Online Social Networks and Insights into Marketing Communications

Adam S. Acar
Maxim Polonsky

ABSTRACT. Even though online social network services have become enormously popular among general public, there is a laxity of empirical investigations on the individual’s level in this domain. This paper examines the impact of personality factors such as extraversion, self-esteem, opinion seeking and opinion leadership on brand communication and online social behaviors.

Our results show that gender and extroversion predict online social network size and time spent online; that opinion seekers spend more time online and have larger networks relative to opinion leaders; and that opinion leaders are more likely to communicate their brand use online. We also find the mediating role of opinion leadership and opinion seeking in explaining the impact of general personality traits on online brand communication and social networking. Directions for future research are provided and some practical implications are discussed. doi:10.1080/15332860802086227 [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-HAWORTH. E-mail address: <docdelivery@haworthpress.com> Website: <http://www.HaworthPress.com> © 2007 by The Haworth Press. All rights reserved.]

KEYWORDS. Social networks, gender, extraversion, opinion leaders
INTRODUCTION

The emergence of the internet and wireless communication technologies might have created a digital divide in the society (Norris, 2001), because of access issues, yet new technologies have enabled people to connect and interact virtually on incomparable level. Recently, advanced forms of internet communication channels such as online portals, mailing groups, wikis, blogs, instant messengers, and especially social networking sites have become enormously popular since they have allowed their users to connect with people based on common interest. The most popular online social network services (OSNS) myspace.com and facebook.com (ComScore Media Metrix, 2006) let their users to display their social network in their profiles but also individually control most of the content of their personal pages that contain posted messages, shared photo albums, tracked friends, and organized events, to name the few. In other words, with the help of OSNS now anyone can have his/her own website.

Although OSNS seem to be changing the way people use the internet, too little attention has been paid to the influence of personal traits (e.g., extroversion, opinion seeking, opinion leadership) and brand communication habits on online social networking behavior. Despite the fact that our Lexis-Nexis search resulted with countless numbers of articles and news about myspace.com and facebook.com, most of them were concerned with privacy issues and corporate strategy matters while there was no empirical study available that investigated the psychological factors associated with OSNS use. Some published work, which studied the effects of OSNS profiles in online communication (Boyd, 2006) and ethnographically analyzed the users of the popular social network site Friendster (Boyd, 2004) provided valuable insights regarding the formation of OSNS users’ behaviors but did not explain how personal and environmental factors affect OSNS usage.

Our study is exploratory in nature, aiming to investigate such personality factors as self-esteem, extroversion; and such behavioral variables as opinion seeking, opinion leadership, and brand information sharing as they relate to and potentially influence individual online social network behaviors. This study also might be of specific interest to the marketing scholars since the results will help understand how brand communication takes place in OSNs and if it can be predicted by personal traits.
LITERATURE REVIEW

Online Social Networks

Our literature review has indicated that history of online social networks goes back to 1978 when Freeman established Electronic Information Exchange System at the New Jersey Institute of Technology which allowed users to email each other, see the bulletin board and utilize the list server (Wasserman and Faust, 1994). In 1997 sixdegrees.com (the name refers to Milgram’s famous small world study that found out randomly selected two American citizens can be connected to each other by 6 nodes) became the first widely known website to allow it’s users to establish an online social network (New York Times, 1998), which was followed by online business network of Ryze.com (2001) and Friendster.com (2003); an online social networking service that enjoyed popularity all around the world (Boyd, 2004). Today, according to Comscore Media Metrix (2006), only myspace.com attracts more than 50 million unique visitors a month, which allows it’s users to display their social networks and engage in almost any kind of online activity via their profile pages including webcasting, blogging, instant messaging, chatting, and gaming. Despite the fact that myspace.com attracted a lot of attention in the mass media and was reported as the most visited web site (www.hitwise.com), there was no information available regarding the adoption ratio of Myspace among different populations, while past research showed that over 90% of college students are the members of Facebook (Jones & Soltren, 2005).

Facebook

Facebook is one of the most visited online social network sites (ComScore Media Metrix, 2006) with more than 7 million visitors a month (www.facebook.com) which requires a valid email address with a high school or college domain name to join (readers should note that, since the study has been complete, Facebook has opened up to everyone). Although the features of Facebook don’t necessarily differ from the other online networking sites, exclusiveness to the students is what seems to set Facebook apart. Thru this online service the users are not only given the opportunity of displaying an extensive personal profile and creating a network of friends but also browsing the student body of the same school, indicating the classes that are taken and establishing or
It was found that 80% of the freshmen become members of Facebook even before the schools start (Jones and Soltren, 2005), considering Facebook as one of the most important elements of student social life.

