The Social Capital of Social Media:
A Correlational Study of Facebook Use, Campus Attachment and Involvement

By

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Abstract

This study examined the relationships between the ways in which students used the social networking site Facebook and their feelings of attachment to as well as involvement on the University of Michigan's campus. A 36-item online survey revealed that students who accessed Facebook to exchange information with others also felt the strongest attachment to their campus and, generally speaking, were most involved on said campus. Statistically significant relationships between campus attachment, involvement, and using Facebook for recreational purposes, to interact with acquaintances that live geographically close (proximal relationships), and to interact with acquaintances that do not live nearby (maintained social capital) were also found. Additionally, the analysis the interaction terms of students' levels of political interest and extroversion produced many mixed, though statistically significant, results among the direct relationships. The discussion section provides implications of the study's findings as well as acknowledges limitations and suggests direction for future research.

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Introduction

Imagine a society in which individuals do not talk or interact with one another and consequently do not feel a sense of belonging to their surroundings. Such a situation does not seem to align with the commonly accepted meaning of "society." Fundamental to a healthy and growing society are citizens who are both involved in and attached to the community around them. That is, citizens actively participate in societal events through organizations and other means, and they also feel a sense of belonging to their fellow citizens and surroundings. These two societal measures, community involvement and attachment, resonate with the concepts of social capital and civic engagement. Social capital is a more general sociological concept that considers the benefits of social networks and the collective value gained from the interaction among and between such networks (Putnam, 1995). Social capital generates trust and social norms and facilitates action, such as civic engagement, taking action to address issues of public concern. Examples of engagement include volunteerism and organizational involvement. While grounded in these overarching principles, this study focuses more specifically on community attachment (an attitude) and involvement (behavior) in the context of a college campus.

The media plays a prominent role in the extent to which and how individuals engage in their community and feel about it. Both old and new media have the potential to foster (or hinder) community attachment and involvement, as information accessed from media can equip people to be knowledgeable and active citizens, but certain media might also privatize leisure time, promoting time spent secluded from their community. Previous studies have examined relationships between these measures and various forms of media use, including television and the Internet. However, there have been inconsistent results among these studies as findings are dependent upon a variety of factors, including the ways in which media use, social capital, and

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civic engagement are measured and the environments in which the relationships are analyzed. Some studies have considered nuanced forms of media use behavior while others have focused more on the content of media consumed, and still others have researched the impact that media on relationships with others. Thus, different approaches have yielded different results, warranting further research in this area.

One environment that has received relatively little attention in previous research regarding community attachment and involvement is the college setting, a community that is distinct from others in that it is not the hometown for many community members and university-sponsored activities and/or events that contribute to community engagement may occur on a more frequent basis than traditional community engagement opportunities. These aspects of the college community might have an impact on the levels of community or, more appropriately, campus involvement and also individuals' feelings of attachment to their college campus community than were present in previous studies that examined a similar relationship.

The college campus community is also different in that most of the community members are students at the university. They have academic responsibility and devote a great amount of time to studying, which may have an impact on their civic engagement and social capital or, as treated in this study, campus involvement and attachment. Finally, members of a college campus community are among the age demographic that uses more technology and media than many participants in previously conducted studies (Al-Obaidi et al., 2004). Students might also have different motives for accessing various forms of media and the study might therefore show a different relationship between media usage and community involvement and attachment.

This study will focus on college students' (age 18 – 22) uses of media, specifically Facebook, a social networking site that affords many of the usage behaviors analyzed in

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previousmedia studies while also offering others. While there have been a few notable studies

that have examined the relationship between Facebook use and campus life (Ellison, Steinfield &

Lampe, 2007; Vorvoreanu, 2009; Valenzuela, Park & Kee, 2009), the number is small in

comparison to that of studies of other media. Additionally, these previous studies have not

considered the motivations for using Facebook to the same degree that this study will attempt.

Based on previous uses and gratifications of media research as well as Facebook studies, this

study will examine college students' reasons for using Facebook (information exchange,

recreational purposes, maintained social capital, and proximal relationships) and relationships

between such uses and campus attachment and involvement.

The results of this study will provide readers with a closer look at the ways in which new

media use is related to civic engagement and social capital on a college campus among young

adults age 18 – 22. Anyone concerned with student life on campus – university officials,

students themselves, and parents of college students – will benefit from the results of this study

in that they will be aware of how the increasing use of Facebook among college students is

related to civic engagement or possibly of greater concern, disengagement. Furthermore, readers

will be informed of the ways in which different motivations for using the medium are differently

related to the offline feelings and behaviors of campus engagement and attachment. As many of

the social habits formed between the ages of 18 and 22 are likely to remain with individuals after

college graduation, it is also important that we are aware of potential causes for disengagement

among this cohort, so that it can be reduced and healthy societies can continue to grow.

Literature Review

Many studies that have looked at the role of the media in social life have utilized the uses

and gratifications theory, which assumes that the individuals' reasons for accessing media is to

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fulfill their own particular needs, or gratifications. The theory considers "what people do with media" as opposed to "what media does to people" (Katz, Blumler, & Gurevitch, 1974). One criticism of the uses and gratifications theory is that it is often applied too generally to communications media (McQuail, 1984). This study applies the theory in a way that looks at four specific motivations individuals have for consuming Facebook and then considers how patterns of use, which are reflective of those motivations, relate to measures of feelings of attachment to a college campus as well as degree of involvement on said campus.

Previous studies have used the theory to look at reasons individuals have for the nuanced forms of uses of particular media. For example, Leung (2009) addressed how different gratifications of "content generation" on the Internet predicted the varying quantities of and ways in which individuals generated such Internet content. Flanagin & Metzger (2001) also applied the theory to individuals' use of the Internet, but did so in a comparison with individuals' use of other media and the various communicative affordances and/or functions of each. This study is different from those previously mentioned in that it measures the gratifications gained from use of Facebook by looking at correlations with an offline measure (individuals' campus attachment and involvement).

Previous studies have also employed the uses and gratifications theory to examine links between media use and social capital and acts of civic involvement (which have been modified for the purposes of this study into campus attachment and involvement). Campbell & Kwak (2010) investigated these concepts in regards to mobile communication devices and suggested that using the medium for both recreation and information exchange act as a predictors of civic involvement. These motivations for media use are similar to those analyzed in other studies

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related to telephone use (O'Keefe & Sulanowski, 1995), as well as television (Norris, 1996;

Hooghe, 2002), and Internet use (Charney & Greenberg, 2002; Papacharissi & Rubin, 2000).

Shah, Kwak, & Holbert (2001) also studied a relationship between media use and social

capital and civic involvement, framing their study around the uses and gratifications theory.

They found using the Internet for social recreation to be negatively related to civic activity

participation while using the medium for information exchange to be positively related to the

criterion variable. Pavica Sheldon applied the uses and gratifications theory to Facebook use by

Louisiana State University students (2007) and concluded that one of the primary motivations

students held for accessing the site was to fulfill relationship maintenance needs. Though

Sheldon's study solely analyzed why Facebook was used and not how those motivations affected

subsequent usage or offline relationships, she provided some of the motives for using media that

will be considered while investigating the relationship between college students' uses of

Facebook and their sense of attachment to and involvement in their campus community. More

specifically, this study will look at recreation and information exchange as two motivations for

Facebook consumption, and will additionally consider Facebook use for "maintained" social

capital with distant others (Ellison, et al., 2007) and use for proximal relationships. The Ellison,

et al. study will be discussed later in the Literature Review as it did not place great emphasis on

the uses and gratifications theory.

Media & Social Capital

Robert Putnam (1995) defines "social capital" as "features of social organization such as

networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit,"

(p. 66). This can be interpreted to refer to the value gained from societal constructions of

networks and interactions among individuals. Putnam also categorizes two types of social

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capital: "bonding," which refers to connections within homogeneous groups and "bridging," which refers to connections across heterogeneous groups of people. While Putnam defined these groups as homogeneous and heterogeneous in terms of similarities (or lack thereof) within personalities and social characteristics, this study will redefine such terms to specify homogeneous and heterogeneous groups in terms of geographic location and/or proximity. Therefore, both "bridging" and "bonding" will be considered for purposes of this study, but in a somewhat different light, as the study looks at the ways in which students as a whole feel attached to their campus community, and also as it compares the use of Facebook to interact with others who live locally ("bonding" in a geographic proximity sense) with using the medium to interact with friends who do not live nearby ("bridging" with geographically distant others). "Civic engagement" in previous literature refers to involvement in an individuals' community (Carpini, 2000; Hooghe, 2002; Leung, 2009; Moy et al., 2005). In this study, "engagement" will explicitly include behavioral measures on a college campus: attending campus events, participating in university-sponsored organizations, and socializing with other members of the university will all be considered as forms of the criterion variable "campus involvement." Ellison et. al. adapted five items from Williams' (2006) bridging social capital subscale and added four additional items to measure the extent to which the students in the study felt a member of the "network" within their university (Michigan State University). To avoid the confusion of two somewhat different concepts both being referred to as "bridging social capital," this study will use a modified version of Ellison et al.'s nine-item scale to measure the criterion variable "attachment."

