To Friend or Not to Friend: Academic Interaction on Facebook

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The popularity of Online Social-Networking Websites (OSNW) such as MySpace.com and Facebook.com has grown considerably throughout recent years (Gosling, Gaddis & Vazire, 2007). The use of Internet-based medians such as blogs, personal websites, and virtual communities by college students have continued to increase in recent years and have impacted how these students communicate with each other in both online and offline contexts (Pempek, Yermolayeva and Calvert, 2009). Recent high school graduates spent a substantial time of their development in the digital age and have been labeled “digital natives” because of the ease in which they operate in these virtual worlds and formats (Prensky, 2001).

Sites such as Facebook and MySpace are accessible to most internet users and anyone with an email address. Users can provide information through creating a ‘profile’ with the intent of communication with others, meeting new friends and connecting with old friends. In addition to connecting to friends, dating use, career searches, feedback and blogging, users post self-descriptive information.

Facebook is merely four years old, but already boasts of “More than 68 million active users” and “An average of 250,000 new registrations per day since Jan. 2007”, (Facebook.com website, 2008). We chose Facebook due to its organizational structure. Website users designate themselves with a university affiliation along with other personal information such as gender, musical tastes, courses taken, education background, etc. Facebook users can also post picture albums that can be shared with other users who are considered ‘friends’.
This study examines Facebook usage and how students use it to engage in the academic realm, including student perceptions of faculty as friends. As ONSWs continue to thrive in today’s environment, faculty are increasingly implementing them in the classroom. Some feel this is an invasion of the students’ privacy, and have labeled this as a “creepy treehouse” practice (Abel, 2005; Stein, 2008). On the other hand, others feel that it is an intelligent use of current technologies in the classroom. Since classroom community has substantial impact on the overall collegiate experience, more needs to be learned about this virtual community that serves as an undercurrent communication channel that binds students and faculty. Coupled with student usage of Facebook (i.e. hours spend, number of friends, number of groups subscribed to, etc.), is there any relationship between faculty interaction and academic benchmarks such as cumulative GPA?

Literature Review

The popularity of ONSWs such as MySpace and Facebook has grown considerably in recent years (Gosling, Gaddis & Vazire, 2007). However, any social environment involves personal disclosure, leading to issues of privacy (Acquisti and Gross, 2005; Gemmill and Peterson, 2006; Gross, Acquisti & Heinz, 2005; Kolek & Saunders, 2008; Patil & Kosba, 2005; Tufekci, 2009). As the Pennsylvania State example illustrates, privacy issues persist on ONSWs. Patil and Kosba (2005) studied the use of privacy controls within awareness systems, and establish that the use of privacy controls in technology is dependent on the knowledge of security features, and the technology itself. Users of MySpace were presented security concerns and chose not to enable more privacy settings.

But what do people disclose on ONSWs? Gross, Acquisti and Heinz (2005) examined 4,540 Facebook users for the type and amount of information disclosed and found that an overwhelming majority of profiles provide full access, associating the person with their first and last name, picture, birthday, and hometown. More than half provided their current residence. The majority of users provide fully identifiable information although the sites do not require disclosure. The study concluded that few users change the privacy settings and seem willing to provide personal information to the public. Kolek and Saunders (2008) also found that a great number of students in their quantitative study disclosed substantial information on their account profiles such as contact information, academic schedules and personal pictures of alcohol consumption. Given the low-privacy settings, high personal disclosure, and college-age participants show very little concern over privacy issues in ONSWs (Acquisti and Gross, 2005; Gemmill and Peterson, 2006; Gross, Acquisti & Heinz, 2005; Kolek & Saunders, 2008; Patil & Kosba, 2005; Tufekci, 2009).

Gemmill and Peterson (2006) surveyed student’s technology use behavior and habits. Information was gathered regarding the use of email, instant message services, internet for academic and leisure, cell phone use and land-line phone use. The study found that college students obtain social support via cell phones and instant message and the use of technology is likely to increase with the advent of social networking technology. The study concluded that technology use surveyed was highest among freshman and lowest in seniors and in order to avoid academic side effects, users need to address the role of technology within their academic progress.