**Past Research**

In order to investigate if there’s a relationship between online social networking and real social interactions, Adamic, Buyukkokten, and Adar (2003) studied the Nexus, which is a social network site for Stanford University students that is similar to Facebook. The authors found the website to be adequately representative in terms of reliability of the user information and the reflection of the relationships among school students. The study also revealed that the members are connected to each other with an average of 4 nodes; little different than real social networks (Milgram, 1967). Another study conducted by Birnie and Horwath (2002) found strong support for social network theory which proposes that different forms of communication channels supplement traditional social network interactions. These findings clearly display that, frequency and intimacy of the online social interactions are parallel with the traditional social interactions. However, there were conflicting views about the effect of internet usage on the size of the social networks and the wellbeing of the users. Kraut and his colleagues (1998) claimed that internet usage had a negative relationship with social network size and emotional support even though the further study that was conducted by some of the members of the same research team (Kiesler et al., 2002) found totally opposite results. Additionally, recent studies implicated that the links in online social networks are not as strong as traditional networks since people tend to display anyone they know in their social network unless they dislike them (Boyd, 2004).

**Self Esteem**

Anxiety and uncertainty management theory which was introduced by Gudykunst (1985) mainly deals with interpersonal communication among people from different cultures. However, this theory provides some important insights about communicating with strangers as well. According to Gudykunst, the more individuals communicate with strangers, the less anxious they are likely to be since this communication will result in confidence in predicting strangers’ future behavior. Because of this, interaction with strangers may also increase self esteem.
and tolerance for ambiguity (Gudykunst, 1985). The relationship between self-esteem and communication behavior was also analyzed by McCroskey (1977), who found that individuals with higher levels of communication apprehension tend to get anxious about communicating with others and will have lower self-esteem and lower self-disclosure. Additionally, Macintyre and his colleagues (1999) proposed that people with lower self-esteem tend to engage in communication with others less than people with higher self-esteem, thinking that they don’t have much to contribute and are likely to get a negative feedback. However, one can also presume that individuals with higher self-esteem might be very picky in terms of allowing new members to join their network, so the effects of self-esteem on online behavior is unclear and thusly is addressed in our investigation.

**Extroversion**

Carl Jung was first to propose that personal characteristics like introversion and extraversion play major roles when it comes to one’s attitude of consciousness, psychological functions and communication behavior. Although he also mentioned four factors (thinking, feeling, rationalistic, intuitive) which interact with these two main personality types, according to Jung, extroverts in general are the ones who are sociable, outgoing, compatible, and well fit into the society where introverts carry totally opposite attributes. Eysenck (1967) also referred to extroversion as one of most important personal traits that determines the individual’s socialization process and claimed that it’s mainly formed by the level of arousability in the cortex area of the brain. Both McCroskey (1990) and Burgoon (1976) saw extroversion as an antecedent to (un)willingness to communicate and past research has shown how extroverts and introverts differ in terms of communication patterns and group behavior (Thorne, 1987; Karemaker, 2005).

Two of the recent studies found empirical support for the proposition that extroverts communicate more with others on the Internet than the introverts (Macintyre et al., 1999; Kiesler et al., 2002). It was also found that extroversion is an antecedent to the self esteem which negatively correlates with communication apprehension and positively correlates with willingness to communicate (MacIntyre et al., 1999). In addition, Kiesler and her colleagues demonstrated that internet usage increased the self esteem of extroverts and decreased their feeling of loneliness while creating opposite effects on the introverts. However, McKenna et
al. (2000), Maldonado et al. (2001) and Amichai-Hamburger et al. (2002) suggested that introverts are more comfortable using the internet and more likely to spend a higher amount of time on the net compared with extroverts. It would be logical to assume that extroverts prefer face to face communication and have various options to socialize in different atmospheres where computer mediated communication is ideal for people with introvert personalities. We hypothesize in our study that extraversion is likely to be positively related to both, time spent online and the social network size.

