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"The (Real) World Is Not Enough:" Motivational Drivers and User Behavior in Virtual Worlds ☆

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Abstract

Virtual worlds (VWs) have become increasingly prominent during the past decade, populated by individual users and more recently, even "real world" firms. To effectively use a VW for business purposes, a relevant question for those firms pertains to why people use VWs and which motivational drivers might influence their participation behavior. This study offers an early analysis of the topic by extending a social influence model to explain participation behavior in a new, marketing-relevant context and identify specific motivational drivers of VW participation. Socializing, creativity, and escape emerge as individual drivers. Accounting for user heterogeneity also reveals four latent segments, each characterized by a distinct motivational driver, and one segment that reflects mixed motives. The segments differ substantially in their descriptive characteristics (e.g., usage intensity, overall spending behavior). These results have significant implications for research, VW operators, and companies doing business in VWs.

Keywords: Virtual worlds; Uses and gratification; Social influence; Motivations; Finite mixture structural equation model

Introduction

Virtual worlds (VWs) have become very popular in the past decade, populated by both individual users and organizations. Although the intense hype around these three-dimensional virtual hyperrealities has come to an end (Haenlein and Kaplan 2009), operators still keep reporting increasing usage levels; for example, Habbo Hotel claims to have surpassed 200 million registrations as of January 2011 (Sulake Corporation Oy 2011). In general, the U. S. virtual goods market should reach US$2.1 billion overall in 2011, and VWs constitute an increasingly meaningful share of the related opportunities (Smith and Hudson 2010).

By offering a social and economic supplement or alternative to the real world, VWs allow people and organizations alike to "step" into another world. People can assume a virtual identity through an avatar and thereby engage in different real-world-like activities, such as meeting friends, earning money, shopping, or building a home. Business opportunities include purchase-related engagements such as the sale of virtual products (e.g., virtual Nike shoes) or physical products (e.g., real Nike shoes sent to a user), as well as information/communication-related tasks such as promoting the company (e.g., advertising Nike in the VW), and conducting market research (e.g., testing the design of new Nike shoes on avatars).

The high popularity of VWs has attracted several major real-world firms to engage in these new environments, including Adidas, American Apparel, Dell, Disney, IBM, Nike, MTV, Reuters, and Toyota (Bélisle and Bodur 2010). In 2009, the world economy of Second Life as one of the most prominent VWs reached US$567 million—corresponding to a growth rate of 65% from 2008 (Linden 2010). On the other hand, some firms have already closed their virtual stores because users were not attracted by their offerings (Edery and Mollick 2009). Hence, the overall trend remains puzzling and requires a clearer understanding of what might have gone wrong for these firms.

From an academic perspective, we still know relatively little about VWs. Most prior contributions involve editorial content in practitioner outlets; few articles have been published in academic journals, and those that appear are mainly conceptual descriptions of business models for VW operators (e.g., MacInnes 2006) or potential opportunities (e.g., Papagiannidis,

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Bourlakis, and Li 2008). The few empirical studies to date can be categorized into three research directions: (i) Studies that investigate the link between individuals and their avatars in VWs as well as the impact of VWs on virtual identity building (Bélisle and Bodur 2010; Parmentier and Rolland 2009); (ii) studies that analyze the impact of brand experiences in the VW on brand attitudes and consumer purchase behavior in the real world (Gabisch 2010; Haenlein and Kaplan 2009); and (iii) studies that examine the determinants of VW user adoption (Chung 2005; Fetscherin and Lattemann 2008; Shin and Kim 2008). The objective of our study is to investigate what actually motivates people to join and participate in a VW. Hence, our research mostly corresponds to the third group of studies. The common framework underlying all existing studies in that group is the technology acceptance model (TAM; Davis 1989). However, a TAM framework is only of limited use for studying the determinants of VW acceptance for two reasons: First, the rather abstract determinants within the TAM (i.e., perceived usefulness and perceived ease of use) do not appropriately reflect the specific user motivations for VW participation, which can be considerable in number given the varied usage opportunities in VWs. Second, the TAM ignores important group-level influences arising from social interactions between VW members (Bagozzi 2007). Hence, there remains a strong need to identify the specific user motivations of VW participation as well as to analyze – in a more holistic framework – how these motivations translate into participation behavior.

