아바타 사용자와 비사용자

개인적 특성 및 버추얼 광고에 대한 태도의 차이

국문초록

아바타는 인터넷을 사용하는 사람들이 그들의 모습을 인터넷상에 구현하기 위해 만든 일종의 애니메이션 형태의 물체이다. 최근 아바타를 사용하는 사람들이 아바타를 위한 공간들이 폭증하고 있음에 주목. 기업들은 아바타 사용자들을 버추얼 세계뿐만 아니라 오프라인의 일반적 세상 속에서도 유효하려는 다양한 광고 수단들을 시도하고 있다. 따라서 다음과 같은 질문이 적절하다고 생각된다. “아바타 사용자들이 소유하고 있는 광고 전반에 대한 태도는 어떠한가?” 혹은, “아바타를 사용하는 사람들이 아직 사용하지 않는 사람들 간에 광고에 대한 태도와 관련하여 중요한 차이는 없는가?” 본 연구는 위의 두 가지 질문에 대답하기 위한 조사들이 외에, 아바타 사용자들의 소비자적인 특성들을 대해서도 관심을 갖는다. 예를 들어, 참여자들의 자아 존중감(self-esteem), 사회적 비교의 정도(social comparison orientation) 그리고 물질주의 성향(materialistic orientation)에 대해서도 아바타 사용자, 비사용자를 대상으로 살펴볼 것이다. 본 연구는 또한 아바타 사용자들이 비용이 소언 버추얼 월드에 존재하는 광고물들에 대해 갖는 태도도 조사한다. 본 연구의 결과, 아바타를 사용하는 사람들이 가상 현실 속에 존재하는 광고물들에 대해 훨씬 강력한 긍정적 이미지를 가지고 있을 뿐 아니라, 물질주의적 성향(materialism)도 비사용자들에 비해 훨씬 높은 것으로 밝혀졌다.

주제어: 아바타, 인터넷/가상현실, 가상현실 광고, 자존감, 사회적 비교 수준, 물질주의 성향, 소비자행동

* 유현재는 서강대학교 신문방송학과 조교수이며, 헬스커뮤니케이션 캠페인, 광고 캠페인, 커뮤니케이션 조사방법론 등을 강의하고 있다. 미국 조지아대학에서 헬스커뮤니케이션과 광고 전공으로 석사 및 박사 학위를 취득하였다. 10편의 논문을 The Journal of Advertising 등 국제저널에 게재하였으며, 국제 커뮤니케이션 학회(ICA), 미국광고학회(ASA) 등의 국제학술 대회에서 헬스커뮤니케이션과 광고 수용자 효과 등을 주제로 약 50편의 논문을 발표하였다. 유학 전에는 금강기획과 제일기획에서 7년 동안 캐피탈리스트로 근무하였으며, 현대자동차 아반떼 '한번 가름 남고 서울부산 황금' 캠페인, KT 메가패스 '유플 상쾌동행' 캠페인 등을 제작한 바 있다(e-mail: bus89@sogang.ac.kr).
According to a recent report (Docksai, 2008), a popular virtual space for avatars, SecondLife (www.secondlife.com), had about 500,000 active subscribers in mid-2007. In addition, about 7 million Yahoo avatars and more than 9 million World of Warcraft avatar users exist worldwide (Docksai, 2008; Krotoski, 2006). Moreover, several media reports and studies expect that the number of avatar users and the availability of cyber places for avatars will increase in the near future (Holzwarth, Janiszewski, and Neumann, 2006; Kang and Yang, 2006).

Highly impressed by the popularity of avatars and virtual spaces on the Internet, many companies have been creating diverse virtual space advertisements (i.e., from regular banner advertisements to product/brand placements) that target avatar users (Barlow, Siddiqui, and Mannion, 2004; Redmond, 2002). The companies that run virtual space advertising and other marketing efforts to avatar users include big corporations, such as Coca-Cola, Daimler Chrysler, and Nike (Hemp, 2006). Even though the companies are conducting different types of advertising, such as product placements, banner advertisements, or booths for experiencing brands, all of them generally believe that carrying out advertising specifically created for avatar users could be very helpful for their sales, both online and offline (Moon, 2000; Chung, Shearman, and Lee, 2006). Most of the advertisers plan to increase their amount of advertising to keep or increase the amount of advertising that focuses on avatar users in virtual places (Bruno, 2006; Moon, 2000). Most of the companies plan to increase spending on advertising that targets avatar users in virtual places.

Despite the increasing advertising to avatar users, little research has been done to address the avatar users’ actual attitudes toward virtual space advertising (Krotoski, 2006; Louie, 2007). Most companies have been increasing the advertising that targets avatar users based upon the general belief that avatar users would enjoy the advertisements more than the non-users (Galanxhi and Nah, 2007). Empirical data has never shown whether avatar users have more positive attitudes toward virtual advertisement than non-avatar users (Book, 2006; Holzwarth, Janiszewski, and Neumann, 2006; Krotoski, 2006).

