article seeks to answer the question "What are digital games and how can we make sense of them for learning and creativity?" The proposed visual model and conceptual framework, here defined as Playful Constructivism, is grounded on the learning theories of Situated Cognition, Social Constructivism, and Constructionism, and draws from play and game studies, design-based learning, and affinity spaces research. This framework is not intended as the "ultimate" conceptualization of game-based learning, but rather as an agile tool that can guide scholars, practitioners, and students through the affordances, challenges, and opportunities of implementing and using digital games in learning and creative contexts.
5. **Restorative Virtual Environment Design for Augmenting Nursing Home Rehabilitation** by Jon Ram Bruun-Pedersen, Stefania Serafin, and Lise Busk Kofoed. With increasing age, muscle strength decreases excessively rapidly if physical activity is not maintained. However, physical activity is increasingly difficult with aging. This is due to balance, strength or coordination difficulties, arthritis, etc. Moreover, many nursing home residents become unable to experience natural surroundings. Augmenting a conventional biking exercise with a recreational virtual environment (RVE) has shown to serve as an intrinsic motivation contributor to exercise for nursing home residents. RVEs might be able to provide some of the health benefits that regular nature experiences do. More studies on content of proper custom designs for RVEs are necessary. This paper reviews the background for RVE design, describes four custom RVE designs for recreational VE exploration and presents user preferences among nursing home users concerning content and other pivotal design considerations.

Together, these five papers demonstrate the dual value of JVWR, first as a stage to explore the future of virtual worlds (defined broadly) and then help to shape the future of real worlds. The issue is also an invitation for you readers to first explore JVWR's past issues at our website, and then contribute as authors and as editors of future special issues.