Past studies that have failed to acknowledge the different ways in which television or Internet use can be accessed, or the motivations individuals hold for consuming each medium,

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found mixed results in each medium's relationship to social capital and civic engagement. For example, some studies have found television to be negatively related to social capital (Hoffman & Appiah, 2008) and civic engagement (Moy, Scheufele, & Holbert, 1999; Romer, Jamieson, & Pasek, 2009), or, put differently, positively related to civic *dis*engagement (Putnam, 1995), but other studies that have specified differential forms of content of the television consumed have yielded very different results (Yang, 2009; Volgy & Schwarz, 1980). Similarly, some studies of Internet use found a positive relationship between use of the medium and social capital/civic engagement while others found a negative relationship. Past literature has argued that Internet users who build social relationships online have larger social circles, and therefore have a greater likelihood of participating in civic groups and activities (McMillan & Morrison, 2006; McKenna & Bargh, 1999). Supporting studies cited the Internet's positive effects on psychological well-being as a positive influence on its relationship with individual social capital (Bargh & McKenna, 2004).

On the other hand, studies that failed to acknowledge the different gratifications of Internet use found the medium to have a negative relationship with civic engagement and social capital because users found it more difficult to trust others (Uslaner, 2004) and also because Internet use was correlated with loneliness of the individual (Kraut et al., 1998; Stepanikova, Nie, & He, 2010). Another hypothesis as to why Internet use might be negatively related to civic engagement and social capital is Nie's "inelasticity of time" theory, which states that there simply is not enough time to be engaged offline if you spend too much time online (2001). As the work on overall levels of use, not specifying motivations, of various media has failed to provide consistent results, this study addresses the need to look at patterns of use when considering gratifications gained from media.

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Media for information exchange. Most studies that have looked specifically at media accessed for purposes of information exchange have found a positive relationship between news media and civic engagement as well as social capital. Individuals who consumed television for informational purposes were found to have higher levels of civic as well as political engagement (Yang, 2009; Volgy & Schwarz, 1980; Norris, 1996; Chaffee & Frank, 1996; Kim, Wyatt, & Katz, 1999). Similarly, when motivations for Internet use were examined, studies found that those who use the medium for informational purposes to have a greater likelihood of participating in civic engagement activities than those who used the medium for entertainment (Yang, 2009). Moy et al. (2005) found Nie's "inelasticity of time" measure to be irrelevant in the civic engagement relationship when analyzing only information-seeking use of the medium. While there are media and slight criterion variable differences in these studies as compared to mine, I believe that I will find a similar relationship. Therefore, the first hypothesis that I will test is: **(H1)** Students who use Facebook for information exchange will have greater levels of campus involvement and attachment.

Media for recreational purposes. There have been mixed results of the relationships between television use for recreational purposes and social capital and civic engagement. Some studies found that moderate consumption of entertainment does not reduce trust, an important factor in the concept of social capital (Romer, Jamieson, & Pasek, 2009). A similar negative relationship was found by Shah, et al., 2001) as recreational use of the Internet was shown to have a negative effect on social capital due to the anonymous environment, private, and less pro-social nature of the medium at that time. Fleming, Peng, & Thorson (2005) analyzed the relationship between entertainment media and associational membership, a variable reflected in the "Campus Involvement" variable of my study, and found accessing the Internet for

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entertainment purposes to have a negative effect on associational membership. Still other studies

found no association between Internet use for the purpose of recreation and social capital (Shah,

McLeod & Yoon, 2001). The mixed results of previous entertainment media (in television and

the Internet) studies as well as the recent changes in mediated entertainment that offer new ways

of connecting with known others, contrary to past arguments of the medium as anonymous and

private, further demonstrate the need for additional research on the effects of entertainment

media and social capital and civic engagement. This study will attempt to provide new insight

into the social capital implications of Facebook use in a college campus community, but before I

disclose the hypothesis regarding the entertainment use aspect of the study, I must first address

the new ways in which the use of media is available via the social networking site.

College students' use of Facebook. "The facebook" was created in February 2004 and

became Facebook.com in August 2005 (Phillips, 2007). In 2007, Stern & Taylor reported that

Facebook reaches more than 2,000 college campuses, with 80% of the students on those

campuses utilizing the social networking site; the authors claimed that the site had 10 million

total users.   According to Facebook statistics accessed on December 1, 2010, just three years

after Stern & Taylor's study, the social networking site has more than 500 million active users at

the time of this study. 50% of active users access Facebook in any given day and people spend

over 700 billion minutes per month on the site. Additionally, there are more than 900 million

objects available for access on the site, including pages, groups, events, and over 30 billion

pieces of content, such as posts, notes, photos, and links, shared each month (facebook.com,

2010).

As mentioned earlier, a past study examined Louisiana State University (LSU) students'

motives for using Facebook and also considered how those motives influenced Facebook activity

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and use of various Facebook communicative affordances and applications (Sheldon, 2008). The

study found that, overall, 81% of LSU students accessed Facebook on a daily basis, 21% more

than a study conducted just two years before at the University of South Carolina (Coley, 2006).

The highest mean scores for Facebook motives were "relationship maintenance," measured by

items such as posting a message to a friend's wall and sending a message to a friend, and

"passing time," which was measured by items such as using Facebook to occupy time and

checking the social networking site after receiving an email notification of account activity.

Sheldon's study will be used as a reference in my study in identifying specific uses of the site

when considering the relationships with involvement on a college campus and attachment to said

campus. My study will combine Sheldon's measure of "passing time" with previous studies'

measures of entertainment media (Volgy & Schwarz, 1980; Putnam, 2000) to create the measure

of Facebook use for recreational purposes. Consistent with many of the previous studies' results

of the relationship between social capital, civic engagement, and entertainment media accessed

via the Internet, I believe that **(H2)** Students who use Facebook for recreational purposes will

have lower levels of campus involvement and attachment. The thinking here is that recreational

activities geared for personal pleasure may not be as mutually oriented or informative as other

uses of Facebook. That is, it is possible that students who use Facebook for recreational

purposes will be more confined to their computers and not become as involved and/or attached to

their campus community. It is also possible that using Facebook as a means of recreation might

not inhibit other activities due to the anonymous environment, private, and less pro-social nature

of the medium, similar to the findings of Shah, et al. (2001).

One limitation of Sheldon's study is that it doesn't place great emphasis on the nature of

relationships found on Facebook. However, Ellison, et al. addressed this important factor in their

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study of 800 Michigan State University students in 2007. The study introduced the concept of

"maintained social capital," which refers to relationships that are maintained online although the

individuals might no longer have a strong relationship offline. In their study, Ellison, et al.

addressed, among other things, how intensity of Facebook use is related to individuals' perceived

maintained social capital. They predicted that those who used Facebook more frequently and felt

that the social networking site was a significant part of their daily lives would also feel that they

kept strong relationships with those from a "previously inhabited community," such as friends

from high school (Ellison, et al., 2007, p. 1153). Using regression analyses and controlling for

demographic factors, the researchers found that Facebook intensity did in fact predict increased

levels of "maintained social capital." Using Facebook for purposes of "maintained social

capital" might also include college students "staying in touch" with geographically distant family

members or keeping up to date on life back home when they're studying abroad (McMillan &

Morrison, 2006).

   Valenzuela, Park, & Lee (2009) also examined Facebook intensity, basing the measure

on the Ellison et al. study, looking specifically at its relationship with civic engagement. These

variables were measured from a reduced form of the Index of Civic and Political Engagement

developed by CIRCLE (Andolina et al., 2003), "an organization that has conducted several

national surveys related to youth engagement," (Valenzuela, et al., 2009, p. 885). The survey

asked questions regarding community service, organizational membership, charitable events, etc.

In their study of 2,603 students at Texas public universities, Valenzuela, et al. reported that

intensity of Facebook use was positively associated to their measure of civic engagement. They

reasoned that this (somewhat small) correlation could be due to specific features of Facebook,

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such as Facebook group membership, that enrich offline relationships and further civic

engagement.

Both the Ellison et al. and Valenzuela et al. studies pose limitations in that they combine

all aspects of Facebook use to measure "intensity," and do not look specifically at which

applications are accessed or the kind of activity that takes place. My study will attempt to

address this limitation by, in addition to looking at Facebook use for informational or

recreational purposes, measuring Facebook use for maintained social capital as a motivation for

consumption of the medium and thus analyzing how this use is related to campus attachment and

involvement. While previous studies have shown Facebook intensity to be positively related to

both maintained social capital and civic engagement, none has linked maintained social capital

and civic engagement to one another. Robert Putnam's "time displacement hypothesis", which

suggests that more time spent engaged in media use will result in less time participating in civic

or political activities, provides the logical rationale that increased time spent consuming media

inevitably results in less time spent participating in civic activities (Pasek et al., 2006; Putnam,

2000). Although this study places more emphasis on the uses and gratifications theory,

hypothesizing that *how* individuals use Facebook plays a major role in the medium's relationship

with other aspects of the individuals' lives, it is important to acknowledge other hypotheses

regarding this relationship. In the very least, it is possible that engagement with distant others

(maintained social capital) may direct the users' focus away from their proximal relationships. .

