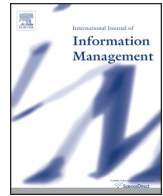




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# Why do teens spend real money in virtual worlds? A consumption values and developmental psychology perspective on virtual consumption

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## ABSTRACT

Monetizing the users base is a major business challenge in social media, online social networking and online entertainment. Many of these services employ the freemium business model i.e. offer a free access to the service and try to generate revenue from selling premium user accounts with exclusive features or selling virtual items. However, the value users create by virtual purchasing is not well understood. Furthermore, young people constitute an important user segment for online social networking services that has not received proportionate attention in the literature. This study draws on Theory of Consumption Values and developmental psychology to elucidate the value teenage users create by spending money in a social virtual world (SVW) that employs the freemium business model in parallel with selling virtual items. The benefits of the premium user account, decoration, status, and boosted enjoyment of the user experience were the most common reasons for teenagers' purchasing within an SVW. From teenagers' developmental standpoint, virtual purchasing facilitates identity experiments and membership of peer groups. The results also reveal social hierarchies and discrimination among the users.

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## 1. Introduction

Social networking has become the most popular online activity in the USA (Fox, 2013). In addition to social networking sites, online communities, and content sharing platforms, young people in particular have become used to engaging in virtual worlds (VWs) (Mäntymäki & Riemer, 2014). Social virtual worlds (SVWs) are a category of VW that focuses on facilitating social interaction between users. In contrast with gaming VWs, which typically include level-ups and narrative goal structures, SVWs facilitate free-form interactions between users (Jung & Pawlowski, 2014; Mäntymäki & Riemer, 2014).

To attract large volumes of users, many SVWs employ a freemium revenue model to monetize the user base, wherein the basic access to the service is free with an upgraded version

available for a subscription fee (Teece, 2010; Vock, van Dolen, & de Ruyter, 2013), or alternatively collect revenue from micro transactions such as selling virtual items or property (Hee-Woong Kim Hock & Kankanhalli, 2012; Kim, Gupta, & Koh, 2011). The large user base has made the overall spending on virtual goods to reach \$15 billion (SuperData Research, 2012). However, regardless of the revenue model or service type, persuading users to spend money on these services represents a major business challenge in online social networking (Han & Windsor, 2011).

This study advances understanding of virtual consumption, which has to date attracted scant research (Jung & Pawlowski, 2014), and more specifically fills three gaps in the literature.

First, prior research to elucidate the value SVW users extract from virtual purchases is very limited. Research has examined the drivers of purchasing in SVWs (Animesh, Pinsonneault, Sung-Byung Yang, & Oh, 2011; Hee-Woong Kim Hock & Kankanhalli, 2012; Mäntymäki & Salo, 2013; Guo & Barnes, 2011; Shang, Chen, & Huang, 2012), as well as how people desire (Denegri-Knott & Molesworth, 2013) and use virtual goods (Jung & Pawlowski, 2014). In addition, prior research on purchasing behavior in SVWs

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(Kim et al., 2011; Shang et al., 2012) has acknowledged the importance of customer value (Babin, Darden, & Griffin, 1994; Sweeney & Soutar, 2001; Zeithaml, 1988) as a determinant of purchasing. The literature has also reported that social and emotional value associated with virtual items (Kim et al., 2011; Shang et al., 2012) drives purchasing decisions. There is a clear need for research that examines how SVW users elucidate the value of virtual purchases.

Second, in addition to selling virtual items, SVW operators collect revenue from users paying to upgrade to premium accounts. Prior research has examined users' willingness to pay for social network sites (Vock et al., 2013). However, an environment where micro transactions and the freemium model are employed in parallel to collect revenue from users has not been explicitly investigated. In filling this gap, contribute to the scant research on the freemium revenue model (Vock et al., 2013) in the context of online social networking.

The third gap stems from the scarcity of literature on teenagers as virtual consumers. Young people aged between 10 and 15 account for 70% of a total of 1.4 billion virtual world users (kZero, 2012). However, with a few exceptions (Lehdonvirta, Wilska, & Johnson, 2009; Mäntymäki & Riemer, 2014; Mäntymäki, Merikivi, Verhagen, Feldberg, & Rajala, 2014), this group has not to date received proportionate attention in the mainstream VW literature, which has largely focused on services targeted at adult audiences, such as Second Life (Animesh et al., 2011; Guo & Barnes, 2011; Jung & Pawlowski, 2014; Nah, Eschenbrenner, & DeWester, 2011; Shang et al., 2012) or World of Warcraft (Constantiou, Fosselius, & Olsen, 2012; Guo & Barnes, 2012). Thus, focusing on virtual purchasing behavior among teenagers offers a particularly useful insight, since teens represent a consumer segment on which there is limited academic research (Haytko & Baker, 2004; Lueg, Ponder, Beatty, & Capella, 2006).