**Opinion Seeking and Opinion Leadership**

Diffusion of innovation (Rogers, 1961) and two-step flow theories (Katz & Lazarfeld, 1955) propose that opinion leaders who serve as social models, have huge influence on attitude and behavioral changes of opinion seekers, especially when it comes to decisions about purchasing new products (Reynolds & Darden, 1971). While Rogers (2003) identifies opinion leaders as people who are innovative, technically competent, cosmopolite, venturesome, and heavy media users, Feick and Price (1987) draw attention to their tendency to provide marketplace and shopping information for others. Furthermore, Price et al. (1987) indicated that opinion leaders experience pleasure from communicating brand information since they get the sense of reducing the cost of information search for the followers. Opinion seekers on the other hand were described as the followers of opinion leaders (Flynn et al., 1996) or the individuals who are susceptible to interpersonal influence (Bearden et al., 1989). Although the effects of opinion leadership and opinion seeking on communication between social network members have been emphasized (Rogers, 1961; Rogers, 2003) their impact on OSNS usage and communicating the brand information have been unknown.

When it comes to the online activities other than OSNS however, the positive relationship between opinion seeking, opinion leadership, and internet usage seem to be solid. It was found that online forwarding and chatting (Phelps et al., 2004), web retailing (Ocass & Fenech, 2003) and participating in online brand communities (Sohn, 2005) can be related to both opinion seeking and opinion leadership traits. In the same vein, a recent study conducted by Tao and his colleagues (2006) have shown that internet social connection is related with both of these two traits. The authors also found an empirical support for the online word of mouth model where opinion seeking and opinion leadership signifi-
cantly predict online forwarding and online chatting. Another important finding of this study was the positive relationship between internet social connection and opinion seeking where opinion leaders were not concerned about being connected to the others online. Since time spent on Facebook (e.g., sending messages, founding groups, posting on the members’ walls) is similar to online activities in Tao et al.’s (2006) study (online forwarding and online chatting) we expect opinion seeking and opinion leadership to predict number of members in online social network. However, while we presume opinion seekers to spend more time for online social networking, we expect opinion leaders to spend less time for OSN usage and have high number of members in their networks that is mediated by their brand information disclosure (number of brands listed as groups or interests) because of the reasons mentioned by Price et al. (1987).

In our study we investigate the impact of opinion seeking and opinion leadership on individual’s network size and time assigned by an individual for online network behaviors. We expect these highly communicative traits to be positively related to the outcomes of the medium consumption; however, it is also possible that they will differ in magnitude. For instance, opinion leaders may have larger networks due to a certain degree of interpersonal popularity, while opinion seekers may increase their networks due to some general tendency to scan and be aware of their social environments. While the effects of opinion seeking and opinion leadership on social network behavior is not clear, we do hypothesize that opinion leaders will be more likely to share an individual brand information with others relative to opinion seeking. With that being said, the relationship of brand use communication and other variables of interest is undecided. Based on the discussion above, we present our conceptual model in Figure 1.

METHODOLOGY

Subjects and Procedure

This study employed the survey methodology where the participants were able to access the questionnaire online, in an exchange for a class credit. A total of 451 (223 males, 228 females) undergraduate college students who are enrolled in an introductory level communications class at a Northeastern college, and contacted via convenience sampling completed the web-based questionnaire. The data collection took place
in March 2006 and students from various demographics (e.g., major, gender, year at the school, etc.), participated in the study.

94% (N = 427) of the participants indicated that they have a profile listed on Facebook.com. Among the people who are the members of Facebook, 175 (39%) reported that they are also the members of the myspace.com. Twenty-four people, who either claimed to have no membership to any OSNS or be the members of some other OSNS except Facebook (e.g., Friendster, Hi5, Orkut, Xanga, Multiply, Xuqua, AOL, LiveJournal, BlackPlanet, MSN Spaces) were dropped from the sample and not included in further data analysis since our hypotheses and research questions were only related with Facebook usage.

**Measures**

We asked participants to indicate the number of members in their social network which is also used to test our first research question. Instead of asking the number of social contacts directly, we provided ranges, considering the possibility that subjects might not have immedi-
ate access to their profiles while answering the survey and not recall the exact number. In addition, we used this range question to test the reliability of the self reported measures (some participants might indicate fewer or more members in their networks than what they actually have in their OSN, with the effects of social desirability). Once the data collection was complete, we accessed online profiles of randomly selected 100 students who indicated an introductory communication course as one of their current courses (every 3rd person listed under the course). We wrote down the numbers of social contacts that are displayed right above the photos and group membership information on Facebook. We then turned these numbers into ranges and compared with the membership numbers which were provided by the subjects in our study. An independent sample t-test has shown that there was no significant difference between the numbers of network members that were provided by the participants in our study and 100 randomly selected students on Facebook (M = 5.93, SD = 1.57 vs. M = 5.98, SD = 1.63, p > .05). Thus, we concluded that, the subjects’ self reported measures are reliable.

