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The impact of narcissism on value evaluations resulting from virtual good purchases

Nathan McDougle

THE IMPACT OF NARCISSISM ON VALUE EVALUATIONS RESULTING FROM VIRTUAL GOOD PURCHASES

by

Nathaniel McDougle, B.S., M.B.A.

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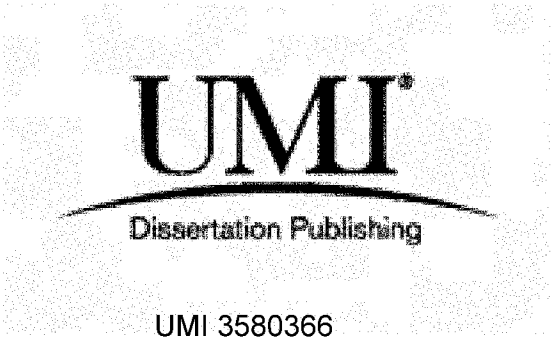

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Supervisor of Dissertation Research

Head of Department

Marketing and Analysis
Department

Recommendation concurred in:

Advisory Committee

Approved:
Director of Graduate Studies

Approved:
Dean of the Graduate School

Dean of the College

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ABSTRACT

Social network sites and virtual worlds have become an intriguing area of study within Marketing. The uncertainty of the effects of marketing efforts within these worlds, especially with add-on purchasable items, has received some research attention, but research has not delved deeply into the factors that affect a consumer's intention to purchase these items online. In order to better understand these actions, the present study attempts to empirically examine the effects of several of these variables—specifically narcissism—on purchase intentions, value, and quality of life. Two competing theories are proposed to explain these relationships—a theory of experiential consumption and a theory of narcissistic consumption.

In an experiment study, scenarios were created to represent various situations based on visibility of results, familiarity with the brand, and community acceptance of the usage of an item that would enhance the consumer's experience in a virtual world. One hundred sixty-seven subjects were obtained from the online survey service Mechanical Turk and exposed to one of eight scenarios. A survey was then provided to test a proposed conceptual model examining the effects of narcissism as well as the experimental variables. Multiple ANOVAs are used to examine the effects of the variables.

The results suggest that an experiential consumption theory holds more explanatory power for why consumers purchase these enhancements online. However, the results also suggest that narcissism does play a small but significant role in explaining these relationships. Specifically, he importance of telepresence, norm violations, and community identity in predicting the outcome variables suggest that enhancing the social aspects of the virtual world goes a long way toward generating value within a virtual world and encouraging purchase of virtual goods. Preliminary results also suggest the importance of narcissism as an important determinant of value and satisfaction. The results of narcissism, however, are not conclusive and require further attention.

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CHAPTER 1

INTRODUCTION

Nature of the Research

The online world of social media has been growing steadily since its creation within the World Wide Web. With more and more ways becoming available to access social media from anywhere at any time (e.g. Hardy 2012), social network sites, or SNSs, and virtual worlds are growing in popularity. While there is no denying that the state of the social networking world is strong, much of the research to date has focused primarily on the theoretical bases. Some sources argue that the industry is beginning to plateau (for references see http://www.mediabistro.com/alltwitter/social-networks-2012_b26341 and http://mmodata.blogspot.com). However, certain areas of the industry, such as virtual goods, continue to grow. A recent study conducted by PlaySpan, Visa's monetization platform, found that one in four consumers purchased a virtual good in 2011 (Playspan.com). Mike Vorhaus, president of the Magid Advisors unit of the Frank N Magid Associates, Inc., and assistant to this research, added that "twice as many people are buying virtual goods in the U.S. today compared to 2009 and spending 28% more money, suggesting that the purchase of virtual goods is 'truly becoming a mainstream activity as far as consumer entertainment behaviors go'" (www.reuters.com, Empson 2012).

To this end, more empirical research needs to be done to understand the basis for this growth pattern, understand the tendencies of the users, and expand our understanding of the industry (Huang 2012).

While research in the area has been prevalent, one aspect of this research that should be mentioned is the amount of the prior research that has focused on Facebook or Second Life/Avatar research (e.g. Ryan and Xenos 2011, Holzwarth et al 2006). Though both of these social media are essential to understanding social media as a whole (according to www.checkfacebook.com, Facebook alone is cited as having a global audience of over one billion members), most research into virtual game worlds has had a much different focus. Much of the research has focused on the virtual economy within the game world or the way to use games as an add-on aspect in services marketing (see www.virtual-economy.org). In terms of a user of this social media, the research has focused primarily on player orientation and motivation to join a site (e.g. Bartle 2003 and Lehdonvirta 2009). Again, while all of these settings are important to marketing, it does not address the consumer behavior aspect of purchase of virtual goods to augment a player's experience.

To complicate matters, multiple theories could explain the behavior of purchasing online. In the case of service dominant logic, purchasing of add-ons to virtual worlds and social networking sites would be considered a value-added service to the service, further enhancing the value obtained. However, when viewed from the perspective of the consumer, the virtual good is often a means to skip essential steps in the normal process of the service. From this way of looking at the situation, the buyer is purchasing a way around the service itself to attain the end good without the co-creation. Escapism could

be used to explain the purchase of these virtual add-ons as a means of getting away from stress. In reality, these sites can be quite competitive and add further stress to the user. From a mastery perspective, the completion of facets of the social network site or virtual should generate greater value, but the add-ons that enable easier traversal of the world or site (thereby removing the challenge) are likely to increase the value received.

Thus, the purpose of this research is to examine empirically the characteristics of a user of a virtual game world that would encourage the user to purchase "virtually nothing." Virtual goods, though they can be classified many ways, often amount to purchasing an item that is consumed entirely within the world. In many cases, these goods do not have a lasting or visual countenance. In these particular cases, the user will pay money for the right to use "nothing." This leads to the research question for this investigation: What causes a person to invest money into a virtual world in such a way that leads to no tangible reward but only an enhancement of their avatar or experience?

In order to examine this question, a review of the relevant literature in social media and virtual game worlds is required. From this review, a model will be constructed based on the results of the literature review. Hypotheses will be derived and thus tested. Through experimental procedure, results will be analyzed and conclusions drawn.

CHAPTER 2

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Introduction to Social Media

Social media, and specifically social network sites (SNSs), are fast becoming an important area of research within the area of social media for many different reasons. One of the most critical reasons is the lack of agreement as to what constitutes one of these sites – from both applied researchers and academic researchers. Without a clear definition of what constitutes an SNS, it becomes difficult to understand the scope of any research project. Fred Cavazza, a French blogger and contributor to several online publications, published a "panorama of social media" on his blog in 2007 (Figure 1) along with a call to truly define social media. His definition was that social media are tools and services that enable individuals to express (and therefore exist) online in order to meet others, share information, and more. Thus, an examination of the different uses and definitions of social media and SNS since this writing is required.

Scope of SNSs – Virtual Communities and Virtual Worlds

The primary aspect of these sites that seems to be in the most disagreement is the scope of a social network site or particular social media outlet. What are the characteristics of these sites? What characteristics help classify a site as an SNS and what

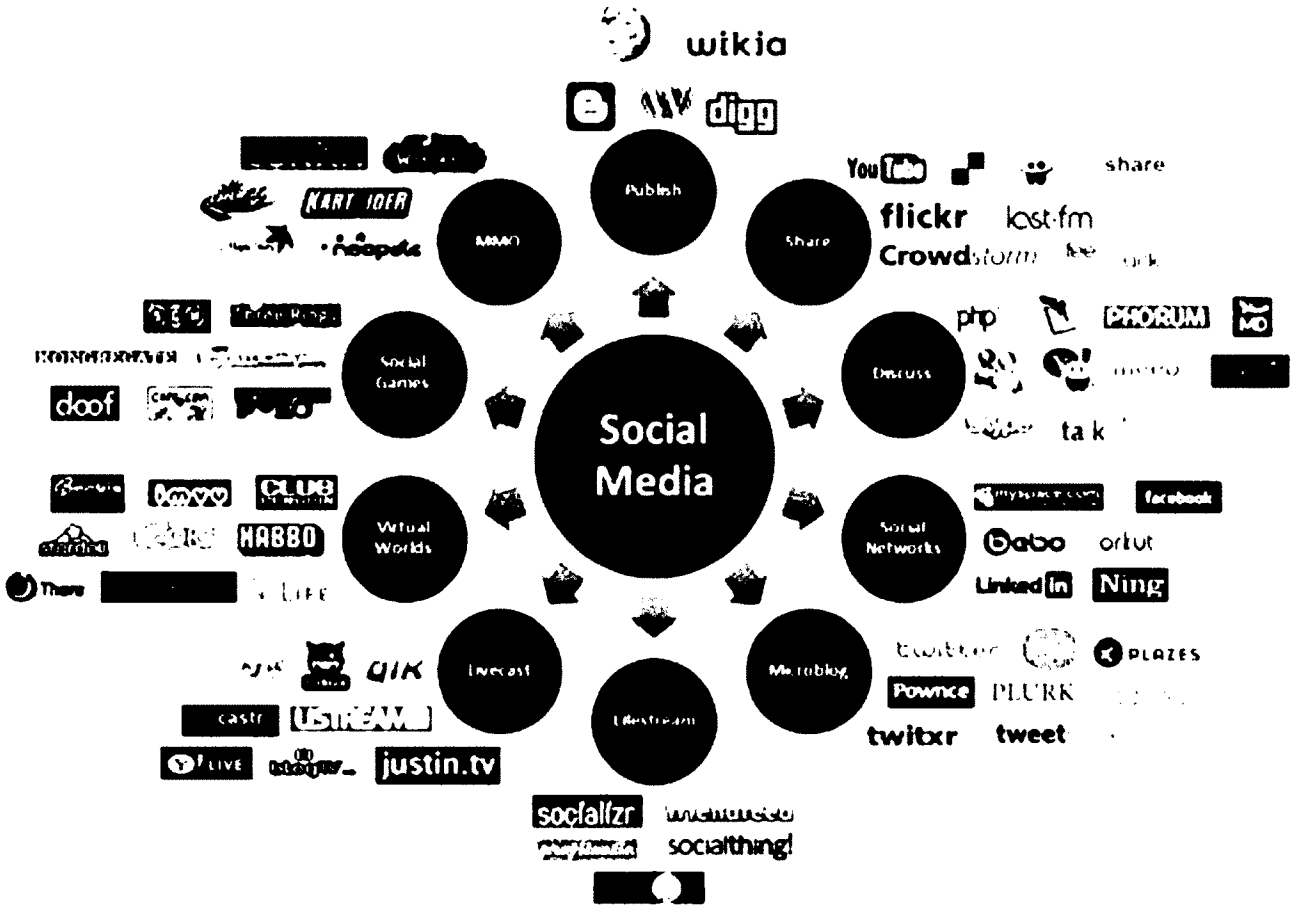

Figure 1 *Panorama of Social Media*

does not? What separates a SNS from a virtual community or a virtual world? Or does anything separate them? For instance, Kluemper and Rosen (2009) classify their sample as a Social Networking Website, or SNW. They state that the focus of a SNW is "building online communities of people who share interests and activities, or who are interested in exploring the interests and activities of others." The authors also state that "most (SNWs) provide a variety of ways for users to interact, such as e-mail and instant messaging services" and "are designed to connect users to each other and to visually display each individual's network of friends." Lemel (2010) adds that social networking "allows for users to interact with other users and to create their own content on the Internet to further the social interaction." Lemel also posits that social networking sites "allow for the creation of virtual communities."

Based on these assertions, it becomes beneficial to start with an examination of virtual communities. Rheingold (1993) stated that "an online community can be defined as a social relationship aggregation, facilitated by internet-based technology, in which users communicate and build personal relationships." Toral et al (2009) added that online communities are occupied by individuals that "engage in knowledge sharing, problem solving, and learning through posting and responding to questions on professional advice, storytelling of personal experiences, and debate on issues relevant to the network." Gal-Oz, Grinshpoun, and Gudes (2010) describe virtual communities as simply a place for people with a common goal or shared interest to gather. Bagozzi and Dholakia (2002) gave the most succinct way of defining a virtual community based on five attributes: 1) bringing people together for a common cause, interests, or needs, 2) members feel affiliated to each other, 3) establishment of rituals, social roles, norms, and shared

conventions and language, 4) active creation of content, and 5) communication content is prominent in influencing the community's nature and makeup. Todar-Alon et al (2010) give five structural types of online communities: bulletin boards, webpages and web rings, list(serv)s, multi-user dungeons, and chat rooms.

Another area that is of great interest to Marketing scholars is the area of virtual worlds. Tikkanen et al. (2009) described a virtual world as "a medium in which users communicate and interact in real time." To elaborate, they cite the Wikipedia definition of a virtual world: "a computer-based simulated environment intended for its users to inhabit and interact via avatars that are represented in the form of two or three-dimensional graphical representations of humanoids" (Tikkanen et al. 2009). Of note, the authors state that a virtual world can be classified by both its degree of user content creation and whether it is more social or game oriented. This idea is also discussed by Brown and Tuten (2009). However, these authors took a stance that "virtual communities are static groups that meet online in order to share information with one another" while "virtual worlds are dynamic environments where members associate with one another through digital face-to-face encounters." Thus, in their words: "virtual communities are information posting areas; virtual worlds are virtual realities." As an example, Hinsch and Bloch stated that *Second Life* "is not a video game because it lacks a need to act, and it is more than a social networking site because it is not based on any particular reality," thus classifying it as a virtual world. They further define social networking sites as revolving more around real-life interaction to create and maintain relationships in the real world (citing Ellison, Steinfeld, and Lampe 2007).

In contrast, Boyd and Ellison (2008) define social network sites as "web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system." In addition, one aspect of the definition that the authors did distinguish in their article was the emphasis on using the word "network" instead of "networking." To the authors, "networking emphasizes relationship initiation, often between strangers. While networking is possible on these sites, it is not the primary practice on many of them, nor is it what differentiates them from other forms of computer mediated communication" (Boyd and Ellison 2007). The defining characteristic of an SNS, according to the authors, is the ability to articulate and make visible their social network.

Social Media – Definitions and Comparison

All of these technologies fall under the overall umbrella of social media. Social media has been defined as "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content" (Kaplan and Haenlein 2010). Kaplan and Haenlein also created a classification scheme for social media, putting media into one of six categories: collaborative projects (Wikipedia), blogs and microblogs (Twitter), content communities (YouTube), social networking sites (Facebook), virtual game worlds (World of Warcraft), and virtual social worlds (Second Life).

Based on the previous descriptions of virtual communities, virtual worlds, social network sites, and social media, a number of overlaps in definitions and examples emerge. The definitions of social media encompass creation and exchange of content and

the meeting of others as their primary functions. Indeed, all of the definitions posed by the other researchers for the individual aspects of social media have focused on these areas at their core. However, while some of the definitions have been posed to show the differences between the different aspects, some of the definitions suggest that there are a great many similarities.

For instance, Tikkanen et al (2009) appear to agree with Brown and Tuten (2009) on the characteristics of virtual worlds. Both pose that members of these virtual worlds interact using avatars, which are exemplified by the two or three-dimensional characters in Tikkanen's Wikipedia definition. Brown and Tuten (2009) state that a virtual world is more dynamic in nature as compared to a virtual community. In other words, the interactions are real-time and the world is constantly changing in reaction to these interactions. Combine that with the elaboration posed by Tikkanen et al (2009) that virtual worlds can be either more social or game oriented (e.g. Second Life versus World of Warcraft) and we begin to build an image of a virtual reality, as posed by Brown and Tuten. Tikkanen et al (2009) also cite Castronova's (2001, 2005) description of the virtual world as a world that exists even if no one is in it to interact with it, remembering location and ownership of objects in the absence of avatars. In other words, the world is constant and everlasting. The absence of any avatars only causes the world itself to be in a state of stasis. As soon as an avatar joins the world and begins to interact with it again, the world continues from the point the avatar departed it. All of the listed authors also make mention of methods of communication, mostly in the way of dynamic face-to-face encounters as the standard for these types of SNS.

In contrast, virtual communities and social network sites are generally categorized as more static communities, represented by sites such as Facebook or various forums and blogs. Virtual communities come about by a gathering of like-minded individuals who see the benefit of sharing information and seek a forum or outlet with which to learn and pass on knowledge. These communities are facilitated by social network sites whose focus is on the sharing of knowledge with the possibility of networking with strangers. An example of this would be a tech forum that specializes in simple computer software repair. The site itself is not real-time, but content is generated from people who have questions and others who answer with similar problems or tech specialists who are on the site to aid others. Networking with others is not the primary focus, but an avatar is typically created for discussion on the forum. While it is not as elaborate as the avatars used in virtual worlds, it serves roughly the same purpose: identification of the self to the forum.

Another aspect that overlaps between all the media types is methods of communication. While virtual worlds like World of Warcraft are classified by primarily dynamic, real-time interactions, each of the virtual worlds has some means to contact those that might not be within the world at that moment. These methods range from leaving online messages for the recipient to receive upon return to an in-world mail system or a post on an attached message board or forum. Based on this argument, most virtual worlds hold small resemblance to a social networking site, as posited Tikkanen et al (2009). The authors agree that social virtual worlds are close to social networking sites, but that the visual aspect and direct control of the avatar is what sets a virtual world apart from the typical SNS.

Another interesting area of comparison that arises from the definitions and examples given in the discussion is the mention of the types of online communities by Todar-Alon et al (2010). Two of the examples in particular – multi-user dungeons and chat rooms – should be compared to the virtual worlds mentioned by many of the other authors, specifically World of Warcraft. Users of WoW usually have multiple channels through which they can speak, varying from the merchant channel strictly for selling items to a global channel for general chat to a room specifically for those that carry a guild tag identification similar to their own. In other words, they are communicating through various chat rooms to share their experiences, information, and knowledge. Also, a multi-user dungeon is defined as a typically text-based multiplayer real-time virtual world. Castronova (2005) states that today's virtual game worlds are traceable back to a multi-user dungeon.

Virtual game worlds also tend to create gatherings of players into collaborations called "guilds" or "clans," depending on the differing games' nomenclature. These gatherings of players are usually created to facilitate knowledge transfer between players when troubles with in-game tasks arise. In a sense, the groups bring players together for a common cause. In these groups, members begin to feel affiliated to each other and the group itself and will slowly develop their own rituals and norms. Each of these characteristics of the guilds is an attribute of the virtual community developed by Bagozzi and Dholakia (2002). The guilds also function in similar ways to the brand community posed by Muniz and O'Guinn (2001) and the social network sites that have sprung up from these communities.

These games also use these gatherings of players to create the social network that is present on most social network sites. In most game situations, a list of players in each of the gatherings is accessible, allowing anyone to see affiliations that a particular player has. In other words, some semblance of a friend list is available to the public, fitting the description of a social network site posed by Boyd and Ellison (2007).

In light of these comparisons, it makes more sense to say that today's virtual worlds – the game worlds specifically - are more advanced children of virtual communities and cousins of social network sites than it does to say that they are separate entities. They all use similar means of communicating and they all have friend lists and, in most cases, an avatar. The primary difference between each of these different social media is the speed with which communication and interaction take place. In virtual worlds, the pace with which people can interact is real-time. Some of this is even aided by the fact that the Internet gives players a means to actually talk through Voice-over Internet Protocols and eliminate the need for typing. However, for virtual communities and SNSs, the interaction is delayed in much the same way as instant messaging. One must wait on the other party to type their response. However, with this number of similarities, ample support exists for researching the multiple methods in much the same way.

That is not to say that the different areas of social media are identical. People who are involved with Second Life and World of Warcraft are likely joining those communities and worlds for different reasons than people who join Facebook or Twitter. Even with that understanding, it is possible that people are getting similar degrees of satisfaction from similar aspects of the sites. It is with this assumption that we proceed.

Areas of Relevant Research within SNS and Social Media

Three specific areas of research within SNS and social media have significant importance to this research project: flow, escape, and social identity. Each of these aspects helps to explain a user's involvement with a social network site or virtual world, and each will be explained in turn.

Flow and Telepresence

Flow has been defined as a "state of mind when consciousness is harmoniously ordered, and people want to pursue whatever they are doing for its own sake" (Csikszentmihalyi 1977). As it pertains to a computer mediated environment (CME), Hoffman and Novak (1996) define flow as a state which is characterized by "a merging of actions and awareness, with concentration so intense there is little attention left over to consider anything else." These definitions tie directly into the idea of hedonic value, which is the more subjective and personal side of shopping coming more from fun and playfulness (Babin et al 1994). Babin et all (1994) also state that a hedonically valuable experience is often characterized by various levels of "increased arousal, heightened involvement, perceived freedom, fantasy fulfillment, and escapism." These descriptors are also highly indicative of a state of flow, according to the previous definitions.

