Social Capital and Its Relationship with Universiti Putra Malaysia Undergraduates' Facebook Usages

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ABSTRACT

This study envisaged in determining the relationship between the intensity of Facebook usage and social capital among undergraduates at Universiti Putra Malaysia. A number of factors (respondent's personal and family background, the intensity of Facebook usage and social capital) have been studied with regards to their relationships with each other. Respondents involved 120 male and female undergraduates studying at Universiti Putra Malaysia (UPM), who were selected through a convenience sampling. A self-administered questionnaire was used as a tool for data collection. Majority of the respondents were between 21 and 23 years of age, obtained an average of CGPA of 3.05 and came from educated parents (diploma and above), and moderately high household incomes. Pearson correlation was used to test the correlation between the respondent's personal and family backgrounds with Facebook intensity. Meanwhile, linear regression was used to analyze the strength of the relationship between Facebook intensity and social capital and revealed that all have significant relationships with the intensity of Facebook usage. The linear regression analysis also affirmed that the intensity of the Facebook use ($\beta = 0.274$**) has a positive but miniscule effect on the increment of social capital. Relevant factors attributed to findings are also discussed.

Keywords: Social network service, Facebook, social capital, undergraduates, correlational studies

INTRODUCTION

The encroachment of Internet into every aspect of human lives has been steadily debated among researchers (Comscore, 2007; Boyd & Ellison, 2007; Ellison, Steinfield, & Lampe, 2007; Lampe, Ellison, & Steinfield, 2006; Valkenburg, Peter,

& Schouter, 2006). Hu and Wang (2009) denote that the studies on the World Wide Web and the Internet have been, to a certain extent, dominated by the evolving of social collaborative technologies, such as Social Networking Site (SNS), blog, Wiki and other Internet services. Some even claimed that the Internet has become a principal venue for social interactions (Wang, Moon, Kwon, Evans, & Stefanone, 2010). A significant study by Vasaloua, Joinsona and Courvoisier (2010) acknowledged Boyd and Ellison's (2007) common elements of social network sites. In more specific, the authors hypothesised that these sites allow individuals to ''construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection and view and traverse their list of connections and those made by others within the system'' (Vasaloua *et al*., 2010). There is a growing body of literature suggesting that the Internet extends its influences towards communication facilitation and online social relationships (Wang *et al*., 2010). Individuals can use social communication networks for very different purposes, however, the use of specific objectives in terms of layout of the communication platforms may vary according to services (Bicen & Cavus, 2010; Gross & Acquisti, 2005). The SNS trend is a relatively new one and little research has been reported on its use in education, particularly within the Malaysian higher education context.

Meanwhile, Roblyer *et al*. (2010) stipulate that the most prevalent use of SNSs in the university community is creating profiles and groups to communicate events with users. However, differing community cultures and culturally homogeneous groups congregating certain social network sites had been previously studied by the Hargittai (2007), Boyd and Ellison (2007), and Vasaloua *et al*. (2010), and thus, yielded some contentious patterns of assumptions pertaining the influence of social interaction via SNSes. A body of literature exists, particularly on the empirical studies of patterns of college students' use of Facebook (Wang *et al*., 2010). According to Boyd and Ellison (2008), ever since Facebook opened its doors to people outside Harvard University's network, there have been over 350 million subscribers worldwide (according to Facebook.com statistics retrieved in March, 2010, as cited by Roblyer *et al*. (2010), and whom 8 million users are from Malaysian netizens (TNSDigitalLife, 2010).