The world of ONSWs also may have ramifications on the student-teacher relationship both in and outside the classroom, given that ONSWs provides a virtual realm in addition to the pre-existing physical one (Li & Pitts, 2009). Previous research provides some insight into non-academic social exchanges between college teachers and students, finding that academic performance increases with informal interactions (Pascarella and Terenzini, 2005).

The amount of time that undergraduate students invest in ONSWs varies, but studies conclude that Facebook is fully integrated in the lives of most undergraduate students. Pempek, Yermolayeva and Calvert (2009) found that undergraduate students invest approximately 30 minutes daily (27.93 on weekdays, 28.44 minutes on weekend days) on Facebook, adding this task to their daily routine.

And the time that is invested may not be devoted to academic enhancement. In other words, medians like Facebook and other ONSWs are used more for socializing rather than academic usage (Madge, Meek, Wellens & Hooley, 2009). Madge, et al. (2009) surveyed British undergraduates and found that undergraduates were uneasy with academic utilization of ONSWs.

There were several activities that the majority of students did not use Facebook for, such as checking out the profile of a member of university staff (68% said they had never done this). Facebook is therefore currently used by students for communicating with other students, not with university staff. Moreover, when respondents were asked if there were any ways they thought Facebook could be utilised to enhance teaching and learning at the University, 43% responded negatively, explaining that Facebook was a SNS [Social Network Sites], not a tool for academic work (p. 149).

So what are the academic costs of spending a substantial amount of time on ONSWs? To date, research on the academic implementation of Facebook or other ONSWs has been limited.
With the seeming ubiquity of Facebook and other ONSWs, researchers are beginning to note the viability of their use in the academic arena. An article in Educause (2006) suggested, “Any technology that is able to captivate so many students for so much time not only carries implications for how those students view the world but also offers an opportunity for educators to understand the elements of social networking that students find so compelling and to incorporate those elements into teaching and learning.” Along the same lines, Cloete, de Villiers, and Roodt (2009) found that most faculty members have not implemented an ONSW as an academic tool, but at the same time, most felt like one could be applied as a tool for academic learning.

One of the biggest concerns in implementing Facebook into the classroom is student privacy. Many of the studies about taking the faculty/student relationship online have focused on this specific student concern (Ellison, Steinfield, & Lampe, 2007; Hewitt & Forte, 2006; Mack, Behler, Roberts, & Rimland, 2007). Some students are worried that faculty might form opinions about them based on their online accounts (Abel, 2005). However, students, when presented with the option did find a beneficial reason to use Facebook with faculty. Mazer, Murphy, and Simonds (2007) found that if faculty members have Facebook accounts, students are likely to base decisions on whether or not to take a class from someone can be affected by the amount of information disclosed online by the faculty member.

Another area potentially affected by implementing faculty Facebook usage in the classroom is faculty/student communication. Sturgeon and Walker (2009) found that students seem to be more willing to communicate with their instructors if they already knew them through Facebook. Hewitt and Forte (2006) similarly found that students liked the potential to get to know their professors better, and that Facebook interaction had a positive impact on how they perceived their professors. Additionally, Haspels (2008) found that faculty Facebook usage also had a positive effect on the face-to-face faculty/student relationship.

But most importantly, does a faculty/student relationship in Facebook have an effect on student performance? Studies have found differing results. Yang and Tang (2003) found that those networks which “consist of relations through which individuals share resources such as information, assistance, and guidance” (p. 96) are “positively related to student performance” (p. 93) both in face to face and online settings. Sturgeon and Walker (2009) found what they termed an “indirect connection between faculty use of Facebook and academic performance” (p. 11). Their findings postulate that because of an increase in faculty/student familiarity, students feel more comfortable and therefore, are able to learn better. However, a preliminary study by Karpinski and Duberstein (2009) showed that students who self-reported spending more time on Facebook had lower GPAs than those who spent less time there.