Specifically, one of the aspects of flow that has been suggested as highly important in blogging, web site browsing, and virtual world interaction is telepresence. Park, Ahn, and Kim (2010) summarized telepresence as a feeling of being present at a remote location. In their article on blogging, they suggest that feeling would cause people to lose their surroundings and block out the real world while the virtual environment captivates the user's senses. Their study found support for telepresence's effect on digital

engagement and e-shopping behavior. Thus, "the desire for entertainment, information, and efficiency are the key drivers for blogging behaviors" and supports telepresence of flow as "a pivotal mediator to prompt digital engagement and e-shopping behaviors; and it is motivated by the entertainment and information seeking needs." Some practitioners have taken this concept to the extreme, creating a virtual mall shopping experience online (www.virtualeshopping.com for an example). Their homepage lists a full assortment of social networking and three dimensional mall features, including friends lists, favoriting, and creation of avatars for a shopper's persona within the virtual mall.

Tikkanen et al (2009) also looked at flow, but used it as a construct to explain successful marketing practices in virtual worlds. Using Second Life, the authors suggest that "now is the time for innovating and experimenting" in virtual worlds to find ingenious ways to market products. To encourage flow, the authors suggest that marketers will need to offer value, highly interactive applications, and community management, suggesting that encouraging flow and telepresence will encourage involvement and engagement. To enhance these suggestions, Mathwick et al (2004) suggest that flow occurs when "challenge and skill are balanced and elevated above some critical threshold." This definition plays right into the hands of a virtual world setting which requires a certain degree of skill to complete the tasks at hand.

Escape

Escapism is based on the study of attention restoration theory, or ART. This theory stats that "intensive or prolonged use of directed attention, the kind that requires effort, leads to the fatigue of the mechanisms that serve it (Herzog, Maguire and Nebel 2003). Herzog, Maguire, and Nebel clarify that this causes mental fatigue, which can

lead to inaccuracy, impulsivity, irritability, and incivility (2003). In order to recover these mental capacities, a person suffering from this mental fatigue needs an "escape" to a location that can provide a "deeply restorative experience" that includes "clearing away of mental noise, recovery of directed attention capacity, and enhanced ability to reflect on issues of importance" (Herzog, Maguire, and Nebel 2003). One of the difficulties of escape remains its representation. Researchers have struggled to define its "end-points," as in whether it should be measured in a "low to high" fashion or if it functions as a dichotomy.

Herzog et al (2003) explain that a large amount of research has been conducted that delineates the beneficial effects of nature and natural settings as a point of relief. Kaplan, Bardwell, and Slakter (1993) explained and supported the restorative capabilities of a museum, though the subjects studied that were already comfortable in a museum were more likely to capitalize on the restorative benefits that the museum provided. Rosenbaum (2009) found certain servicescapes like arcades, called "third places" by the author, showed reasonable restorative potential and actually reduced the risk of experiencing adult attention deficit hyperactivity disorder (ADHD) symptoms.

Attention restoration theory can be used to explain some of the qualities of social network sites and virtual worlds as well. The theory explains that four properties or features of restorative settings exist to create the restorative feelings. The first property is the act of being away – seeing settings and mental content that is far off the beaten path and altogether unique from the norm – which allows the person to reset their attention (Herzog 2003). While authors have disagreed on the benefits of some electronic sources such as television for escape purposes (e.g. Kaplan and Berman 2010), social network

sites and virtual worlds function drastically differently. Whereas television is merely something that a viewer watches, virtual worlds and social network sites require the user to get involved in much the same way an outdoor location or a museum would. When telepresence or flow are activated, the user can actually feel as if they have been transported into another world. In the case of virtual worlds, this is accomplished by taking the place of their avatar and escaping into the social or game world. In the case of social network sites, it is feasible for a person to disappear into their social network, looking at pictures and videos posted by friends and colleagues, allowing them to get away from the real world into the computer mediated environment.

The second component is extent, which is whether or not the setting has enough content and structure that it can occupy the mind for a sufficient amount of time to allow the mind to rest (Herzog et al 2003). Kaplan (1995) characterized these settings as a "whole other world." Virtual worlds and social network sites have a strong ability to transport users into "whole other worlds." Herzog et al (2003) state that these sites have the capacity to "engage the mind and support extended exploration," which can easily be translated to virtual worlds and SNS in the way that a user can spend hours exploring different corners of the world or various other links or content in their social network.

The third component given by Herzog et al (2003) is fascination. The authors state that fascination refers to "effortless attention," or the ability of the location to hold one's attention without them expending any effort. However, the authors also state that there are two types of fascination: hard and soft. Hard fascination occurs when the user is so stimulated that they are riveted and do not have any capacity to "get away." Soft fascination occurs when the interest is more peaceful and relaxed and allows the user to

enjoy the aesthetic beauty of the situation. In the case of SNS, soft fascination is easier to attain, as the user can simply get lost in the content and pictures as they browse their network. Virtual worlds, especially in the virtual game worlds, can often be more of a hard fascination, as the requirements of the user can be quite extensive and, regardless of the aesthetic beauty, rivets the user. However, as the user becomes more familiar with the world and requirements, a soft fascination should be more prevalent.

The final component is compatibility. Herzog et al (2003) state that this can be a difficult and complex component since it refers to "the fit between an individual's purposes or inclinations and the kinds of activities supported, encouraged, or demanded by the setting." The authors state that a natural setting is a good example of holding to this component because of the vast number of activities that are available in this setting. In the case of SNSs, this component explains why some users can get great enjoyment out of hours of browsing everything on their personal network. In the case of virtual worlds, most worlds are so expansive and diverse that anyone involved in the world can find something of interest or some activity that they prefer to raise their fascination.

Social Identity

Social identity theory posits that "the self concept is made up of two distinct aspects: the personal identity and the social" (Lantz and Loeb 1998). Lantz and Loeb also elaborate on this idea, explaining that the personal identity "includes specific attributes of the individual," while the social identity is "that part of an individual's self-concept which derives from their knowledge of their membership in a social group together with the value and emotional significance attached to that membership." In other words, a part of the self is created by a person's affiliation with a particular group. This is

done through an aspect of social identity known as social categorization, which states that we use categories and schemes to simplify the coding and encoding process of messages (Tajfel 1979). In addition, self-esteem is suggested as a motivation underlying inter-group behavior (Trepte 2006).

Much of the behavior of users of social networks and virtual worlds can be explained by social identity. The proliferation of the social norms and the creation of a hierarchy are accepted and embraced because of a user's wish to be accepted and identified as a part of that group. In the case of self-esteem, users of the different social media attempt to raise their own self-esteem by joining groups that match with their own beliefs and actions. Even within virtual worlds, users are going to try to associate themselves with groups that fit their preferences.

To this end, Wood and Solomon (2009) put together a book of relevant research on virtual social identity and consumer behavior. Even though most of the research focuses on Second Life as a sample (a virtual social world), much of the research presented in the book can be easily generalized to other social worlds. With regards to consumer behavior, the researchers featured in the book focused more on interaction seeking (Hinsch and Bloch), consumer perceptions (Brown and Tuten), social interaction (Keeling, Keeling, de Angeli, and McGoldrick), and uses of the avatar (e.g. Crete et al.; Bryant and Akerman; Kim and Sundar). While this research is varied, a common thread throughout the research is the power of the avatar – the "creature" that represents the user in the virtual world. This representation can be used as an extension of self within the virtual world and thus can be seen as an example of the highest level of immersion by the user.

Previous Research on SNS and Virtual Worlds

Most SNSs and virtual worlds have been investigated in a multitude of ways. Initially, the focus of most SNS research was on areas such as the use of SNS to supplement offline social networks, network structure, privacy, and demographic influences on the use and influence of social network sites. The next area of extensive research that was carried out revolved around the use of "avatars," or representations of the user's self that they wish to project into the virtual worlds of social networking, such as Second Life, games like World of Warcraft, and other forums that allow that level of customization. Recently, the focus has expanded into a myriad of other areas: use in politics, education, management, human resources, and even medicine.

Areas of Research Outside Marketing

The scope of research in SNSs and virtual worlds is quite multi-disciplinary. Education and psychological development have researched the uses for SNSs quite extensively. For instance, Kirkwood (2010) examined the use of a particular online learning platform known as SNAP. This program was used to enhance learning in the classroom by bringing students and instructors together in a more open and social learning environment. The author stated that SNSs of this nature could easily be used in the future, but the problem would be in overcoming the nature of academic instruction causing students to take a more passive approach.

Dunne, Lawlor, and Rowley (2010) examined the use of SNSs to benefit the developmental growth of young girls through a website known as Bebo. Using a uses and gratifications approach, they found that the tweens were using the site to show their own decisions and tastes in order to create their own identity. In addition, though they did

not speak much on individual brands, their "friending" preferences showed that they were developing tastes for particular bands, people, and brands.

Political marketing researchers have also examined the use of SNSs in conjunction with political campaigns. Powell, Richmond, and Williams (2011) used the election in 2008 as a study on voters' SNS uses. The authors found that the SNS used did affect perceptions of the candidates through its affect on variables such as homophily – being similar to the candidate and, thus, liking the candidate more and having more successful communications. The authors did admit that further research needs to be done in this area and acknowledged the methodological problems associated with this research. Harris and Lock (2010) reviewed political literature and found that further research needed to be done dealing with political theory on SNSs, also suggesting that more thorough methodologies need to be used.

Management has researched the use of SNSs as tools in many different ways. Research has looked at the benefits of social networking in the workplace (Bennett, Owers, Pitt, and Tucker 2009), uses of SNSs in hiring and retention decisions (Elzweig and Peeples 2009; Clark and Roberts 2010; Vicknair, Elkersh, Yancey, and Budden 2010) and corporate and ethical responsibilities of companies with regards to SNSs (Chen 2009, Parrish 2010)

Examples of SNS and Virtual Worlds

With the growing number of people who involve themselves with online gaming, these virtual world platforms cannot be neglected as areas that need investigation. Many of these gaming platforms, such as World of Warcraft or Guild Wars 2, keep lists of players available in each zone or world, and these lists can be accessed at any time

through the game's interface. Players can create profiles for their character in a multitude of ways, such as an in-game process or an attached database or forum run by the company. In addition, a player can create lists of friends to keep track of close contacts as well as create loose networks of friends that are referred to as guilds or clans. These groups can also be monitored by people within and outside the group, and each person that is a part of any of these groups advertises for their group usually by having a tag added to their name in the game. In these instances, these groups function identically to a social network site with a little more emphasis on networking.

Another broad example is what has become known as the "Free-to-play," or FtP, genre of online games. In most cases, these games function very similarly to World of Warcraft. However, subtle differences do emerge. In the case of WoW, players pay a subscription fee, usually monthly, to stay connected to the service. In the case of an FtP service, a player does not have to pay to download and play on the service. Based on the type of game, the social aspect can vary from the guilds or clans to leaderboards or forums. Every type of game, however, still functions as its own SNS, allowing profiles, friend lists, and networks to emerge.

A further example of this platform would be Zynga.com. Zynga Inc. is "the world's leading provider of social game services with more than 240 million active users playing its games" (company.Zynga.com/about). All Zynga games are linked into Facebook and therefore use it as their social network. However, Zynga also keeps track of a second set of "friends" they call zFriends. These are friends that may or may not be in your specific social network in Facebook but that you have interacted with on their

multitude of games. In other words, Zynga's games act as a supplemental SNS to the parent networks on Facebook.

One particular free-to-play (FtP) game has used a business model wherein there is no charge to download or log on to the game, nor is there any penalty for not paying, such as a level restriction or limited world. However, they offer what they call a "cash shop" or "bazaar" where players can use real money to purchase beneficial items for their characters on the game. Some of these items give strength bonuses within the game, but they have limited durations. Some of the items are nothing more than aesthetic visual changes to what they see on screen. It has no bearing even on gameplay, but users will pay real money for the ability to do this. Others disperse a completely random item from a particular table of options all having a percentage chance of dropping when the item is used, simulating a form of gambling.

Fantasy Football is a social network of football fans who compete with each other on the basis of the performance of real football players in the National Football League. Many different websites (ESPN.com and Yahoo.com to name just two) offer fantasy football leagues free of charge to people who have registered on their sites. In these "free" leagues, you pay nothing to actually compete against other people, but several virtual add-ons exist to try to give you an edge, such as expert opinions, stat trackers, and other apps to make it easier to actually track the performance of the players. Each of these add-ons and apps will cost a certain amount of real money in order to activate. However, you get nothing more than recognition for winning in the league, suggesting that there is no reward other than status for purchasing these items, and this reward is not guaranteed.

Motivations for using SNSs and Virtual Worlds

Much debate has arisen around the motivations that cause a person to engage in an aspect of social media. Given that SNSs are a relatively new phenomenon, much of the research has been exploratory in nature. Some of the motivation could likely be explained in some cases by social identity theory or escapism, but studies examining these areas are thin. However, a few studies have tried to get at the heart of a person's motivation for joining these media.

Bolar (2009) states that motives for Internet use has been researched, and five motives have been associated with its use: interpersonal utility, pastime, information seeking, convenience, and entertainment. Using PCA, Bolar found seven factors that affect the usage of a SNS: self-reflection and image-building (expression of self), utility (typical use of the functions of the site), information-gathering and problem-solving (hunt for right information from the right people), networking (meeting people), simply-spending time (leisure), revisiting memories (searching for old friends or places), and peer influence (external influence). The purpose of the study was to find predictors of frequency of usage and the influence of the SNS on social and professional life. The author found that utility was the predominant factor that predicted usage, followed by networking, spending leisure time, and revisiting memories. For influencing social life, self-reflection/image-building, networking, and memories were the most important, and information gathering/problem solving, networking, self-reflection/image-building, and utility were most important in influencing the user's professional life.

Subrahmanyam, Reich, Waechter, and Espinoza (2008) examined the use of online social networks in general. The authors looked primarily at the influence that a

user's offline social network has on their online network using emerging adults as a sample. In their study, the authors found that a large amount of overlap existed between a young adult's online and offline social networks and different communication tools (email, instant messaging, and SNSs) were used to strengthen different parts of the network. In fact, a majority of the sample felt that their social network site of choice had actually helped them maintain and strengthen their offline social networks.

These results imply that different factors affect the usage of a SNS. However, a few caveats should be mentioned about this research. For instance, this study was done in India, and while this is in itself not a problem, generalizability is a problem. Also, only 62% of the variance was explained by this model, suggesting that other variables are at work that have not been captured. Third, this particular study focuses only on a social network site and not on any virtual worlds, so the picture is incomplete.

Another approach to studying SNSs and their use, especially in their use of branded entertainment, was conducted by Zhang (2010). Zhang used play theory to discuss how social networking websites (SNW), specifically Facebook brand pages, have blended the lines between entertainment and marketing messages. In their research, the authors found that the various play themes (power, identity, fantasy, and frivolity) did encourage users of a social networking website to partake of branded entertainment, but that it worked better with product categories than it did with service categories.

Richard Bartle studied virtual game worlds and designed a hierarchy for virtual game world users, structuring a path of evolution of types of users and explaining their changing motivations for playing. In his book *Designing Virtual Worlds* (2003), he

explains the different "player types" and the motivations of each of these player types. He also suggests a pattern for evolution of motivations.

Bartle started with a simple categorization based on two dimensions: whether a user's focus was on action or interaction and whether that behavior was focused on other players or the world itself (Bartle 1997). This categorization created four types of users. However, he admits that this was not comprehensive enough and further refined the model by adding a third dimension: whether the user's behavior was implicit or explicit. In other words, how much thought goes into the user's actions before they are acted upon.

This new categorization creates eight personalities (Figure 2). Bartle suggests that users start as acting upon players, primarily implicitly. From there, the players begin to interact with the world itself before going on to attempting to "win" by acting on the world. Once the user feels they have dominated the world, socialization became the primary focus. This path can be seen on the initial model but becomes more detailed on the three dimensional model as it takes into account the sub-groups. Bartle likens this path to the same path babies learn: locate to discover to apply to internalize. He suggests that this path comes from a player's tendency to "immerse" themselves, defined as a sense that a player is actually in the world. He admits that this idea is related to telepresence, but that telepresence – and flow as well – is not adequate to explain full immersion. Again, Bartle takes the stance that a user goes through a progression: being unimmersed, avatar (sees the avatar as their representative), character (projecting their personality to the avatar), and persona (considering the character to be them).

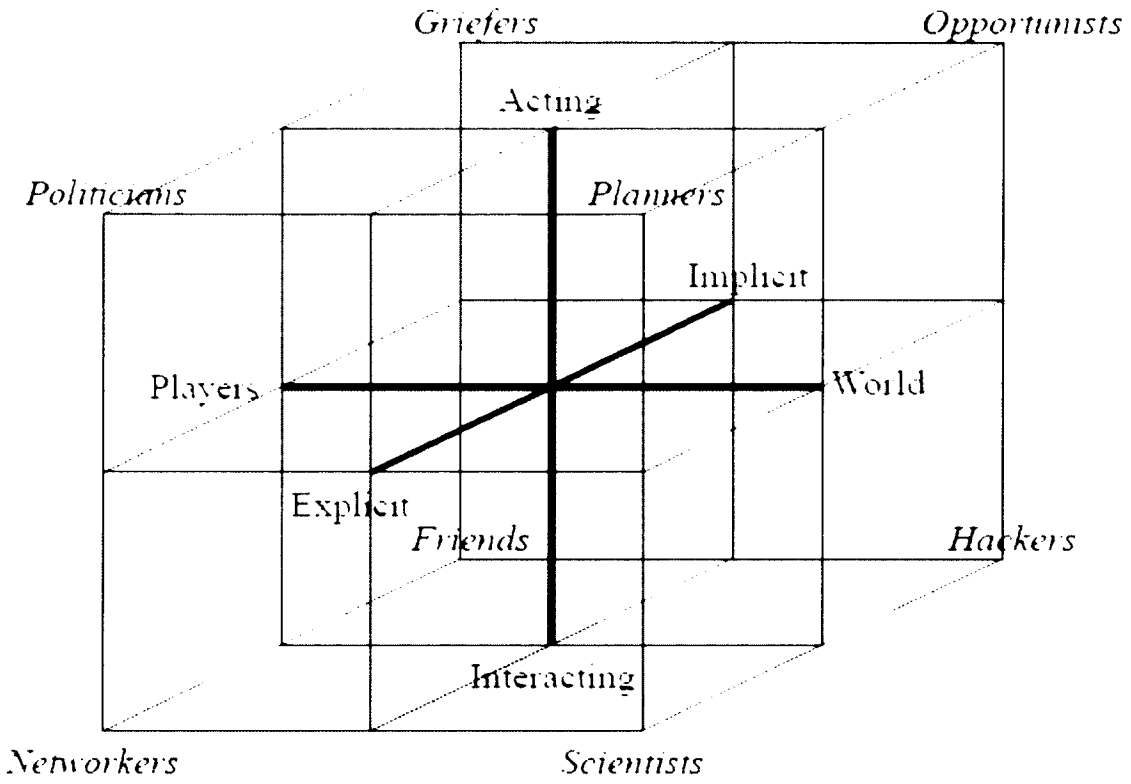

Figure 2 *Bartle's Two-Dimensional Personality Characterization*

The level of persona is synonymous with the level that researchers posit people reach for sites such as Second Life, as the avatar is truly the user in the virtual social world. From Bartle's explanation of users of virtual game worlds, users follow a typical learning curve and thus marketers need to cover the needs of users at all levels of immersion as well as all personality types that are represented.

Setup of Purchasable Items

Most of the SNSs and virtual worlds that are available to the public and fall into the more dynamic/user-involved categories have some form of pay structure for their service. In some cases, such as World of Warcraft, the pay structure is based entirely on

sale of the main game and its subsequent expansions and is supplemented by the subscription fee to stay connected to the service. This method functions similarly to a cable TV subscription. The other cases use the approach of having a service within the SNS to purchase upgrades or additions using real world money. However, in each of these cases, the outcome is not anything that has a tangible end product. In most cases, the outcome is a short-cut or a bonus to something within the network and nowhere else. While these "cash shops" are often put into the system to increase switching costs, many participants of the network do invest heavily in these benefits.

Purchasing Behaviors

While having an understanding of the different types of SNSs and virtual worlds is very useful, it does not fully explain the questions posed. Interestingly, Hannah and Lybecker (2010) state that, to their knowledge, their study is the first in nearly a decade "to define the factors that influence contemporary online shopping behavior." Given how much the landscape of online purchasing has changed since 2000, research on the specifics of online purchase behavior appears to be scant. To remedy this, Hannah and Lybecker examined a number of demographic, socioeconomic, Internet usage, product perceptions, and alternative activities and their impact on both online purchase within the last year and percentage of income spent on online purchases.