Our exploratory study investigates the avatar users’ attitude toward virtual space advertising in an attempt to add a needed piece of empirical evidence to the related literature. By comparing the attitudes toward virtual space advertising between avatar users and non-users, the results will illuminate the avatar users’ actual opinions about virtual space advertising. Furthermore, since a lot of advertising literature indicates that understanding people’s major personal characteristics can help determine people’s genuine opinions about advertising, this study also examines three important characteristics of people as consumers in advertising research: self-es-
Avatars and Avatar Users

Neal Stephenson used the word avatar in his science fiction novel *Snow Crash* in 1993. Since then, the term has become universal (Chung, Shearman, and Lee, 2006). Furthermore, after the introduction of the Internet, avatar usage has gained popularity as more Internet users adopted it, and thenumber of spaces in which avatars can be used has also increased dramatically (Barlow, Siddiqui, and Mannion, 2004). The avatar has come to mean a graphic icon that represents users in three-dimensional (3D) or virtual-reality games and chat rooms (Nowak, 2000). Avatars have been differentiated from sales agents, which companies have utilized by to represent their brands. According to Nowak (2000), the difference between the avatar and a regular sales agent lies in whether the entity behind the character acting as the puppeteer is a human in real time or an autonomous computer program.

The word “Avatar” is the combination of the two Sanskrit words “Ava” (i.e., descend or pass) and “terr” (beneath or earth). In 1998, Bahorsky, Graber, and Mason defined avatar as “a pictorial representation of a human being in a chat environment.” As avatars have become more common, several other definitions for avatars have been suggested. Those definitions include “a representation of the user as an animated character in virtual worlds” (Loos, 2003, p. 17). Avatars facilitate the relationship not only between the users and the space itself, but also among the users within the space.

*SecondLife* (www.secondlife.com) is one of the leading virtual spaces for avatars and avatar users today. Currently, about 500,000 active users interact in the *Second Life* virtual world (Docksaï, 2008). *SecondLife* provides a virtual version of almost everything that people encounter in the real world: shopping malls, bars, schools, show rooms for furniture, places for role-playing games, cafés, and even ATMs, where avatars can withdraw and deposit Linden dollars, the official currency in the world of *SecondLife*. Avatars can also buy high-fashion outfits from designer clothing shops, such as QuizQuiz (http://www.quizquiz.com), where the cost of avatar clothing ranges from $1-5. After they opened in 2006, QuizQuiz made an estimated $160,000 a month (Hemp, 2006). About 120,000 avatars (or avatar users) stopped by the virtual shop and bought products. Even though it may not be worthwhile to compare the avatar worlds’ marke tvalue to the real world’s mar-
ket value, the fact is that the purchasing power of avatars is on the rise (Kim, 2002).

**Ads to Avatar Users: A Trend in Virtual Worlds But, How Much Do We Know about the People Behind Avatars?**

Many companies are now recognizing the importance of conducting virtual space advertising that specifically targets avatar users (Krotoski, 2006). There are several types of advertising currently used in virtual worlds, including product placement (PPL), advergames, advertising that resembles offline advertising, adverworlds, and the use of avatars themselves as advertising agents.

Product placement in virtual spaces entails placing the company’s logo, brand name, or slogan in a location where the avatars might walk and interact (Qiu and Benbasat, 2005). Even though the concept of PPL is not new in the advertising field, with the development of online culture, including avatars and advergames, the types of product placement are rapidly diversifying (Hemp, 2006; Mallinckrodt and Mizerski, 2007). By mainly using open spaces in virtual worlds, advertisers can adapt offline strategies to the virtual environment. Using offline-style advertising, for example, the advertiser can place the brand name or logo on the wall of a virtual bar or the screen of a virtual theater (Allen, et al., 2002).

“Adverworlds” (Hemp, 2006) provide real experiences for avatars about specific products or brands in virtual spaces. For example, Coca-Cola created the Coke Virtual Studios in which mainly teen avatars could get various brand experiences of Coke, including drinking all kinds of Coca-Cola and enjoying commercials. When an avatar drinks one virtual Coke in the adverworld, the avatar will not only get the drink, but also will be granted some bonus points by the studio so that the avatar can use the points for other activities, such as listening to his or her favorite music in the virtual space (Hemp, 2006). In addition to Coca-Cola, many other big corporations are running their own adverworlds for avatar consumers in virtual worlds to provide them with the brands’ unique experiences.

Advertisers also use avatars as advertising agents to communicate with other avatars primarily as a method for establishing interpersonal relationships between consumer avatars and company representative avatars (Holzwarth, Janiszewski, and Neumann, 2006). Holzwarth, Janiszewski and Neumann (2006) indicated that conveying the brand information by avatars as advertising agents is an effective solution to overcoming the impediment to Web-based retail sales, which is the impersonal nature of Web-based shopping (2006).
Understanding People’s Characteristics as Consumers: One Good Way to Plan More Effective Advertising

Several self-concepts (e.g., self-esteem, self-efficacy or body-esteem) have been utilized in advertising and marketing studies in order to figure out the possible relationships between people’s personal characteristics and their responses to advertising (Rosenberg, et al., 1995; Bjerke and Polegato, 2006; Hong and Zinkhan, 1995). Rosenberg (1979) suggested a definition of self-concept as the totality of the individual’s thoughts and feelings that have reference to him or herself as an object of thought. To date, many researchers have generally agreed with this definition of self-concept (Reed II, 2002). The gist of Rosenberg’s definition is that self-concept is not about an objective evaluation of the person. Rather, it is the “subjective thoughts and perceptions” one has about oneself (Mehta, 1999). In other words, self-concept is an individual’s own evaluation of self conducted by him or herself (Awad and Voruganti, 2004). Several related terms have been introduced that indicate a similar meaning about the self in both practical and academic fields, such as “self-schemata” (e.g., Mehta, 1999), “self-image” (e.g., Birdwell, 1968), and “self-efficacy” (e.g., Madej, 1999). The importance of self-concept has been particularly emphasized in the field of advertising and marketing (Ruiz and Sicilia, 2004). Even though most studies were not about Internet or virtual space advertising, some have tried to determine the relationship between self-concept and people’s typical perceptions about advertising, such as advertising effectiveness (Hong and Zinkhan, 1995), product perception (French and Glaschner, 1971), and buying behaviors (Malhotra, 1988).