**Sample Characteristics and Generalizability**

Although subjects in this study consisted of the students who are enrolled in a general elective course, we wanted to make sure that major or any other demographic variable don’t have any influence on online social networking behavior that would constitute a risk to the generalizability of our findings. One-way ANOVA results have demonstrated that there is no difference between students from different majors (Business, Social Sciences, and Natural Sciences) in terms of social network size (F (2, 374) = 1.352, p > .05). Arts and the other majors were not included in this analysis since there were only a few numbers of students in the sample who were not from 3 major schools mentioned above.

Findings also indicated that the income level (F (5, 422) = 1.352, p > .05), year at the school (t(375) = .5, p > .05 (freshmen vs. sophomore)) and relationship status (t(404) = 1.56, p > .05 (dating vs. not dating)) have no impact on the individuals’ online social network size. Since we observed that demographic factors don’t necessarily create a difference on OSNsize, which is our major dependent variable, we claim that our results can be generalized to most college students regardless of age, income level and concentration area.
Self Esteem

A six-item, 7-point self esteem scale was used to measure self esteem that was derived from Rosenberg (1965). The scale had three positive and three negative statements which included “on the whole, I am satisfied with myself,” “I feel I do not have much to be proud of,” “I take a positive attitude toward myself,” “I feel that I have a number of good qualities,” “I certainly feel useless at times” and “I wish I could have more respect for myself.” Reliability analysis indicated that the scale is internally valid (Cronbach’s alpha = .80).

Extroversion

Individuals’ tendency to be introvert or extrovert was measured by 4 items that were borrowed from Myers-Briggs Type indicator (MBTI; Myers and McCaulley, 1985). Specific items in the scale were “I feel at ease in a crowd,” “I rapidly get involved in social life at a workplace,” “I am usually the first to react to a sudden event,” “I enjoy being at the center of events.”

Opinion Leadership

Rogers (2003) defines opinion leadership as “This study has measured the opinion leadership with 4 items which were derived from Childers’ (1986). The specific items were “I often notice that I serve as a model for others,” “I am often a step ahead of others,” “I like to take the lead when a group does things together” and “Compared with circle of friends, I’m more likely to be asked for an advice.” The scale was internally valid (Cronbach’s alpha = .78).

Opinion Seeking

The trait of opinion seeking was regarded as susceptibility to interpersonal influence by Bearden et al. (1989) and described as “the need to identify with or enhance one’s image in the opinions of significant others through the acquisition and use of products and brands, willingness to conform to the expectations of others regarding purchase decisions and/or the tendency to learn about product and services by observing others or seeking information from others” (p. 474). We used three items opinion seeking scale that were originally used by Bearden et al. (1989). The items were “To make sure I buy the right product, I of-
ten observe what others are buying or using,” “It’s important that others like the products and brands I buy” and “I like to know what brands and products make good impression on others” (Cronbach’s alpha = .69).

**Brand Communication**

We measured individuals’ level of brand communication with the question of “How many product or service brands (e.g., Ipod, Abercrombie, etc.) did you list on your facebook.com profile as one of your interests, clubs, or groups? (Doesn’t necessarily have to be the brand name only; group names that include a brand name count as well, such as “I like blue Ipods” group or “I think Abercrombie sucks” group).” By asking this question we intended to acquire information about the participants’ tendency of sharing positive or negative brand experiences with others. This variable was represented with *brandnum* in the model.

**OSN Usage**

As it was explained in the literature review, our major dependent variables were Online social network size (*OSN_size*) and time spent for online social networking (*OSN_time*). These variables were measured by three questions after the respondents read instructions and answered screener questions. Subjects were asked “approximately how many members do you have in your social network,” and “in an average day how much time do you spend by using facebook.com.” In the model *OSN_size* was represented with *timespent* and *OSN_size* was *nummem*.

**Results**

To test our model, the specified measurement model was examined first in AMOS.5, producing a chi-square of 745.187 (df = 234), p < .001; RMSEA = .063 (.058 to .068); CFI = .975. The obtained Factor Scores suggested that there were no potential double loadings. Based on the obtained modification indices, the error terms were correlated among indicators. Correlating the error terms for items has produced a significantly improved measurement model with a chi-square of 466.901 (df = 213), p < .001; RMSEA = .046 (.041 to .052); CFI = .988. The X² difference test = 278.286 (df = 21), p < .001.