To accomplish this, we adopted a two-step research approach building around two consecutive studies: First, we undertook a formal uses and gratification (U&G) development process to identify the key motivations of VW use (Blumler and Katz 1974). Second, we applied the motivations we identified to build a modified social influence model (SIM; Dholakia, Bagozzi, and Klein Pearo 2004) that provides a holistic framework for analyzing the influence of individual-level user motivations on intended VW participation behavior, even as it controls for potential group-level (social) influences. For model estimation, we adopted a response-based segmentation perspective (Jedidi, Jagpal, and DeSarbo 1997) and accounted for possible heterogeneous motive structures. With this approach, we were able to identify latent segments of VW users with distinct motivational drivers. Finally, we profiled the user segments according to key demographic (age, gender, education, income, occupation, and residence) and behavioral (proportion of VW-only friends, spending amount per month in the VW, and actual usage intensity) variables.

By considering our segment-specific findings, both VW operators and participating firms can benefit from a better understanding of VW usage motivations, as well as align their activities with the demands and characteristics of selected target groups. To the best of our knowledge, this article offers the first comprehensive approach to understanding and explaining intended user behavior in VWs through an analysis of social influence. It thus not only provides important managerial guidance but also advances research on consumers' motivational drivers and social influence.

Conceptual Framework

Virtual Worlds

Loosely speaking, a VW is a virtual place that enables users to communicate, cooperate, and collaborate, as in the real world (Hindmarsh, Heath, and Fraser 2006). Users, or more accurately their avatars, can establish a business, marry a partner, or travel to exotic locations (Fetscherin and Latteman 2007). For a more holistic definition, however, VWs have to be regarded from different perspectives. By integrating sociological (Muniz and O'Guinn 2001; Rheingold 1993), technological (Lechner and Schmid 2001), and economic perspectives (Balasubramanian and Mahajan 2001; Hagel and Armstrong 1997), we define a VW as an unstructured social and technological environment that possesses three central characteristics: (1) It is embedded in a three-dimensional, visually sophisticated digital space; (2) it comprises an aggregation of people who are graphically represented by avatars, and movements of these avatars within the digital space are rendered simultaneously to all other constituents in the virtual vicinity in a three-dimensional visualization that enables real-time interaction; and (3) users of the VW engage in different exchange processes, whether social (mutual dissemination of thoughts and opinions), material (trading virtual material objects), or monetary (transfer of virtual currency). Every constituent engages in some but not necessarily all exchange processes.

This definition distinguishes VWs from related virtual venues, such as multiplayer online games or virtual communities. Specifically, whereas online games are structured (i.e., closed) environments that are designed around socialization, fantasy and role playing with clearly defined goals, VWs are unstructured (i.e., open) environments that lack mission-oriented narratives, defined character roles and goals (Reeves, Malone, and O'Driscoll 2008). Further, VWs offer an active economy that is designed around the ownership of virtual property (Mennecke et al. 2008; Parmentier and Rolland 2009; Salen and Zimmerman 2003). In contrast with virtual communities, VWs offer a more real-world-like environment, mainly through their three-dimensional representation (Fetscherin and Lattemann 2008), so interactions take place in realistic environments that mirror real-world locations, such as conference rooms, lounge areas, restaurants, or tropical beaches. Through their avatars, users also can make nonverbal (e.g., smiling, winking, nodding, shrugging) and verbal (e.g., breathing, yawning, laughing) utterances. Thus in VWs, they can express their feelings more easily, conveniently, and accurately to other users than in virtual communities (Chung 2005).

Research Setup

To investigate the individual motivations that draw participants to VWs, we must account for the mechanisms by which individual-level determinants translate into participation intentions in the specific context of a VW. Because participation in VWs always involves some form of social interaction, a person's decision to participate depends on not only personal motives but