The "time displacement hypothesis" is also similar to the "inelasticity of time" theory, which

claims that many individuals use online interaction as a supplement for offline, or in-person,

interaction (Nie, 2001). On the other hand, these hypotheses only look at time spent using the

medium, but do not consider the crucial aspect of this study of focusing on how or why the

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medium is used. Previous studies have shown that those who uphold relationships with others

both online and offline can be more trusting of others (Beaudoin, 2008). Beaudoin also proposes

that Internet use influences interpersonal trust by referencing Beaudoin, 2007 and Shah et al.,

2005, citing their discoveries of media influence and social capital. These contrasting findings

prevent me from forming a hypothesis regarding the use of Facebook for maintained social

capital so I instead pose a research question: **(RQ1)** How is using Facebook for maintained

social capital related to students' levels of campus involvement and attachment?

It is also important to analyze the use of Facebook to maintain proximal relationships, as

a general consensus of the focus group conducted by Vorvoreanu (2009) was that students use

the social networking site to stay in touch with friends and acquaintances, "to digitally hang out,"

(p. 73). In their analysis of 72 young adult college students' autobiographical essays, McMillan

& Morrison (2006) also found that many students felt that Facebook was an efficient way to keep

in contact with friends on campus as well as plan offline events. This was supported by research

of general Internet use which suggested that individuals often go online to strengthen offline

relationships (Johnson, 2001). Similarly, Madge et al. (2009) described the site as part of the

"social glue" that helps students socialize and settle in to university life. Using this research as

support, as well as the conclusions from the Ellison et al. (2007) and Valenzuela et al. (2009)

studies that found Facebook intensity to have a positive relationship with social capital indicators

among college students, I propose my third hypothesis: **(H3)** Students who use Facebook for

proximal relationships will have higher levels of campus involvement and attachment.

As other characteristics are likely to have an impact on the relationships between the

motivations for using Facebook (information exchange, recreational purposes, Maintained Social

Capital, and maintaining proximal relationships), this study will also investigate the ways in

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which political interest and extroversion function as interaction terms, or moderating variables. While these terms are commonly included in studies as moderators, and thus variables that are often controlled for in the analyses of direct relationships, I based my hypotheses on studies that placed the majority of their focus on political interest and/or extroversion.

In 2008, Livingstone and Markham examined the association between media consumption and three indicators of civic participation, including political interest. They found lower levels of media trust and higher levels of news media engagement held a positive relationship with participants' levels of interest in politics. Put differently, participants who had low levels of media trust were more likely to be interested in politics than those with high levels of media trust and participants who were highly engaged in news media were more likely to be interested in politics than those who were less engaged. Although Livingstone and Markham provide support for the hypothesis that political interest will influence the direct relationships examined in this study, there is little indication within literature of how the interaction term will impact the relationship between the various uses of Facebook and Campus Attachment and Involvement. While it is possible that political interest will be correlated with campus involvement just as it is correlated with news engagement, it is also possible that there will be a negative correlation between political interest and feelings of attachment, as the interaction term has been found to be negatively related to feelings of trust (Livingstone & Markham, 2008). Additionally, it is conceivable that political interest will have differing impacts among the four direct relationships examined in this study. Therefore, I pose the research question: **(RQ2)** How do the relationships between different Facebook uses and levels of campus attachment and involvement vary among students with different levels of political interest?

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Zywica and Danowski (2008), "typing" users as extroverted or introverted, investigated

the presence of two competing hypotheses, the Social Enhancement hypothesis and the Social

Compensation hypothesis, in their study of Facebook popularity among users. The researchers

concluded that both hypotheses could be supported when one considered the types of users. That

is, the more extroverted Facebook users supported the Social Enhancement hypothesis, that users

who are more popular offline enhance their popularity by increasing it on Facebook, while

introverted users supported the Social Compensation hypothesis, that users attempt to increase

their Facebook popularity to compensate for their lacking offline popularity. As extroversion's

influence on Facebook popularity cannot be directly likened to that of Facebook's correlation

with campus attachment and involvement, and taking into account the hypothesized mixed

results of the criterion variables for the various uses of Facebook, I cannot predict with certainty

the impact of personality on campus attachment and involvement. Therefore, the final research

question is as follows: **(RQ3)** How do the relationships between different Facebook uses and

levels of campus attachment and involvement vary among students with different personality

characteristics?

Methods

Participants

Eighty-one University of Michigan undergraduate students in the Communication Studies

participant pool participated in this study. Participation in the study was voluntary. The age of

participants ranges from 18 – 22 years old ($M = 18.77$, $SD = .826$). Participants' year in school

is between first (1) and third (3) year ($M = 1.4$, $SD = .54$). The sample consists of 17.3% males

and 82.7% females. 46.9% of the student participants were from the state of Michigan (state of

the university), 46.9% originated from another state within the United States, and 6.2% of the

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participants had home residences outside of the United States. Local residences of the student

participants included university housing/dormitories (75.3%), on-campus houses or apartments

(12.3%), off-campus houses or apartments (4.9%), and fraternity or sorority housing (7.4%).

Procedures

Participants completed a 36-item online survey administered through the SONA system

of the University of Michigan at a place and time of their convenience. They were instructed to

answer all questions to the best of their abilities, but were not given information regarding the

purpose of the study in order to reduce potential biases. The survey can be found in the thesis

appendix.

Measures

In addition to measures acquiring demographic information such as age, gender, year in

school, home residence, and local residence, and psychographic information such as interest in

politics and introversion/extroversion, six measures were gathered from the survey data: four

predictor variables and two criterion variables.

Predictor variables. The four predictor variables examined in this study are as follows:

Facebook use for information exchange, Facebook use for recreational purposes, Facebook use

for maintained social capital, and Facebook use for proximal relationships.

Facebook use for information exchange. To measure the ways in which students used

Facebook for information exchange, the survey contained four questions regarding students' use

of five different Facebook applications: sharing and/or viewing links relating to news, posting

and/or viewing news-related photos, "like"-ing news-related fan sites, and using Facebook Chat

to exchange information about current events or other news-related information. The questions

asked students to disclose how many days per week they used each of the applications for

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purposes of information exchange. An 8-point scale, ranging from "0" to "7," was used and responses were combined to form an index (M = 9.78, SD = 7.29, Cronbach α = .76).

  Facebook use for recreational purposes. Three questions of the survey were used to measure the use of Facebook for recreational purposes via three Facebook applications: browsing friends' profiles "just for fun," playing Facebook games, and "like"-ing entertainment or recreation-related fan sites. Again, participants responded, using an 8-point scale, with the number of days per week ("0" – "7") they participated in each of the Facebook activities for recreational purposes. Responses were combined to form an index (M = 12.35, SD = 4.74, Cronbach α = .69).

  Facebook use for maintained social capital. Ellison et al.'s concept of "Maintained Social Capital" was measured using three questions regarding posting and/or viewing photos, exchanging Facebook wall posts, and using Facebook chat to interact with friends or acquaintances who don't live in Ann Arbor. On an 8-point scale, participants provided the number of days per week ("0" – "7") that they used each of these Facebook applications to interact with high school acquaintances. The responses were summed to form an index (M = 15.52, SD = 5.25, Cronbach α = .85).

  Facebook use for proximal relationships. The same three questions that were used to measure "Maintained Social Capital" were also used to measure participants' use of Facebook to uphold relationships with acquaintances that live on campus. Students were asked to provide the number of days per week ("0" – "7") that they posted and/or viewed photos, exchanged wall posts, or used Facebook chat with "friends" who reside in Ann Arbor. Again, an 8-point scale was used and responses were combined to form an index (M = 15.48, SD = 5.93, Cronbach α = .92).

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Criterion variables. Two general criterion variables were examined in this study: campus involvement and campus attachment. Additionally, measures for campus involvement were analyzed in four different categories.

Campus involvement. Participants' campus involvement was measured using four questions regarding the frequency of face-to-face informal socializing (spending time with friends), frequency of attendance at school-sponsored events, and involvement in an organization. As the scales and concepts of the four measures were not reliably combinable, the four measures are treated as four separate criterion variables in this study: informal socializing, campus events attendance, organization membership, and organization leadership positions.

Informal socializing. To measure informal socializing, students were instructed to provide any whole number between 0 and 14 in the free-entry response question "over the past TWO WEEKS, how many days have you socialized with friends in a FACE-TO-FACE context (not over the phone or online) for two hours or more?" All responses fell in the range of 2 to 14 ($M = 11.42$, $SD = 3.79$).