There is now a vigorous debate on the educational purposes of social network sites as stated by Munoz and Towner (2009). In drawing a framework with which to understand the disparate perspectives on the educational benefits of SNSes, Munoz and Towner (2009) cited Hewitt and Forte (2006) on the concerns related to privacy and anxiety in interacting with professors in this environment. The authors also acknowledged Charnigo and Barnet-Ellis's (2007, as cited by Selwyn, 2007) contention that SNSes might not serve as an academic purpose (and educators eventually should simply avoid "educationally appropriating"

these "backstage" social spaces). On the contrary to the beliefs on the disadvantages of Facebook's educational benefits, Steinfield *et al*. (2008) acknowledged that Facebook has become very popular among undergraduates, with usage rates upwards of 90% at most campuses (Lampe *et al*., 2006), and studies pertaining to the use of Facebook in the academic settings (Hewitt & Forte, 2006) and the demographic predictors of Facebook use (Hargittai, 2007).

Recent studies indicate a significant portion of the traffic for Facebook comes from Asian countries, particularly Southeast Asia, with Malaysians among the highest number of users (TNSDigitalLife, 2010). Various studies by sociologists such as Lampe *et al*. (2006), Dwyer (2007), and Donath & Boyd (2004), have all questioned the effects of social network sites such as Facebook, Friendster and MySpace. However, the samples for the studies were taken from a population vastly different in terms of their sociology, education, culture, upbringing and exposure to technology. Therefore, this study focused on answering questions pertaining to the local undergraduates, their personal and family characteristics, their uses of Facebook, and how it has an impingement on the development of social capital.

Meanwhile, the rapid changes in pace of the new age has placed a time constraint on many individuals. Many are too busy and have no time to maintain their social lives. Thus, Facebook allows individuals to update and receive updates from friends and family with a click of a button. Facebook could also provide a platform for the rapid amalgamation of social capital which could benefit many, provided that individuals are keen on expanding their network by meeting new individuals online for business, personal or even academic purposes. Therefore, the study investigated on how often these individuals use Facebook in their daily routines and also analyzed how often UPM undergraduates keep in touch with old friends and meet new ones through Facebook. A study by Ellison *et al*. (2007) indicates that the intense use of Facebook is closely related to the formation and maintenance of social capital. Their study constituted that Facebook usage was found to be associated with distinct measures of bridging and bonding social capital. However, not much has been written on this relationship among Malaysian undergraduates. This study, therefore, fills in that chasm in the literature. This is made possible by surveys conducted among Universiti Putra Malaysia undergraduates. Studies have suggested that among undergraduates, excessive Internet use could be the cause of developmental issues in establishing new relationships and even the formation of their identities (Anderson, 2001). However, Facebook also enables users to construct their own virtual identities and provides them with a form of faceless communication. This may hamper social anxiety, which therefore allows users to communicate freely. Therefore, this study envisaged on determining on whether there is a positive or negative relationship between the use of Facebook and the development of social capital.

Social capital has been argued by Bourdieu (1985) and Coleman (1993) as a contributing factor towards creating a utopia. Social capital considers the connections between individuals via their social networks, as well as the concepts of reciprocity and trustworthiness within those networks (Putnam, 2000; Vitak, 2008). Social capital allows a person to draw on resources from other members of the networks to which he or she belongs (Ellison *et al*., 2006) and it can be divided into two major categories, namely, *bonding* and *bridging* (Putnam, 2000; Narayan & Cassidy, 2001; Vitak, 2008). Bonding social capital involves intrapersonal relationship, while bridging social capital is about interpersonal relationship, which encourages external linkages and networking to occur. The association between Facebook usage and students' social capital has persistently been studied in previous research (see for instance, the studies by Valenzuela, Park & Kee, 2009; Vitak, 2008; Ellison *et al*., 2007). Thus, this study aimed to provide some insights into plausible concerns pertaining to certain administrative policies in relation to educating the public and promoting civic consciousness through the development of social capital through various means that are at hand. Hence, the imperatives of the study specifically focused on the empirical inquiries pertaining to the relation of the quality (users keeping in touch with known and unknown individuals) and the quantity (time spent) of Facebook usages among Universiti Putra Malaysia undergraduates, as well as exploring the relationship between the intensity of Facebook usages and the development of social capital.