Of specific interest to this study is the performance of social networking to influence online purchases. Hannah and Lybecker (2010) found some support for social networking's affect on online purchasing. In the first model, which examines the probability of encouraging an online purchase, social networking did not significantly predict an online purchase, while the second model, predicting the percentage of income

spent on online purchases, had a significant negative correlation between the outcome and both online gaming and visiting social network sites. However, the measurement for social network usage was a single yes/no question regarding any usage in the past month, leaving room for improvement of measurement.

Wei, Straub and Poddar (2011) suggest with their research a concept known as Internet Group Purchasing (IGP). This research suggests that social media in general has transformed consumer purchasing from individual buying to social buying. The authors state that social media tools can be used to "reach potential customers via messages and enable consumers to perform a variety of social activities within the virtual communities." In addition, they state that virtual community norms help increase trust, leading to stronger purchase intentions when receiving aid even from strangers. Even in virtual worlds utilizing avatars, companies have tried to alter their delivery to account for the individual characteristics of the avatars.

Elaborating on these understandings, they cite Hernandez et al (2010) as saying that "past e-purchasing experience can induce customers to purchase more over the Internet," implying that the first purchase is the most important. Once the first purchase has been completed, further purchases become more easily encouraged. Like in normal retail settings, trust established in the initial purchase encounter carries over to further encounters, causing future sales to occur.

The authors argue that collective cognition explains IGP by explaining the process that consumers go through in order to make social purchases. First, the consumer will go through accumulation, where information is gathered by group members. Second, the group goes through interaction where the information is combined and structured.

Third, the group goes through examination, at which point a consumer evaluates the information given by the group members. At the end, the group goes through accommodation. In this final stage, opinions, perceptions, and judgments enter the decision process and a final decision is reached and acted upon.

Using a netnographic approach, Wei et al (2011) found that the four stages of collective cognition did explain the purchase behavior of group members and SNS participants. In addition to the stages, the authors found that information credibility, synchronicity, and the role of the group leaders all had some influence on the decision process of consumers in group social purchasing instances. These results suggest that group purchasing directly through a SNS or virtual world is going to be impacted by the other members of the group in these ways. Therefore, marketers need to take actions that encourage this sort of behavior within the group while making the first incident of purchase as friendly and painless as possible.

With regards to specific items within SNSs and virtual worlds, Lehdonvirta (2009) stated that little research has been conducted examining the various drivers of purchase for these virtual goods, which are defined as "objects such as characters, items, currencies, and tokens that exist inside various online games and hangouts" (p.97). Global sale of these goods was estimated at approximately 2.1 billion USD per year in 2007 (Lehtiniemi and Lehdonvirta 2007) and has grown heavily to 2.3 billion USD in 2011 in the United States alone, according to a study done by PlaySpan (reported by www.techcrunch.com).

Lehdonvirta (2009) goes on to elaborate on the definition by adding that virtual goods tend to be rivalrous, meaning that one person's owning the good precludes anyone

else from owning it. In addition, the good is persistent (it persists for a long time) and interconnected (other users are affected by the object in some way). To this end, the author proposes a classification scheme for these goods, stating that the attributes of the item encourage the importance of various drivers for purchase. The first classification is functional goods. These goods focus firmly on the performance of the good in question. The author uses the example of purchasing a pet that helps pick up items left by monsters that have been defeated. Another example would be the purchase of power-increasing items.

Another classification of goods is those that have more hedonic attributes. These attributes focus on the on-screen representations of the goods. It may also be something that affects animation or even be something that relates to some history of the world that the user is occupying. In these cases, it is not necessarily the performance of the item or the cost, but the feeling or sensation that having that particular good gives to the user. The author cites one user who stated that an item "was not useful, but it was cool" (Lehdonvirta 2009).

The last classification proposed is a good that has social attributes. This class sometimes overlaps slightly with the previous classification, making it somewhat difficult to empirically distinguish (Lehdonvirta 2009). This good could have some sort of rarity that makes it socially desirable by the community. In other cases, it could be something that is only available for a set period of time, enforcing a certain rarity by design.

Based on this research, the author suggests that many virtual goods are valued in similar ways as more tangible commodities, but the value of these goods may not be seen or understood outside the community. Also, each virtual good can show some of the

characteristics of multiple classifications (a function good might also be a social good), further complicating the matter of empirically studying these items.

In the cases of each of these goods, Lehdonvirta warns that a balance must be struck between goods that can be purchased with real money and items that must be earned through gameplay. Without this balance, the items will become diluted in meaning and will unbalance the enjoyment, causing people to disengage early from the experience (Bartle 2003).

Narcissism

Collins and Stukas (2008) summarize dispositional narcissism (as opposed to clinical narcissism) as "a grandiose self-image, a lack of empathy, and an excessive need for admiration." Mehdizadeh (2010) elaborated on this idea, adding that narcissism is associated with positive self-views of traits such as intelligence, physical attractiveness, and power. Both authors state that, In the case of dispositional narcissism, self-esteem is usually much higher than in clinical narcissism.

The narcissistic personality index (NPI) creted by Raskin and Terry (1988) has been used frequently to measure these characteristics in subjects. Recently, however, the NPI has been called into question. Ackerman et al. (2011) suggest that the narcissism scale actually measures three traits: leadership, grandiose exhibitionism (GE) and entitlement/exploitativeness (EE). Leadership has been attributed to more positive outcomes, but GE and EE are more negative aspects of the scale. Ackerman et al. (2011) describe GE as "self-absorption, vanity, superiority, and exhibitionistic tendencies," while EE is "a sense of deserving respect and a willingness to manipulate and take advantage of others." To elaborate, people with high GE scores tend to be satisfied

gaining the attention of others by any means necessary. People high in EE scores have been associated with higher levels of socially disruptive behaviors like aggression (Carpenter 2012).

Morf and Rhodewalt (2001) add that those high in narcissism use social interactions to seek corroboration of their grandiose self-views. DeWall et al. (2011) support this view by adding that these highly narcissistic individuals will look for attractive romantic partners in order to increase their positive self-perceptions and the perceptions others hold of them. In addition, even though social norms require some degree of modesty, especially in self-presentation, those high in narcissism may disregard those social norms in order to gain the attention of their social audience (Sedikides et al. 2002).

Narcissism has been used quite often to explain a person's tendencies and usage of sites such as Facebook. For instance, Buffardi and Campbell (2008) found that high levels of narcissism related to higher levels of social activity and greater self-promotion, suggesting strongly that narcissism manifests similarly in on- and offline situations. DeWall et al. (2011) found that people high in narcissism used more first-person pronouns in their language, supporting the findings of Buffardi and Campbell. Carpenter (2012) found that the two aspects of narcissism (GE and EE) were related to retaliatory behaviors and seeking additional support from people. Mehdizadeh (2010) also found a positive correlation between the NPI-16 (narcissistic personality inventory, another narcissism scale) and the number of times a subject checked their Facebook page, the time spent per session, and various levels of self-promotion. Ryan and Xenos (2011) also examined the effects of narcissism in Facebook and found that adult Australian Facebook

users tended to have higher levels of narcissism than non-users, suggesting that the aspects of social networking tend to attract a more narcissistic clientele. In addition, they also supported their hypothesis that users with higher exhibition scores would have higher preferences for Photos and Status Updates, as that would allow them to self-promote more easily. This result was supported in a study of Chinese students conducted by Wang, Jackson, Zhang, and Su (2012). Collins and Stukas (2008) also found that people high in narcissism not only did not reduce their self-enhancing tendencies in situations where subtlety and modesty were strongly suggested, but also increased their ratings further so as to enhance their image further.

However, a few caveats should be mentioned. Some research has found areas where narcissism does not have the proposed effect. For instance, Skues, Williams, and Wise (2012) did not find a relationship between narcissism and Facebook use. However, their outcome variables in question were only time spent per day on Facebook and number of friends. While these are important areas to examine to help understand Facebook usage, many more variables need to be examined as well.

Service Dominant Logic

Service-dominant logic is a shift in thinking among the Marketing discipline to think of the discipline as more than just a simple "exchange of goods." In their article outlining this change in belief, Vargo and Lusch (2004) outline the differences between the traditional view of goods being the center of dominant logic and the emerging service-centered dominant logic. In their view, the unit of exchange has changed from goods to benefits of specialized competences, or services. In addition, the customer is a co-creator of the resulting unit of exchange and thus the value received. This value is

determined by the consumer while using the product, meaning that firms can only make value propositions and cannot truly create value.

Service-Dominant Logic is based on eight foundational premises, or FPs, proposed in the authors' initial work. Since that time, alterations and improvements have emerged from the multitude of researchers that have begun to work on this logic. Based on these improvements, Vargo and Lusch have attempted to continually adapt their initial idea and update their initial work. The updated FPs, along with the original FP wording and the explanation of changes, are reproduced in Figure 3 (Vargo and Lusch 2008).

Table 1 Service-dominant logic foundational premise modifications and additions

FPs	Original foundational premise	Modified new foundational premise	Comment explanation
FP1	The application of specialized skill(s) and knowledge is the fundamental unit of exchange	**Service** is the fundamental **basis** of exchange	The application of operant resources (knowledge and skills),"service," as defined in S-D logic, is the basis for all exchange. Service is exchanged for service.
FP2	Indirect exchange masks the fundamental unit of exchange	Indirect exchange masks the fundamental **basis** of exchange	Because service is provided through complex combinations of goods, money, and institutions, the service basis of exchange is not always apparent.
FP3	Goods are a distribution mechanism for service provision	Goods are a distribution mechanism for service provision	Goods (both durable and non-durable) derive their value through use the service they provide.
FP4	Knowledge is the fundamental source of competitive advantage	**Operant resources** are the fundamental source of competitive advantage	The comparative ability to cause desired change, drives competition
FP5	All economies are service economies	**All** economies are **service** economies	Service (singular) is only now becoming more apparent with increased specialization and outsourcing.
FP6	The customer is always a co-producer	The customer is always a **co-creator** of value.	Implies value creation is interactional
FP7	The enterprise can only make value propositions	The enterprise **cannot deliver value, but** only offer value propositions	Enterprises can offer their applied resources for value creation and collaboratively (interactively) create value following acceptance of value propositions, but cannot create and/or deliver value independently.
FP8	A service-centered view is customer oriented and relational	A service-centered view is **inherently** customer oriented and relational	Because service is defined in terms of customer-determined benefit and co-created it is inherently customer oriented and relational
FP9	Organizations exist to integrate and transform microspecialized competences into complex services that are demanded in the marketplace	**All social and economic actors are resource integrators**	Implies the context of value creation is networks of networks
FP10		**Value is always uniquely and phenomenologically determined by the beneficiary**	Value is idiosyncratic, experiential, contextual, and meaning laden

Words in bold type represent changes in wording from the original FPs (Vargo and Lusch 2004a, 2006)

Figure 3 *Table of Updated FPS with the Original FP Wording*

The premise that is most important to this research is the premise of co-creation (FP 6, Vargo and Lusch 2004). In the case of virtual goods, the good itself has no value outside of the virtual world in which it is purchased. The world and the user's involvement with the world are what create the value. Without the world itself and the user's desire to be a part of the world, the virtual good is just an entry in a database.

From the consumer's perspective, though, another idea presents itself. Many of the virtual goods that can be purchased through virtual worlds and SNSs are actually short-cuts or passes that remove limitations. Other examples include items that give a random chance of obtaining great rewards, allowing the user to obtain powerful items and results without working to obtain it themselves. Taken to its most extreme, a user could technically "buy" their way to the pinnacle of the game. At that point, the user may have actually "bought happiness" instead of co-creating value through the interaction with virtual world.

Experience Marketing

Holbrook and Hirschman (1982) posed the concept of experiential marketing in an attempt to expand the theory of consumer behavior. This expansion was accomplished by including more experiential variables into consumer behavior research which allows for richer investigation into the process of entertainment and emotions. This expansion on marketing thought and theory gives a basis for much of the rationale of this research.

For example, when examining informational virtual goods such as mp3s, the value is not so much in the purchasing and obtaining the files. The value comes from the use of the good and how it makes the user feel. Hence, as stated in SDL, the good functions as the means by which the service is provided (Vargo and Lusch 2008). The

same will hold true for other types of virtual goods as well, as they have no real value outside the game world. The entertainment value is found solely in the use of these items within the universe of the game. They increase the "fun" of the game world.

Some empirical research has been conducted to further investigate this point. Particularly interesting to this research was the study conducted by Okazaki (2008). Looking at the mobile gaming market, the author constructed a second-order measurement model for experiential value, elaborating on previous research conducted by Mathwick et al. (2001). In his research, the author developed a scale for seven factors that would be explained by experiential value: intrinsic enjoyment, escapism, efficiency, economic value, visual appeal, perceived novelty, and perceived risklessness.

Hypothesis Building

What causes a consumer to purchase a self-improvement item within a virtual world, knowing that the item itself has no use outside that world and has no physical form or manifestation? Based on the information presented previously, two opposing theories begin to evolve to explain why consumers of a virtual world would contemplate these purchases. The first theory is a theory of experiential consumption. In other words, consumers of a virtual world are interested in involving themselves in the virtual world and its intricacies. The value obtained by these players comes from their immersion into the many aspects of the virtual world, such as the design, the combat, the leveling, or just seeing everything there is to see. Taking the player types outlined by Bartle (2003) as a basis, each of the player types gives a suggestion of what value is derived by each of the player types. For example, players who prefer to explicitly interact with other players (the bottom left corner) are known as networkers. These players are likely to get great value

from working with other players to complete goals and tasks. These types of players are examples of how players will obtain value from the social side of virtual worlds.

A second theory that provides an explanation for why consumers purchase these virtual goods focuses on the concept of narcissism. In this theory, the items to be purchased will serve a specific purpose – to make the buyer of the goods look better or to help them become the center of attention. In this case, the items should function much the same way as proposed by Belk (1988) – as an extension of the self. The self becomes the focal point and these items will enhance the belief of the self. For this theory, rules and regulations should not deter a consumer from purchasing the items if it gives them the edge or the exposure to other players. These players gain value from enhancing the self.

In the next section, the manipulations of the research will be explained. After this explanation, each of the theories will be examined in more detail and their expected impacts on purchasing and value will be discussed, starting with the theory of experiential consumption. The model is presented as Figure 4.

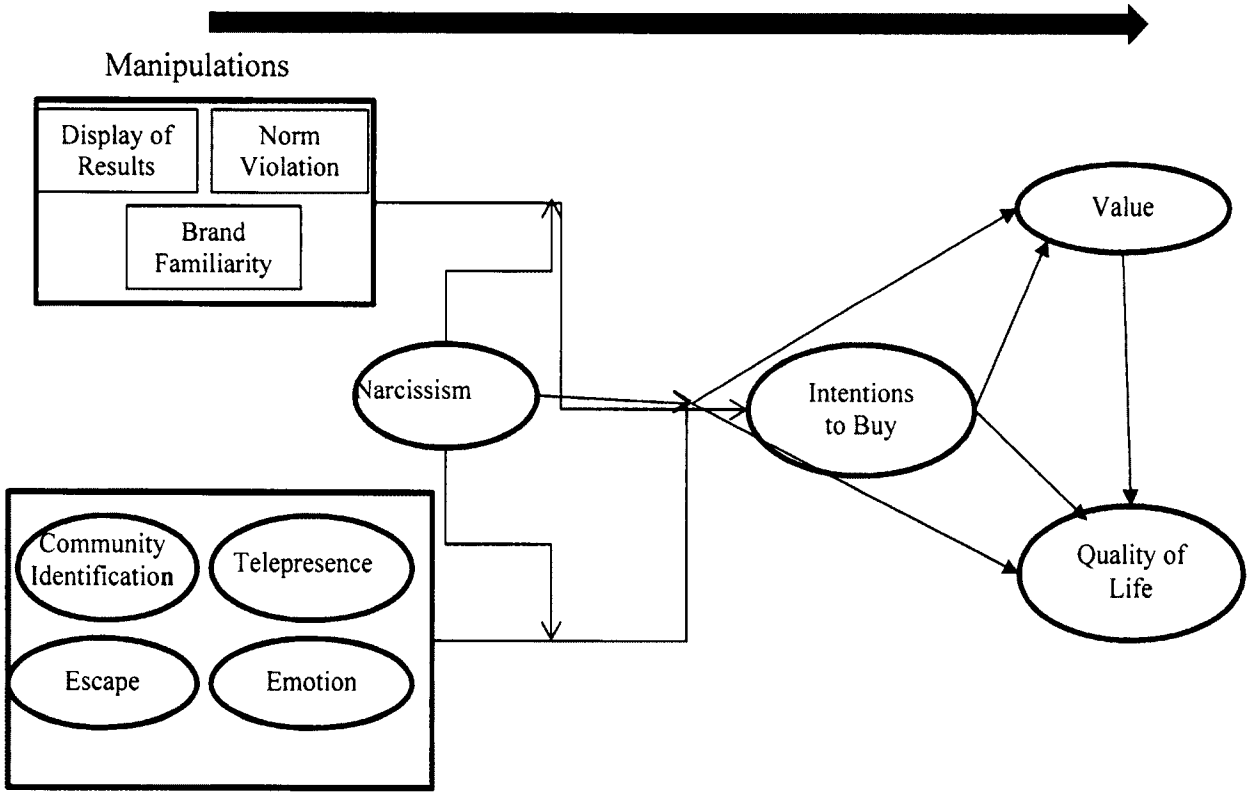

Figure 4 *Results of the Manipulations Experiment*

Experimental Manipulations

Several constructs will affect a user's tendency to purchase these add-ons to their SNS: known brand versus an unknown brand, public versus private reporting of results, and state of norm violation. These areas of interest should have an effect on several outcome variables, primarily intention to purchase, value, and quality of life. Each of these areas will be discussed briefly below, followed by other areas of interest.

Display of Results is one of the manipulations in the experiment. Some virtual worlds display a purchase or a result of a purchase to the entire world. Other worlds keep purchase information and results private. Thus, the status of the results will bemanipulated – either public or private – and it will be observed how this change will affect value and quality of life. In these sites, it would be expected that a consumer will achieve a higher level of intrinsic motivation and utilitarian value from the site, since their progress is not broadcast. However, in situations where the consumer has their results broadcast to the network, the user will achieve a higher level of external esteem or hedonic value instead of the utilitarian, more internal value. Utilitarian value should also increase as the public display of results would show to the world as a whole that the user's goal has been completed and thus would accomplish the end of gaining status within the world.

Brand Familiarity is another manipulation for the experiment. This variable measures the degree to which people are familiar with the parent brand, which in this case will be the virtual world. In cases where the familiarity with the brand is strong (Facebook, for example), one would anticipate that consumers will feel a greater trust and attachment with both the brand itself and the website. In addition, the familiarity with the

site should facilitate the player's performance. In these cases, the purchase of these products would be more likely to increase the utilitarian and hedonic value of the SNS as well as the consumer's quality of life. In the case of an unknown brand, it would seem to be more likely that these relationships would be weakened because of the lack of the relationship with the SNS. It is also possible that this relationship would be affected by the level of involvement with the SNS. Even a lesser known brand might still exhibit the strong relationships in the case where the consumer is highly involved with the SNS.

The third manipulation that was mentioned was the norms of the virtual world. Does the community of the virtual world encourage the use of these products, or are they merely there as an option? In cases where the norms of the virtual world are to use the products, the use of the product should cause higher levels of utilitarian value simply because the world condones its use and it helps the player to achieve their goal. It should also add to hedonic value because of the impact of purchasing something to speed your progress along or to put the player more in tune with the world. However, these relationships would be dampened if the purchase of the product is against societal norms. In this case, the player would obtain utilitarian value from the completion of the task, but hedonic value would be reduced as emotions such as guilt would push away some of the enjoyment. Also, if sanctions are implemented by the community, it is also possible that utilitarian value would decrease as the completion of the task could become much more difficult to accomplish.

Independent Variables

Three independent variables are also added to the model in an attempt to explain these odd behaviors: flow, community identification, and escape. First, as it has been

discussed, flow in a computer mediated environment should enhance involvement and enjoyment of the virtual world. Second, community identification should again increase involvement by causing the consumer to identify with the community as a whole and feel a greater sense of connection with the world itself. Third, escape should increase value by giving consumers a release from the real world and by giving their mind a break from the mental applications of normal life. By these methods, all three should increase value and quality of life.

Experiential Consumption

Experiential consumption suggests that consumers within the world would be within it for the simple value of being in the world. The experience of the world would push consumers to involve themselves more deeply in the world's mechanics and lore, driving them to learn more and strive to become stronger to access more areas and, thus, more of the world. The more a consumer identifies with the world and community, the more value they will derive from the world itself and being within the world.