Next, we tested the deleted paths in the model and trimmed the hanging variables. All deleted paths were confirmed and the difference test between the model with and without insignificant paths and hanging
variables was significant: $X^2 = 218.102$ (df = 104), $p < .001$. This respecified saturated model was tested and produced a chi-square of 140.745 (df = 68), $p < .001$. RMSEA = .044 (.034 to .054); RMR = .082; CFI = .992 suggesting the acceptable fit to the data (Hu and Bentler, 1999). The standardized structural model is presented below in Figure 2. The model has explained 71% of the variance in the endogenous variable $OSN_{size}$ (NUMMEM) ($R^2 = .71$). The standardized model coefficients are shown in Table 1.

**CONCLUSIONS**

The magnitude of the individual network was directly and positively predicted by the personality trait of extraversion, by the time spent on the Facebook and interestingly by the brand communication variable, suggesting that people use virtual networks to communicate their brand use. While extraversion positively affected both, opinion seeking and
TABLE 1. Regression Weights for the Saturated Model

<table>
<thead>
<tr>
<th>Variables</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTRAV</td>
<td>2.062</td>
<td>0.091</td>
<td>22.567</td>
<td>***</td>
</tr>
<tr>
<td>OPLEAD</td>
<td>0.867</td>
<td>0.041</td>
<td>21.213</td>
<td>***</td>
</tr>
<tr>
<td>GENDER</td>
<td>0.268</td>
<td>0.092</td>
<td>2.906</td>
<td>0.004</td>
</tr>
<tr>
<td>OPSEEK</td>
<td>0.579</td>
<td>0.032</td>
<td>18.019</td>
<td>***</td>
</tr>
<tr>
<td>BRANDNUM</td>
<td>0.831</td>
<td>0.054</td>
<td>15.468</td>
<td>***</td>
</tr>
<tr>
<td>TIMESPEN</td>
<td>0.849</td>
<td>0.193</td>
<td>4.392</td>
<td>***</td>
</tr>
<tr>
<td>TIMESPEN</td>
<td>0.838</td>
<td>0.118</td>
<td>7.122</td>
<td>***</td>
</tr>
<tr>
<td>TIMESPEN</td>
<td>-0.233</td>
<td>0.109</td>
<td>-2.126</td>
<td>0.033</td>
</tr>
<tr>
<td>TIMESPEN</td>
<td>0.101</td>
<td>0.023</td>
<td>4.433</td>
<td>***</td>
</tr>
<tr>
<td>NUMMEM</td>
<td>0.583</td>
<td>0.047</td>
<td>12.313</td>
<td>***</td>
</tr>
<tr>
<td>NUMMEM</td>
<td>0.615</td>
<td>0.047</td>
<td>12.999</td>
<td>***</td>
</tr>
<tr>
<td>NUMMEM</td>
<td>0.165</td>
<td>0.026</td>
<td>6.47</td>
<td>***</td>
</tr>
</tbody>
</table>

Indicators

<table>
<thead>
<tr>
<th>Variables</th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTCROWD</td>
<td>0.918</td>
<td>0.023</td>
<td>40.076</td>
<td>***</td>
</tr>
<tr>
<td>EXTSOCIA</td>
<td>1.08</td>
<td>0.03</td>
<td>36.144</td>
<td>***</td>
</tr>
<tr>
<td>EXTACQU</td>
<td>0.926</td>
<td>0.028</td>
<td>32.624</td>
<td>***</td>
</tr>
<tr>
<td>EXTSENTE</td>
<td>1.182</td>
<td>0.046</td>
<td>25.878</td>
<td>***</td>
</tr>
<tr>
<td>SEEKOTHE</td>
<td>1.019</td>
<td>0.046</td>
<td>22.306</td>
<td>***</td>
</tr>
<tr>
<td>LEDASK</td>
<td>0.989</td>
<td>0.028</td>
<td>35.595</td>
<td>***</td>
</tr>
<tr>
<td>LEADLEAD</td>
<td>0.913</td>
<td>0.024</td>
<td>38.064</td>
<td>***</td>
</tr>
<tr>
<td>LEADSTEP</td>
<td>0.926</td>
<td>0.025</td>
<td>36.401</td>
<td>***</td>
</tr>
</tbody>
</table>
opinion leadership, it should be noted that opinion seeking had a posi-
tive impact on the time spent online while opinion leadership had a neg-
ative effect on time: extraversion, thus, does not discriminate between 
these two communicative behaviors that actually differ in terms of the 
dedicated time to online networks. These results are further complicated 
by a positive impact of opinion leadership on brand communication: 
opinion leaders are more likely to openly communicate about (and iden-
tify themselves as users of) certain brand that possibly affects the size of 
their social networks. If this is true, our results would suggest that opin-
ion seekers and opinion leaders have alternative routes to their network 
formation—opinion seekers do so by spending more time and opinion 
leaders by providing more information. These speculations, however, 
were not supported by the indirect effects test (see Table 2).