METHOD

Research Design

This study is a replication attempt from the previous study by Ellison *et al*. (2007), with partial application of the variables used in the previous study. By taking into account that the current study is exploratory in nature, the authors decided to specifically examine the relationship between Facebook usages and student's social capital. However, it is acknowledged that the previous study by Ellison and colleagues involved three other variables which were not included in this study, namely, self esteem, life satisfaction, and maintained social capital. Hence, this study attempted to test only these two hypotheses:

H1: The intensity of Facebook use is positively associated with individuals' perceived bridging social capital.

H2: The intensity of Facebook use is positively associated with individuals' perceived bonding social capital.

Participants

The participants involved in this study comprised of 120 undergraduate students of Universiti Putra Malaysia (62 males and 58 females) in the Serdang Campus, Selangor. The participants were from various programmes and faculties in UPM. In terms of their ethnicity, there were 52

Malays, 37 Chinese, 25 Indians and other races (n=6). The age of the participants ranged from 19 to 29 years, with a mean age of 20.4 years. The focus of this research was limited to only Facebook users, as the growing literature has consistently indicated that Facebook is currently the most popular online social networking site among students (Cheung, Chiu & Lee, 2010). All the participants were selected through the convenience sampling technique. A pre-screening of the respondents was done by the researcher by asking a few verbal questions, prior to asking the individuals to fill in the questionnaire. This was done to ensure that the respondents were in fact UPM undergraduates of Malaysian nationality and those who were familiar with the use of Facebook applications.

Measures

Demographic scale. A demographic scale, which included questions on the participants' personal background such as gender, religion, race, Cumulative Grade Points Average (CGPA) and academic semester, was used in this study. Another portion of the questionnaire gauged the participants' family background, which included parent's age, parent's occupation and also parent's total monthly income.

Independent variables. There were two variables used in this study: 'Facebook intensity' and 'Use of Facebook to Meet New People vs. Connect with Existing Offline Contacts'. Both the instruments were developed by Ellison *et al.* (2007). The Facebook intensity scale is divided into two parts. The first part was designed to measure the extent to which a respondent is actively engaged in Facebook activities, the number of Facebook "friends" and the amount of time spent on Facebook on a typical day (2 items). The second part measured the extent to which the participants are emotionally connected and integrated Facebook in their daily routine (6 items). The scale has a high internal consistency (Cronbach's Alpha = 0.842), which is deemed to be a reliable measurement for Facebook intensity.

The second variable refers to the 'Use of Facebook to Meet New People vs. Connect with Existing Offline Contacts', which measured the quality or the users' frequency of keeping in touch with known and unknown individuals on Facebook. This scale investigated the respondents' motivation to connect with the contacts already known in the offline world, such as a colleague or a classmate, or the potential to generate new connections with online acquaintances. This scale produced a high reliability rating with a Cronbach's Alpha value of 0.829, which also makes it a sturdy measure for Facebook use for prior contacts and meeting new people.

Dependent variables. There were two measures of social capital in this study (bridging and bonding social capital), which had been adapted and adopted from the study by Ellison *et al.* (2007). The current study acknowledged the contributions of the

previous authors, in which the original scales consisted of three categorical measures - bridging, bonding and maintained social capital (Quan-Haase & Wellman, 2004, as cited in Ellison *et al.*, 2007; Williams, 2006).

All the questionnaires were distributed together to each respondent so that they could obtain a better picture of all the questions in the questionnaire.

Procedure

All data were collected by using the questionnaires during the survey. The survey was scheduled at various times of the day to ensure a better cross section of the responses. The aim was to have the questionnaire completed by a set of individuals as diverse as possible to ensure that the data collected would not be skewed. All the subjects were given as much time as needed to complete the questionnaire. The data were analysed using the Statistical Package for Social Science (SPSS) software. The data from the questionnaires were manually keyed into the system and the resulting calculations were performed by using the software. Descriptive data, such as the respondent's personal and family backgrounds, were appropriately described according to the objectives. Correlative data and hypotheses were tested using the Pearson Correlation and the Regression Tests. The Pearson Correlation test was used to examine the significance of the relationships between the variables, while the Regression analysis was used to determine the contribution of the intensity of Facebook usage to social capital.