Also, experiential consumption should drive a greater level of flow and cause it to function to a greater degree, leading to an increase in hedonic value. In this case, the experience of the world will be the focal point driving value and thus the act of putting themselves into the world should be easier to accomplish. This telepresence will also raise value obtained.

Experiential consumption should also allow escape to become a strong driver of value, as escape allows the experience of the world to rejuvenate the consumer. Thus, as the consumer experiences more of the world, escape should lighten their mental stress and allow more value to be derived. In this case, both utilitarian and hedonic value should

be increased, as not only would the virtual world be greatly enjoyed, but also the world would have served its purpose as an avenue of escape.

The experimental manipulations should also cause an impact on value and quality of life because of experiential consumption. In the case of the display of results, public display of results will drive value and quality of life through the community involvement. Private displays of results will drive the more intrinsic motivations, raising the utilitarian value but not specifically the hedonic value.

Brand familiarity will increase value based on the idea of a greater sense of identification with a familiar brand. Higher brand familiarity should then drive purchasing intentions and value higher. Lower brand familiarity and the lower degree of trust that goes with it should cause a lower amount of value and a lessened intention to purchase the items in general.

Norm violations should show a strong influence on value, quality of life, and intention to purchase in the case of experiential consumption. In the presence of a norm violation, the items allure should be lessened, as the community would not take kindly to the purchase and use of these items. As the experiential consumption relies on the experience to drive value, norm violations should get in the way of attaining value from these items.

Narcissistic Consumption

Narcissistic consumption takes a different approach to driving value, purchase, and quality of life. In the case of narcissistic consumption, the self becomes more important than the experience because the avatar within the virtual world becomes an extension of the self. In other words, advancing the self, making the self look better in

both their own eyes and the eyes of others, and making the self stronger would trump other aspects of experiential consumption.

When narcissism is factored into the model, community identification should still exhibit a similar pattern of driving value and purchase intentions in the case of low narcissism consumers. However, high narcissism consumers should actually attain higher levels of value because of their need to be at the center of attention. The higher levels of community identification should generate increased value from showing off their purchases and what they can do. Thus, narcissism should enhance these relationships.

Escape should not be an important driver of value for someone with high levels of narcissism. A consumer high in narcissism should not be looking for an escape from real life. As stated, the high narcissism consumer is most likely looking at the avatar as an extension of self and thus value is driven by the enhancement of the image of that avatar. This concept has been recognized in the research. Kozinets and Kedzior (2009) suggested that avatar bodies are "inseparable from the performance of self and are crucial to engagement in in-world social life." By this reasoning, the high narcissism people will be involved and engaged which should keep a feeling of escape from manifesting. Thus, low narcissism people should experience a greater impact of value on purchasing, value, and quality of life than should someone high in narcissistic traits.

The impact of telepresence on value and purchase intentions should increase as narcissism increases within a consumer. The basis for this hypothesis lies in the need for the narcissist to be the focus and the center of attention. In the case of a consumer seeing the avatar as an extension of themselves and the focal point of the attention that they are

receiving, the strength of telepresence's impact on value and purchase intentions should increase. These should all drive a stronger relationship to quality of life.

In the case of narcissistic consumption, brand familiarity should fall away as a predictor of value. The reasoning behind this is in the nature of a narcissist. The narcissist will always move to be the center of attention so as to show off their superior attributes. The only way that brand familiarity becomes an issue is by helping the consumer understand the best way to get noticed. A more likely influence would be the size – or number of online members – of the virtual world. Even in low brand familiarity situations, a narcissist should still find a way to showcase their skills. People low in narcissism should be more influence to purchase and attain value in the case of a higher brand familiarity.

Norm violations should actually enhance the value obtained in the case of narcissistic consumption. Consumers with high values of narcissism should relish the extra attention they obtain from violating a social norm. Value and quality of life should increase as they become the center of attention. Therefore, in the case of a high narcissism consumer, the intentions to purchase should also be driven by the narcissistic tendencies of the consumer. Low narcissism people would adhere more to the social norms and thus not purchase when the violation of social norms is present.

Display of results should become more important to people high in narcissistic tendencies than people who are lower. Because a narcissist is most likely to see the avatar as an extension of themselves, the results and the visual appearance of the avatar becomes similar to conspicuous consumption. Conspicuous consumption states that consumers will sometimes "acquire and display possessions with the intention of gaining

social status" (Ordabayeva and Chandon 2011). Thus, a public display of these results and actions should increase the value obtained by a narcissist as the items should directly and indirectly increase their status within the virtual world. Because of their increase in social status, this should also improve their quality of life. These needs should drive the purchase of the self-improvement items.

CHAPTER 3

EXPERIMENTAL STUDY OF VIRTUAL GOODS

Method

The study was conducted using a two (high versus low brand familiarity) by two (public versus private display of results) by two (presence or absence of a norm violation) between subjects design. One hundred sixty-seven respondents were collected through Mechanical Turk, an online extension of Amazon that allows a researcher to pay per response, and randomly assigned to one of the eight experimental conditions. Respondents were required to have a 90% approval rate through a minimum of thirty recorded hits in order to qualify for the survey. Those that did not qualify could not view the survey at all.

The questionnaire began with a simulation of a virtual game world situation that would describe one of the experimental blocks that had been created. In each block scenario, a situation was presented where each of the experimental manipulations was presented. At the end, a purchase was suggested that would help the respondent to obtain a completion goal within the virtual world. The questionnaire would then follow, measuring each of the variables to be examined.

The scenarios and questionnaire were presented using projective techniques. In this method, the respondent is presented with "an ambiguous stimulus – one that does not

quite make sense in itself – and asking the respondent to make sense of it" (Haire 1950). For some of the variables, such as flow, it is required of the respondent to try to put themselves in the shoes of the player in order to find meaningful results. In this case, the respondent was presented with a scenario involving a player named Finn. This person was a player within a virtual world and was contemplating the purchase of a self-improvement item. The brand, norms, and display of results were all presented based on the experimental conditions.

Brand familiarity was manipulated by using a pair of companies (Electronic Arts and T3Fun) as the owner of the virtual world. Electronic Arts was pushed as an "empire" while T3Fun was illustrated only as the company that owned the world. Display of results was manipulated by having a ring appear on the consumer who used the product. In addition, the public display condition also had a leaderboard that would show who within the world had leveled up recently as well as which of those players had used the self-improvement items to achieve those results. Norm violations were manipulated by showing in-world conversations between other players within the world. In the scenario containing a norm violation, the other players within the world would verbally admonish the player that had used the self-improvement item while congratulating the player that had leveled up without using it. The scenarios that did not contain a norm violation had the other players discussing how much easier leveling within the world was when using the self-improvement items. The survey and scenarios are presented in Appendix 1.

Pretests

First, two pretests were conducted to ensure the validity of the manipulations. The first pretest was conducted with all of the variables within the survey. The manipulations

were tested using six questions: "I am familiar with the 'EA' brand name," "Other people will be able to easily see how Finn is doing in the virtual world," "The other players' comments showed animosity toward Finn," "I am familiar with the 'T3Fun' brand name," "Only Finn will know his game performance," and "The other community members appear to like Finn a lot." Responses were anchored on 1="Strongly Disagree" and 7="Strongly Agree."

Subjects reported significant differences on one of the questions pertaining to norm violation ($M_{present\ not}$=2.59 and $M_{present\ present}$=4.00; F=7.670; p<0.01 / $M_{not\ not}$=4.88 and $M_{not\ present}$=5.40; F=0.980, n.s.). Also, a significant difference did emerge for both of the display of results questions ($M_{public\ private}$=5.28 and $M_{public\ public}$=6.07; F=3.341; p<0.1 / $M_{private\ private}$=4.00 and $M_{private\ public}$=2.29; F=6.263; p<.05). However, no significance was found for the two brand familiarity questions ($M_{high\ low}$=4.50 and $M_{high\ high}$=4.72; F=0.063; n.s. / $M_{low\ low}$=2.79 and $M_{low\ high}$=2.61; F=0.048; n.s.).

The first of the pretests revealed problems with the scenarios and manipulation checks and thus a second pretest was conducted. In this pretest, the scenarios were restructured and only the constructs for telepresence, purchase intentions, and value were included along with the manipulation checks. In this pretest, the questions were changed to "I am familiar with the brand name presented in the scenario," "Other people will be able to easily see how Finn is doing in the virtual world," "The other players' comments showed animosity toward users of the booster," "Only Finn will know his game performance," and "The other community members appear to get along regardless of booster usage." The anchoring for these questions remained the same as the first pretest.

Brand familiarity once again had a small problem, showing non-significance (M_{low}=2.69 and M_{high}=3.31; F=0.908; n.s.). Display of results showed some significance ($M_{pub\ pri}$=5.08 and $M_{pub\ pub}$=5.85; F=3.674; p<0.1 / $M_{pri\ pri}$=3.40 and $M_{pri\ pub}$=2.59; F=1.954; n.s.) and norm violation exhibited significance on both manipulation questions ($M_{pres\ none}$=2.28 and $M_{pres\ pres}$=5.78; F=62.179; p<0.001 / $M_{none\ none}$=5.64 and $M_{none\ pres}$=3.11; F=30.425; p<0.001).

Based on the results, the scenario was tweaked in order to represent fixes for these issues. Primarily, the brand familiarity aspect of the scenarios was made more pronounced, adding examples of worlds within the Electronic Arts "empire" to coax recognition from respondents. With these small changes completed, the final survey was distributed through M-Turk. However, further manipulation checks were mistakenly left out of the final survey. For future research, they will be included.

Next, correlations were examined to check for issues with the dependent variables. This table is included as Table 1. Though some correlations are significant, the primary significances arose between escape, hedonic value, and telepresence. A further examination of the theory behind these constructs shows that they should have some correlation, as they lean toward very similar aspects. Thus, the decision was made not to remove any of these constructs.

Sample

The sample consisted of one hundred sixty-seven respondents. Demographics of the sample are presented in Table 2. The one area that seemed unusual was the race demographic, though it can be explained.

Table 1

Correlations

		Narc	QoL	HV	UV	CI	Tele	Esc	PA	NA
Narcissism	Pearson	1	.066	.056	.200**	-.088	-.041	-.111	.071	.054
	Sig. (2-tailed)		.400	.473	.009	.257	.597	.154	.362	.492
	N	167	167	167	167	167	167	167	167	167
Quality of Life	Pearson	.066	1	.394**	.424**	.187*	.181*	.075	.447**	-.141
	Sig. (2-tailed)	.400		.000	.000	.016	.019	.332	.000	.069
	N	167	167	167	167	167	167	167	167	167
Hedonic Value	Pearson	.056	.394**	1	.504**	.480**	.564**	.452**	.310**	.042
	Sig. (2-tailed)	.473	.000		.000	.000	.000	.000	.000	.592
	N	167	167	167	167	167	167	167	167	167
Utilitarian Value	Pearson	.200**	.424**	.504**	1	.197*	.338**	.262**	.517**	.093
	Sig. (2-tailed)	.009	.000	.000		.011	.000	.001	.000	.234
	N	167	167	167	167	167	167	167	167	167
Community Identification	Pearson	-.088	.187*	.480**	.197*	1	.567**	.440**	.208**	-.070
	Sig. (2-tailed)	.257	.016	.000	.011		.000	.000	.007	.368
	N	167	167	167	167	167	167	167	167	167
Telepresence	Pearson	-.041	.181*	.564**	.338**	.567**	1	.625**	.282**	.028
	Sig. (2-tailed)	.597	.019	.000	.000	.000		.000	.000	.715
	N	167	167	167	167	167	167	167	167	167
Escape	Pearson	-.111	.075	.452**	.262**	.440**	.625**	1	.174*	.027
	Sig. (2-tailed)	.154	.332	.000	.001	.000	.000		.025	.729
	N	167	167	167	167	167	167	167	167	167
Positive Affect	Pearson	.071	.447**	.310**	.517**	.208**	.282**	.174*	1	-.139
	Sig. (2-tailed)	.362	.000	.000	.000	.007	.000	.025		.074
	N	167	167	167	167	167	167	167	167	167
Negative Affect	Pearson	.054	-.141	.042	.093	-.070	.028	.027	-.139	1
	Sig. (2-tailed)	.492	.069	.592	.234	.368	.715	.729	.074	
	N	167	167	167	167	167	167	167	167	167

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 2

Demographic Variables

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	98	58.7	58.7	58.7
	Female	69	41.3	41.3	100.0
	Total	167	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	16 to 19	3	1.8	1.8	1.8
	20 to 24	52	31.1	31.1	32.9
	25 to 34	60	35.9	35.9	68.9
	35 to 44	34	20.4	20.4	89.2
	45 to 54	8	4.8	4.8	94.0
	55 to 64	6	3.6	3.6	97.6
	65 or over	4	2.4	2.4	100.0
	Total	167	100.0	100.0	

Race

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	White/Caucasian	81	48.5	48.5	48.5
	African American	10	6.0	6.0	54.5
	Hispanic	5	3.0	3.0	57.5
	Asian	65	38.9	38.9	96.4
	Native American	1	.6	.6	97.0
	Other	5	3.0	3.0	100.0
	Total	167	100.0	100.0	

Facebook

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	10	6.0	6.0	6.0
	Less than Once a Month	9	5.4	5.4	11.4
	Once a Month	6	3.6	3.6	15.0
	2-3 Times a Month	5	3.0	3.0	18.0
	Once a Week	11	6.6	6.6	24.6
	2-3 Times a Week	17	10.2	10.2	34.7
	Daily	109	65.3	65.3	100.0
	Total	167	100.0	100.0	

Twitter

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	48	28.7	28.9	28.9
	Less than Once a Month	24	14.4	14.5	43.4
	Once a Month	9	5.4	5.4	48.8
	2-3 Times a Month	10	6.0	6.0	54.8
	Once a Week	15	9.0	9.0	63.9
	2-3 Times a Week	30	18.0	18.1	81.9
	Daily	30	18.0	18.1	100.0
	Total	166	99.4	100.0	
Missing	System	1	.6		
Total		167	100.0		

Table 2 (Continued)

Internet News

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	8	4.8	4.8	4.8
	Less than Once a Month	4	2.4	2.4	7.3
	Once a Month	1	.6	.6	7.9
	2-3 Times a Month	10	6.0	6.1	13.9
	Once a Week	18	10.8	10.9	24.8
	2-3 Times a Week	35	21.0	21.2	46.1
	Daily	89	53.3	53.9	100.0
	Total	165	98.8	100.0	
Missing	System	2	1.2		
Total		167	100.0		

Virtual Worlds

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	63	37.7	37.7	37.7
	Less than Once a Month	25	15.0	15.0	52.7
	Once a Month	11	6.6	6.6	59.3
	2-3 Times a Month	15	9.0	9.0	68.3
	Once a Week	16	9.6	9.6	77.8
	2-3 Times a Week	25	15.0	15.0	92.8
	Daily	12	7.2	7.2	100.0
	Total	167	100.0	100.0	

Social games

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	69	41.3	41.3	41.3
	Less than Once a Month	20	12.0	12.0	53.3
	Once a Month	14	8.4	8.4	61.7
	2-3 Times a Month	12	7.2	7.2	68.9
	Once a Week	16	9.6	9.6	78.4
	2-3 Times a Week	23	13.8	13.8	92.2
	Daily	13	7.8	7.8	100.0
	Total	167	100.0	100.0	

Hours on Net

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 1	2	1.2	1.2	1.2
	More than 1 but less than 2	12	7.2	7.2	8.4
	More than 2 but less than 4	30	18.0	18.0	26.3
	More than 4	123	73.7	73.7	100.0
	Total	167	100.0	100.0	

The Asian and Caucasian demographics are two of the most prevalent demographics within most virtual worlds, and thus should not pose a problem in representing the population. This phenomenon was further investigated by dummy coding Caucasian as a "1" and all other answers as a "0." This variable was input as a covariate and found to be an insignificant predictor of all but one of the dependent variables–purchase ($F=5.532$; $p<0.05$). However, it did not appear to greatly affect the models and thus was not deemed a problem. The rest of the demographic results suggested no real problems.

Measures

Narcissism was measured using the NPI-16 (Ames, Rose, and Anderson 2006). This scale is a shortened form of the NPI-40 created by Raskin and Terry (1988) using a subset of 16 items from the NPI-40. These items are paired measures drawing fairly evenly from each of the dimensions of the original scale. The scale itself was primed with instructions to make sure the respondent does refer to their own characteristics. Though the authors do admit that another version of the scale does exist, the NPI-15 that was created by using the items that loaded strongest on the first unrotated PCA of the NPI-40 "focuses more on the authority dimension of narcissism, (while) the NPI-16 spans more of the components of narcissism identified in past research" (Ames, Rose, and Anderson 2006). For this research, the scale reported a Cronbach's Alpha of .93.

As per previous research, emotion within the scenario was also measured. In order to measure emotion, the PANAS scale was used. It is a 20-item measure using a 10-point scale, listing ten positive and ten negative emotions. The scale reported a Cronbach's Alpha of .83.

Flow, referred to in this research by its subcategory telepresence, was captured using the play and enjoyment scales suggested by Mathwick et al (2001). This method has been used in previous research (e.g. Mathwick et al 2004) and fits the theory proposed in this research. The items were altered to fit the requirements of this research, but the integrity of the scale was not damaged in any way. It was measured on a 7-point scale from "Strongly Disagree" to "Strongly Agree." (Cronbach's Alpha=.86).

Community identification is represented using a five-item scale created by Algesheimer et al (2005). This scale of most closely captures the essence of community identification that has been put down in this research. While a larger, multiple factor model might explain more, it would require a more in-depth examination than what this research proposes. Since this scale explains the construct sufficiently, it was selected on the basis of simplicity. It was also measured on a 7-point scale from "Strongly Disagree" to "Strongly Agree." (Cronbach's Alpha=.90).

Escape was measured using the five items pertaining to "being away" used by Purcell, Peron, and Berto (2001). This portion of the scale has been used in other research as well. The scale was converted to an online setting in order to fit the research. It was measured on a 7-item scale from "Strongly Disagree" to "Strongly Agree." (Cronbach's Alpha=.77).

For the dependent variables, value was measured using Babin et al's (1994) scale measuring hedonic and utilitarian values. It was measured using a 5-point scale from "Strongly Disagree" to "Strongly Agree." (Cronbach's Alpha=.74). Quality of life was measured with the Satisfaction with Life Scale created by Diener et al (1985), a ten-item measure detailing satisfaction with a 7-point scale (Cronbach's Alpha=.94). Willingness

to buy was measured using a three-item scale created by Lu and Hsiao (2010). These items are "I intend to regularly pay for the items in the future," "I predict that I would spend real money to get tools that help my performance," and "I would never spend money on such a thing" (reverse coded). These items are measured on a 7-point scale from "Strongly Disagree" to "Strongly Agree." (Cronbach's Alpha=.70).

CHAPTER 4

RESULTS

To group the respondents, the items for narcissism were subjected to a k-means cluster analysis. The objective of this method was to separate the results based on a high and a low level of narcissism. The analysis indeed separated the data into two clusters (1; N=86; M=104.5 and 0; N=75; M=59.7). The model using the cluster membership to predict the composite narcissism score was also significant ($F=245.8$; $p<0.001$). These results suggest a degree of bimodality for the narcissism scale.

In order to examine the effects on the dependent variables, SPSS was used to test the relationships. Four univariate ANOVAs were conducted. The results of each are presented in Tables 3.1 through 3.4. In order to test the effects of each of the theories, the main effects were added, along with the interactions of each of the main effects with the narcissism variable. A separate ANOVA was run containing just the main effects, but no difference was found in the results and thus the full model is displayed.