In addition, today's teenagers—often referred to as 'digital natives' (Prensky, 2001)—represent an especially interesting group with which to examine purchasing behavior in a VW setting, as they have been exposed to various forms of information technology since their early childhood and are typically actively engaged in online social networking (Palfrey & Gasser, 2008). From the developmental psychology perspective, teenagers are experiencing the transfer period between childhood and adulthood referred to as adolescence (Erikson, 1968), during which an individual undergoes a number of biological and socio-psychological changes. Interactions and possessions in an online environment play an increasing role in how people construct their selves (Belk, 2013). To the best of our knowledge, no prior research has examined teenagers' purchasing behavior in VWs from a developmental psychology perspective.

Against this backdrop, the aim of the study is to answer the following question: *what value do teenagers create by purchasing virtual items and premium user accounts in a social virtual world and how does this relate to their developmental stage?* To answer this question, we employ content analysis to analyze data from 1000 users of Habbo Hotel, a leading SVW for the young. We build on the Theory of Consumption Values (Sheth, Newman, & Gross, 1991) and the literature on developmental psychology (Erikson, 1968; Kroger, Martinussen, & Marcia, 2010; Marcia, 1980) to relate the types of value created by teenagers' purchasing behavior in an SVW to issues characteristic of their developmental stage.

The paper proceeds as follows. After the introduction, we present an overview of purchasing behavior in VWs and our theoretical underpinnings. The third section covers the research methodology, data collection and analysis, as well as the empirical results. In the fourth and final section, we summarize the main findings and discuss them from theoretical and business perspectives. We conclude by noting the limitations of the study and offering suggestions for future research.

## 2. Background

### 2.1. Purchasing behavior in social virtual worlds

The unique characteristic of virtual goods and services (virtual items, characters, currencies, premium memberships) is that they do not have a clear atomistic equivalent or component (Fairfield, 2005). In addition, they are usually consumed inside a specific virtual environment. However, some VWs, such as Second Life, do offer a tradable in-world currency that can be exchanged for real money. Virtual goods do not typically fulfill physiological or safety needs (Martin, 2008); their value is likely to relate to needs linked to esteem and self-actualization (Maslow, 1954). Thus, purchasing virtual goods relates to self-expression, and the owners use the goods as symbols to project and communicate an image, and through their avatars and personal virtual spaces (Lehdonvirta et al., 2009; Martin, 2008).

Prior research has found that purchasing virtual products in VWs is influenced by factors related to the virtual products (Lehdonvirta et al., 2009), the purchasing process (Guo & Barnes, 2011), user motivation (Guo & Barnes, 2011), and the virtual environment (Animesh et al., 2011; Shang et al., 2012). Lehdonvirta et al. (2009) examined the characteristics of virtual items and identified three classes of virtual item purchase drivers: functional drivers (game performance and advanced characters); hedonic drivers (esthetic appeal); and social drivers (visual appearance and rare collectibles). Guo and Barnes (2011) found that extrinsic motivators, such as effort and performance expectancy related to the purchasing process and perceived value, as well as intrinsic motivators, such as perceived enjoyment and customization of an avatar, predicted purchase intention. Animesh et al. (2011) found that social presence, flow, and telepresence, i.e. the perception of being in a shared space with other SVW users, were the key experiences determining purchase intention. Kim et al. (2011) found the desire for self-presentation predicted purchase intention in SVWs. Mäntymäki and Salo (2011, 2013) identified perceived network effects predicting young SVW users' purchase intentions. Jung and Pawlowski (2014) examined the social presentations SVW users attributed to virtual goods and found that amusement is the principal purpose of virtual consumption. Taken together, these findings provide evidence that the social environment inside and outside the platform influences SVW purchasing decisions.

Taking the user experience in SVWs as a whole, purchasing and possessing virtual products per se is unlikely to be the reason for user engagement. More likely, purchasing is a means of obtaining the desired outcomes in the virtual environment (Jung & Kang, 2010; Mäntymäki & Salo, 2013). Users enter SVWs to interact with other people, even to establish romantic relationships, and create their own virtual environment (Eisenbeiss, Blechschmidt, Backhaus, & Freund, 2012). Therefore, it is not surprising that people seek to fulfill their need for belonging, self-actualization and esteem via engaging in SVWs (Barnes & Pressey, 2012; Partala, 2011), and that the motivations for using Second Life correlated with offline and virtual purchasing habits (Shelton, 2010).

The nature of SVWs in contrast to online games manifests itself in the selection of virtual items they offer their users. In online games, the virtual items offered to the players can be classified into two categories: weaponry, and "decoratives" such as clothes, furniture and pets (Wu, Chen, & Cho, 2013). SVWs and particularly those for the young are non-violent environments and thus offer only decoratives. This difference means virtual purchasing in SVWs offers a form of improved character performance that is somewhat less directly observable than in online games.

To summarize the findings from the prior literature, people consume in SVWs by spending time and money on the services and create value in return. In order to better understand the potential

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