Methods

We constructed a survey instrument to ascertain the behavior, attitudes about and Facebook usage as a mechanism to develop a sense of community. Regarding the voyeuristic nature of Facebook, we also included questions over account disclosure and privacy concerns. Our 45-question instrument covered a variety of issues such as privacy issues, faculty interaction on Facebook and social interaction tendencies (see Appendix A). In addition, a series of questions are included to assess demographics of the students, which also serve as independent variables.

We hypothesize that students with professors or instructors have a higher self-reported GPA than those who have none listed as friends. In other words, our hypothesis is:

\[ \mu_{\text{not friend}} - \mu_{\text{prof-friend}} > 0 \]

In addition to using descriptive statistics, we analyzed the collected data using T-tests to examine whether any differential between those students who had faculty as a Facebook friend and those who did not was statistically significant. In addition to collecting demographic information (i.e., age, gender, ethnic background, selected major, classification, etc.) and selected questions about Facebook usage and privacy issues, we asked the respondents how many faculty members they friended on Facebook. We coded those who had one or more faculty members as Facebook friends as “1” and those who had none as “0”.

The institution used in this study is a research university in the central US that serves a student population over 20,000 at its flagship campus. The campus houses approximately 5,900 students: 4,400 of which reside in single student housing and the remaining 1,400 students live in family housing. Our sample is drawn from Facebook users residing in on-campus single student housing. A screening question regarding if the student has a Facebook account was used to screen out all students who do not have a Facebook account. These students were told to skip to the end of the survey and not answer any further questions.

Since this study examines online behavior and interaction, we used Microsoft SharePoint to disseminate the survey to residential life students on December 2008. Data collection continued for three weeks. In light of the recommendations of Dillman (2007), we contacted the participants three times throughout the data collection process. The first contact will occurred at the invitation to participate in the study, and reminder emails were
disseminated a week apart afterwards. There were no incentives given to participate in the study. We received a 13 percent response rate to our online survey that was disseminated in the Fall of 2008 to 5,013 residential life students.

**Descriptive Statistics**

Of the respondents, 49 percent self-reported themselves as freshman, 22 percent as sophomores, 15 percent were juniors, 9 percent as seniors and 8 percent were graduate students. Females constituted the majority of the respondents, 64 percent while 36 percent were males. When looking at ethnic backgrounds, 77 percent of the participants were White, 7 percent were American Indians, 6 percent were Hispanic, 6 percent were Asian and 4 percent was were of African American descent.

In regards to community, first, we found that 72 percent of the respondents were active in some student organization while 28 percent reported no affiliation. Of the respondents, 86 students belonged to a Greek organization while 485 students did not. Within the organization community, students are using Facebook groups as a viable means of communication. Forty-two percent of respondents use Facebook groups to contact organization members, 41 percent by email while 11 percent use phone. The popularity of email among respondents also aligns with recent findings (Boase, et al., 2006, Boase & Wellman & Gulia, 2006; Haythornwaite, 2001; Stern & Dillman, 2006), but Facebook is at the very least on par with e-mail as a communication option among students.

As for social community participation, a sizeable majority of survey respondents, 84.4 percent, reported to have more than 100 Facebook friends while 66.4 percent disclosed that they have more than 200 Facebook friends. Clearly, Facebook is an avenue for social community development. At the same time, Facebook usage is not merely social. It is also being used to support an academic community.

Thirty percent of respondents reported having a faculty member as a friend on Facebook. We also asked about the effect of Facebook on professor selection. While 56 percent of respondents reported that they would be more apt to take a professor if they liked his/her profile, 53 percent reported that they would be more apt not to take a professor if they disliked his/her profile. Within the academic community, 88 percent of respondents used email as a primary means to contact their instructor and 12 percent use office hours as a secondary method. This is not surprising when considering email communication increases as one’s social ties increase and email’s asynchronous and convenient nature (Boase, et al., 2006). For the professor, his/her own social ties increase according to the number of students in a given class. When asked about the secondary method of contacting their instructor or professor, 78 percent of respondents preferred office hours, 14 percent listed email, 6 percent voicemail and 2 percent listed Facebook as a means of communication.