Table 3.1

Tests of Between-Subjects Effects

Dependent Variable: Purchase (all)

Source	Type III Sum of Squares	df	Mean Square	B	F	Sig.
Corrected Model	62.881[a]	22	2.858		1.690	.037
Intercept	4.673	1	4.673	1.468	2.763	.099
BrandFam	1.930	1	1.930	.572	1.141	.287
NormVio	11.326	1	11.326	.937	6.698	.011
DoR	2.613	1	2.613	-.384	1.545	.216
CommIdent	6.255	1	6.255	.268	3.699	.057
PositiveAff	14.379	1	14.379	.278	8.503	.004
NegativeAff	2.790	1	2.790	-.179	1.650	.201
Telepresence	.799	1	.799	-.241	.473	.493
Escape	1.405	1	1.405	.247	.831	.364
NarSumCluster	.501	1	.501	-.763	.296	.587
BrandFam * DoR	.056	1	.056	.550	.033	.855
BrandFam * NormVio	2.318	1	2.318	-.840	1.371	.244
NormVio * DoR	.132	1	.132	.169	.078	.780
BrandFam * NarSumCluster	1.314	1	1.314	-.097	.777	.380
NormVio * NarSumCluster	.054	1	.054	-.126	.032	.858
DoR * NarSumCluster	2.161	1	2.161	.428	1.278	.260
NarSumCluster * CommIdent	.012	1	.012	.024	.007	.933
NarSumCluster * PositiveAff	.898	1	.898	.182	.531	.467
NarSumCluster * Telepresence	.885	1	.885	.247	.523	.471
NarSumCluster * Escape	.395	1	.395	-.171	.234	.630
NormVio * DoR * NarSumCluster	.750	1	.750	-.588	.444	.506
BrandFam * DoR * NarSumCluster	3.619	1	3.619	-1.256	2.140	.146
BrandFam * NormVio * NarSumCluster	1.092	1	1.092	.686	.646	.423
Error	233.368	138	1.691			
Total	3087.222	161				
Corrected Total	296.248	160				

a. R Squared = .212 (Adjusted R Squared = .087)

Table 3.2

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	B	F	Sig.
Corrected Model	14.067[a]	23	.612		5.264	.000
Intercept	4.727	1	4.727		40.683	.000
BrandFam	.025	1	.025	.043	.216	.643
NormVio	.014	1	.014	.044	.117	.732
DoR	7.230E-05	1	7.230E-05	.168	.001	.980
CommIdent	.003	1	.003	.041	.026	.871
PositiveAff	4.075	1	4.075	.226	35.069	.000
NegativeAff	1.082	1	1.082	.112	9.312	.003
Telepresence	.496	1	.496	.075	4.264	.041
Escape	.011	1	.011	-.019	.095	.758
NarSumCluster	.009	1	.009	.152	.078	.781
Purchase	1.069	1	1.069	.068	9.202	.003
BrandFam * DoR	.008	1	.008	-.147	.071	.790
BrandFam * NormVio	.002	1	.002	-.053	.014	.907
NormVio * DoR	.101	1	.101	-.289	.867	.353
BrandFam * NarSumCluster	.031	1	.031	-.184	.265	.607
NormVio * NarSumCluster	.422	1	.422	-.032	3.629	.059
DoR * NarSumCluster	.091	1	.091	-.255	.787	.376
NarSumCluster * CommIdent	.094	1	.094	-.069	.807	.371
NarSumCluster * PositiveAff	.061	1	.061	-.047	.525	.470
NarSumCluster * Telepresence	.018	1	.018	.036	.158	.691
NarSumCluster * Escape	.060	1	.060	.067	.521	.472
NormVio * DoR * NarSumCluster	.281	1	.281	.360	2.416	.122
BrandFam * DoR * NarSumCluster	.282	1	.282	.353	2.425	.122
BrandFam * NormVio * NarSumCluster	.040	1	.040	.132	.345	.558
Error	15.919	137	.116			
Total	1809.048	161				
Corrected Total	29.986	160				

a. R Squared = .469 (Adjusted R Squared = .380)

Table 3.3

Tests of Between-Subjects Effects

Dependent Variable: HedonicValue

Source	Type III Sum of Squares	df	Mean Square	B	F	Sig.
Corrected Model	11.993[a]	23	.521		5.077	.000
Intercept	5.781	1	5.781		56.286	.000
BrandFam	.090	1	.090	-.136	.881	.350
NormVio	.005	1	.005	.044	.049	.825
DoR	.024	1	.024	.028	.236	.628
CommIdent	.819	1	.819	.076	7.973	.005
PositiveAff	.449	1	.449	.048	4.368	.038
NegativeAff	.184	1	.184	.046	1.794	.183
Telepresence	1.266	1	1.266	.154	12.323	.001
Escape	.084	1	.084	.020	.821	.367
NarSumCluster	.152	1	.152	-.538	1.476	.226
Purchase	.252	1	.252	.033	2.449	.120
BrandFam * DoR	.209	1	.209	.130	2.033	.156
BrandFam * NormVio	.159	1	.159	.022	1.553	.215
NormVio * DoR	.008	1	.008	-.069	.075	.785
BrandFam * NarSumCluster	.003	1	.003	.151	.029	.864
NormVio * NarSumCluster	.003	1	.003	.098	.024	.876
DoR * NarSumCluster	.036	1	.036	-.124	.351	.554
NarSumCluster * CommIdent	.058	1	.058	.054	.562	.455
NarSumCluster * PositiveAff	.039	1	.039	.038	.384	.537
NarSumCluster * Telepresence	.002	1	.002	-.012	.019	.890
NarSumCluster * Escape	.021	1	.021	.040	.206	.650
NormVio * DoR * NarSumCluster	.013	1	.013	.078	.127	.722
BrandFam * DoR * NarSumCluster	.004	1	.004	.042	.039	.844
BrandFam * NormVio * NarSumCluster	.218	1	.218	-.307	2.124	.147
Error	14.070	137	.103			
Total	2253.479	161				
Corrected Total	26.063	160				

a. R Squared = .460 (Adjusted R Squared = .370)

Table 3.4

Tests of Between-Subjects Effects

Dependent Variable: QoLComposite

Source	Type III Sum of Squares	df	Mean Square	B	F	Sig.
Corrected Model	81.909[a]	21	3.900		4.963	.000
Intercept	.008	1	.008		.010	.920
BrandFam	.822	1	.822	.039	1.046	.308
NormVio	2.267	1	2.267	-.466	2.884	.092
DoR	.133	1	.133	-.086	.169	.681
PositiveAff	6.445	1	6.445	.278	8.201	.005
NegativeAff	5.314	1	5.314	-.256	6.761	.010
NarSumCluster	.070	1	.070	-.273	.089	.765
HedonicValue	13.369	1	13.369	1.012	17.011	.000
UtilValue	6.249	1	6.249	.653	7.951	.006
CommIdent	.064	1	.064	.029	.082	.775
Telepresence	5.535	1	5.535	-.284	7.042	.009
Purchase	3.173	1	3.173	-.120	4.037	.046
BrandFam * DoR	.260	1	.260	-.274	.331	.566
BrandFam * NormVio	1.951	1	1.951	-.098	2.483	.117
NormVio * DoR	.059	1	.059	.039	.075	.785
BrandFam * NarSumCluster	.002	1	.002	-.677	.002	.964
NormVio * NarSumCluster	2.083	1	2.083	.041	2.650	.106
DoR * NarSumCluster	.736	1	.736	.300	.936	.335
NarSumCluster * PositiveAff	.003	1	.003	.010	.003	.953
NormVio * DoR * NarSumCluster	.132	1	.132	-.240	.168	.682
BrandFam * DoR * NarSumCluster	.099	1	.099	.211	.126	.723
BrandFam * NormVio * NarSumCluster	2.840	1	2.840	1.116	3.614	.059
Error	109.241	139	.786			
Total	3652.303	161				
Corrected Total	191.150	160				

a. R Squared = .429 (Adjusted R Squared = .342)

Purchase

First, the effects on intent to purchase were analyzed. The results are shown in Table 3.1. The model itself reports a significant result ($F=1.69$; $p<0.05$; R-squared=.212). The significant results predicting purchase are the presence of a norm violation ($F=6.70$, $p<0.05$; $M_{absent}=4.48$, $M_{present}=3.91$), positive affect ($F=8.50$, $p<0.01$; B=.278), and community identification ($F=3.70$, $p<0.1$; B=.268). No interaction effects with the narcissism cluster variable or between manipulation variables are found to be significant. No other interactions emerge as significant.

Utilitarian Value

The second model that was examined looked at the effects of the variables on utilitarian value. These results are shown in Table 3.2. The overall model is significant ($F=5.26$; $p<0.001$; R-squared=.469). In this case, four main effects are significant predictors of utilitarian value: positive affect ($F=35.1$; $p<0.001$; B=.226), negative affect ($F=9.31$; $p<0.01$; B=.112), purchase intentions ($F=9.20$; $p<0.01$; B=.068), and telepresence ($F=4.26$; $p<0.05$; B=.075). In this ANOVA, the interaction of a norm violation with the narcissism cluster is also significant ($F=3.63$; $p<0.1$). Looking at the means in Table 4, high narcissism subjects ($M_{high\ absent}=3.42$; $M_{high\ present}=3.34$) actually reports a lower utilitarian value when a norm violation is present, while low narcissism subjects ($M_{low\ absent}=3.18$; $M_{low\ present}=3.31$) report a higher utilitarian value when the norm violation is present.

Table 4

Marginal Means

Estimated Marginal Means - Purchase

	1. Brand Familiarity	
Low Familiarity	4.313	
High Familiarity	4.077	
	2. Norm Violation	
Norm Violation Absent	4.476	
Norm Violation Present	3.914	
	3. Display of Results	
Private	4.058	
Public	4.331	
	4. Narcissism	
Low Narcissism	4.109	
High Narcissism	4.280	
	5. Brand Familiarity * Display of Results	
Low Familiarity	Private	4.156
	Public	4.469
High Familiarity	Private	3.961
	Public	4.192
	6. Brand Familiarity * Norm Violation	
Low Familiarity	Norm Violation Absent	4.467
	Norm Violation Present	4.158
High Familiarity	Norm Violation Absent	4.484
	Norm Violation Present	3.670
	7. Display of Results * Norm Violation	
Private	Norm Violation Absent	4.310
	Norm Violation Present	3.807
Public	Norm Violation Absent	4.641
	Norm Violation Present	4.020
	8. Brand Familiarity * Narcissism	
Low Familiarity	Low Narcissism	4.319
	High Narcissism	4.306
High Familiarity	Low Narcissism	3.899
	High Narcissism	4.255
	9. Narcissism * Norm Violation	
Low Narcissism	Norm Violation Absent	4.412
	Norm Violation Present	3.806
High Narcissism	Norm Violation Absent	4.539
	Norm Violation Present	4.022
	10. Display of Results * Narcissism	
Private	Low Narcissism	4.096
	High Narcissism	4.021
Public	Low Narcissism	4.122
	High Narcissism	4.540

Table 4 (Continued)

11. Display of Results * Narcissism * Norm Violation			
Private	Low Narcissism	Norm Violation Absent	4.440
		Norm Violation Present	3.752
	High Narcissism	Norm Violation Absent	4.180
		Norm Violation Present	3.862
Public	Low Narcissism	Norm Violation Absent	4.384
		Norm Violation Present	3.860
	High Narcissism	Norm Violation Absent	4.898
		Norm Violation Present	4.181
12. Brand Familiarity * Display of Results * Narcissism			
Low Familiarity	Private	Low Narcissism	4.443
		High Narcissism	3.869
	Public	Low Narcissism	4.195
		High Narcissism	4.743
High Familiarity	Private	Low Narcissism	3.748
		High Narcissism	4.173
	Public	Low Narcissism	4.049
		High Narcissism	4.336
13. Brand Familiarity * Narcissism * Norm Violation			
Low Familiarity	Low Narcissism	Norm Violation Absent	4.412
		Norm Violation Present	4.227
	High Narcissism	Norm Violation Absent	4.523
		Norm Violation Present	4.088
High Familiarity	Low Narcissism	Norm Violation Absent	4.413
		Norm Violation Present	3.385
	High Narcissism	Norm Violation Absent	4.555
		Norm Violation Present	3.955

Estimated Marginal Means – Utilitarian Value

1. Brand Familiarity	
Low Familiarity	3.297
High Familiarity	3.324
2. Norm Violation	
Norm Violation Absent	3.301
Norm Violation Present	3.321
3. Display of Results	
Private	3.312
Public	3.310
4. Narcissism	
Low Narcissism	3.243
High Narcissism	3.378

5. Brand Familiarity * Display of Results		
Low Familiarity	Private	3.306
	Public	3.289
High Familiarity	Private	3.318
	Public	3.331
6. Brand Familiarity * Norm Violation		
Low Familiarity	Norm Violation Absent	3.291
	Norm Violation Present	3.303
High Familiarity	Norm Violation Absent	3.311
	Norm Violation Present	3.338

Table 4 (Continued)

	7. Display of Results * Norm Violation		
Private	Norm Violation Absent		3.274
	Norm Violation Present		3.349
Public	Norm Violation Absent		3.328
	Norm Violation Present		3.292
	8. Brand Familiarity * Narcissism		
Low Familiarity	Low Narcissism		3.216
	High Narcissism		3.379
High Familiarity	Low Narcissism		3.271
	High Narcissism		3.378
	9. Narcissism * Norm Violation		
Low Narcissism	Norm Violation Absent		3.179
	Norm Violation Present		3.307
High Narcissism	Norm Violation Absent		3.423
	Norm Violation Present		3.334
	10. Display of Results * Narcissism		
Private	Low Narcissism		3.219
	High Narcissism		3.405
Public	Low Narcissism		3.268
	High Narcissism		3.352
	11. Display of Results * Narcissism * Norm Violation		
Private	Low Narcissism	Norm Violation Absent	3.083
		Norm Violation Present	3.355
	High Narcissism	Norm Violation Absent	3.466
		Norm Violation Present	3.344
Public	Low Narcissism	Norm Violation Absent	3.276
		Norm Violation Present	3.260
	High Narcissism	Norm Violation Absent	3.380
		Norm Violation Present	3.324
	12. Brand Familiarity * Display of Results * Narcissism		
Low Familiarity	Private	Low Narcissism	3.155
		High Narcissism	3.457
	Public	Low Narcissism	3.277
		High Narcissism	3.300
High Familiarity	Private	Low Narcissism	3.283
		High Narcissism	3.352
	Public	Low Narcissism	3.259
		High Narcissism	3.404
	13. Brand Familiarity * Narcissism * Norm Violation		
Low Familiarity	Low Narcissism	Norm Violation Absent	3.139
		Norm Violation Present	3.293
	High Narcissism	Norm Violation Absent	3.443
		Norm Violation Present	3.314
High Familiarity	Low Narcissism	Norm Violation Absent	3.220
		Norm Violation Present	3.322
	High Narcissism	Norm Violation Absent	3.402
		Norm Violation Present	3.354

Table 4 (Continued)

Estimated Marginal Means – Hedonic Value

	1. Brand Familiarity		
Low Familiarity	3.690		
High Familiarity	3.743		
	2. Norm Violation		
Norm Violation Absent	3.724		
Norm Violation Present	3.708		
	3. Display of Results		
Private	3.732		
Public	3.701		
	4. Narcissism		
Low Narcissism	3.690		
High Narcissism	3.743		
	5. Brand Familiarity * Display of Results		
Low Familiarity	Private	3.746	
	Public	3.634	
High Familiarity	Private	3.718	
	Public	3.767	
	6. Brand Familiarity * Norm Violation		
Low Familiarity	Norm Violation Absent	3.670	
	Norm Violation Present	3.710	
High Familiarity	Norm Violation Absent	3.778	
	Norm Violation Present	3.707	
	7. Display of Results * Norm Violation		
Private	Norm Violation Absent	3.727	
	Norm Violation Present	3.737	
Public	Norm Violation Absent	3.721	
	Norm Violation Present	3.680	
	8. Brand Familiarity * Narcissism		
Low Familiarity	Low Narcissism	3.669	
	High Narcissism	3.711	
High Familiarity	Low Narcissism	3.711	
	High Narcissism	3.774	
	9. Narcissism * Norm Violation		
Low Narcissism	Norm Violation Absent	3.692	
	Norm Violation Present	3.688	
High Narcissism	Norm Violation Absent	3.756	
	Norm Violation Present	3.729	
	10. Display of Results * Narcissism		
Private	Low Narcissism	3.723	
	High Narcissism	3.742	
Public	Low Narcissism	3.658	
	High Narcissism	3.743	
	11. Display of Results * Narcissism * Norm Violation		
Private	Low Narcissism	Norm Violation Absent	3.712
		Norm Violation Present	3.733
	High Narcissism	Norm Violation Absent	3.743
		Norm Violation Present	3.740

Table 4 (Continued)

Public	Low Narcissism	Norm Violation Absent	3.673
		Norm Violation Present	3.643
	High Narcissism	Norm Violation Absent	3.769
		Norm Violation Present	3.718
12. Brand Familiarity * Display of Results * Narcissism			
Low Familiarity	Private	Low Narcissism	3.735
		High Narcissism	3.758
	Public	Low Narcissism	3.603
		High Narcissism	3.665
High Familiarity	Private	Low Narcissism	3.710
		High Narcissism	3.725
	Public	Low Narcissism	3.712
		High Narcissism	3.822
13. Brand Familiarity * Narcissism * Norm Violation			
Low Familiarity	Low Narcissism	Norm Violation Absent	3.679
		Norm Violation Present	3.659
	High Narcissism	Norm Violation Absent	3.661
		Norm Violation Present	3.761
High Familiarity	Low Narcissism	Norm Violation Absent	3.706
		Norm Violation Present	3.717
	High Narcissism	Norm Violation Absent	3.851
		Norm Violation Present	3.697

Estimated Marginal Means – Quality of Life

1. Brand Familiarity		
Low Familiarity	4.534	
High Familiarity	4.698	
2. Norm Violation		
Norm Violation Absent	4.490	
Norm Violation Present	4.742	
3. Display of Results		
Private	4.600	
Public	4.632	
4. Narcissism		
Low Narcissism	4.690	
High Narcissism	4.543	
5. Brand Familiarity * Display of Results		
Low Familiarity	Private	4.475
	Public	4.593
High Familiarity	Private	4.726
	Public	4.671
6. Brand Familiarity * Norm Violation		
Low Familiarity	Norm Violation Absent	4.510
	Norm Violation Present	4.558
High Familiarity	Norm Violation Absent	4.471
	Norm Violation Present	4.925
7. Display of Results * Norm Violation		
Private	Norm Violation Absent	4.443
	Norm Violation Present	4.758

Table 4 (Continued)

Public	Norm Violation Absent		4.538
	Norm Violation Present		4.726
	8. Brand Familiarity * Narcissism		
Low Familiarity	Low Narcissism		4.594
	High Narcissism		4.474
High Familiarity	Low Narcissism		4.786
	High Narcissism		4.611
	9. Narcissism * Norm Violation		
Low Narcissism	Norm Violation Absent		4.481
	Norm Violation Present		4.899
High Narcissism	Norm Violation Absent		4.500
	Norm Violation Present		4.585
	10. Display of Results * Narcissism		
Private	Low Narcissism		4.594
	High Narcissism		4.606
Public	Low Narcissism		4.785
	High Narcissism		4.479
	11. Display of Results * Narcissism * Norm Violation		
Private	Low Narcissism	Norm Violation Absent	4.353
		Norm Violation Present	4.836
	High Narcissism	Norm Violation Absent	4.533
		Norm Violation Present	4.680
Public	Low Narcissism	Norm Violation Absent	4.609
		Norm Violation Present	4.962
	High Narcissism	Norm Violation Absent	4.468
		Norm Violation Present	4.490
	12. Brand Familiarity * Display of Results * Narcissism		
Low Familiarity	Private	Low Narcissism	4.429
		High Narcissism	4.520
	Public	Low Narcissism	4.758
		High Narcissism	4.428
High Familiarity	Private	Low Narcissism	4.759
		High Narcissism	4.692
	Public	Low Narcissism	4.812
		High Narcissism	4.530
	13. Brand Familiarity * Narcissism * Norm Violation		
Low Familiarity	Low Narcissism	Norm Violation Absent	4.341
		Norm Violation Present	4.846
	High Narcissism	Norm Violation Absent	4.678
		Norm Violation Present	4.270
High Familiarity	Low Narcissism	Norm Violation Absent	4.620
		Norm Violation Present	4.951
	High Narcissism	Norm Violation Absent	4.322
		Norm Violation Present	4.900

Hedonic Value

The third ANOVA run looks at hedonic value. In this model (Table 3.3; $F=5.08$; $p<0.001$; R-squared=.460), three main effects have an effect on hedonic value: community identification ($F=7.97$; $p<0.01$; B=.076), positive affect ($F=4.37$; $p<0.05$; B=.048), and telepresence ($F=12.3$; $p<0.001$; B=.154). Narcissism, however, exerts no effect on hedonic value through either the main effect or any interactions. No other interactions emerge as significant either.