Respondents' Facebook Intensity

The descriptive analysis showed a normal distribution of the level of Facebook intensity among the respondents. On average, the respondents reported that they spent between 2 to 3 hours on Facebook

TABLE 1
The summarized statistics for the intensity of Facebook use

Individual Items and Scale	Mean	S.D.
Facebook intensity[1]	**0.00**	**0.716**
About how many Facebook friends do you have at UPM or elsewhere? *0=Less than 10, 1=11-50, 2=51-100, 3=101-150, 4=151-200, 5=201-250, 6=251-300, 7=301-400, 8=More than 400*	5.94	2.931
In the past week, on average, approximately how many minutes per day have you spent on Facebook? *0=Less than 10, 1=10-30, 2=31-60, 3=1-2 hours, 4=2-3 hours, 5=More than 3 hours*	4.30	1.537
[2]Facebook is a part of my everyday activities	3.73	1.242
[2]I am proud to tell people that I'm on Facebook	3.54	1.208
[2]Facebook has become a part of my daily routines	3.64	1.256
[2]I feel out of touch when I have not logged onto Facebook for a while	3.47	1.328
[2]I feel I am a part of the Facebook community	3.58	1.157

Note: [1]Individual item was first standardized before taking an average to create scale due to differing item scale ranges. [2] Response categories ranged from 1=strongly disagree to 5=strongly agree.

everyday and conveyed that they had an average of 250 to 300 online contacts. The respondents also agreed that Facebook had become parts of their everyday activity (mean = 3.73) and a part of their daily routines (mean = 3.64). These respondents agreed that they are proud to be on Facebook (mean = 3.54) and that they felt they are parts of the Facebook community (mean = 3.58). All these statistics are in tandem with Facebook being the most popular, largest and fastest growing SNS in the world, as ranked by the renowned eBusiness knowledgebase, eBizMBA (2010). However, the scale is below than 3.5, when it comes to respondents feeling out of touch when they have not logged onto the Facebook for awhile. This is a positive sign, with which the assumptions could be made that many respondents still have affiliations to offline activities such as outdoor sports and other healthy activities that allow them to exercise not only their physique, but also their social skills outside the so-called magic box.

The Use of Facebook to Meet New People vs. Connect with the Existing Offline Contacts

Another positive findings discerned from the analyses indicate that an average number of the respondents (mean = 4.22) use Facebook to keep in touch with old friends already known to them in the offline world. Many of these respondents also have used Facebook to check out on someone they met socially through their known offline friends (mean = 3.73). This may exemplify the social value of Facebook as a means of staying in touch and also as a means of examining a person and their characteristics. Perhaps, this is why it is common to see even employers scrutinizing potential and current employees using their Facebook profiles as one of the benchmarks. However, the respondents lean towards disagreeing when it comes to using Facebook to learn about other people in their classes (mean = 3.48), and those living around them (mean = 3.47). This probably constitutes to the lack of knowledge and the ability of the respondents to use Facebook to expand their networks

TABLE 2
Summary statistics for Facebook use for prior contacts and meeting new people

Individual Items and Scale[1]	Mean	S.D.
Off to Online: I use Facebook to connect with offline contacts (Cronbach's alpha=0.829)	**3.72**	**0.935**
I have used Facebook to check out someone I met socially	3.73	1.075
I use Facebook to learn more about other people in my classes	3.48	1.195
I use Facebook to learn more about other people living near me	3.47	1.250
I use Facebook to keep in touch with my old friends	4.22	1.070

Note: [1]Individual item ranged from 1=strongly disagree to 5=strongly agree, scales constructed by taking mean of items.

and connections with other individuals in the outside world. This could be further explained by a lack of curiosity which could be due to the respondent's upbringing, particularly pertaining to the notion of never talk or associate themselves with strangers.

