

## Chapter 5

# A Merchant Virtual Universe as an Innovative Retail Setting: A Dynamic Perspective on the Immersion Process

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### **ABSTRACT**

*The Merchant Virtual Universe (MVU), which hyperrealistically reproduces the environment of a real shopping mall, is proving to be an innovative retail setting. It offers a competitive advantage by providing a satisfying and compelling online experience. This chapter examines immersion processes in an MVU and studies their evolution over time. The researchers collected qualitative and quantitative data from users throughout successive visits to a 3D virtual shopping mall. The data highlight the special role of perceived realism and sense of presence in allowing users to become immersed. The results confirm the links among realism, presence, and immersion, as well as their influence on satisfaction. They further illustrate the process as time passes: Realism is the strongest factor of immersion at the beginning of the experience but over time is replaced by presence. This work confirms that MVU designers must consider the importance of realism of the virtual environment.*

### **INTRODUCTION**

Ever since the publication of Holbrook and Hirschman's (1982) work, growing research interest has focused on the shopping experience; recent studies in the area of e-commerce reflect this trend. Consumer researchers have identified online experience as a potential source of differentiation and growth

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(Hoffman & Novak, 1996; Childers, Carr, & Peck, 2001; Mathwick, Malhotra & Rigdon, 2001; Rose, Clark, Samouel & Hair, 2012). The evolution of multimedia and Internet technologies has created new perspectives and rich user experiences, such as virtual universes. These three-dimensional (3D) interactive digital environments allow users to view, move around in, and experience an imaginary world (Van Schaik, Turnbull, Van Wersch & Drummond, 2004) that may or may not look like the real world (Barnes & Mattsson, 2008). In the virtual universe, an avatar acts as the graphic representation of the user, interacting freely and directly with the environment, and possibly with other avatars (Bretonès, Quinio & Réveillon, 2010). Virtual universes have changed many of the ways that people play, work, and live. They also are changing the ways they shop and consume (Ward & Saren, 2008).

Building on the success and effectiveness of virtual universes that support social interaction (Second Life) or action-oriented gaming (World of Warcraft), online retailers have gradually adopted various Massively Multiplayer Online Role-Playing Game (MMORPG) techniques. Designing and using 3D flashes may enrich consumers' experiences (Li, Daugherty & Biocca, 2001) and steadily increase sales (Demery, 2006). Similarly, exposure to flagship brand stores within social virtual worlds positively influences brand attitude and real-life purchase intent (Haenlein & Kaplan, 2009). Other studies (Poncin & Garnier, 2012) show that merchant virtual universes (MVUs) or websites that integrate virtual reality devices (Charfi & Volle, 2011; Merle, Senecal & St-Onge, 2012) are a source of satisfaction and positive intentions (new visit, purchase). Such innovative devices and tools in Internet retail settings create realistic retail experiences that can provide retailers with a competitive advantage.

Research is now focusing on what participates to “virtual experience,” or experience within a virtual context. Moving beyond the study of objective environmental factors, such as atmospheric elements or avatars (Poncin & Garnier, 2010; Garnier & Poncin, 2013), researchers are beginning to discuss the role of human responses to the system. A qualitative study (Charfi & Volle, 2011) has suggested that psychological immersion (Schultze, 2010) is the “heart” of the experience in e-commerce websites using virtual reality devices. Internet users might be fully accessing the experiences offered by websites because they are immersed, that is, experiencing intense moments. This immersion may be having a positive effect on various responses such as attitudes, satisfaction, and buying intentions. Can this hypothesis be confirmed quantitatively, in an MVU? Little is known about the factors that induce user immersion in the virtual experience. Most research focuses on immersion in non-merchant, non-mediated activities, such as attending a classical music concert (Carù & Cova, 2006), or mediated activities that are not interactive, such as watching a movie (Fornerino, Helme-Guizon & Gotteland, 2008). Immersion in a computer-mediated merchant activity, using a technical device to interact with the virtual environment, may be quite different. Furthermore, there do not appear to be any studies of the factors that may change over time during the immersion process. A better understanding of what MVU immersion is, and of the factors that facilitate or impair consumer immersion in an experience, could contribute to the improvement of MVUs.

With these objectives in mind, this study examines the role of perceived realism and sense of presence suggested by Van Schaik et al. (2004) as immersion (involvement) factors in a gaming virtual universe. Three studies explore these ideas and reveal a link between perceived realism and presence immersion, then explore the influence of these factors on satisfaction with the MVU. The studies also indicate that perceived realism is the strongest factor of immersion at the beginning of the immersion experience, but over time, it gets replaced by presence. As the results show, the influence of immersion

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