Interestingly, even though past studies have suggested that women 
are less responsive during online interactions (Herring, 2003) and less 
likely to use online services (Maldonado et al., 200), in our study, fe-
male gender had strong and positive indirect effects on virtually all vari-
ables in the model suggesting that females are either more likely to use 
the medium or that females were simply better participants for this 
study.

As the final model clearly demonstrates, female gender had also di-
rect positive relationships with extroversion trait and $OSN_{time}$. Practi-
tioners should take into account that online social networks can be a 
better medium to reach females and can be utilized for the campaigns 
which require repetitive or longer times of exposure.

Extraversion had positive direct effects on opinion leadership, opin-
ion seeking and network size while having indirect effects on brand 
communication and time spent on the network (see Kline (1998) for the 
discussion on indirect effects). Our results suggest that extroverts can

| TABLE 2. Indirect Effects (All Significant at $p < .001$) |
|-----------------|----------------|----------------|----------------|
|                | GENDER | EXTRAV | BRAND# | OPSEEK |
| OPLEAD         | 1.788  |        |        |        |
| BRANDNUM       | 1.708  | 0.72   |        |        |
| OPSEEK         | 1.193  |        |        |        |
| TIMESPEN       | 0.708  | 0.362  |        |        |
| NUMMEM         | 2.435  | 0.342  | 0.062  | 0.522  |
either be opinion seekers or opinion leaders due to a general tendency to socialize. In addition, extroversion had the strongest effect on online social network size. This is interesting because extroverts are typically perceived to be outgoing and social, spending more time interacting face to face. However, it seems reasonable to conclude that extraverts’ sociability extends to online social network behaviors, as evident by extraverts’ large social networks.

Our results have shown that opinion leadership did not have an indirect effect on number of network members. Opinion leaders spend less time, have smaller networks but are more likely to share brand information about themselves relative to opinion seekers, who by spending more time using the Facebook, increase their social networks. This finding echoes Price et al.’s (1987) proposition that opinion leaders are likely to act as market mavens and more likely to share brand information with others.

Though it was not hypothesized, our frequency analysis has shown that 46% of the Facebook users displayed at least one or more brand name among their interests or user groups. In other words, regardless of gender or personal traits, almost half of the online social network users join brand groups or use brands to express themselves via online platforms. This finding indicates that willingness to share brand experiences in OSNs might be higher than marketing practitioners expect and in the future we can expect OSN interface which allow users to include brand logos as interests and provide coupons for related group members.

**Limitations and Future Research**

The central limitation of the study is a cross-sectional data that does not allow causality claims. Next, although we included some personality factors to analyze OSN behavior, there still is a need for more comprehensive studies that examine the relationship between OSN and personal traits such as neuroticism, psychoticism, need for affiliation, etc. Besides personality factors, we also believe that heavy and light OSN usage can be better assessed in future studies by inquiring about the amount and frequency of sent and received messages.

Our sample consisted of students who mostly live on-campus. It would be desirable to include different geographic areas especially those with expected low on-campus residence. Additionally, it should be noted that by the time we collected the data, Facebook was limited to college students’ use and only investigating college students’ OSN
might not completely explain OSN behavior. We strongly suggest researchers to replicate our findings by analyzing users of different OSNS (Myspace, Xanga, Friendster, etc.). Lastly, future research should compare and contrast brand communities and brand groups in online social networks for better utilization of brand groups in OSNS.

REFERENCES


Adam S. Acar and Maxim Polonsky


RECEIVED: December 21, 2006
REVISED: March 24, 2007
ACCEPTED: June 1, 2007
Copyright of Journal of Internet Commerce is the property of Haworth Press and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.