Several researchers have argued that an individual’s perception of self has a direct relationship to individual perceptions about advertising (Mehta, 1999; Schwer and Daneshvary, 1995). Sub-topics in the literature have been defined based on the relationship between self-concept and consumers’ advertising perceptions (Markus and Kitayama, 1991; Domzal and Kernan, 1993), as well as the linkage between self-concept and the purchase of specific products (Malhotra, 1988). In other words, the self-concept of consumers is considered to be a significant factor for predicting shopping behavior and reactions to advertising.

Uses and Gratification: A Theoretical Support for the Notion that There are Significant Differences between Avatar Users and Non Avatar Users

The basic assumption of this study is that there could be some significant differences in
terms of the attitudes toward virtual advertising between avatar users and non-avatar users. Since avatar users could be considered serious online users (Hemp, 2006; Mallinckrodt and Mizerski, 2007), the possible differences could be backed up by the theory of uses and gratification paradigm, which has been utilized by many researchers when they compare diverse characteristics between internet users and non/less users of the internet (Jun and Lee, 2007; Ruggiero, 2000). Compared to non/less users of the Internet, the heavy online users generally have stronger purposes or goals when they access the Internet (Cho and Jeon, 2005).

Based upon their initial purposes, they immediately seek their own gratifications from using Internet content (Cho, 2003). In terms of gratifications, the regular online users seek gratification when surfing the Internet for entertainment, passing time, relaxing, companionship, escape, diversion, surveillance, learning, and interpersonal communication (Parker and Plank, 2000). These gratification-seeking behaviors generally cause the heavy online users to have some type of addiction to the Internet (Ng and Wiemer-Hastings, 2005). Several researchers indicated that heavy online users easily lose their control for consuming the Internet content, and develop a serious habit of accessing the Internet to pursue their gratifications (Buzzel, Foss, and Middleton, 2006). Also, compared to non-heavy users, they exclusively rely on the Internet in a serious manner and have less desire for consuming content from other media (Jun and Lee, 2007). Finally, the different types of media consumption could cause the heavy users to have different personal characteristics as consumers (Jin and Choi, 2005; Jun and Lee, 2007). As an example, heavy Internet users have been considered to have compulsive buying behaviors when compared to non-heavy users (LaRose, Lin and Eastin, 2003).

In addition, the attitudes toward advertising could be totally different between the two groups since the heavy or regular online users could have less interest in the advertising they encounter in general because their behaviors are more goal-driven when they access the internet (Cho and Jeon, 2005). Including the Jun and Lee’s study (2007), several studies have used this uses and gratification frame to explain the possible differences in attitudes toward advertising among people depending on their level of internet usage (Papacharissi and Rubin, 2000). As for the personal characteristics that could cause people to have different attitudes toward virtual advertising, this study applied self-esteem (Rosenberg, 1979), social comparison orientation (Festinger, 1954), and materialistic orientation (Richins and Dawson, 1992) which have been used by many studies to investigate individuals’ attitudes toward advertising.
Self-Esteem and Attitude toward Advertising

Since Rosenberg (1979) introduced the notion of self-esteem, the majority of research in this area has dealt with “global self-esteem,” which is the individual’s positive or negative attitude toward the self as a totality (Rosenberg, et al., 1995). Global self-esteem is measured by a scale consisting of 10 questions about one’s overall self. In the last two decades, researchers have suggested several modified versions of self-esteems, which are called specific self-esteems (e.g., Mendelson’s (1995) body-esteem). These have been frequently used in advertising-related issues (Yu and Baek, 2008). The specific self-esteems were developed based on specific topics or fields, and are measured by diverse modified scales of self-esteem. However, most questions are used or developed from the original global self-esteem scale Rosenberg (1995) proposed. According to the findings from Rosenberg's 1995 research, general self-esteem and several specific self-esteems are not different in terms of quality. They are different in terms of specific purposes or in terms of usage. The research has also demonstrated that global self-esteem is more strongly related to psychological well-being, while specific self-esteem is a much better predictor of specific performance (e.g., school performance).

Researchers have indicated the need for more investigation into the possible relationship between self-esteem and one’s attitude toward advertising (Kennedy and Beruchashvili, 2007). Generally, the individuals’ self-esteem has been examined in connection with some consumer behaviors, such as product choices (Bjerke and Polegato, 2006). Hong and Zinkhan (1995) found that those who have a lower self-esteem level tend to show more compulsive consumption behaviors than those who have higher self-esteem. Lee and colleagues (2000) also found a significant relationship between self-esteem and compulsive buying. In their study, the people with lower self-esteem showed more compulsive behaviors when they buy products such as jewelry, clothing, cosmetics and exercise equipment (2000).

Others have tried to explain the characteristics of people with lower self-esteem. According to O’Guinn and Faber (1989), people with low self-esteem may turn to purchasing products and services as means to feel better about themselves. Therefore, they tend to choose and purchase a product not because of practical needs, but because of their compulsive desire. Some researchers also found that people’s self-esteem might influence the particular places where they go shopping. Reilly and Rudd (2007) indicated that people with low self-esteem may select specific venues for shopping, such as TV home shopping, because they feel more comfortable shopping through the television than through more traditional outlets. To ex-
plain this phenomenon, the researchers pointed out that people with low self-esteem might feel more positive reinforcement from television show hosts, who promote their products and encourage spending in a non-intimidating manner (Reilly and Rudd, 2007).