Campus events attendance. This measure of campus involvement was framed in the same way as that for informal socializing and asked students to provide the number of days in the past two weeks that they attended "campus-sponsored events, such as concerts, sporting events, lectures/public speaker events." The item also instructed participants to disregard events that were required for class. All responses fell in the range of 0 to 14 ($M = 2.68$, $SD = 2.80$).

Organization membership. Organization membership was measured using the item "To how many campus organizations, such as fraternities, academic-based, community service-based, or social-based groups, do you belong?" The free-entry response question generated responses ranging from 0 to 5 ($M = 2.44$, $SD = 1.41$).

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Organization leadership positions. The last measure of campus involvement was based on participants' free-entry response to the item "In how many of the organizations to which you belong do you hold a leadership position, such as a club officer?" Responses ranged from 0 to 3 ($M = .59$, $SD = .76$).

Campus attachment. This study adapted the "Satisfaction with Campus Life" measure that was used by Ellison, et al. in 2007. Nine questions, including "In most ways my life at MSU is close to ideal" and "I am satisfied with my life at MSU," were modified to pertain to participants' life at the University of Michigan. Participants responded on a 5-point scale ranging from "1 strongly disagree" to "5 strongly agree." Responses were summed to form an index, ranging from 20 to 45 ($M = 36.89$, $SD = 5.07$, Cronbach $\alpha = .90$)

Moderating Variables

Psychographic information including political interest and personality characteristics, operationalized as extroversion, were investigated as moderating variables, or interaction terms, in this study.

Political interest. One item was used to measure this interaction term. Participants used a 5-point scale ranging from "1 strongly disagree" to "5 strongly agree" to provide their response to the item "I am interested in politics" ($M = 2.94$, $SD = .99$).

Extroversion. To measure participants' personality as more or less extroverted, they responded using a 5-point scale ("1 strongly disagree" to "5 strongly agree") to the following items: "I make friends easily," "I show my feelings when I'm happy," "I am hard to get to know." The last item was recoded so that the three could be accurately combined to form an index measuring levels of extroversion ($M = 2.94$, $SD = .99$, Cronbach $\alpha = .73$).

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Analysis

Relationships between each of the motivations (information exchange, recreational purposes, maintained social capital, proximal relationships) for using Facebook (predictor variables) and each of the measures of campus attachment and involvement (criterion variables) were analyzed using the regression analysis in SPSS. Each main relationship was controlled for demographic and psychographic information (moderating variables). This analysis involved grouping the four items that measured using Facebook for information exchange, the four items that measured its use for recreation, the three items that measured Facebook use for maintained social capital, and the three items that measured using Facebook for proximal relationships. The information gathered from this analysis provides a closer look at the ways in which the motivation aspect of the uses and gratifications theory applies to the relationships at hand. The strength of the moderating variables (extroversion and political interest) was measured using these measures as interaction terms in subsequent regression analysis.

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Results

Table 1: *Control Variables of Campus Attachment and Involvement Indicators*

	Attachment		Informal Socializing		Campus Events Attendance		Organization Membership		Organization Leadership Positions	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Age	-.06	-.50	-.17	-1.02	-.01	-.06	-.15	-.96	-.13	-.78
Year in School	.10	.65	.15	.76	-.05	-.23	.19	1.04	.31*	1.59
Gender	.25***	2.82	.18	1.55	.13	1.11	.14	1.29	.11	.96
Home Residence	-.09	-.90	.25*	1.98	-.01	-.10	-.07	-.60	.03	.27
Local Residence	-.07	-.61	-.07	-.53	.03	.21	.05	.35	.12	.89
Extroversion	.61***	6.84	.14	1.18	.14	1.18	.42***	3.86	.19*	1.70
Political Interest	.16*	1.82	.07	.59	.04	.34	.03	.28	.18*	1.63

Note: N= 81 (***p<.01; **p<.05; *p<.12)

Although the study controlled for demographic information as well as the personality measure of extroversion and political interest, it is important to mention some significant findings among relationships between these variables and the criterion variables of attachment, informal socializing, campus events attendance, organization membership, and organization leadership positions. This information is displayed in Table 1.

After running regression analyses, it was determined that females, students who describe themselves as extroverted in personality, and students who are interested in politics feel more attached to their campus community. However, it is important to note that the positive relationship between political interest and attachment is only marginally significant.

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There was also a positive relationship between informal socializing and home residence, meaning that out-of-state/ out-of-US students were more likely to socialize with their friends in an average two-week period. This information can also be found in Table 1.

This study found a strong positive correlation between extroversion and organization membership. This means that students who identified themselves as more extroverted on the personality scale were also more likely to be involved in organizations on campus.

As shown in Table 1, year in school, extroversion, and political interest were positively related to organization leadership positions, with marginal statistical significance. Therefore, upper classmen, students who rated themselves as more extroverted on the extroversion scale, and students who are more interested in politics are more likely to hold leadership positions in organizations on campus.

Table 2: *Predictors of Campus Attachment and Involvement Indicators*

	Attachment		**Informal Socializing**		**Campus Events Attendance**		**Organization Membership**		**Organization Leadership Positions**	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Information Exchange	.21**	2.46	.26**	2.26	.32***	2.74	-.04	-.40	.22**	1.20
Recreational Purposes	.06	.62	.18	1.55	.16	1.27	-.05	-.49	-.09	-.80

Note: N = 81; Entries are standardized regression coefficients after controlling for: age, year in school, gender, home residence, local residence, extroversion, and political interest. (***p<.01; **p<.05; *p<.12)

Hypothesis 1, which predicts that students who use Facebook for information exchange will have greater levels of campus involvement and attachment, was supported in this study. As Table 2 shows, when controlled for age, year in school, gender, home residence, local residence, extroversion, and political interest, there was a significant, positive correlation between the

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predictor variable of "information exchange" and the criterion variable of "attachment."

Additionally, information exchange was positively related to informal socializing, campus events

attendance, and organization leadership positions, all criterion variables used to measure

involvement for purposes of this study. While organization membership shows a slightly

negative relationship with information exchange, the correlation is not statistically significant, so

overall Hypothesis 1 can be considered supported, especially as a significant positive

relationship was found for the four other criterion variables and information exchange. This

means that students who use Facebook to exchange information with others are more likely to be

both involved on campus and attached to their campus community.

Table 2 also depicts findings related to Hypothesis 2, that students who use Facebook for

recreational purposes will have lower levels of campus involvement and attachment. When

controlling for the same factors as in Hypothesis 1, only 1 relationship was found to be

marginally significant: recreation and informal socializing. Interestingly, this relationship is

actually negative, thus not supporting Hypothesis 2. As correlations between Facebook use for

recreational purposes and the other criterion variables were insignificant, it cannot be inferred

that students who use Facebook for recreational purposes are any more or less involved or

attached to their campus community when compared to students who have other motivations for

Facebook use.

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Table 3: *Predictors of Campus Attachment and Involvement Indicators*

	Attachment		Informal Socializing		Campus Events Attendance		Organization Membership		Organization Leadership Positions	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Maintained Social Capital	.07	.81	.11	.98	.09	.65	-.12	-1.15	.04	.37
Proximal Relationships	.16*	1.76	.20*	1.70	.03	.24	-.03	-.23	.15	1.28

Note: N= 81; Entries are standardized regression coefficients after controlling for: age, year in school, gender, home residence, local residence, extroversion, and political interest. (***p<.01; **p<.05; *p<.12)

Since there were contrasting findings in previous studies for the relationship between maintained social capital and various forms of media, this study presented a research question for this predictor variable as opposed to a hypothesis. Findings for Research Question 1, "How is using Facebook for maintained social capital related to students' levels of campus involvement and attachment?" can be found in Table 3. As the table illustrates, there were not any significant findings related to this variable. Although all relationships except for that of maintained social capital and organization membership appear to be positive, the insignificant p values prevent any definite answers to the research question. Therefore, this study cannot provide, with certainty, information regarding how or if using Facebook for maintained social capital and campus attachment and involvement are related.

The last hypothesis tested in this study predicts that students who use Facebook for proximal relationships, to interact with Facebook friends who live nearby, will have higher levels of campus involvement and attachment. Looking at Table 3, one can see that there are mixed results for this variable. While Facebook use for proximal relationships and attachment as well

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as informal socializing are positively related with marginal significance, the relationships

between the proximal relationships predictor variable and the criterion variables of campus

events attendance, organization membership, and organization leadership positions were found

insignificant in regression analyses. Thus, hypothesis 3 is partially supported in this study, as it

was found that students who use Facebook to interact with acquaintances who live nearby are

more likely to feel attached to their campus community and involve themselves in more informal

socialization, but the predictor variable is not significantly related to attending campus events or

being a member and/or leader in a campus organization.