Quality of Life

The final ANOVA examins the final dependent variable – quality of life. This variable was tested as the ultimate outcome variable in the model, representing life satisfaction. The results for this model are shown in Table 3.4 ($F=4.96$; $p<0.001$). In this particular model, six main effects show significance: norm violation ($F=2.88$; $p<0.1$; $M_{absent}=4.49$; $M_{present}=4.75$), positive affect ($F=8.20$; $p<0.01$; B=.278), negative affect ($F=6.76$; $p<0.01$; B=-.256), hedonic value ($F=17.0$; $p<0.001$; B=1.012), utilitarian value ($F=7.95$; $p<0.01$; B=.653), and telepresence ($F=7.04$; $p<0.01$; B=-.284). In addition to the main effects, one three-way interaction was significant: brand familiarity, norm violation, and narcissism ($F=3.61$; $p<0.1$; B=1.12). For a low familiarity situation, high narcissism subjects reported a higher mean when no norm violation was present ($M_{high\ absent}=4.72$; $M_{high\ present}=4.23$) but low narcissism subjects reported the opposite ($M_{low\ absent}=4.34$; $M_{low\ present}=4.89$). In the high familiarity situation, high and low narcissism respondents reacted very similarly to each other ($M_{high\ absent}=4.37$; $M_{high\ present}=4.90$; $M_{low\ absent}=4.54$; $M_{low\ present}=4.99$). All means are available in Table 5.

Table 5

Proposal Results

Experiential Consumption	**Support**	**Narcissistic Consumption**	**Support**
Community Identification leads to greater value	Partial	High narcissism consumers should exhibit higher value from community identification	No
Telepresence leads to greater value	Yes	High narcissism consumers should exhibit higher value from telepresence	No
Escape leads to greater value	No	High narcissism consumers should exhibit lower value from escape.	No
Public Display of Results leads to greater hedonic value	No	Public Display of Results leads to greater value and quality of life in high narcissism consumers	No
Private Display of Results leads to greater utilitarian value	No	Private Display of Results leads to greater value and quality of life in low narcissism consumers	No
Higher Brand Familiarity leads to higher value and quality of life	No	Low narcissism consumers will obtain more value and quality of life in high brand familiarity situations	No
Absence of Norm Violation condition leads to higher value and quality of life	Partial	Presence of a Norm Violations leads to higher value, purchase, and quality of life in high narcissism consumers	Partial
Purchase is driven by:		Purchase is driven by:	
Community Identification	Yes	Community Identification	Yes
Telepresence	No	Narcissism	No
Positive Affect	Yes	Positive Affect	Yes
Norm Violation absent	Yes	Norm Violation present	Partial

CHAPTER 5

SUMMARY AND CONCLUSIONS

This chapter consists of three different sections. First the results will be discussed in relation to the research questions. Second, contributions to academic literature will be discussed along with impacts to managerial decision making. Third, the limitations of this study will be discussed in detail, followed by directions for future research.

Discussion of Results

The primary emphasis of this research revolved around an investigation of purchasing online virtual goods. In many virtual worlds, these virtual goods are add-ons to the primary product, which is the game experience itself. The goods have no physical form and do not translate to actual money outside of the virtual world. However, these goods are purchased with real money and used within the virtual world to enhance the experience within the world. Additionally, in many cases, these items are not necessary for progress within the world. They merely speed up the process or allow the player to bypass some aspect or task that would normally be required.

Thus, the questions posed by this research arose – what causes a player to purchase something that has no value in itself and is not required? When purchases were made, did these purchases add to the value and life satisfaction gained from the action?

Two theories were proposed to explain these phenomena. The first stated that these items were part of the experiential consumption of the virtual world (e.g. Holbrook and Hirschman 1982, Virgo and Lusch 2008). In this case, the purchasable items were an extension of the value gained from the virtual world itself. The second theory stated that these items were purchased through a need to enhance the self (e.g. Belk 1988). This narcissistic consumption theory suggested that the consumer would purchase the items based on a need to enhance their own image and draw attention to themselves.

The findings in this research show some promise elaborating on these theories. For starters, narcissism was not found to be a significant predictor of any of the dependent variables on its own, but it did interact with the manipulations and several of the independent variables in interesting ways. For example, narcissism interacted with the presence and absence of a norm violation to help predict utilitarian value. The means also suggest that narcissism does have an effect on the experimental manipulations, often changing the sign of the relationship or the magnitude, though it is quite often insignificant and thus possibly a factor of the data and not an actual effect.

Purchase intentions were set as an intermediate variable in the model and thus were an important vocal point of the research. The ANOVA for purchase, however, brought some interesting ideas to light. First, only three predictors were significant in this model – presence of a norm violation, community identification, and positive affect. The presence of a norm violation significantly reduced the purchase intentions of the respondents in this model, while community identification increased purchase intentions, as expected. Positive affect increasing purchase intentions can very easily be traced to a feeling of happiness while engrossed in the world. Somewhat interestingly, narcissism

had no effect whatsoever in predicting purchase intentions, whether by itself or interacting with other variables. This outcome can be attributed to multiple factors, the most likely of which being either a lack of understanding of what the item to be purchased was intended to do or a possible problem in the purchase intention measure. This is also indicated by the fact that the R-squared for this particular model is 0.212, suggesting that the variables involved do very little to explain purchase intentions as a whole. However, as far as this research uncovered, narcissism does not impact purchase intentions.

The ANOVA for utilitarian value shows several stories within it. First, the significant positive outcome for positive affect, purchase intentions, and telepresence suggest that enjoyment and involvement, as well as the items that are purchased, are all part of the actual functionality of the virtual world. These results lend credence to the theory of experiential consumption. The experience is actually the point of activity, and the purchase of these items only enhances the utilitarian value of the activity. This effect is only heightened by the fact that purchase intentions had no effect whatsoever on hedonic value, suggesting that these items were not seen as adding to the enjoyment of the experience. Indeed, even the act of immersion into the virtual world would be seen as expected, adding to hedonic value.

This could be explained by looking at the research of Lehdonvirta (2009). The items used within the research would be classified as a functional good instead of a hedonic or social good, which would suggest that they would serve a functional (utilitarian) purpose. In this case, the consumers of the virtual world see the good as

necessary and/or advantageous for advancing within the world, and thus they purchase the good for utilitarian purposes.

Another interesting aspect of utilitarian value is the significant outcome of the interaction between norm violations and narcissism. Examining the means, low narcissism consumers found their utilitarian value increased when norm violations were present. However, contrary to what was predicted, consumers high in narcissism found a decreased utilitarian value from the norm violation being present. This result runs contrary to the narcissistic consumption theory, suggesting that narcissism does play a part in determining value obtained from virtual worlds, but in the opposite direction as was anticipated. This area warrants further research.

Possibly most interesting is the significant positive outcome for negative affect. Several explanations can be attributed to this outcome. The first is from an experiential viewpoint. This effect could be caused by the idea of "retail therapy," or buying something to make the consumer "feel better." In other words, the consumer would be trying to increase the value obtained from the universe. From a narcissism standpoint, negative affect could be caused by a lack of attention. Especially in a case of a norm violation, purchase could lead to attention, leading to a greater utilitarian value since self-enhancement would be the purpose behind the virtual world membership.

Hedonic value tells a much different story. The primary drivers for hedonic value appear to be community identification, positive affect, and telepresence. Positive affect makes sense, as a positive emotion should lead to greater hedonic value. Telepresence also has a positive effect on hedonic value, as predicted. Theoretically, flow's ability to lead to a feeling of pure immersion would cause a higher level of hedonic value o be

gained. Similarly, community identification should lead to a greater degree of hedonic value, as social aspects of virtual worlds have been predicted to lead to greater levels of hedonic value (Lehdonvirta 2009).

Narcissism, however, exhibits no effects whatsoever as a significant predictor of hedonic value. None of the interactions with the other variables resulted in a significant outcome. From this, it can be deduced that narcissism has no effect on hedonic value. Again, this runs contrary to the proposed theory of narcissistic consumption. This particular outcome could again be attributed to the understanding of the item as a more utilitarian use item. Again, this result warrants further research.

The final ANOVA, which included all other variables, was quality of life. This variable was put in the model to represent satisfaction with the respondent's own life and position. The idea here was to see if narcissism would emerge as a predictor of life satisfaction within a virtual world. Upon closer inspection, the significant predictors of quality of life were purchase intentions, telepresence, positive and negative affect, and hedonic and utilitarian value. Marginal significance also emerged for norm violations. As expected, the two dimensions of value both led to an increased quality of life, as did positive affect. Also as expected in theory, negative affect had a negative relationship with quality of life. In this case, the presence of a norm violation also reduced the quality of life that emerged. This is likely because social norms within the virtual world kept the consumer from doing something extra or something that they observed others doing against those norms. Telepresence, however, had a negative relationship with quality of life, suggesting that higher levels of telepresence led to lower levels of life satisfaction. This result is interesting in the fact that it suggests that one of the aspects of the virtual

world that increases value obtained from the experience will also reduce how the consumer feels about life as a whole.

However, the most interesting aspect in this ANOVA is the significance of the three-way interaction of narcissism, brand familiarity, and norm violations. In this situation, low brand familiarity actually reversed the sign of the relationship for the high narcissism consumers, causing them to have a higher mean quality of life when norm violations were present rather than absent. As predicted, high narcissism consumers reported a higher mean quality of life when norm violations were present in high familiarity situations. Low narcissism consumers, however, reported a higher mean quality of life.

Looking past the significance of narcissism, the means for low and high narcissism in each model were created with regards to the other experimental variables (Table 4). Interestingly, in many cases, low and high narcissism consumers did respond quite differently, though not significantly, in the differing situations. For example, when predicting purchase, low narcissism customers responded almost identically when the results were private, but high narcissism customers responded quite a bit higher when the results were public.

In regards to the research questions posed in this research, results suggest that both theories of consumption in virtual worlds have their basis. Experiential consumption seems to manifest itself more in the hedonic value obtained from the activity. This result is suggested by the significant results of telepresence and community identification in hedonic value and supported by the significant relationships between purchase intentions and the three main effects of positive affect, community identification, and norm

violation. These results imply that the act of being within the world and being a part of it are the most important determinants of value and, thus, quality of life. Additionally, only community identification, the absence of norm violations, and positive affect significantly predicted purchase intentions. Again, these results lean toward a more experiential consumption experience, as the joy of being part of the online virtual world drives these purchases.

However, narcissism cannot be ignored. Narcissism did have a few significant effects within the research, primarily the various interactions with norm violation. Though these are both interesting results, no other main effects or interactions emerged as significant. These results appear contrary to the theory proposed previously, and after examining the means, it can be seen that narcissism is at work in the background, though it is not as active as suggested in the literature.

Contributions and Implications

First and foremost, this research combines the work already done on narcissism within social network sites (e.g. Brown and Tuten 2009, Tikkanen et al 2009) with the research on purchase intentions. With the growing popularity of online SNSs, a better understanding of how consumers operate within these environments is essential for Marketing theory. From a theoretical standpoint, understanding online behaviors of customers leads to a greater understanding of the marketplace.

Another important theoretical aspect of this research is the comparison of two theories that attempt to explain the behavior of consumers online. While the experiential theory seems to hold more weight from this research specifically, the theory of narcissism's effects within the online consumer world has been sparsely researched. This

research attempts to go into areas that have not been investigated heavily as of yet in an attempt to glean more understanding from these phenomena. From this research, some evidence exists to support both theories of consumption, leading to other promising avenues of research within online SNSs.

A third important contribution is the consolidation of definitions of social network sites. While many researchers have attempted to define social network sites and virtual worlds (specifically Boyd and Ellison2008), no attempt has been made to consolidate definitions into one place. While this research does not proclaim to have completely synthesized all definitions for the multitude of different SNSs, it does represent an important step toward understanding the differences between the different genres and classifications of social networking and bringing the definitions into one place.

From a managerial standpoint, this research helps to understand some of the determinants of purchasing online virtual goods. This study expands on extant knowledge by finding significant predictors of purchasing and value as well as finding relationships between value within an online world and quality of life. These relationships suggest that marketers should spend time encouraging the social aspect of the virtual world in order to increase hedonic value and thusly satisfaction.

Beyond just the social aspects of the world, this research also suggests certain realms where the narcissism of the consumer can be built upon to create value. By offering items of a more functional nature, marketers can encourage purchase from people with more narcissistic tendencies. In addition, marketing messages could be adapted to encourage purchase when social norms dictate that purchase would not be in the consumer's best interest by catering to the narcissism in the consumer.

Another benefit derived from this research comes in the form of telepresence. While difficult to measure and manipulate, the significant results in this research support the theory that pulling consumers into the virtual world will increase the value that they attain from their experience. Other research has found that increased telepresence and flow does increase brand equity as well (Nah et al. 2011), so marketers would greatly benefit from increasing attention to these areas.

Limitations and Future Research

These results should all be tempered with the fact that several problems emerged while conducting this research. First and foremost was the absence of the manipulation checks in the final survey. Though the two pretests indicated problems to be fixed and all problems were addressed, further problems may have arisen and were not able to be corrected. This problem could also explain the lack of significance within the manipulation checks other than norm violation.

A second problem that arose was the purchasing intentions variable. While its Cronbach alpha was not inadmissible, it was the lowest of all of the other research variables at 0.70. The factor loadings suggest that the reverse coded question was likely misinterpreted or fell victim to haloing. It is also possible that the data contains a small degree of acquiescence bias which manifested most heavily here, as some of the data did appear to the naked eye to be slightly skewed toward the more positive answers. This is also possibly due to a small amount of social desirability bias. However, projective techniques were used to circumvent this problem.

A third possible problem is sample size and source. Though one hundred sixty-one usable responses is not an insignificant amount, it is possible that a larger sample

could have helped to correct or identify some of the problems that arose within the data. In the same vein, using M-Turk as a procurement tool, while fast and convenient, does not allow for great degrees of control. All necessary steps were taken in order to assure as much data integrity and reliability as possible, but no true qualification of the source existed.

Granted, all of these potential problems cannot be fixed in this research. However, further research can build on this initial examination. A reproduction of this research using a student sample would be ideal. The student population is one of the larger demographics that make up users of SNSs. In addition, this type of sample would also allow a greater degree of control and typically ensure a better response than an online survey collection service. This research could also build on these results and focus on some of the more interesting outcomes, such as the three-way interaction and the impact of positive and negative affect. In addition, the manipulations could be enhanced and the scenario could be rewritten to allow a better understanding of the different situations in order to obtain richer results from the analysis. With these subtle improvements, these two studies could be put together to further understand the effects of the experimental and measured variables.

A few other options are available for future studies. One option worth investigating is the type of virtual good. Lehdonvirta (2009) found that virtual goods tend to be purchased for one of three reasons: social, functional, or hedonic attributes. The social attributes characterize goods that would have an appeal in the social aspect of the SNS. These goods tend to have some aspect of them that allows the user to stand out in the social forum, such as a distinct glow around a character to signify some level of

status. Functional goods are goods that are used to advance the consumer's experience on the virtual world. Examples of these goods would be something that would cause a consumer to "level up faster" or attain some sort of an advantage, such as an experience bonus, a faster car in a racing game, or immediate delivery of in-game items instead of a waiting period. These goods would logically rank higher on utilitarian value, but could reasonably have high hedonic value as well. Hedonic attributes are those that give the consumer some degree of satisfaction with owning. Many of these goods also tend to be aesthetic to appeal to the eyes or ears and have primarily high hedonic value. This classification should allow a greater understanding of how virtual goods and intentions to purchase actually work within the virtual world.

Another aspect of research that would enhance our understanding of this behavior would be to conduct a longitudinal study through a real virtual world setting. This methodology would confer a more realistic and deeper understanding of the variables at work. The difficulty of longitudinal work still remains the response rate and feasibility, however. It would be possible using a student sample throughout a school term and would be a fruitful area of research.

A third aspect of this research that should be conducted in the future would be an examination of other variables such as asset specificity. This variable would suggest a relationship between the amount of money already spent within the community and the intention to continue to spend money. Another interesting variable that could play a significant role in these relationships would be orientation. Those consumers that exhibit more of a mastery orientation could theoretically behave differently from those that exhibit more of a performance orientation. The effects of guilt could also be used in

conjunction with narcissism to get a clearer explanation of these effects. Again, variables such as these would help greatly in explaining these diverse behaviors.

Conclusion

Social network sites have been studied from many different sources and directions (e.g., Kluemper and Rosen 2009, Lemel 2010, Bagozzi and Dholakia 2002, Tikkanen et al 2009, Boyd and Ellison 2008, and Brown and Tuten 2009). However, very little research has been conducted to investigate the how virtual goods within these SNSs generate added value for the consumer. The present research attempts to shine new light on this exact aspect of virtual worlds.

The results of this research suggest that both the experience within the world and the players' personal characteristics can enhance the value obtained from a virtual world. While this may seem intuitive, this research gives direction on how some of these variables work together to generate value and satisfaction. The importance of telepresence, norm violations, and community identity suggest that enhancing the social aspects of the virtual world goes a long way toward generating value within a virtual world and encouraging purchase of virtual goods. Additionally, this research showed at least preliminary results suggesting the importance of narcissism as an important determinant of value and satisfaction. While the results were not conclusive, they do suggest an underlying impact on these behaviors.

In conclusion, the results of the present study show both a glimpse at how value is created within a SNS as well as a need for greater understanding of the behaviors of consumers in online SNSs, in particular virtual worlds. Further research into this area of study would benefit both academic and manager alike.

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APPENDIX A

SURVEY AND SCENARIOS

Survey and Scenarios

Q2 Pick the answer that best represents how Finn would feel about purchasing a Booster Pack like the one described in the scenario. Remember, when "I" is used in a statement it refers to Finn. Answer from Finn's perspective.

I intend to regularly pay for them in the future. (1)	○	○	○	○	○	○	○
I predict that I would spend real money to get tools that help my performance (2)	○	○	○	○	○	○	○
I would never spend money on such a thing (3)	○	○	○	○	○	○	○

Q3 Thinking about how Finn would likely feel about his life, answer these questions based on how you believe he would feel ("I" represents Finn).

Compared to my lifetime goals, ideals, and what I had ideally hoped to become, how satisfied am I? (1)	○	○	○	○	○	○	○
Compared to what I feel I deserve to have happened to me considering all that I've worked for, how satisfied am I? (2)	○	○	○	○	○	○	○
Compared to the accomplishments of relatives (parents, brother, sister, etc.) how satisfied am I? (3)	○	○	○	○	○	○	○
Compared to the accomplishments of most people in my position, how satisfied am I? (4)	○	○	○	○	○	○	○
Compared to where I've been and how far I have come along (the progress I have made, the changes I have gone through, or the level of growth I have experienced), how satisfied am I? (5)	○	○	○	○	○	○	○
Compared to what I have expected from myself all along considering my resources, strengths and weaknesses, how satisfied am I? (6)	○	○	○	○	○	○	○
Compared to the accomplishments of my friends and associates, how satisfied am I? (7)	○	○	○	○	○	○	○
Compared to what I may have predicted about myself becoming, how satisfied am I? (8)	○	○	○	○	○	○	○
Compared to what I feel I should have accomplished so far, how satisfied am I? (9)	○	○	○	○	○	○	○
Compared to what I feel is the minimum of what anyone in my position should have accomplished (and be able to accomplish), how satisfied am I? (10)	○	○	○	○	○	○	○

Q4 Please select the degree to which you believe the descriptions below describe the way Finn feels.

This trip into the virtual world was truly a joy (1)	○	○	○	○	○
Compared to other things I could have done, the time spent playing was truly enjoyable (2)	○	○	○	○	○
During the game, I felt the excitement of the hunt. (3)	○	○	○	○	○
This trip into the virtual world truly felt like an escape. (4)	○	○	○	○	○
I enjoyed being immersed in the exciting virtual world (5)	○	○	○	○	○
I enjoyed this game for its own sake, not just for the goals I have accomplished. (6)	○	○	○	○	○
I continued to play the game, not because I had to, but because I wanted to (7)	○	○	○	○	○
I had a good time because I was able to act on the "spur of the moment." (8)	○	○	○	○	○
While I was playing, I was able to forget my problems. (9)	○	○	○	○	○
While playing, I felt a sense of adventure. (10)	○	○	○	○	○
This trip into the game was not a very nice time out. (11)	○	○	○	○	○
I felt really unlucky during this trip into the game. (12)	○	○	○	○	○
I was able to do a lot of fantasizing during this trip into the virtual world. (13)	○	○	○	○	○
I accomplished just what I wanted to do on this trip into the virtual world. (14)	○	○	○	○	○
I couldn't do what I really needed. (15)	○	○	○	○	○
While playing, I accomplished exactly what I set out to do. (16)	○	○	○	○	○
I was disappointed because I could not complete my goals (17)	○	○	○	○	○
I felt this trip into the virtual world was successful. (18)	○	○	○	○	○
I feel really smart about this trip into the virtual world. (19)	○	○	○	○	○
This was a good visit because I was finished quickly. (20)	○	○	○	○	○

Q5 Pick the answer that best represents how you believe Finn feels toward the online community. The items describe Finn's thoughts (so "I" means Finn). Express the level of agreement that you believe fits each statement.