Several studies have discussed the relationships between people’s self-esteem and their specific attitude toward advertising spokespersons (presenters) or advertising models (e.g., Solomon, 1983). Generally, people with lower self-esteem tend to reflect themselves more into the models in advertising (Reilly and Rudd, 2006). Therefore, advertising might have a particularly strong effect on them compared to people with higher self-esteem.

Beside the relationships between self-esteem and a favorable attitude toward advertising spokespersons or models, research has also investigated people’s general attitude toward advertising in connection with their self-esteem level (Martin and Kennedy, 1994). Conseur, Hathcote and Kim (2008) found through their survey study that people with low self-esteem showed a more favorable attitude toward advertising in general than people with high-self esteem. Several researchers also indicted that people with high-self-esteem are less reliant on the information or messages from advertising (Mehta, 1999; Madej, 1999; Berry and Howe, 2004).

Social Comparison and Attitude toward Advertising

The social comparison theory originated with Festinger (1954). The theory’s fundamental focus is on understanding human behavior. According to the theory, people are willing to and routinely compare themselves with the models portrayed in media, such as those in television advertisements (Richins, 1991). This theory has enabled an understanding of diverse situations in consumer behaviors (Martin and Kennedy, 1994).

Social comparison has been one important element in finding out how people judge themselves (Gibbons and Buunk, 1999; Allan and Gilbert, 1995; Stapel and Blanton, 2004). In addition to the independent position and diverse usefulness of this concept itself in many cases (i.e., Morse and Gergen, 1970; Michinov and Michinov, 2001), core attributes of the social comparison concept have also been applied in several studies that deal with other self-concepts, including self-esteem (Stapel and Blanton, 2004). The primary goal of people’s social comparison is to acquire information about the “self” (i.e., Gibbons and Buunk, 1999). The important motivations for social comparison are self-evaluation, self-improvement, or self-enhancement (Wood, 1989; Gibbons and Buunk, 1999). As these studies indicated, social comparison orientation is the variable that distinguishes people who exhibit different degrees of un-
certainty about reality and self-knowledge. Using Gibbons and Buunk’s social comparison orientation(1999), different levels of social comparison were measured among individuals(Michinov and Michinov, 2001).

The reason that social comparison orientation can be used in related studies about self-concepts and advertising are twofold. First, as Diener and Fujita(1997) indicated, social comparison orientation can easily categorize people based upon characteristics, such as those who compare themselves to others and those who do not. In addition to the scale Diener and Fujita suggested, several hands-on scales were used to quantitatively measure an individual’s social comparison orientation. Due to the ease with which it can be measured, social comparison’s comprehensive relationship with self-concept has made it a popular research approach. As researchers indicated(Gibbons and Buunk, 1999; Festinger, 1954), the individual’s ultimate motivations for social comparison are enhancing self-esteem or self-concept. Therefore, based upon previous literature, it can be argued that social comparison could provide many valuable insights into a study about the self and others’ attitudes and behaviors. Social comparison is also related to the concept of self-esteem. According to Rosenberg, there are three main aspects of self-esteem formation(1989). Those aspects are: “reflected appraisals,” “self attribution,” and “social comparison.” Reflected appraisals mean that people judge themselves by what others think about themselves. Therefore, self-esteem is regarded as a product of social interaction. Self attribution is the way in which naive observers attribute motives, intentions, causes, and dispositions to themselves on the basis of self-observation of their own actions. Finally, the principle of social comparison holds that people judge themselves based upon comparisons with others because of a lack of information about themselves(Rosenberg, 1986). One study suggested a specific direction of the relationship between self-esteem and social comparison. Morse and Gergen(1970) have indicated that there is a negative relationship between social comparison and self-esteem. They showed that the socially desirable stimulus of a desirable person produces a significant decrease in self-esteem. The undesirable stimulus, however, significantly enhanced subjects’ self-esteem. Therefore, depending on the direction of comparison(upward or downward), self-esteem can vary.

Materialistic Orientation and Attitude toward Advertising

Generally, individuals’ materialistic orientation has been considered a negative trait rather than a positive or a neutral one(Kasser, 2002; Chan and Prendergast, 2007). According to Chan and her colleague(2007), materialistic
orientation encourages unnecessary shopping behaviors. Materialistic orientation was found to work against interpersonal relationships. It has been considered that the people’s materialistic orientation causes them to make purchase decisions based not upon logical reasons, but upon the desire for possessing goods or for subjective happiness (Kasser, 2002). Since the desire is less related to how much people practically need the product and more related to how much they want to possess the product, materialistic orientation has been thought of as a negative drive (Inglehart, 1993; Kasser, 2002).

In relation to advertising, research has found that people with higher levels of materialistic orientation have more positive attitudes toward advertising (Chan and Prendergast, 2007). Several researchers have also worked to find out the direction between the two. Some found that people’s high materialistic orientation causes them to have more favorable perceptions toward advertising (materialistic orientation → attitude toward advertising) (Kamineni, 2005). Other studies indicated an opposite direction between the two concepts (attitude toward advertising → materialistic orientation). Zhou, Xue, and Zhou (2002) found that frequent exposure to advertising can make people have higher materialistic orientation. Despite the dichotomous directions among the studies, it was clear that there is a significant relationship between people’s materialistic orientation and their attitude toward advertising.