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Table 4: *Political Interest as an Interaction Term for Facebook Use, Campus Attachment &*

Involvement Correlations

|	Attachment		Informal Socializing		Campus Events Attendance		Organization Membership		Organization Leadership Positions	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Information Exchange X Political Interest	-.01	-.10	.11	.93	-.12	-.95	.18	1.54	.34***	3.03
Recreational Purposes X Political Interest	-.11*	-1.24	-.07	-.57	-.05	-.38	.06	.54	.12	1.06
Maintained Social Capital X Political Interest	-.04	-.43	-.04	-.32	-.08	-.64	.08	.67	.18*	1.60
Proximal Relationships X Political Interest	.00	.04	.02	.13	-.07	-.57	.21*	1.71	.15	1.24

Note: N= 81; Entries are standardized regression coefficients after controlling for the following:

age, year in school, gender, home residence, local residence, information exchange, recreational

purposes, proximal relationships, maintained social capital, political interest, and extroversion.

(***p<.01; **p<.05; *p<.12)

Table 4 contains the results for regression analyses testing the influence of interaction

terms on the direct relationships examined in this study and therefore addressing Research

Question 2 of the study. The regression controls for age, year in school, gender, home residence

(in-state, out-of-state, out-of-United States), and local residence (dormitory, apartment/house,

sorority/fraternity house, etc.). Additionally, the direct contribution of the predictor variables,

political interest, and extroversion was taken into consideration. As expected, there are mixed

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results among the predictor and criterion variables for the ways in which extroversion and

political interest impacted the direct relationships.

Figure 1

Organization Leadership Positions
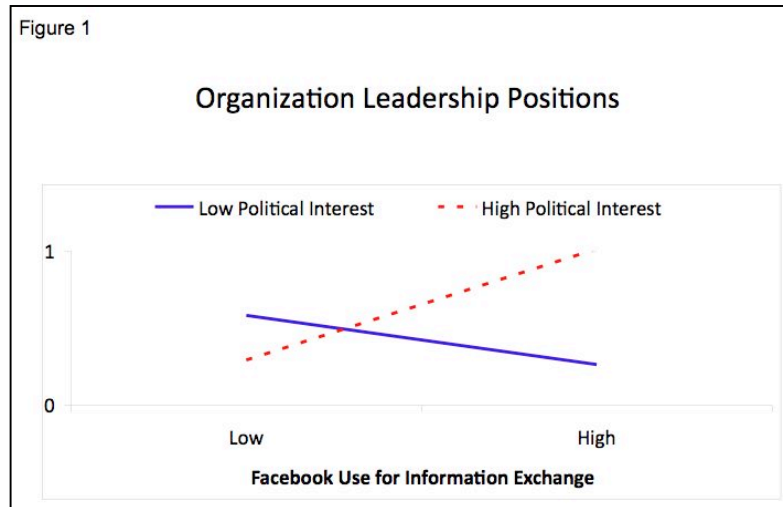
As shown in Table 4 and also Figure 1, Political interest was found to be significant in

positively influencing the relationship between using Facebook for information exchange and

organization leadership positions. The findings suggest the positive relationship between using

Facebook for information exchange and holding leadership positions within organizations was

greater for those with higher political interest. This means that students who rated themselves as

higher on the political interest scale held more leadership positions within organizations as their

use of Facebook for information exchange increased while students who rated themselves as

lower on the political interest scale held less leadership positions as their use of Facebook for

information exchange increased.

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Figure 2

Organization Leadership Positions
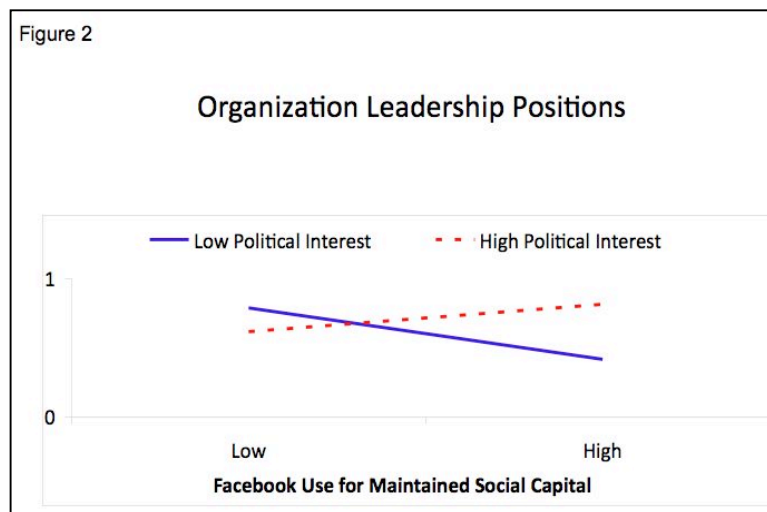
Political interest had the same impact on the relationship between using Facebook for maintained social capital and organization leadership positions. As shown in Figure 2, the positive relationship between using Facebook to interact with acquaintances that do not live nearby and involvement in campus organizations is greater for those with higher political interest. Students who identified themselves as more interested in politics increased the number of leadership positions they held within organizations as they also increased their use of Facebook for maintained social capital. On the other hand, students who identified themselves as less politically interested decreased their number of organization leadership positions as they increased their use of Facebook for maintained social capital. However, it is important to note that this relationship is of marginal statistical significance.
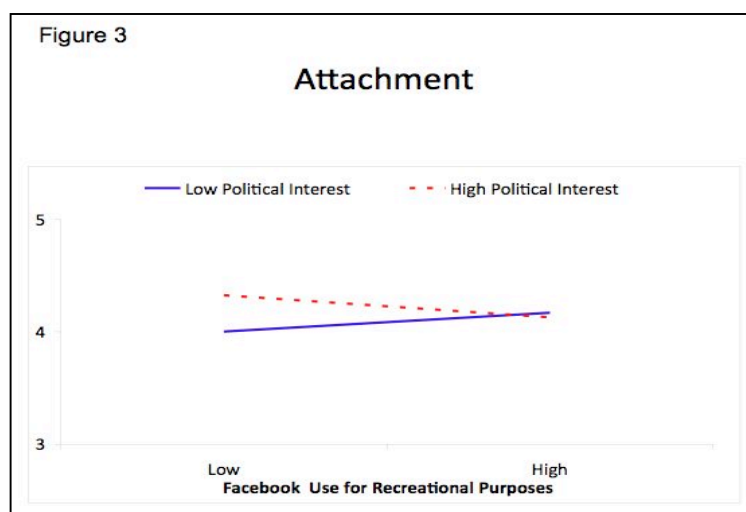
Figure 3

Attachment

Figure 3 shows the impact of political interest as an interaction term in the relationship of Facebook use for recreational purposes and attachment. While the direct relationship between using Facebook for recreational purposes and attachment is not significant, the positive relationship between the two variables is slightly greater for students who are more interested in politics. This means that students who identified themselves as interested in politics felt increased levels of attachment to their campus community as their use of Facebook for recreational purposes increased whereas students who gave themselves lower ratings of political interest on the political interest scale felt less attached to their campus community as Facebook use for recreational purposes increased.

Figure 4

Organization Membership

——Low Political Interest   — — High Political Interest

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3

2

1

Low   High
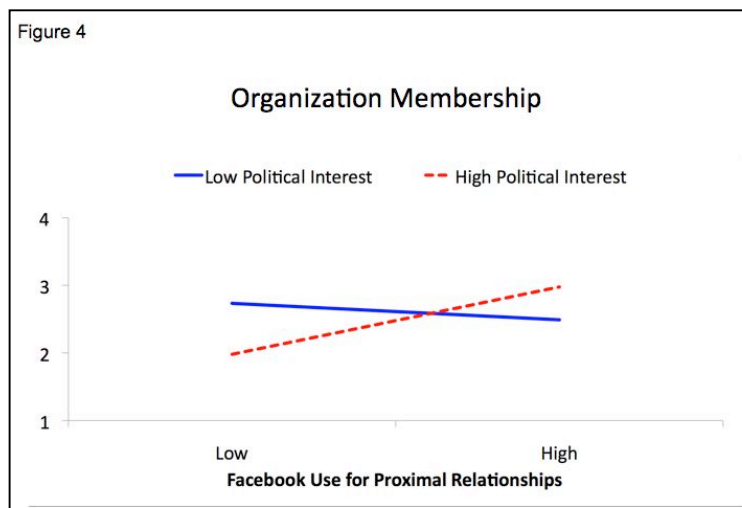
Facebook Use for Proximal Relationships