Respondents' Social Capital

The wordings of the two measures of social capital, bridging and bonding as portrayed in Table 3, were slightly altered so as to reflect the context of the current study. The bridging social capital scale, with a very sturdy reliability (Cronbach's Alpha = 0.904) measured the extent to which the respondents made use of their external assets to disperse information (Putnam, 2000). The bonding social capital scale which was also adapted to fit the context of UPM undergraduates only produced a marginal internal consistency (Cronbach's Alpha = 0.703). However, the bridging social capital scale (mean = 3.45) suggests that although the respondents prioritize maintaining relationships with their offline contacts, they are still open to interacting with other members outside their social circle. This may stipulate that the respondents are also keen on laying down new connections and forming bridges across borders, as well as interacting with new

TABLE 3
Summary statistics for the social capital items

Individual Items and Scales[1]	Mean	S.D.
Bridging Social Capital Scale (Cronbach's alpha=0.904)	**3.45**	**0.922**
I feel I am a part of the UPM community	3.41	1.338
I am interested in what goes on at UPM	3.56	1.151
UPM is a good place to be	3.45	1.242
I would be willing to contribute money to UPM after graduation	3.12	1.304
Interacting with people at UPM makes me want to try new things	3.53	1.166
Interacting with people at UPM makes me feel like a part of a larger community	3.56	1.222
I am willing to spend time to support general UPM activities	3.57	1.150
At UPM, I come into contact with new people all the time	3.53	1.209
Interacting with people at UPM reminds me that everyone in the world is connected	3.36	1.235
Bonding Social Capital Scale (Cronbach's alpha=0.703)	**3.34**	**0.733**
There are several people at UPM I trust to solve my problems	3.61	1.190
If I needed an emergency loan of $100, I know someone at UPM whom I can turn to	3.19	1.428
There is someone at UPM I can turn to for advice about making very important decisions	3.50	1.202
The people I interact with at UPM would be good job references for me	3.57	1.083
I do not know people at UPM well enough to get them to do anything important	3.15	1.221

Notes: [1] Individual items ranged from 1=strongly disagree to 5=strongly agree, scales constructed by taking mean of items.

various individuals of various backgrounds to diffuse and assimilate information. This in turn can widen the existing areas of trust and promote understanding that allows us to coexist better with one another. The bonding social capital scale (mean = 3.34) further solidifies findings that although the respondents are open to interacting with new members outside their social circle, their new connections are just on the surface and not in depth, as compared to their maintained connections. This means that the respondents have a good balance of not only being open to making new connections but also being cautious and gradually building trust with the new connections first.

The Relationship between Personal Backgrounds and Facebook Intensity

Table 4 shows the significance level and correlation coefficient values between a number of variables, all pertaining to the respondent's personal background and intensity of Facebook usage. Although all the variables seem to show a negative relationship towards the intensity of Facebook usage, only one, i.e. the respondent's current semester, is significantly correlated (p =

0.037), according to the Pearson Correlation Coefficient. This finding may imply that the junior students are more intense in Facebook usage than their seniors.

The Relationship between Family Backgrounds and Facebook Intensity

The correlation between variables associated with the respondent's family background and the intensity of Facebook usage is illustrated in Table 5.

Out of the seven variables listed, only 4 are of significant value. These significantly valued variables can further be shortlisted into pairs of positively and negatively correlated variables. The variable pair with the positive correlation is the respondent's parent's education. This means that the higher the parent's education, the higher the intensity of Facebook usage. The negatively correlated pair, the respondent's parents age, explains that the younger the age of the respondent's parents, the more intense the use of Facebook by the respondent. Both these findings can be explained by an inclination in the parents to stay in tune with modern day technology. Younger parents are accustomed and aware of the importance

TABLE 4
The Correlation between Respondent's Personal Background and Facebook Intensity

Variables	Correlation Coefficient (r)	Significance Level (p)
Age vs. Facebook Intensity	- 0.001	0.990
Gender vs. Facebook Intensity	- 0.021	0.818
Current Semester vs. Facebook Intensity	**- 0.191**	**0.037**
Current CGPA vs. Facebook Intensity	- 0.033	0.723

Notes: p ≤ 0.05* (Correlation is significant at the 0.05 level [2-tailed])

of keeping up with the rapid change and innovations of technology. Parents of higher education, however, are already accustomed to the educational purposes of technology and must now keep abreast with the developments to remain on top in their working environment.