Research Questions

As indicated above, people who use avatars frequently in their daily lives, and their characteristics as consumers, have not been studied enough in the advertising and marketing field (Holzwarth, Janiszewski, and Neumann, 2006). Most studies that deal with the characteristics of people as consumers and their attitudes toward advertising have been about non-virtual space advertising or have been investigated among non-avatar users. Therefore, this study formulated research questions to investigate the issues rather than hypotheses. The three types of personal characteristics were investigated: the level of self-esteem (Rosenberg, 1979), the orientation of social comparison (Gibbons and Buunk, 1999), and individuals’ materialistic orientation (Richins and Dawson, 1992). These three have been applied frequently by several researchers when they examined the possible relationships between the concepts and people’s attitudes toward advertising (e.g., Richins 1991, Stapel and Blanton, 2004; Yu and King, 2005; Russel and Cox, 2003). This study used a modified scale created by Yang (2004) to gauge people’s general attitude toward virtual space advertising. The following four research questions were investigated:

• RQ1: How does the avatar users’ attitude toward virtual space advertising differ from that of non
avatar users?

- RQ2: How do the avatar users’ characteristics as consumers (self-esteem, social comparison and materialistic orientation) differ from those of non avatar users?

- RQ3: What are the relationships among the three characteristics as consumer (self-esteem, social comparison, and materialistic orientation), the use of avatars, and the attitude toward virtual space advertising?

- RQ4: How much do the avatar users’ styles for managing their avatars (i.e., number of avatars they have, amount of time spent using avatars, and the frequency of changing their avatars) influence their personal characteristics as consumers (self-esteem, social comparison, and materialistic orientation) and the attitude toward virtual space advertising?

Method

Sample and Questionnaire

For participants in this study, the researcher recruited young adults between the ages of 18 and 25, the most active age group that uses avatars within the virtual world (Descy 2008; Kang, Watt, and Ala 2008). Students in two introductory courses at a journalism school in a university in the southeastern part of the U.S. were recruited for this study.

The present study’s survey questionnaire is divided into the three parts. First, the participants were asked about the use of avatars in their daily life. The questions address several aspects of the participants’ avatar management, such as (1) whether they currently have an avatar; (2) the number of avatar(s) the participants have; (3) the time/extent of avatar use in a week; (4) the frequency of changing avatars. The second part of the survey aimed to discern the participants’ three types of personal characteristics as consumers: self-esteem, social comparison orientation, and materialistic orientations. Finally, the last part of the survey asked participants about their general attitudes toward virtual space advertising. In the survey, there was detailed information for the participants about what constitutes virtual space advertising by showing some examples, such as product/brand placements in virtual spaces and advergames, which are the computer game-style advertisements conducted in virtual spaces. The reason the researcher provided this detailed explanation for the participants was to make the non avatar users have enough information to understand what virtual space advertising is because they have been less exposed to the advertising than current avatar users.

In order to measure self-esteem, this study used Rosenberg’s(1965) self-esteem scale because the scale has been used by several advertising related studies and has yielded reason-
The researchers recruited 651 participants for the survey. However, twenty-three surveys were considered useless since the participants did not complete more than 80% of the questionnaire. Therefore, a total of 628 young adults (ages 18-25) filled out the survey through www.surveymonkey.com. Among them, 531 participants were not using avatars at the time, and the 97 other participants (18.3%) had at least one avatar they used in the virtual world. The answers from the 628 participants were converted into a SPSS file and several statistical methods were conducted for the data analysis (T-test, Regressions, ANOVA). The results were summarized in the order of the research questions.

• RQ1: How does the avatar users’ attitude toward virtual space advertising differ from that of non-avatar users?

To check the possible differences in attitudes toward virtual space advertising between avatar users and non-avatar users, a series of independent t-tests was conducted. The differences were examined not only by index scores, which added up the scores of all the answers in the category, but also by the individual items in the category. As seen in Table 1, the mean difference of the index score for attitude toward virtual space advertising was significant ($p < .01$). The avatar users’ attitude toward virtual space advertising was significantly more positive than that of non-users. Among the 24 items that ask the participants’ attitudes toward virtual space advertising, 16 (67%) items showed significant differences in the answers from the two groups. In all the items having significant differences, the mean scores from avatar users were significantly higher than those from non-users (Table 1). The avatar users showed more positive attitudes toward virtual space advertising than non-users, such as “Virtual space advertising is a valuable source
Table 1 Differences in Attitude toward Virtual Space Advertising between Avatar Users and Non-Avatar Users

