INTRODUCTION

Online games are a popular application in electronic commerce. The number of customers playing a single online game has reached as high as 9,000,000 (Blizzard Entertainment, 2008), indicating the relevance of online games to marketers. When playing online games, customers focus on avatars, which represent them in the game world (Vasalou & Joinson, 2009). Recent studies have addressed the role of avatars in online game play (i.e., Lo, 2008). However, few investigations have attempted to improve practitioner understanding of avatars, limiting the wider utilization of avatar design in improving customer satisfaction. This phenomenon is perhaps owing to the lack of avatar-related theories. Theoretical investigations are necessary to clarify how customers use avatars to satisfy their needs when playing online games.

This chapter thus presents Avatar Theory to outline fundamental propositions related to avatars. Avatar Theory can provide a background theory for subsequent avatar studies related to online games, demonstrating the value and potential impact of Avatar Theory within the literature on electronic commerce. Since gamers can select, play, change, discard and play multiple avatars, this chapter develops the Avatar Theory in order to understand these avatar use behavior.

BACKGROUND

Understanding Online Game Customers

Online games are Internet applications that customers can play with other customers. Online games are very popular electronic businesses. A single online game can have as many as nine million customers worldwide (Blizzard Entertainment, 2008). The size of the online game market is expected to exceed $13 billion by 2011 (DFC Intelligence, 2006), demonstrating it is economically important and deserving of research attention.

Since online games are an important sector, recent studies have endeavored to understand online game customers. Knowledge of customer demo-
graphic variables is fundamental and intuitive. Griffiths, Davis, and Chappell (2003) found that most online game customers are male, and more adults than previously imagined play online games. Griffiths, Davis, and Chappell (2004) confirmed the findings of their previous study and further found that online game customers most appreciate the social aspects of online games.

Customer demographics are influential, as are customer personality traits. Personality traits are psychological sets that systematically influence individual behavioral and psychological patterns (Zimbardo & Weber, 1994). Teng (2008) may have been the first to discuss personality differences between online game customers and others. Controlling for the influences of gender and age, Teng (2008) found that online game customers reported higher scores than non-players in terms of openness (the tendency to be creative and imaginative), conscientiousness (the tendency to be efficient and systematic), and extraversion (the tendency to be talkative and assertive). Jeng and Teng (2008) further linked personality traits to customer motivations to play online games. Furthermore, Jeng and Teng (2008) found openness to be positively related to discovery and role-playing motivations, conscientiousness to be positively related to escapism motivation, and extraversion to be positively related to teamwork motivation. Jeng and Teng (2008) explained the findings of Teng (2008) using customer motivations as an explanation. Restated, the customer needs satisfied by online games are a crucial issue.

**What Customer Needs do Online Games Satisfy?**

Online game literature has identified that playing online games satisfies player social needs (Lo, Wang, & Fang, 2005; Kim, Park, Moon, & Chun, 2002; Yee, 2006). In the role playing game context, Hsu and Lu (2007) indicated that perceived group cohesion brings customers positive feelings regarding certain games. Restated, customers enjoy games that make them feel affiliated to one or more groups. Jansz and Martens (2005) then identified social contact as the main reason for customers to play online games, contradicting the stereotype of game players being isolated. However, in the context of first-person shooting games, Jansz and Tanis (2007) also identified social contact as the factor that online game customers enjoy most. Earlier studies agreed that social aspect is the main driver leading online game customers to continue playing a certain game. Restated, online games satisfy customer social needs.

Besides social needs, online games also provide customer immersion (or flow) experiences. Hsu and Lu (2004) identified immersion experience as a predictor of customer intention to play online games. Moreover, Teng, Huang, Jeng, Chou, and Hu (2008) presented evidence that immersion experience contributes to customer loyalty, and utilized customer personality traits as predictors of customer tendency to experience immersion.

Online games can satisfy needs of online game customers. Jansz (2005) proposed that online games can provide a safe laboratory for customers to experiment emotionally, indicating another use of online games for customers. Yee (2006) further indicated that online games can satisfy customer achievement and immersion needs.

**PROPOSITIONS**

**How Can Avatars Be Used for Needs Satisfaction?**

Online game customers use avatars as their representations in games while experiencing the game world and interacting with each other. Thus avatars are key elements for satisfying customer needs. However, the literature on online games has neglected the importance of avatars (the representations of customers in the game world).

Avatars are user representations in game worlds (Vasalou & Joinson, 2009), and thus customers...