Regression between Facebook Intensity and Social Capital

Table 6 illustrates the regression values between the intensity of Facebook usage and social capital. The regression analysis found that Facebook intensity contributed about 6.1% to social capital ($\beta = 0.247**$). This implies that although Facebook is a contributor to the increment of social capital, its effects are miniscule and it is therefore a poor indicator. About 94% of

social capital increment is the result of the effects from other factors, such as family and friends, neighborhood connections, trust and safety and community connections.

STUDY OUTCOMES

Objective 1

One of the objectives in this study was to examine the quality (users keeping in touch with known and unknown individuals) and quantity (time spent) of Facebook usage among undergraduates of Universiti Putra Malaysia. According to the study, one third of the respondents (35.0%) agreed that they have used Facebook to check out someone they met socially. However, when it came to learning more about other people in their classes, 29.2% agreed that they use Facebook for that purpose. About 34.2%

TABLE 5
The Correlation between Respondent's Family Background and Facebook Intensity

Variables	Correlation Coefficient (r)	Significance Level (p)
Father's Age vs. Facebook Intensity	**- 0.225**	**0.013**
Mother's Age vs. Facebook Intensity	**- 0.213**	**0.020**
Father's Occupation vs. Facebook Intensity	- 0.151	0.099
Mother's Occupation vs. Facebook Intensity	- 0.174	0.058
Father's Education vs. Facebook Intensity	**0.180**	**0.049**
Mother's Education vs. Facebook Intensity	**0.234**	**0.010**
Household Income vs. Facebook Intensity	0.154	0.092

Notes: $p \leq 0.05$ (Correlation is significant at the 0.05 level [2-tailed])

TABLE 6
Regression between Facebook Intensity and Social Capital

Variables	R^2	Standarized Coefficient (β)	F	Significance Level (p)
Facebook Intensity	**1.0.061**	**2.0.247**	**3.7.683**	**4.0.006**

Notes: Dependent Variable: Social Capital; Predictors: (Constant), Facebook Intensity $p \leq 0.01**$
(Correlation is significant at the 0.01 level [2-tailed])

of the respondents agreed that they use Facebook to learn more about other people living near them. More than half (52.5%) strongly agreed that they use Facebook to keep in touch with old friends. This further suggests that although most respondents are accustomed to using Facebook as a means of keeping in touch with old offline contacts, the majority of them (mean = 3.72) concurred that they also use Facebook to check out and learn more about the individuals in their microsystem and exosystem. This indicates that UPM students are concerned with the characteristics of the individuals in their surroundings. Not only is this a positive finding to foster and ease social amalgamation and development between the undergraduates, it is also a precautionary measure for the respondents to be aware of unhealthy and disruptive behavioural patterns among their peers. As for the time spent on Facebook, this study found that the majority of UPM undergraduates (30.8%) spend a minimum of 3 hours a day on Facebook. Most respondents (36.7%) also strongly agreed that Facebook is a part of their daily activities. It can safely be said that Facebook is one of the major influences on the developing minds of our aspiring leaders. Also, since 34.2% of the respondents agreed that they feel part of the Facebook community, this should be a reason for the elected government bodies not to hamper this technological phenomenon, but utilize it as a vast arena to spread positive influences and morals for our younger generation.

Objective 2

The second objective of this study was to identify the relationship between the intensity of Facebook usage and the development of social capital. The findings of this study illustrated a positive ($\beta = 0.247$) and high significance (p = 0.006) level between these two variables. However, only 6% of Facebook usage constitutes to the increment of social capital. The other 94% are contributed by various other factors, such as family and friends, neighbourhood connections, trust and safety and community connections, which empirically support a similar finding in Bullen's (2007) study.