I am very attached to the community (1)	○	○	○	○	○	○	○
Other brand community members and I share the same objectives (2)	○	○	○	○	○	○	○
The friendships I have with other brand community members mean a lot to me (3)	○	○	○	○	○	○	○
If brand community members planned something, I'd think of it as something "we" would do rather than something "they" would do (4)	○	○	○	○	○	○	○
I see myself as a part of the brand community (5)	○	○	○	○	○	○	○
Mark spot 5 (6)	○	○	○	○	○	○	○

Q6 Pick the answer that best represents how you believe Finn would respond to the virtual world.

During the scenario, I felt I was in the world the computer created. (1)	○	○	○	○	○	○	○
I forget I'm just interacting with a machine (2)	○	○	○	○	○	○	○
During play, my body is in the room, but my mind is inside the world created by the computer (3)	○	○	○	○	○	○	○
I feel more comfortable in the "computer world" than in the "real world" around me (4)	○	○	○	○	○	○	○
The computer-generated world seems to be "somewhere I visit" rather than "something I see" (5)	○	○	○	○	○	○	○
I forget about my immediate surroundings when I playing this game (6)	○	○	○	○	○	○	○
When I finish playing the game, I feel like I've come back to the "real world" after a journey (7)	○	○	○	○	○	○	○

Q7 How do you feel Finn would react to being within this virtual world?

This world is a refuge from unwanted distractions. (1)	○	○	○	○	○	○	○
Spending time in this virtual world would give a break from day-to-day routine (2)	○	○	○	○	○	○	○
Here I could get away from the things that usually demand my attention (3)	○	○	○	○	○	○	○
Being in this world would help me stop thinking about the things I must get done. (4)	○	○	○	○	○	○	○
I experience few demands for concentration when I am in the world. (5)	○	○	○	○	○	○	○

Q8 Select the level for each of the following emotions that you feel Finn is feeling as he tries to make his decision about purchasing the booster pack.

Interested (1)	○	○	○	○	○
Distressed (2)	○	○	○	○	○
Excited (3)	○	○	○	○	○
Upset (4)	○	○	○	○	○
Strong (5)	○	○	○	○	○
Guilty (6)	○	○	○	○	○
Scared (7)	○	○	○	○	○
Hostile (8)	○	○	○	○	○
Enthusiastic (9)	○	○	○	○	○
Proud (10)	○	○	○	○	○
Irritable (11)	○	○	○	○	○
Alert (12)	○	○	○	○	○
Ashamed (13)	○	○	○	○	○
Inspired (14)	○	○	○	○	○
Nervous (15)	○	○	○	○	○
Determined (16)	○	○	○	○	○
Attentive (17)	○	○	○	○	○
Jittery (18)	○	○	○	○	○
Active (19)	○	○	○	○	○
Afraid (20)	○	○	○	○	○

Q9 Answer to what degree the anchoring statements describe you.

I think I am a special person:I am no better or no worse than most people (1)	○	○	○	○	○	○	○	○	○	○
I like having authority over people:I don't mind following orders (2)	○	○	○	○	○	○	○	○	○	○
I find it easy to manipulate others:I don't like it when I find myself manipulating people (3)	○	○	○	○	○	○	○	○	○	○
I insist upon getting the respect that is due me:I usually get the respect I deserve (4)	○	○	○	○	○	○	○	○	○	○
I am apt to show off if I get the chance:I try not to be a show off (5)	○	○	○	○	○	○	○	○	○	○
I always know what I am doing:Sometimes I am not sure of what I am doing (6)	○	○	○	○	○	○	○	○	○	○
Everybody likes to hear my stories:Sometimes I tell good stories (7)	○	○	○	○	○	○	○	○	○	○
I expect a great deal from other people:I like to do things for other people (8)	○	○	○	○	○	○	○	○	○	○
I really like to be the center of attention:It makes me uncomfortable to be the center of attention (9)	○	○	○	○	○	○	○	○	○	○
People always seem to recognize my authority:Being an authority doesn't mean that much to me (10)	○	○	○	○	○	○	○	○	○	○
I am going to be a great person:I hope I am going to be successful (11)	○	○	○	○	○	○	○	○	○	○
I can make anybody believe anything I want them to:People sometimes believe what I tell them (12)	○	○	○	○	○	○	○	○	○	○
I am more capable than other people:There is a lot that I can learn from other people (13)	○	○	○	○	○	○	○	○	○	○
I am an extraordinary person:I am much like everybody else (14)	○	○	○	○	○	○	○	○	○	○
I know that I am good because everybody keeps telling me so:When people compliment me I sometimes get embarassed (15)	○	○	○	○	○	○	○	○	○	○
I like to be the center of attention:I prefer to blend in with the crowd (16)	○	○	○	○	○	○	○	○	○	○

Q12 How often do you use the following Internet tools?

Facebook (1)	❍	❍	❍	❍	❍	❍	❍
Twitter (2)	❍	❍	❍	❍	❍	❍	❍
Internet News (3)	❍	❍	❍	❍	❍	❍	❍
Virtual Worlds (example: World of Warcraft) (4)	❍	❍	❍	❍	❍	❍	❍
Social Games (example: Farmville, PoGo) (5)	❍	❍	❍	❍	❍	❍	❍

Q13 On average, how many hours a day would you estimate you spend on the Internet?
- ❍ Less than 1 (1)
- ❍ More than 1 but less than 2 (2)
- ❍ More than 2 but less than 4 (3)
- ❍ More than 4 (4)

Q14 Please state your gender.
- ❍ Male (1)
- ❍ Female (2)

Q35 What is your current age? (U.S. Census)
- ❍ Less than 16 (1)
- ❍ 16 to 19 (2)
- ❍ 20 to 24 (3)
- ❍ 25 to 34 (4)
- ❍ 35 to 44 (5)
- ❍ 45 to 54 (6)
- ❍ 55 to 64 (7)
- ❍ 65 or over (8)

Q15 What is your race?
- ❍ White/Caucasian (1)
- ❍ African American (2)
- ❍ Hispanic (3)
- ❍ Asian (4)
- ❍ Native American (5)
- ❍ Pacific Islander (6)
- ❍ Other (7)

Scenario 1 – High brand familiarity, no norm violation, private display of results

Players in the world

Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is part of the Electronic Arts [EA] brand empire, the makers of *Madden* and *The Sims*. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.

Booster Pack

In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from EA to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times a week. As long as the booster pack is in effect, the character on screen exhibits no noticeable or visible changes to their appearance nor does the virtual world indicate that anything is different. No indication is made as to when a player actually "levels up."

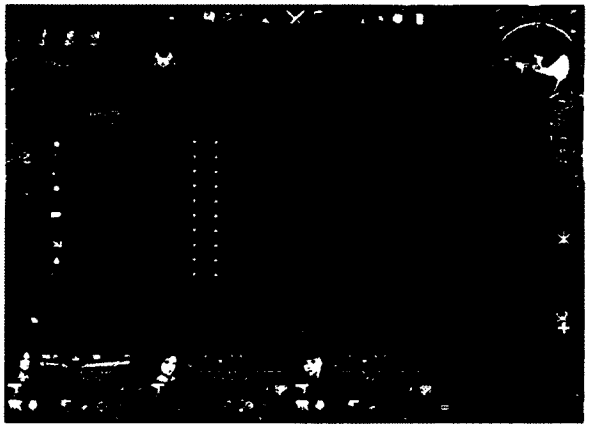
Finn has never purchased any of the enhancement items. He has reached level 60 on his own performance but his progress is slowing. Several friends have praised Finn's performance in the game. However, since progress has slowed, he is contemplating the purchase of these items to speed up the process. He wants to reach the higher levels so he and his friends can attempt to fight higher level monsters and get noticed by the other players. As he moves through the world, he notices that many other players seem to talk very often about the use of the items to help them progress. (See example below)

Mikael: Hey, I made Master!
Foley: Congrats! How long did it take you?
Mikael: Not long with this potion I bought.
Avalyce: Yeah, that does make it go a lot faster.
Foley: I do my best to make sure mine never runs out. Makes things way easier.
Mikael: Cool. Maybe I should start doing that. Want to go try to take out a boss somewhere?
Avalyce: Sure, sounds great. Let's go.

Scenario 2 – High brand familiarity, no norm violation, public display of results

Players in the world

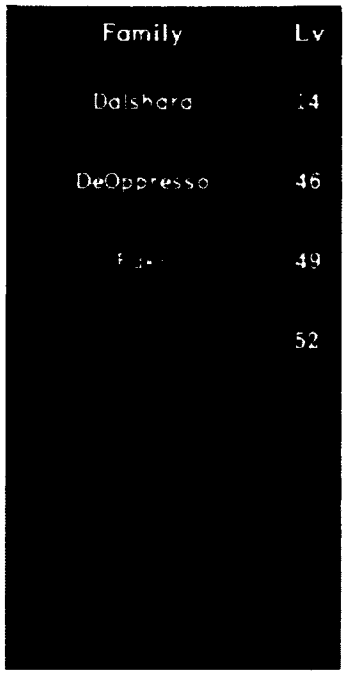
Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is part of the Electronic Arts [EA] brand empire, the makers of *Madden* and *The Sims*. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.



Booster Pack

In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from EA to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times per week. As long as the booster pack is in effect, the character on screen exhibits an aura that is visible to other players (see blue ring in first picture). Similarly, the system broadcasts an "up and comers" list that details who has made the most progress on their

levels in the past 24 hours. This list is visible by everyone and lists the level that the player has obtained. White names on the list have leveled up without the use of the booster pack. Green names on the list have leveled up while using the booster pack. The yellow names have used the booster pack multiple times in succession. (See example immediately below)



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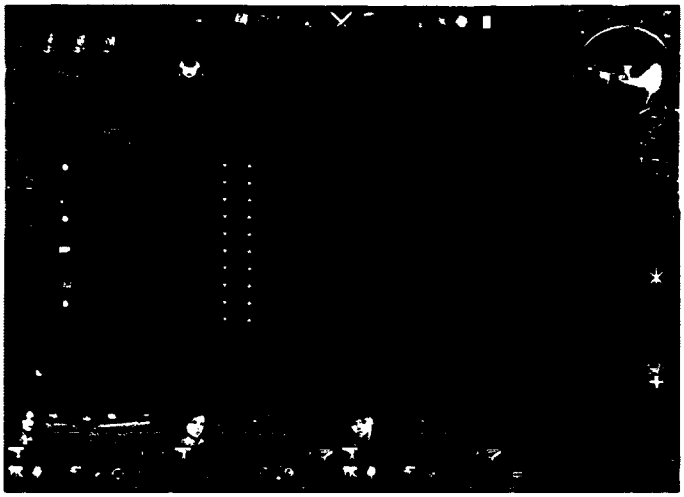
Avalyce: Yeah, that does make it go a lot faster.
Foley: I do my best to make sure mine never runs out. Makes things way easier.
Mikael: Cool. Maybe I should start doing that. Want to go try to take out a boss somewhere?
Avalyce: Sure, sounds great. Let's go.

Scenario 3 – High brand familiarity, norm violation present, private display of results

Players in the world

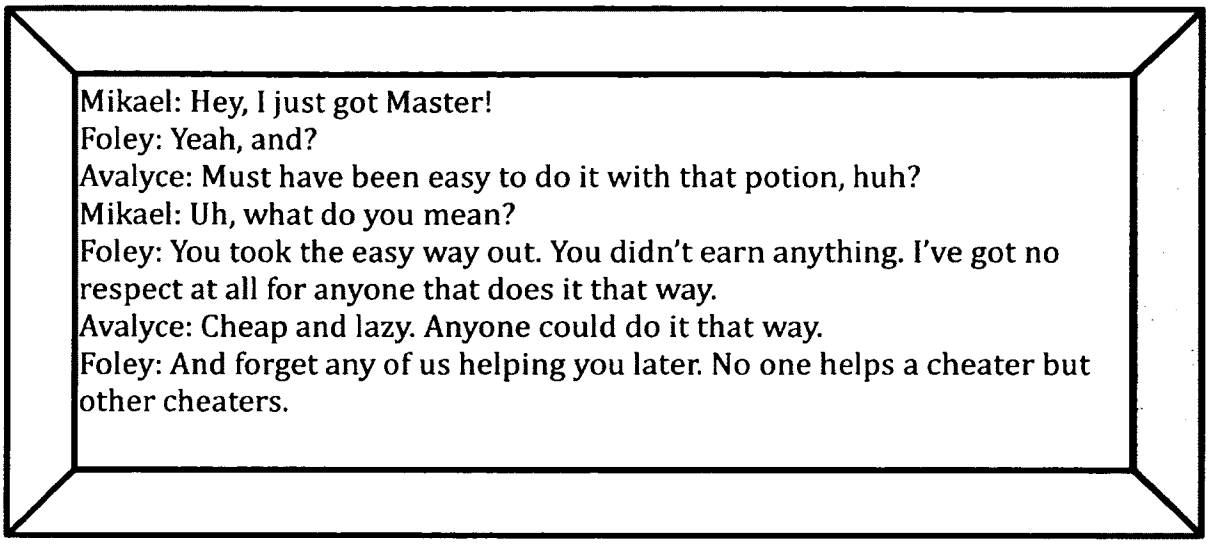
Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is part of the Electronic Arts [EA] brand empire, the makers of *Madden* and *The Sims*. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.

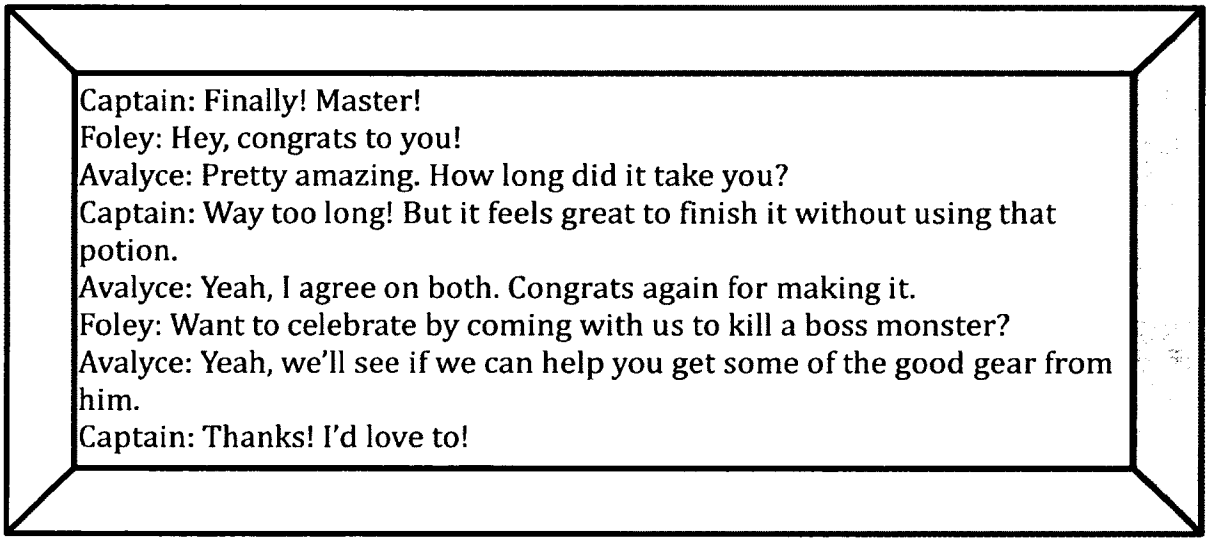


Booster Pack

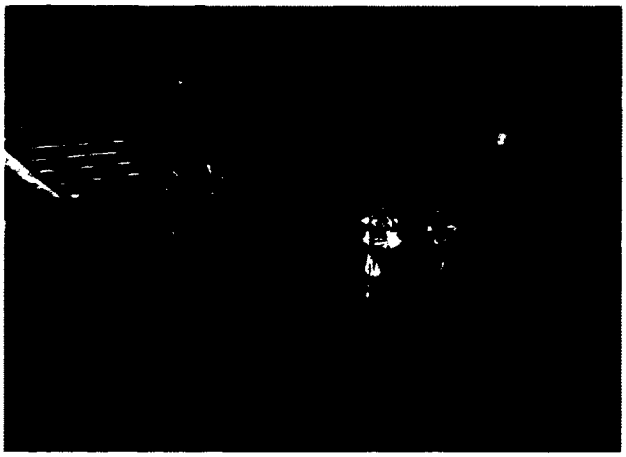
In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from EA to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times per week. As long as the booster pack is in effect, the character on screen exhibits no noticeable or visible changes to their appearance nor does the virtual world indicate that anything is different. No indication is made as to when a player actually "levels up."

Finn has never purchased any of the enhancement items. He has reached level 60 on his own performance but his progress is slowing. Several friends have praised Finn's performance in the game. However, since progress has slowed, he is contemplating the purchase of these items to speed up the process. He wants to reach the higher levels so he and his friends can attempt to fight higher level monsters and get noticed by the other players. As he moves through the world, he notices that many other players seem to scorn the other players that have seemed to level up too quickly, often refusing to help when asked (first chat example below). However, those that do not show any indication of using the booster (leveled up naturally) are often treated much better (second chat example below).


Mikael: Hey, I just got Master!
Foley: Yeah, and?
Avalyce: Must have been easy to do it with that potion, huh?
Mikael: Uh, what do you mean?
Foley: You took the easy way out. You didn't earn anything. I've got no respect at all for anyone that does it that way.
Avalyce: Cheap and lazy. Anyone could do it that way.
Foley: And forget any of us helping you later. No one helps a cheater but other cheaters.


Captain: Finally! Master!
Foley: Hey, congrats to you!
Avalyce: Pretty amazing. How long did it take you?
Captain: Way too long! But it feels great to finish it without using that potion.
Avalyce: Yeah, I agree on both. Congrats again for making it.
Foley: Want to celebrate by coming with us to kill a boss monster?
Avalyce: Yeah, we'll see if we can help you get some of the good gear from him.
Captain: Thanks! I'd love to!