The survey instrument also inquired about issues of privacy and disclosure that painted a very interesting picture on Facebook usage. When asked whether their Facebook profile privacy, 74 percent of respondents disclosed that their profiles were private while 26 admitted that their profile was open. In addition, 70 percent reported that they post no residence information on their Facebook profile while 22 percent list their residence halls and 9 percent post both their residence hall information and room number. Respondents were less restrictive on access to their photos. Surprisingly, 55 percent of respondents disclosed that they make their photos available to their entire network while 45 percent did not. However, most of the respondents have taken action to restrict access to their profiles. When asked whether they have blocked anyone (i.e., blocked their profile access to a particular person or people) on Facebook, 47 percent responded affirmatively while 53 percent have not. Sixty percent of survey respondents reported that they have limited access to certain individuals to their profile (i.e., allowed general access, but limited access to photos, information, etc.) while 40 percent have not. And lastly and most disturbing, a large percentage of respondents (47 percent) have friended people on their Facebook profile who they do not know.

**Analysis**

When analyzing the data, we found that those students who had professors as Facebook friends had a higher self-reported GPA than those who did not. Those with professor or instructors as friends as a GPA of 3.42 as compared to those who did not with a GPA of 3.33.

Table 1: Descriptive Statistics

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<th>N</th>
<th>Mean cumulative GPA</th>
<th>Standard deviation</th>
<th>Standard Error</th>
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<tbody>
<tr>
<td>Professor Not Friend</td>
<td>349</td>
<td>3.33</td>
<td>.58</td>
<td>.03</td>
</tr>
<tr>
<td>Professor as Friend</td>
<td>179</td>
<td>3.42</td>
<td>.51</td>
<td>.39</td>
</tr>
</tbody>
</table>
Although outside of the purview of this study, we additionally tested various variables to see whether there was a correlation with their online activities (i.e., number of self-reported hours spent on Facebook, number of self-reported Facebook friends and number of self-reported Facebook groups joined) and their self-reported GPA. However, after conducting T-tests, none of the relationships had any statistical significance. However, when testing our hypothesis, we found that the difference of self-reported GPA between those students who had friended an instructor (GPA = 3.42) compared to those who did not (GPA = 3.33) was statistically significant at the .05 level.

Table 2: T-test analysis for cumulative GPA between Two groups of students

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<tr>
<th>Variance</th>
<th>T</th>
<th>Df</th>
<th>Significance</th>
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<tbody>
<tr>
<td>Unequal</td>
<td>1.965</td>
<td>387</td>
<td>.05</td>
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Therefore, our analysis reveals that those students who have friended one or more faculty members are more likely to have a higher self-reported GPA than those who have no faculty members listed as friends on Facebook. In the next section of our paper, we will discuss the significances of this finding and the results of our descriptive statistics.

**Discussion**

The discussion of our results is organized into three different sections that paints a rich picture of Facebook student usage, disclosure, privacy and faculty/staff interaction. First, we discuss the descriptive findings that involve privacy issues on Facebook, discussing some key issues. Second, the findings involving faculty interaction are also discussed through descriptive statistics and the ANOVA model of our student. Lastly, we provide policy implications and a conclusion at the end of this paper.

**Facebook Usage and Privacy**

Two observations stand out after examining the survey results, both having a relationship with Facebook usage and privacy concerns. First, in terms of privacy, there remain a large percentage of students who maintain their profile to be open to the public at 26 percent. Although some studies have lamented over the reasons for this disclosure needs, other studies have concluded that students simply do little to protect their own disclosures in ONSWs (Acquisti and Gross, 2005; Gemmill and Peterson, 2006; Gross, Acquisti & Heinz, 2005; Kolek & Saunders, 2008; Patil & Kosba, 2005; Tufekci, 2009).