<table>
<thead>
<tr>
<th>Statements</th>
<th>t</th>
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<th>Sig</th>
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</thead>
<tbody>
<tr>
<td>Index Score: Attitude toward Internet Advertising (Cronbach alpha = .738)</td>
<td>4.157</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising is a valuable source of information about latest fashion</td>
<td>3.138</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising is a valuable source of information about local sales</td>
<td>2.979</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising helps me keep up to date with products/services available in the marketplace</td>
<td>4.257</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising provides information what is cool</td>
<td>3.92</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising promotes a materialistic society</td>
<td>2.755</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising encourages people to buy something to impress others</td>
<td>3.740</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising makes people live in a world of fantasy</td>
<td>2.271</td>
<td>626</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Virtual space advertising is essential</td>
<td>2.609</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising helps raise our standard of living</td>
<td>2.515</td>
<td>626</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Internet advertising results in better products for the public</td>
<td>2.120</td>
<td>626</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Virtual space advertising is a valuable source of information about how to establish personal taste</td>
<td>2.886</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>Virtual space advertising provides accurate information about product/services</td>
<td>.867</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Virtual space advertising is interesting and attractive</td>
<td>2.403</td>
<td>626</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Sometimes virtual space advertisements are even more enjoyable than other media contents</td>
<td>3.166</td>
<td>626</td>
<td>p &lt; .01</td>
</tr>
<tr>
<td>In general virtual space advertising does not provide a true picture of the product advertised</td>
<td>.461</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Virtual space advertising is an impersonal way of selling</td>
<td>.889</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Most virtual space advertising is misleading</td>
<td>2.521</td>
<td>626</td>
<td>p &lt; .05</td>
</tr>
<tr>
<td>Because of virtual space advertising, people buy a lot of things that they do not really need</td>
<td>.266</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Most virtual space advertising insults the intelligence of the average consumer</td>
<td>−1.631</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Virtual space advertising persuades people to buy things they should not buy</td>
<td>−.418</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Virtual space advertising promotes undesirable values in our society</td>
<td>.141</td>
<td>626</td>
<td></td>
</tr>
<tr>
<td>Most virtual space advertising distorts the values of our youth</td>
<td>−.339</td>
<td>626</td>
<td></td>
</tr>
</tbody>
</table>

Another series of independent t-tests was conducted to look for significant differences in the characteristics of avatar users as compared to non-avatar users.
in the three self-concepts between avatar users and non-users. The differences were checked not only for the total index scores, but also for scores for individual items. First, there was not one statement with a significant difference among the items in the scale for self-esteem. The total index scores of self-esteem from the two groups were not significantly different either. Even though the total index scores were not significantly different in the social comparison orientation either, one statement ("I often compare how my loved ones (boy or girlfriend, family members) are doing with how others are doing.") among the 10 items showed a significant difference between the answers from avatar users and non-users ($p < .05$). Avatar users’ mean scores were higher than those of non-users. Materialistic orientation, on the other hand, yielded more significant results. Among the 18 items that examine individuals’ materialistic orientations, seven items showed significant differences between the answers from the two groups, such as "I admire peo-
ple who own expensive homes, cars, and clothes,” “Some of the most important achievements in life include acquiring material possessions,” and “I like to own things that impress people.” The results from all the items for materialistic orientation are presented in Table 2. It was found that the 18 statements about individuals’ material orientation asked the same topic by an acceptable Cronbach alpha(.779).

- RQ3: What are the relationships among the three characteristics as consumers(self-esteem, social comparison, and materialistic orientation), the use of avatars, and the attitude toward virtual space advertising?

Correlations

Correlations among all the variables that this research question asks are seen in Table 3. There were some significant correlations among the variables, even though the directions(negative or positive) were different. Regarding the positive relations, the five relationships were found significant; (1) social comparison and materialistic orientation, (2) the attitudes toward virtual space advertising and social comparison, (3) the attitudes toward virtual space advertising and materialism, (4) avatar use and the attitude toward virtual space advertising, and (5) avatar use and materialistic orientation. The relations indicated above were significantly meaningful. On the other hand, some negative relations were also found. The pairs showing negative relations were (1) self-esteem and social comparison, (2) self-esteem and materialistic orientation, and (3) avatar use and self-esteem. The negative relationships were all statistically meaningful.

It was confirmed that there was no multicollinearity problem(without the word problem) in the present study.
Table 4  Main Effects of the Independent Variables from Multiple Regression

<table>
<thead>
<tr>
<th>IVs</th>
<th>R</th>
<th>R²</th>
<th>R² adj</th>
<th>ΔR²</th>
<th>F₁,₁₀₀</th>
<th>P</th>
<th>df 1</th>
<th>df 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV: General attitude toward virtual space advertising</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVs: Self-esteem</td>
<td>.064</td>
<td>.004</td>
<td>.002</td>
<td>.009</td>
<td>2.552</td>
<td>&lt; .05</td>
<td>1</td>
<td>626</td>
</tr>
<tr>
<td>Social comparison</td>
<td>.155</td>
<td>.024</td>
<td>.021</td>
<td>.095</td>
<td>12.862</td>
<td>&lt; .001</td>
<td>1</td>
<td>625</td>
</tr>
<tr>
<td>Materialism</td>
<td>.214</td>
<td>.046</td>
<td>.041</td>
<td>.138</td>
<td>14.198</td>
<td>&lt; .001</td>
<td>1</td>
<td>624</td>
</tr>
<tr>
<td>Usage of avatars</td>
<td>.259</td>
<td>.067</td>
<td>.067</td>
<td>.147</td>
<td>14.156</td>
<td>&lt; .001</td>
<td>1</td>
<td>623</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

Regression Analysis

To answer our research question, a series of multiple regressions was used to reveal the main effects of the four independent variables (self-esteem, social comparison orientation, materialistic orientation, and the use of avatars) on one dependent variable (general attitude toward virtual space advertising). The first multiple regression was run to determine what independent variables could predict the dependent variable. A data screening process for regression led to the elimination of 23 cases as outliers that were poorly completed. Therefore, the total sample became 628. Evaluation of linearity led to the natural log transformation of self-esteem, social comparison orientation, materialistic orientation, and the use of avatars. As seen in Table 4, the regression results indicated that the three independent variables significantly predicted the attitude toward virtual space advertising in general (Social Comparison: R² = .024, R² adj = .021, F(1,625) = 7.731, p < .001 / Materialism: R² = .046, R² adj = .041, F(1,624) = 9.996, p < .001 / Usage of Avatars: R² = .067, R² adj = .061, F(1, 623) = 11.194, p < .001).