Figure 4 plots the impact of political interest on the relationship between Facebook use for proximal relationships and organization membership. As shown on Figure 4 and also in Table 4, the positive relationship between using Facebook to interact with acquaintances who live in the same city as the participants and being involved in campus organizations is greater for students with higher political interest, as the relationship for those with lower political interest is relatively flat. This means that organization membership increased as Facebook use for proximal
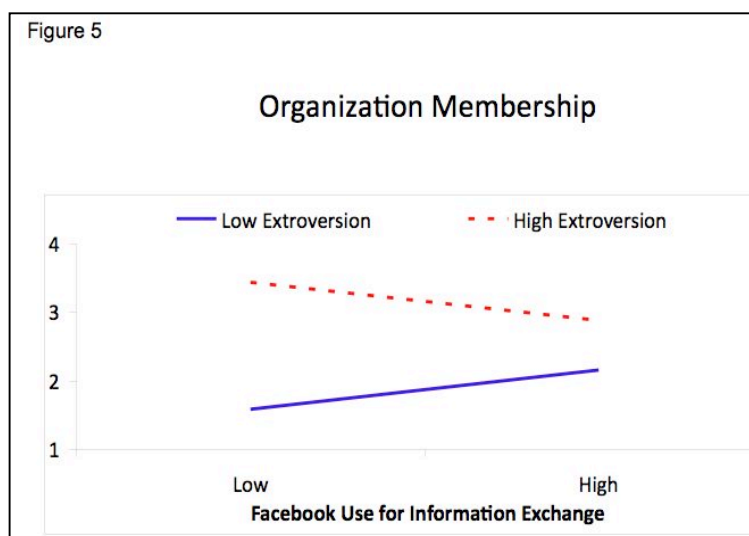
relationships increased for students who identified themselves as highly interested in politics, but

organization membership decreased as Facebook use for proximal relationships increased for

students who rated themselves as less interested in politics on the political interest scale. It is

still important to note that this impact is of marginal significance (p<.10).

**Table 5:** *Extroversion as Interaction Term for Facebook Use, Campus Attachment & Involvement*

	Attachment		Informal Socializing		Campus Events Attendance		Organization Membership		Organization Leadership Positions	
	Beta	t	Beta	t	Beta	t	Beta	t	Beta	t
Information Exchange										
X Extroversion	-.06	-.61	.07	.55	-.14	-1.10	-.22*	-1.91	-.11	-.96
Recreational Purposes										
X Extroversion	.07	.73	.29**	2.47	-.11	-.90	-.21*	-1.86	-.02	-.19
Maintained Social Capital										
X Extroversion	.12	1.33	.23**	1.98	-.09	-.76	-.18*	-1.66	-.10	-.89
Proximal Relationships										
X Extroversion	.03	.28	.24*	1.90	-.11	-.86	-.28**	-2.35	-.19	-1.51

Note: N= 81; Entries are standardized regression coefficients after controlling for the following:

age, year in school, gender, home residence, local residence, information exchange, recreational

purposes, proximal relationships, maintained social capital, political interest, and extroversion.

(***p<.01; **p<.05; *p<.12)

Figure 5

Organization Membership

— Low Extroversion   - - High Extroversion

Facebook Use for Information Exchange

The first look at the role in which extroversion played in impacting the relationships of this study, thus addressing Research Question 3, can be found on Figure 5 and Table 5. Extroversion is a marginally significant moderator in the relationship between the predictor variable of information exchange and the criterion variable of organization membership. The negative relationship between Facebook use for information exchange and organization membership is greater for students with low extroversion. As indicated on Table 5 and Figure 5, as Facebook use for information exchange increased, students who rated themselves as less extroverted increased the number of organization to which they belonged while students who rated themselves as more extroverted belonged to fewer organizations as their use of Facebook for information exchange increased.

Figure 6

Organization Membership
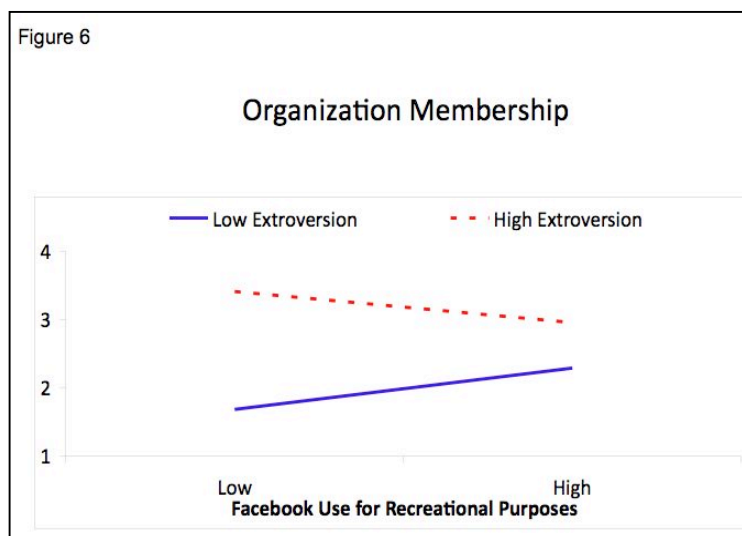
The interaction term had a similar impact on the relationship between Facebook use for recreational purposes and organization membership as shown in Figure 6. The positive relationship between using Facebook for recreation and being involved in organizations is greater for students who rated themselves as less extroverted on the personality scale. This means that as recreational use of Facebook increased, students who identified themselves as less

extroverted increased their organization membership. Conversely, students who identified themselves as more extroverted decreased their number of organization memberships as they increased their recreational use of Facebook.
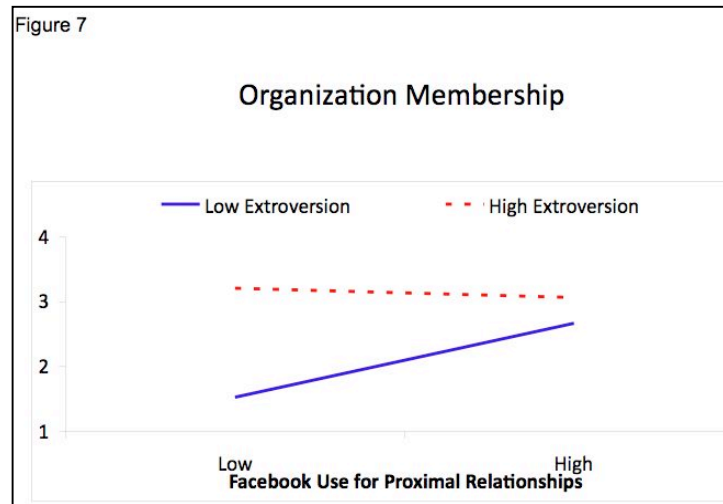
Figure 7

Organization Membership

The relationship between organization membership and Facebook use for proximal relationships is significantly negatively influenced by the interaction term of extroversion. As shown on Figure 7, the positive relationship is greater for students who rated themselves lower on the personality scale for extroversion than for those who rated themselves higher on the scale. Therefore, as Facebook use for proximal relationships increases, students who rated themselves as highly extroverted decreased or maintained the number of organizations to which they held membership while students who rated themselves as less extroverted increased their organization membership as their use of Facebook for proximal relationships increased.

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Figure 8

Organization Membership

——Low Extroversion   - - High Extroversion

Facebook Use for Maintained Social Capital

Figure 8 illustrates that the negative relationship between using Facebook for maintained

social capital and organization membership is greater for students who describe themselves as

more extroverted. The direct relationship is minimally impacted by the interaction term of

Extroversion when the students felt that they were less extroverted. This means that students

who rated themselves as highly extroverted decreased the number of organizations to which they

held membership as their use of Facebook for maintained social capital increased, but there was

little change in organization membership as Facebook Use for maintained social capital

increased for students who identified themselves as less extroverted. It is also important to note

that this relationship is only marginally significant.

Figure 9

Informal Socializing

——Low Extroversion   - - High Extroversion

Facebook Use for Recreational Purposes

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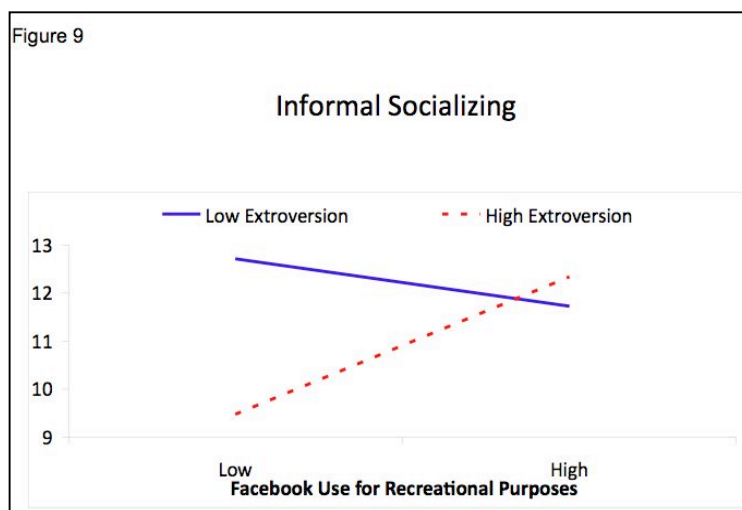
Extroversion was a statistically significant interaction term on the relationship between Facebook use for recreational purposes and informal socializing. As depicted on Figure 9, this positive relationship is greater for students who are more extroverted. Therefore, students who ascribed themselves high ratings of extroversion increased the number of days per two weeks that they socialized with friends as their use of Facebook for recreational purposes increased while students who identified themselves as less extroverted decreased their informal socializing as they increased their recreational use of Facebook.