Scenario 4 – High brand familiarity, norm violation present, public display of results



Players in the world

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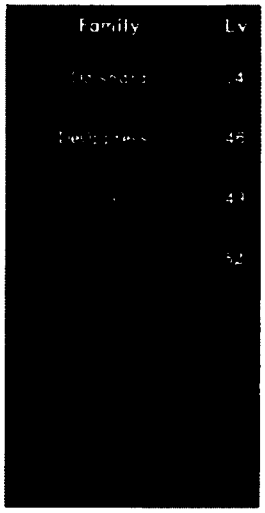
that is visible to other players (see blue aura in first picture). Similarly, the system broadcasts an "up and comers" list that details who has made the most progress on their levels in the past 24 hours. This list is visible by everyone and lists the level that the player has obtained. White names on the list have leveled up without the use of the booster pack. Green names on the list have leveled up while using the booster pack. The yellow names have used the booster pack multiple times in succession. (See example below)



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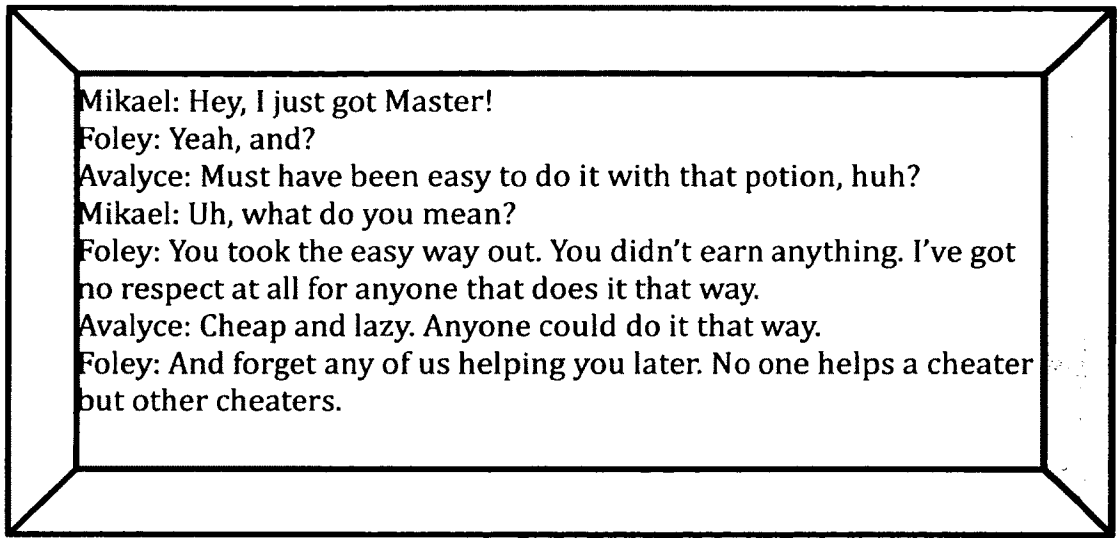
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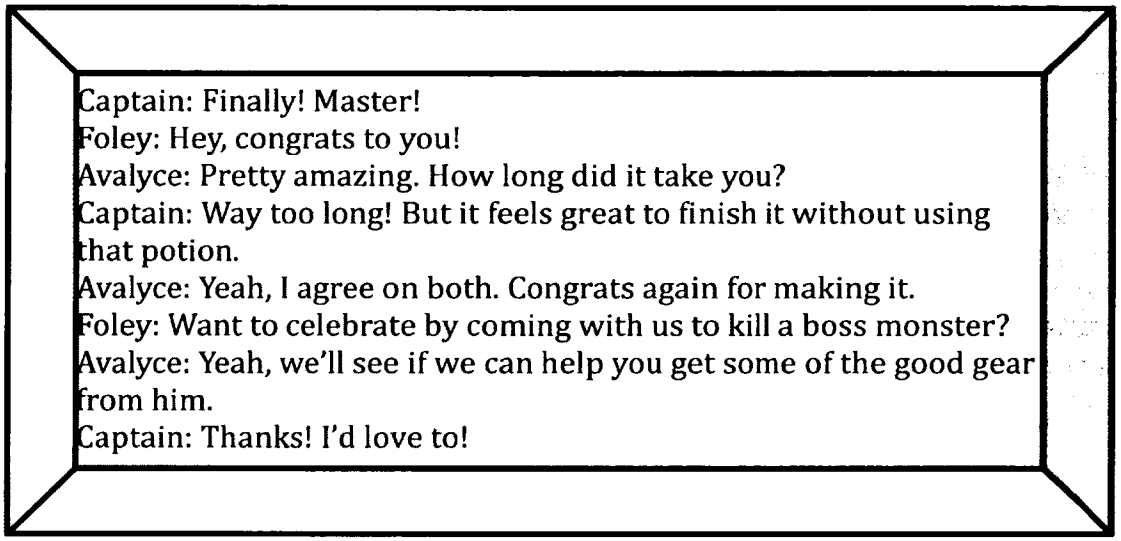
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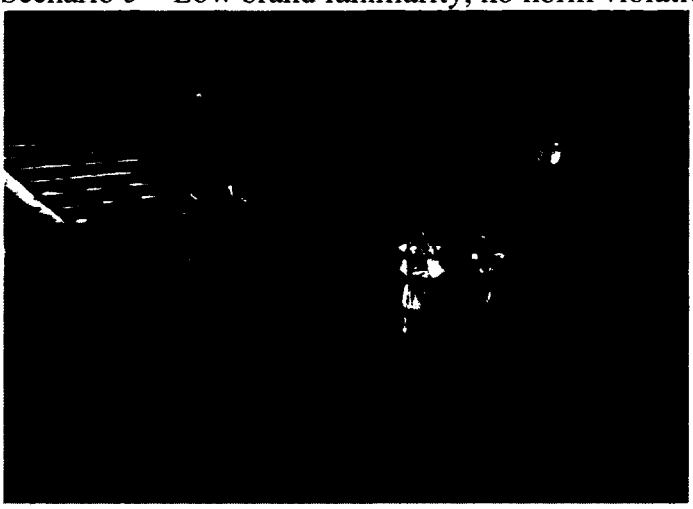
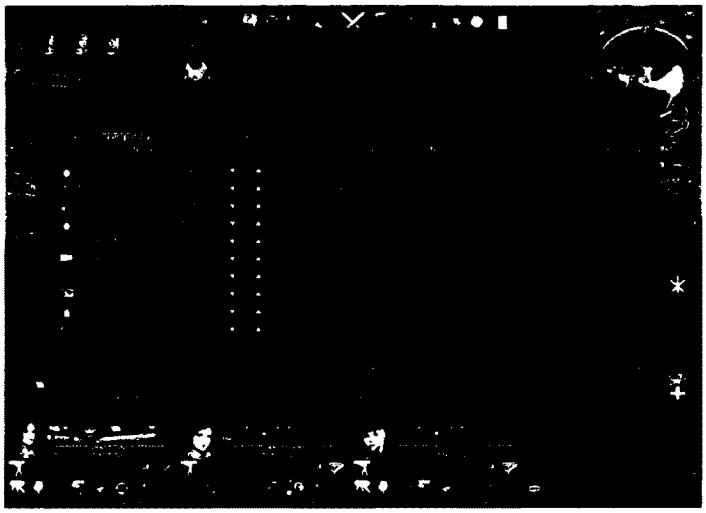
Avalyce: Yeah, I agree on both. Congrats again for making it.
Foley: Want to celebrate by coming with us to kill a boss monster?
Avalyce: Yeah, we'll see if we can help you get some of the good gear from him.
Captain: Thanks! I'd love to!

Scenario 5 – Low brand familiarity, no norm violation, private display of results



Players in the world

Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is the property of a company called T3Fun. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.



"Booster Pack"

In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from T3Fun to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times

per week. As long as the booster pack is in effect, the character on screen exhibits no noticeable or visible changes to their appearance nor does the virtual world indicate that anything is different. No indication is made as to when a player actually "levels up."

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Foley: I do my best to make sure mine never runs out. Makes things way easier.
Mikael: Cool. Maybe I should start doing that. Want to go try to take out a boss somewhere?
Avalyce: Sure, sounds great. Let's go.

Scenario 6 – Low brand familiarity, no norm violation, public display of results

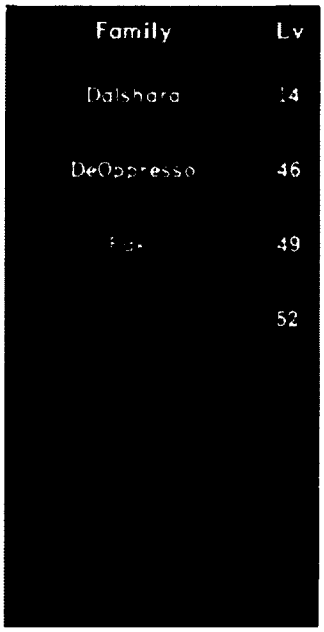
Players in the world

Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is the property of a company called T3Fun. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.

Booster Pack

In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from T3Fun to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level

up" twice as fast compared to those who did not use the booster pack. The item is a one-time use potion that lasts for two hours of use, but can be purchased up to 10 times per week. As long as the booster pack is in effect, the character on screen exhibits an aura that is visible to other players (see blue aura in first picture). Similarly, the system broadcasts an "up and comers" list that details who has made the most progress on their levels in the past 24 hours. This list is visible by everyone and lists the level that the player has obtained. White names on the list have leveled up without the use of the booster pack. Green names on the list have leveled up while using the booster pack. The yellow names have used the booster pack multiple times in succession. (See immediately below for an example)



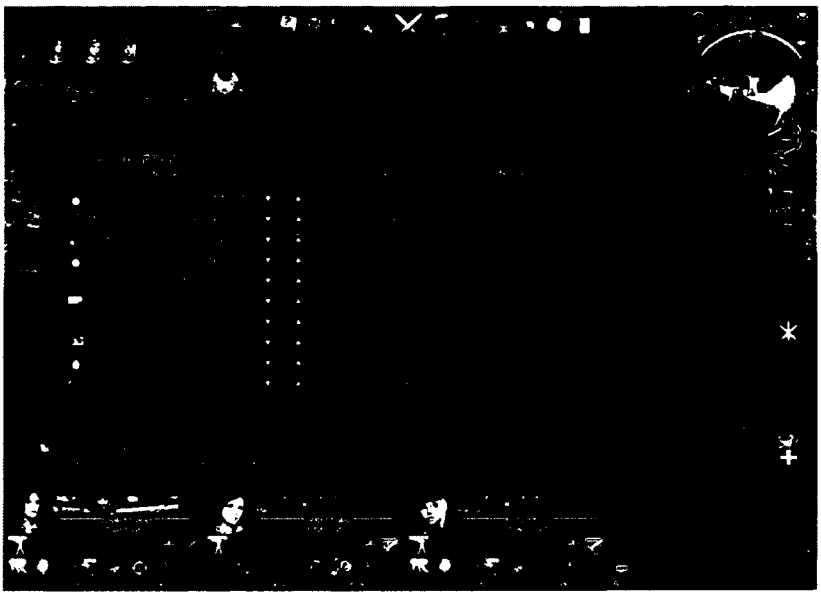
Finn has never purchased any of the enhancement items. He has reached level 60 on his own performance but his progress is slowing. Several friends have praised Finn's performance in the game. However, since progress has slowed, he is contemplating the purchase of these items to speed up the process. He wants to reach the higher levels so he and his friends can attempt to fight higher level monsters and get noticed by the other players. As he moves through the world, he notices that many other players seem to talk very often about the use of the items to help them progress (see example below).

Mikael: Hey, I made Master!
Foley: Congrats! How long did it take you?
Mikael: Not long with this potion I bought.
Avalyce: Yeah, that does make it go a lot faster.
Foley: I do my best to make sure mine never runs out. Makes things way easier.
Mikael: Cool. Maybe I should start doing that. Want to go try to take out a boss somewhere?
Avalyce: Sure, sounds great. Let's go.

Scenario 7 – Low brand familiarity, norm violation present, private display of results

Players in the world

Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is the property of a company called T3Fun. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.



Booster Pack

In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from T3Fun to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times per week. As long as the booster pack is in effect, the character on screen exhibits no noticeable or visible changes to their appearance nor does the virtual world indicate that anything is different. No indication is made as to when a player actually "levels up."

Finn has never purchased any of the enhancement items. He has reached level 60 on his own performance but his progress is slowing. Several friends have praised Finn's performance in the game. However, since progress has slowed, he is contemplating the purchase of these items to speed up the process. As he moves through the world, he notices that many other players seem to scorn the other players that have seemed to level too quickly, often refusing to help when asked (first chat example below). However, those that do not brag about the potion or level too quickly are often treated much better (second chat example below).

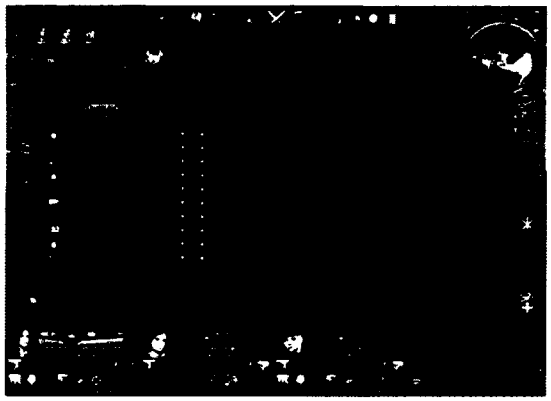
Mikael: Hey, I just got Master!
Foley: Yeah, and?
Avalyce: Must have been easy to do it with that potion, huh?
Mikael: Uh, what do you mean?
Foley: You took the easy way out. You didn't earn anything. I've got no respect at all for anyone that does it that way.
Avalyce: Cheap and lazy. Anyone could do it that way.
Foley: And forget any of us helping you later. No one helps a cheater but other cheaters.

Captain: Finally! Master!
Foley: Hey, congrats to you!
Avalyce: Pretty amazing. How long did it take you?
Captain: Way too long! But it feels great to finish it without using that potion.
Avalyce: Yeah, I agree on both. Congrats again for making it.
Foley: Want to celebrate by coming with us to kill a boss monster?
Avalyce: Yeah, we'll see if we can help you get some of the good gear from him.
Captain: Thanks! I'd love to!

Scenario 8 – Low brand familiarity, norm violation present, public display of results

Players in the world

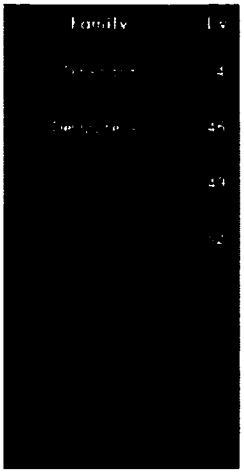
Finn spends a lot of time playing online games including one known as ***Sword of the New World***, a virtual world that is the property of a company called T3Fun. The game itself costs nothing to play. The goal of the game is to complete various quests and defeat nasty monsters, unlocking new powers and entries into new lands along the way. Communication can easily be broadcast to the entire server, allowing people to be alerted as to when someone levels up or to congratulate other players on their progress.



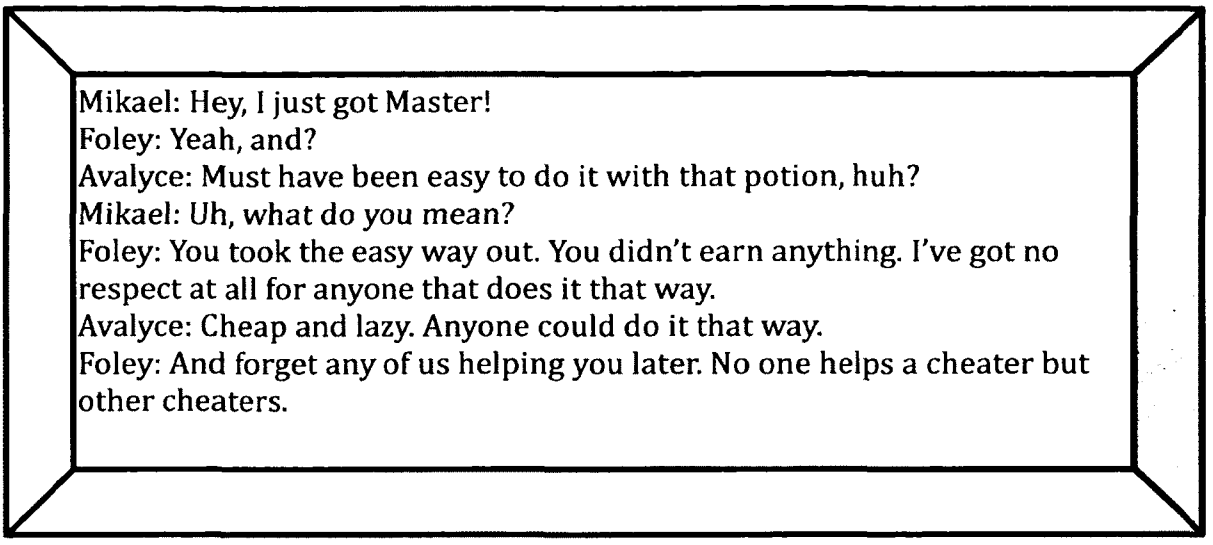
Booster Pack

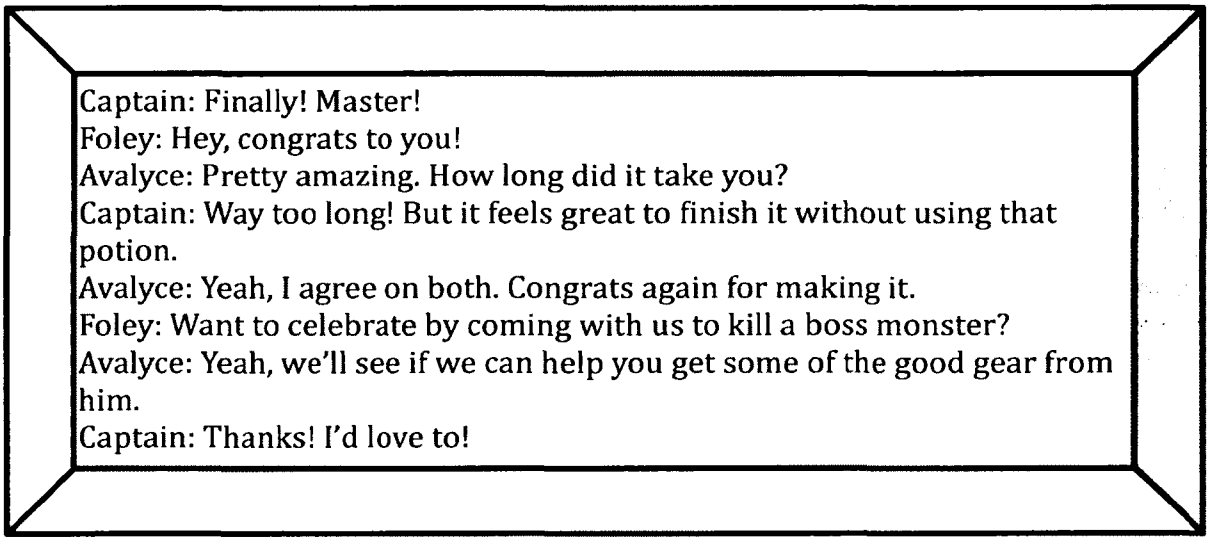
In this world, if Finn, or any other player, progresses from level 1 all the way through level 100, he will earn the title of "Master." Some players have been involved for over a year and are still below level 50. However, players can purchase premium items from T3Fun to unlock performance skills and speed up progress. Finn would like to obtain a booster pack, or "potion," that some players brag about because they can "level up" twice as fast compared to those who did not use the booster pack. The booster pack is a one-time use item that lasts for two hours of use, but can be purchased up to 10 times per week. As long as the booster pack is in effect, the character on screen exhibits an aura that is visible to other players. Similarly, the system broadcasts an "up and comers" list that details who has made the most progress on their levels in the past 24 hours. This list is visible by everyone and lists the level that the player has obtained. White names on the list have leveled up without the use of the booster pack. Green names on the list have

leveled up while using the booster pack. The yellow names have used the booster pack multiple times in succession. (See example immediately below)



Finn has never purchased any of the enhancement items. He has reached level 60 on his own performance but his progress is slowing. Several friends have praised Finn's performance in the game. However, since progress has slowed, he is contemplating the purchase of these items to speed up the process. He wants to reach the higher levels so he and his friends can attempt to fight higher level monsters and get noticed by the other players. As he moves through the world, he notices that many other players seem to scorn the other players that have the aura and have their name on the list, often refusing to help when asked (first chat example below). However, those that do not have the aura or show up as colored names on the leaderboard are often treated much better (second chat example below).


Mikael: Hey, I just got Master!
Foley: Yeah, and?
Avalyce: Must have been easy to do it with that potion, huh?
Mikael: Uh, what do you mean?
Foley: You took the easy way out. You didn't earn anything. I've got no respect at all for anyone that does it that way.
Avalyce: Cheap and lazy. Anyone could do it that way.
Foley: And forget any of us helping you later. No one helps a cheater but other cheaters.


Captain: Finally! Master!
Foley: Hey, congrats to you!
Avalyce: Pretty amazing. How long did it take you?
Captain: Way too long! But it feels great to finish it without using that potion.
Avalyce: Yeah, I agree on both. Congrats again for making it.
Foley: Want to celebrate by coming with us to kill a boss monster?
Avalyce: Yeah, we'll see if we can help you get some of the good gear from him.
Captain: Thanks! I'd love to!

APPENDIX B

HUMAN USE APPROVAL LETTER

LOUISIANA TECH
UNIVERSITY

OFFICE OF UNIVERSITY RESEARCH

MEMORANDUM

TO: Mr. Nathaniel McDougle and Dr. Babin

FROM: Barbara Talbot, University Research

SUBJECT: HUMAN USE COMMITTEE REVIEW

DATE: June 18, 2013

In order to facilitate your project, an EXPEDITED REVIEW has been done for your proposed study entitled:

"The Impact of Narcissism on Value Evaluations Resulting from Virtual Good Purchases"

HUC 1100

The proposed study's revised procedures were found to provide reasonable and adequate safeguards against possible risks involving human subjects. The information to be collected may be personal in nature or implication. Therefore, diligent care needs to be taken to protect the privacy of the participants and to assure that the data are kept confidential. Informed consent is a critical part of the research process. The subjects must be informed that their participation is voluntary. It is important that consent materials be presented in a language understandable to every participant. If you have participants in your study whose first language is not English, be sure that informed consent materials are adequately explained or translated. Since your reviewed project appears to do no damage to the participants, the Human Use Committee grants approval of the involvement of human subjects as outlined.

Projects should be renewed annually. ***This approval was finalized on June 18, 2013 and this project will need to receive a continuation review by the IRB if the project, including data analysis, continues beyond June 18, 2014.*** Any discrepancies in procedure or changes that have been made including approved changes should be noted in the review application. Projects involving NIH funds require annual education training to be documented. For more information regarding this, contact the Office of University Research.

You are requested to maintain written records of your procedures, data collected, and subjects involved. These records will need to be available upon request during the conduct of the study and retained by the university for three years after the conclusion of the study. If changes occur in recruiting of subjects, informed consent process or in your research protocol, or if unanticipated problems should arise it is the Researchers responsibility to notify the Office of Research or IRB in writing. The project should be discontinued until modifications can be reviewed and approved.

If you have any questions, please contact Dr. Mary Livingston at 257-2292 or 257-5066.

[illegible] • PHONE [illegible] • FAX (318) 257-[illegible]