Therefore, it was found that the three independent variables significantly influenced the dependent variable, which is the individuals’ general attitude toward virtual space advertising.

We saw different patterns when the participants’ self-esteem was used as a dependent variable,

- RQ4: How much do the avatar users’ styles for managing their avatars (i.e., number of avatars they have, amount of time spend using avatars, and the frequency of changing their avatars) influence their personal characteristics as consumers (self-esteem, social comparison, and materialistic orientation) and their attitudes toward virtual space advertising?

The last research question explored the participants’ styles for managing avatars, for those who had avatars. Using more specific
information about avatar usage (i.e., number of avatars they have, amount of time spent using avatars, and the frequency of changing their avatars), possible differences of the personal characteristics and the participants’ attitudes toward virtual space advertising were examined.

When the number of avatars people have is used as the independent variable in the ANOVAs, applying the four items as dependent variables (self-esteem, social comparison, materialistic orientation, and the attitudes toward virtual space advertising), materialistic orientation and the attitude toward virtual space advertising showed significant differences among participants. The participants were grouped into three groups based upon the number of avatars they used (which were 0 ∼ 1, 2 ∼ 3, and 4 or more). In both cases, those who had two or three avatars registered higher scores than participants in the other two groups.

When the average time of avatar use in a week was used as the independent variable, only one dependent variable showed significant difference among the participants. Even though the participants who used avatars for about six hours in a week showed the highest scores in the attitude toward virtual space advertising, this result needs to be interpreted with caution because more than 80% of participants were in the first category. This is less than 2 hours in a week. There was a serious unbalance among the groups in terms of the time spent using avatars.

Lastly, the frequency of changing the appearance of avatars was used as the independent variable. Among the four dependent variables, ANOVA tests revealed that only the attitudes toward virtual space advertising showed significant differences depending on the frequency of changing avatars. The participants that changed their avatars’ appearance about every three months showed more positive attitudes toward virtual space advertising than other participants.

Discussion

To Advertisers and Marketers: Clicking-Through-Rate Should Not be the Only Consideration When Selecting a Vehicle for Virtual Space Advertising

In choosing an advertising vehicle, the number of people who are to be exposed has been one of the most critical considerations for a long time, not only for traditional advertising media but also many non-traditional media (Kishel 2007). Based upon the results of the present study, the advertisers and marketers need to consider one more condition when they think about the right place for their virtual space advertisement: whether a virtual place has an avatar-user friendly structure or not. It was found that avatar users in
particular, as compared to other online users, are more willing to enjoy virtual space advertising than non-avatar users. As many Internet or virtual advertising researchers have indicated, the positive attitudes toward advertising could result in more positive outcomes, such as more transactions on the websites (Huang and Lin 2006). As this study found, avatar users’ general attitude toward virtual space advertising was significantly more positive than non-users.

Despite the sizeable increase in the amount of virtual space advertising, aspects of choosing better vehicles among the tons of virtual places have been under-investigated (Huang and Lin, 2006). Users’ click-through-rate (CTR) has been considered the only factor when choosing a specific virtual place for advertising (Robinson, Wysocka, and Hand, 2006). However, some researchers have suggested that more specific considerations in addition to the click-through-rate need to be applied for more effective advertising results (Robinson, Wysocka, and Hand, 2006), such as the context of the places (Moore, Stammerjohan, and Coulter, 2005), sophistication of the design on the places (Lothia, Donthu, and Hershberger, 2003), and even frequent users’ behavioral characteristics (Micu, 2005). This study’s results add one more crucial consideration, namely the avatar-friendly structure on the virtual space where the advertisement is placed. Since this study’s results also found that avatar users had higher scores in materialistic orientation than non-users, higher marketing effects will be expected as well. In other words, the avatar users are not only more favorable to virtual space advertising, but they are also more likely to spend their money on the spot compared to other non-avatar users. Therefore, the results provide a critical reference for advertisers and marketers about the criteria they should consider when they choose a specific vehicle for virtual space advertising.

The Factors that Improve Attitudes toward Virtual Space Advertising: Incentives, Incentives, and Incentives

Three major personal characteristics were applied in this study. The results showed that not all the characteristics influence people’s attitudes toward virtual space advertising. As opposed to self-esteem, social comparison and materialistic orientation were significant factors that determined people’s attitude toward virtual space advertising. Most items in the materialistic orientation scale were significantly and positively related to people’s general attitude toward virtual space advertising. The results could mean that the avatar users were found to be potentially more loyal to virtual space advertising or the diverse incentives that such advertising provides. In fact, awarding real benefits has been indicated as one of the most crucial fac-
tors that make online advertising more effective (e.g., Yang, 2004). Compared to other advertising media, the impact of other factors that influence the audience’s attitudes (e.g., creativity, design, messages) will be minimized in online advertising because of the incentives’ importance (Cho and Cheon, 2004). This links to the people’s general expectations from the virtual space advertising.