Figure 10

Informal Socializing
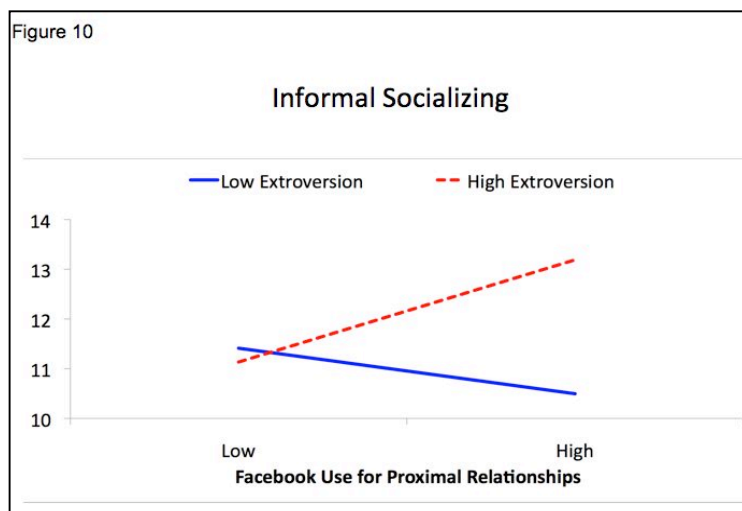
The interaction term of extroversion had a similar impact on the relationship between Facebook use for proximal relationships and informal socializing. Although this impact was only of marginal significance, the positive relationship between using Facebook to interact with acquaintances that live nearby and informal socializing is much greater for students who are more extroverted. This means that students who identify themselves as more extroverted participate in more informal socializing as they increase their use of Facebook to interact with friends who live nearby while students who identify themselves as less extroverted participate in

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less informal socializing activities (per two weeks) as their use of Facebook for proximal

relationships increases. This interaction is plotted on Figure 10.

Figure 11

Informal Socializing
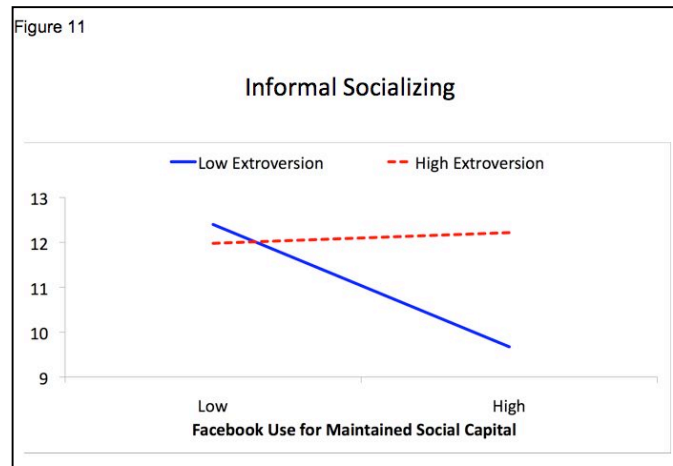
Extroversion had an inverse impact on the relationship between Facebook use for

maintained social capital and informal socializing. As illustrated on Figure 11, the relationship

between these two variables is subtly positive, but relatively flat for students with high

extroversion. However, there is a strong negative relationship between the use of Facebook to

interact with acquaintances that do not live geographically close and socializing with friends in a

face-to-face context for students who are less extroverted. This means that students who

described themselves as more extroverted increased their informal socializing as they also

increased their use of Facebook to interact with Facebook friends who do not live close by, but

informal socializing decreased as Facebook Use for maintained social capital increased for

students who described themselves as less extroverted.

Discussion

This study examined the ways in which students' different uses of Facebook (information

exchange, recreational purposes, maintained social capital, and proximal relationships) were

related to their involvement and feelings of attachment on campus. As expected, the different

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uses of the social media site warranted different levels of the criterion variables analyzed in this study. However, looking at the data, one can see several patterns across measures and derive the following conclusive results.

Information Exchange

The most influential predictor variable of this study was undoubtedly information exchange. Referring back to Table 2, one can see that information exchange held a statistically significant positive relationship with attachment, informal socializing, campus events attendance, and organization leadership positions. Possible implications of these findings include the notion that the information that students exchange on Facebook is related to campus activities and therefore prompts students to engage in such activities, become more involved on campus and, additionally more attached to their campus community. That is, students might access Facebook to gain information about campus events, informal socializing activities, etc. Still, as the methods of this study cannot prove causation, it is also possible that the correlations can be attributed to idea that students who have stronger feelings of attachment to their community and consider themselves to be involved campus members often desire to share information regarding these topics with their Facebook friends.

It is curious that the relationship between information exchange and organization membership is slightly negative. In fact, as shown in Table 2, the criterion variable of organization membership holds a slightly negative relationship with all four of the predictor variables examined in this study. One might argue that Putnam's "time displacement hypothesis," which suggests that increased time consuming media inevitably results in less time participating in civic activities, is supported in this relationship (Putnam, 2000). Similarly, it is possible that students might use Facebook as a supplement for the offline, or in-person,

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interaction associated with organization membership, supporting the "inelasticity of time" theory (Nie, 2001). Still, as none of the negative relationships were proven statistically significant, we cannot claim that various uses of Facebook are correlated with decreased membership in campus organizations.

Organization Membership

However, it is valid to claim that both interaction terms (extroversion and political interest) play the strongest role in the relationships between all predictor variables and criterion variable of organization membership analyzed in this study. Tables 4 and 5 illustrates the fact that, generally speaking, the negative relationship between the uses of Facebook and organization membership was stronger for students who identified themselves as more extroverted on the personality scale. This finding, combined with the highly significant and strong positive relationship (Beta = .42; p value = .00) between extroversion and organization membership (Table 1), could suggest that organization membership is more dependent upon personality characteristics, specifically that of extroversion, than it is related to uses of Facebook. This implication would explain both the lack of significant relationships between organization membership and all four predictor variables as well as the statistical significance of extroversion as an influential interaction term on the direct relationships of this study.

It is interesting that, although organization membership was negatively related to all predictor variables, the criterion variable of organization leadership positions still holds positive relationships with the predictor variables of Facebook use for information exchange, proximal relationships, and maintained social capital (Table 2). As the relationship between organization leadership positions and extroversion is not as strong as that between organization membership and extroversion (Table 1), perhaps it is the case that students use leadership roles within

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organizations to increase their social circles and become more extroverted individuals. That is, students might use an organization leadership position, and also the various uses of Facebook, to achieve higher levels of social capital, whereas students who are only general members of organizations already have high levels of social capital and use organization membership as an outlet to exert this, not requiring Facebook as an additional means of increasing campus involvement and attachment.

Maintained Social Capital

Another interesting finding of this study is that, as shown in Table 2, maintained social capital is the only predictor variable to not have any statistically significant relationships with any of the five criterion variables (attachment, informal socializing, campus events attendance, organization membership, organization leadership positions). As maintained social capital refers to students who use Facebook to interact with acquaintances who live outside of Ann Arbor (the local residence of all study participants), it was predicted that the variable would be negatively correlated with most, if not all, measures of campus attachment and involvement. The rationale for this hypothesis was that if students are more connected with those who do not live nearby, they will be more invested in off-campus activities and events and be less attached and involved in the community around them. The fact that a significant relationship between maintained social capital, campus attachment and/or involvement was not found indicates that the predictor variable did not have as strong of an impact as expected. Still, it is possible that the lack of statistical significance is a result of the relatively small sample size (N=81) of this study.

Interaction Terms

Some of the most significant findings derived from this research were the roles in which political interest and extroversion played in the direct relationship that this study examined. In

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total, I found eleven statistically significant impacts of interaction on direct relationships. The ways in which these results address the research questions posed in this study as well as the implications of these results are described below.

Political interest. Based on these results displayed in Figures 1 - 4, we can address Research Question 2, "How do relationships between different Facebook uses and levels of campus attachment and involvement vary among students with different levels of political interest?" As the interaction term of political interest only had a statistically significant impact on the involvement measure of organization leadership positions, this is the only criterion variable in which we can discuss with confidence. It appears as though students who use Facebook for information exchange and for maintained social capital are more likely to hold a leadership position within an organization if they are more interest in politics than if they are less interested.

Political interest also had an impact on the direct relationship between Facebook use for recreational purposes and attachment. As shown in Figure 3, the negative direct relationship is greater for students with higher political interest. This means that students who are more interested in politics are less attached to their campus community as they increase their use of Facebook for recreational purposes. Additionally, political interest was found to impact the relationship between organization membership and Facebook use for proximal relationships (Figure 4). As students with high political interest increase their use of Facebook to interact with acquaintances that live nearby, they increase their membership in campus organizations, but the inverse is true of students with low political interest.