However, the survey results may deviate from the literature. Selywn (2009) found that Facebook serves as a supplement to pre-existing relationships and student typically do not use it to make friends who they may not have met in person. However, the results of our survey are mixed. Nearly half of those surveyed conceded that they have Facebook friends who they have never met which conflicts with Selywn article and raises serious safety concerns. However, they generally do not use Facebook to make personal connections on a college campus before enrolling. However, when asked whether those surveyed sought Facebook friends at the university before they arrived on campus, only 34 percent admitted so. One explanation could be that students may accumulate unmeet Facebook friends through other friends, but not purposely to pre-establish a social network on campus prior to arriving.

**Faculty/student interaction**

With an OSNW that relies on college populations as consumers, it is not surprising that there is faculty and student interaction on Facebook. The connection between faculty and student interaction appears to have positive benefits. First, students could benefit from the interaction that comes with communication on Facebook. Research has shown that general interaction between faculty and students increase academic performance (Kuh, Cruce, Shoup, Kinzie & Gonyea, 2008; Carini, Kuh & Klein, 2006; Pascarella & Terenzini, 2005; Kuh, 2001). While most of the literature examines general faculty and student interaction (Carini, Kuh & Klein, 2006; Kuh, 2001), there is some evidence that suggests even informal student interaction provides students with some positive benefit whether it be higher student satisfaction (Kuh & Hu, 2001) or higher educational aspirations or even academic performance (Pascarella, 1980; Pascarella & Terenzini, 2005). Perhaps the same can be said about interaction on OSNWs. Second and more cynically, professors and instructors may be more apt to friend academically talented or students who perform better in their class as oppose to students who do poorly in class. On the other hand, higher performing students may feel more comfortable with friending a faculty member than low-performing students. To further investigate these ONSW interactions, future research can examine as to who extends friend invitations and why faculty friend some students and not others.
Implications

However, our findings do not suggest that faculty and staff should use Facebook as a mechanism for enhancing academic performance or student satisfaction. The literature and the descriptive statistics from this survey recommend otherwise. First, when contacting their instructors or professors, students opt to communicate through email then office hours. Facebook and voice mail are distant thirds and fourths. In addition, only a minority of 30 percent has a professor or instructor listed as a friend. The literature aligns with this finding and suggests that students see OSNWs more for socializing rather than for academic usage (Connell 2009; Madge, Meek, Wellens & Hooley, 2009). In examining whether Facebook would be proper median for outreach, Connell (2009) found that a good number of students were not favorable to be friended by the library, possibly seeing it as an intrusion into their realm.

Some participants (63 or 17.2 percent) were very open to the idea and said that they would be proactive and invite the library to be their friends if they know about the account. The majority of respondents (211 or 57.5 percent) said that they would not be proactive about it, but if the library friended them, they would accept the friend invitation. Another group of 92 students (25.1 percent) said that they would not add the library as a friend. (p. 31).

This study only illustrates that a relationship does exist between self-reported GPA and Facebook friend status with a student. There is certainly no evidence to suggest that faculty should use their Facebook account for improved academic performance. Such a proactive approach would likely be met by disappointing results by encroaching on perceived social space. Instead, if faculty were inclined to open their Facebook account to students, promoting its availability as a median of communication may be a wiser choice rather than sending invitations to enroll. When examining library outreach efforts through Facebook, Connell (2009) warned:

Therefore, perhaps indiscriminate friending is not a good idea. It is important not to annoy students but rather let them come to the library on their own terms (p. 34).

In all, we must be cognizant that Facebook is in fact the realm of the digital native, and students may view any unilateral outreach by faculty or staff as encroachment on their turf and instigate a ‘creepy treehouse’ effect.

Conclusion

Student usage of OSNWs is nothing short is prolific and information from the literature, as well as anecdotal evidence, shows that this trend will most certainly continue. Students will continue to utilize web-based social networking as an online communication forum, but mostly for informal, social interaction with other students. Those few students who have professors or instructors as friends have been found to have higher self-reported GPAs compared to those who don’t. Although this relationship was found, much more can be learned about OSNWs, college life and the faculty-student relationship. By conducting this study, the authors sought to shed more light in how OSNWs intercross with the academic realm.

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