According to several researchers (Tedeschi, 2003; Porter, 2003; Li and Leckenby, 2004), most Internet users anticipated some kind of incentives from online advertising. Therefore, we could assume that providing diverse opportunities to get incentives or other practical benefits will significantly influence people’s attitude toward virtual space advertising. The results from this study offer yet another good example for this notion. Rather than enhancing other factors (e.g., creativity, brand image, brand awareness), advertisers need to invest more in developing practical benefits for consumers when they are planning virtual space advertising. The present findings found that stimulating consumers’ materialistic orientation will encourage them to stay and enjoy the virtual space advertisement.

Limitations and suggestions

First, the unbalanced distribution of cases within the sample in terms of avatar use could be one of the most important limitations of this study. Even though the ratio between the two groups, about 17% (97 avatar users and 579 non-users), was not problematic for the statistical comparison based upon several previous studies (e.g., Paek, Yu and Bae, 2008), more balanced samples could produce more meaningful implications regarding this issue. Recruiting more avatar users is recommended for future research.

The structure of the survey can produce another limitation. In the survey, the participants were asked about their avatar use with a question, which was, “Do you have an avatar you use in a virtual world?” Because there are many different types of virtual worlds, where avatars are used, it might be better if participants were asked about the use more specifically. For example, the avatar use in the secondlife.com and facebook.com are different in many aspects. In secondlife.com, avatar users do not have to reveal their personal information at all. It’s totally up to individual users. However, on facebook.com, users need to provide their personal information to communicate with the other users to enjoy that virtual world. Therefore, the reasons for why people use the avatar and the website could be totally different. People’s personal characteristics as consumers could be very different as well. Future studies need to examine the characteristics within the avatar users of diverse types of websites.

Using the findings from this study as a
springboard, future research could also explore what types of virtual space advertising are more preferable to avatar users. Since there are a lot of different types of virtual space advertising, the possible influence of specific types of virtual space advertising on audiences’ attitude will provide an important insight into more effective advertising campaigns in virtual worlds.
References


Chung, Donghun, Shearman, Sachiyo Morinaga, & Lee, Seung Hee (2006). Why Young People Purchase Avatar-Related Products in Cyberspace?: An Analysis of the Variables Influencing...


Madej, Patricia (1999). The Impact of Female Adolescents’ Attitudes toward Advertising, Locus of Control, Self-efficacy on Body image and Eating habits, *Dissertation Abstracts International Section A: Humanities and Social Sciences, 60*(1-A), 0073.


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Abstract

Avatar Users and Non Avatar Users
: People’s Characteristics and Their Attitudes toward Virtual World Ads

Hyunjae Yu
Ph.D., Assistant Professor, School of Communication, Sogang University

Avatars are Internet users’ representations that are created and utilized as animated characters in virtual worlds. Lately, many Internet users have created avatars and enjoyed a second life by experiencing a virtual world in which they can enjoy many things that they enjoy in the real world. Along with the rapid growth of avatar users, a growth of virtual places, where avatars can hang out is seen as well. Motivated by avatar usage and virtual worlds’ popularity, many companies conduct both offline and online advertising that targets avatar users. The following questions, therefore, are timely: “What are avatar users’ overall attitudes toward virtual world advertising?” and “How different are the attitudes toward virtual world advertising between avatar users and non-users?” This exploratory study also investigates avatar users’ characteristics as consumers, such as self-esteem, social comparison orientation, and materialistic orientation. We examine the aforementioned concepts in addition to analyzing avatar users’ and non-users’ attitudes toward virtual advertising. The results show that avatar users are not only more positive toward virtual world advertising, but they also have a higher degree of materialistic orientations than non-avatar users.

key words: Virtual World, Avatar, Attitude toward Advertising, Self-esteem, Social Comparison, Materialistic Orientation
Appendix

The Scales for Measuring Self-Esteem and Social comparison

<table>
<thead>
<tr>
<th>Self-Esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>On the whole, I am satisfied with myself.</td>
</tr>
<tr>
<td>At times, I think I am no good at all.</td>
</tr>
<tr>
<td>I feel that I have a number of good qualities.</td>
</tr>
<tr>
<td>I am able to do things as well as most other people.</td>
</tr>
<tr>
<td>I feel I do not have much to be proud of.</td>
</tr>
<tr>
<td>I feel useless at times.</td>
</tr>
<tr>
<td>I feel that I'm a person of worth, at least on an equal plane with others.</td>
</tr>
<tr>
<td>I wish I could have more respect for myself.</td>
</tr>
<tr>
<td>All in all, I am inclined to feel that I am a failure.</td>
</tr>
<tr>
<td>I take a positive attitude toward myself.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>I often compare how my loved ones (boy or girlfriend, family members) are doing with how others are doing.</td>
</tr>
<tr>
<td>If I want to find out how well I have done something, I compare what I have done with how others have done.</td>
</tr>
<tr>
<td>I often compare how I am doing socially (e.g., social skills, popularity) with other people.</td>
</tr>
<tr>
<td>I am not the type of person who makes comparisons often with others (reversed).</td>
</tr>
<tr>
<td>I often compare myself with others with respect to what I have accomplished in life.</td>
</tr>
<tr>
<td>I often like to talk with others about mutual opinions and experiences.</td>
</tr>
<tr>
<td>I often try to find out what others think who face similar problems as I do.</td>
</tr>
<tr>
<td>I always like to know what others in a similar situation would do.</td>
</tr>
<tr>
<td>I never consider my situation in life relative to that of other people (reversed).</td>
</tr>
</tbody>
</table>

*Self-Esteem: Rosenberg 1965, Social Comparison: Gibsons and Buunk 1999*