From the regression analysis of interaction terms, we cannot see any statistically significant impact of political interest on the direct relationships between informal socializing

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and any of the predictor variables or campus events attendance and any of the predictor

variables. Additionally, political interest only (marginally) significantly affects the direct

relationship between Facebook use for recreational purposes and attachment and Facebook use

for proximal relationships and organization membership. Lastly, there was no statistically

significant impact of political interest on the direct relationship between organization leadership

positions and Facebook use for recreational purposes or on the direct relationship between

organization leadership positions and Facebook use for proximal relationships.

Extroversion. Using the results illustrated in Figures 5 – 11, we can attempt to answer

Research Question 3, "How do the relationships between Facebook uses and levels of campus

attachment and involvement vary among students with different personality characteristics?"

Figures 5, 6, 7, and 8 illustrate the role extroversion played in moderating the relationship

between organization membership and each of the four predictor variables examined in this

study. For all relationships except the one involving Facebook use for maintained social capital

(Figure 8), as predictor variables increased, organization membership for students with low

extroversion also increased, but organization membership for students with high extroversion

actually decreased as both uses of Facebook increased. Extroversion has a different impact on

the relationship between organization membership and Facebook use for maintained social

capital, as both students who identify themselves as more and less extroverted decrease their

organization membership with increased use of Facebook to interacting with acquaintances who

don't live nearby. Still, the negative direct relationship is stronger for students with high

extroversion.

Figures 9, 10, and 11 showcase the finding that the negative relationship between

informal socializing and the predictor variables of Facebook use for recreational purposes,

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proximal relationships, and maintained social capital was greater for students who rated themselves as less extroverted on the personality scale. This means that, different from extroversion's impact on most relationships involving organization membership, as students with low introversion increased their use of Facebook for the three predictor variables listed above, they decreased the days per two weeks that they socialized in a face-to-face context with friends.

While we can answer Research Question 3 by providing the ways in which extroversion impacted many of the direct relationships examined in this study, there are still some relationships that were not statistically significantly affected by the interaction term. These relationships include Facebook use for information exchange with all predictor variables except organization membership; Facebook use for recreational purposes with the predictor variables of attachment, campus events attendance, and organization leadership positions; Facebook use for proximal relationships with attachment, campus events attendance, and organization leadership positions; and maintained social capital with attachment, campus events attendance, and organization leadership positions.

Limitations

While this study did render significant findings regarding the relationships between the various uses of Facebook and college students' levels of involvement and feelings of attachment toward their campus community, it is important to note some of the study's limitations. As previously mentioned, the sample size for this study was only eighty-one students, making it difficult to claim statistical significance for many of the examined relationships. Additionally, the participant pool is comprised of roughly 80% females and entirely of students from an introductory level Communication Studies class, so results may be biased in that way. Lastly, the study's measures of criterion variables considered relatively broad aspects of involvement

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and attachment, as specific organizations, means of informal socializing, etc. might have an effect on the ways in which the variables are related to the different uses of Facebook.

Recommendations

Future research will benefit from investigating the relationships between various uses of Facebook and measures of attachment and involvement more closely, possibly employing the use of focus groups and/or one-on-one interviews to collect more personalized and descriptive quantitative data. Moreover, a larger and more diverse sample size would be recommended for future research to attempt collection of unbiased data and to increase the likelihood of statistical significance among findings.

Although this study does not provide the grounds for causal claims in the relationships between Facebook use, campus attachment, involvement, and the interaction terms of political interest and extroversion, it does offer empirical evidence that such relationships do exist. As more research is conducted in this relatively new phenomenon of social media and the relationships between its different uses and various aspects of the offline lives of its users, it is likely that we will be able to find ways in which these tools can be used to improve individuals' personal levels of involvement and attachment to their communities and collective levels of social capital among members of society.

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Appendix

The following questions are designed to measure your uses of various Facebook applications.

Using the scale provided, please mark the number of DAYS PER WEEK that you participate in each of the listed Facebook activities.

If you do not have a Facebook, please respond "0" to every question in this section.

If you do not use the application of Facebook listed in the question, please respond "0" for that item.

1. I share and/or read links to news articles, broadcasts, and/or other news-related content.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

2. I post and/or view photos of public officials, current events, and/or other news-related content.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. I "like" television news stations, newspapers, and/or other news-related fan sites.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. I chat and/or message with friends about current events and/or to share newsworthy information.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

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5. I spend time browsing through friends' profiles just for fun.

0	1	2	3	4	5	6	7
○	○	○	○	○	○	○	○

6. I spend time on Facebook to pass time when I'm bored.

0	1	2	3	4	5	6	7
○	○	○	○	○	○	○	○

7. I play Facebook games such as Farmville, Texas HoldEm Poker, Mafia Wars, etc.

0	1	2	3	4	5	6	7
○	○	○	○	○	○	○	○

8. I "like" celebrity, sports, games, and/or other entertainment-related fan sites.

0	1	2	3	4	5	6	7
○	○	○	○	○	○	○	○

9. I post and/or view photos of Facebook friends who are family members and/or acquaintances from high school or college, but don't currently reside in Ann Arbor.

0	1	2	3	4	5	6	7
○	○	○	○	○	○	○	○

10. I exchange wall posts with Facebook friends who are family members and/or acquaintances from high school or college, but don't currently reside in Ann Arbor.

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10. I exchange wall posts with Facebook friends who are family members and/or acquaintances from high school or college, but don't currently reside in Ann Arbor.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. I chat and/or message with Facebook friends who are family members and/or acquaintances from high school or college, but don't currently reside in Ann Arbor.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

12. I post and/or view photos of Facebook friends who currently reside in Ann Arbor.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

13. I exchange wall posts with Facebook friends who currently reside in Ann Arbor.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

14. I chat and/or message with Facebook friends who currently reside in Ann Arbor.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

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The following questions are designed to measure your involvement at the University of Michigan. Please answer each question to the best of your ability using the scale provided.

1. Over the past TWO WEEKS, how many DAYS have you socialized with friends in a FACE-TO-FACE context (not over the phone or online) for two hours or more? Please choose any whole number between 0 and 14.

2. Other than classes and/or required class activities, how many CAMPUS-SPONSORED EVENTS, such as concerts, sporting events, lectures/public speaker events, have you attended in the past TWO WEEKS? Please choose any whole number between 0 and 14.

3. To how many campus organizations, such as fraternities, academic-based, community service-based, or social-based groups, do you belong?

4. In how many of the organizations to which you belong do you hold a leadership position, such as a club officer?

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The following questions are designed to measure your personal feelings of attachment to the University of Michigan community, as well as some of your general interests. Please indicate the extent to which you agree or disagree with the following statements using the scale provided.

1. I feel I am a part of the University of Michigan community.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

2. I am interested in what goes on at the University of Michigan.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

3. I would be willing to contribute money to the University of Michigan after graduation.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

4. Interacting with people at the University of Michigan makes me want to try new things.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

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5. Interacting with people at the University of Michigan makes me feel like a part of a larger community.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

6. I am willing to spend time to support general University of Michigan activities.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

7. At the University of Michigan, I come into contact with new people all the time.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

8. The University of Michigan is a good place to be.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

9. Interacting with people at the University of Michigan reminds me that everyone in the world is connected.

○	○	○	○	○
1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree

`

10. I am interested in politics.

    ○   ○   ○   ○   ○

1 Strongly   2 Disagree   3 Neutral   4 Agree   5 Strongly
Disagree   Agree

11. I make friends easily.

    ○   ○   ○   ○   ○

1 Strongly   2 Disagree   3 Neutral   4 Agree   5 Strongly
Disagree   Agree

12. I show my feelings when I'm happy.

    ○   ○   ○   ○   ○

1 Strongly   2 Disagree   3 Neutral   4 Agree   5 Strongly
Disagree   Agree

13. I am hard to get to know.

    ○   ○   ○   ○   ○

1 Strongly   2 Disagree   3 Neutral   4 Agree   5 Strongly
Disagree   Agree

`

Finally, please answer the following questions regarding your demographic information. While the survey items should pose no risk to you and all responses will be kept anonymous and entirely confidential, you may skip any questions that you are uncomfortable answering.

1. What is your age?

○ Under 18   ○ 18   ○ 19   ○ 20   ○ 21   ○ 22   ○ Over 22

2. What is your year in school?

○ 1st Year   ○ 2nd Year   ○ 3rd Year   ○ 4th Year   ○ 5th Year or Above

3. What is your gender?

○ Male   ○ Female

4. Where is your home residence?

○ In-State (Michigan)   ○ Out-of-State (In US)   ○ Outside of US

5. Where is your local residence?

○ University Housing (Dorms)   ○ Fraternity or Sorority House   ○ On-Campus House or Apartment   ○ Off-Campus (I commute to campus)

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