CONCLUSION

Personal and family backgrounds of Malaysian undergraduates at UPM, their levels of Facebook usage according to quantity and quality and also their levels of social capital were identified in this study. This research has shown that despite the respondent's diverse family backgrounds and various personal characteristics, they appear to be staunch Facebook users who are significantly aware of their own social capital and possess the ability and interest in maintaining their social connections. Therefore, Facebook may have played a role in increasing the rate of diffusion of information on a global scale. The findings of this study also stipulated that parents might also play a crucial part in keeping their children in touch with the modern day world. Making the Internet and its utilization available to the younger generation is now becoming essential as children have much

more to gain rather than to lose. On that notion, the authors have the opinion that if we are all hoping that our children will become future pioneers and pathfinders, spearheading the way for technology, we have to first ensure that they have the stamina to rival and keep pace with the technological current that is sweeping the world all over today. In conclusion, the results of this research paper revealed the ability of Facebook usages pertaining to the increase levels of social capital presumptions. Although it is still at a snail's pace, there is always a room for growth. As we have seen the positive impacts and how fundamental social capital is in forming lasting social connections within a community as well as the communities that surround it, there is no excuse for not rapidly expanding and cultivating this newfound online arena which has already taken our young minds by storm. An academically viable sense of direction on the future research on exploring Facebook is much needed, not just as a means of communications and social interactions, but extending beyond contemplation of the true significance of Social Network Services available on the Internet.

REFERENCES

Anderson, K. J. (2001). Internet use among college students: An exploratory study. *Journal of American College Health*, *50*, 21-26.

Bicen, H., & Cavus, N. (2010). The most preferred social network sites by students. *Procedia-Social and Behavioral Sciences, 2*(2), 5864-5869.

Bourdieu, P. (1985). The Forms of Capital. In Richardson, J.G. (Ed), *Handbook of Theory and Research for the Sociology of Education*. New York: Greenwood, 1985.

Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*(1). Retrieved from http://jcmc.indiana.edu/vol13/issue1/boyd.ellison.html.

Boyd, D. M., & Ellison, N. B. (2008). Social network sites: Definition, history, and scholarship. *Journal of Computer-Mediated Communication, 13*, 210−230.

Bullen, P. (2007) Social capital factors: Plausible theory about causal relationships. Retrieved from:http://www.mapl.com.au/pdf/SocialCapitalFactors_PlausibleTheoryAboutCausalRelationshipsDraft2a.pdf

Charnigo, L., & Barnett-Ellis, P. (2007). Checking out Facebook.com: The impact of a digital trend on academic libraries. *Information Technology and Libraries, 26*(1), 23-34.

Coleman, J. S. (1993). The rational reconstruction of society. *American Sociological Review*, *58*, 1-15.

ComScore. (2007). Retrieved from http://www.comscore.com/press/release.asp?press=1555.

Donath, J., & Boyd, D. M. (2004). Public displays of connection. *BT Technology Journal*, *22*(4), 71-82.

Dwyer, C. (2007). *Digital relationships in the 'MySpace' generation: Results from a qualitative study*. Proceedings of the 40th Hawaii International Conference on System Sciences (HICSS), Hawaii.

eBizMBA's Top 15 Most Popular Social Networking Websites. (2010). Retrieved on November 28, 2010, from the website:http://www.ebizmba.com/articles/social-networking-websites

Ellison, N., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook ''friends'': Social capital and college students' use of online social network sites. *Journal of Computer- Mediated Communication, 12*, 1143–1168.

Ellison, N., Steinfield, C., & Lampe, C. (2006, June). *Spatially bounded online social networks and social capital: The role of Facebook.* Presented at the annual meeting of the International Communication Association, Dresden.

Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends:" Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, *12*(4), article 1. Retrieved from http://jcmc.indiana.edu/vol12/issue4/ellison.html

Gross, R., & Acquisti, A. (2005). Information revelation and privacy in online social networks. In *Workshop on Privacy in the Electronic Society,* ACM Press.

Hu, H., & Wang, X. F. (2009). Evolution of a large online social network. *Physics Letters A 373*, 1105–1110.

Hargittai, E. (2007). Whose space? Differences among users and non-users of social network sites. *Journal of Computer-Mediated Communication*, *13(*14).

Hewitt, A., & Forte, A. (2006). *Crossing boundaries: Identity management and student/faculty relationships on the Facebook*. Presented at the Computer Supported Cooperative Work Conference, Banff, Alberta, Canada.

Lampe, C., Ellison, N., & Steinfield, C. (2006). A Face(book) in the crowd: Social searching vs. social browsing. *Proceedings of Computer Supported Cooperative Work*, 167-170. Retrieved on October 21, 2010 from http://portal.acm.org/citation.cfm?id=1180901.

Munoz, C., & Towner, T. (2009). *Opening Facebook: How to use Facebook in the college classroom*. Proceedings of Society for Information Technology & Teacher Education International Conference, Chesapeake, VA.

Narayan, D., & Cassidy, M. F. (2001). A dimensional approach to measuring social capital: development and validation of a social capital inventory. *Current Sociology*, *49*, 59-102.

Putnam, R. (2000). *Bowling Alone: The collapse and revival of American community*. New York: Simon and Schuster.

Quan-Haase, A., & Wellman, B. (2004). How does the Internet affect social capital? In M. Huysman & V. Wulf (Eds.), *Social Capital and Information Technology* (pp. 113-135). Cambridge, MA: MIT Press.

Roblyer, M. D., McDaniel, M., Webb, M., Herman, J., & Witty, J. V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *Internet and Higher Education 13*, 134–140.

Selwyn, N. (2007). *''Screw blackboard…do it on Facebook!'': An investigation of students' educational use of Facebook.''* Presented at the "Poke 1.0 – Facebook Social Research Symposium," University of London.

Steinfield, C., Ellison, N. B., & Lampe, C. (2008). Social capital, self-esteem, and use of online social network sites: A longitudinal analysis. *Journal of Applied Developmental Psychology, 29*(6), 434–445.

TNSDigitalLife (2010). *Statistics*. Retrieved on October, 2010 from Digital Life Study, at http://discoverdigitallife.com/

Valenzuela, S., Park, N., & Kee, K. F. (2009). Is There Social Capital in a Social Network Site?: Facebook Use and College Students' Life

Satisfaction, Trust, and Participation. *Journal of Computer-Mediated Communication*, 875-901.

Valkenburg, P. M., Peter, J., & Schouten, A. P. (2006). Friend networking websites and their relationship to adolescents' well-being and self-esteem. *Cyberpsychology & Behavior, 9*, 584-590.

Vasalou, A., Joinson, A., & Courvoisier, D. (2010). Cultural differences, experience with social networks and the nature of "true commitment" in Facebook. *International Journal of Human-Computer Studies*, *68*(10), 719-728. Elsevier. Retrieved from http://dx.doi.org/10.1016/j.ijhcs.2010.06.002.

Vitak, J. M. (2008). *Facebook 'friends': How online identities impacts offline relationship.* (Unpublished Master thesis). Georgetown University, Washington, DC. Retrieved from http://hdl.handle.net/1961/4433.

Wang, S. S., Moon, S., Kwon, K., Evans, C. A., & Stefanone, M. A. (2010). Face off: Implications of visual cues on initiating friendship on Facebook. *Computers in Human Behavior, 26*, 226-234.

Willims, D. (2006). On and off the 'net: Scales for social capital in an online era. *Journal of Computer-Mediated Communication,* 11(2), article 11. Retrieved August 29, 2006 from http://jcmc.indiana.edu/vol11/issue2/williams.html.