

# GETTING SOCIAL: THE IMPACT OF SOCIAL NETWORKING USAGE ON GRADES AMONG COLLEGE STUDENTS

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## ***Abstract***

*The use of social media sites, such as Twitter and Facebook, in the classroom is growing, as is student time spent on exploring such sites. However, little research has been done to examine the impact on grades. Does actively participating in social media (Facebook, Twitter, MySpace, blogs, YouTube, etc.) impact one's academic performance? Is social media usage impacted by the ownership of smart phones? This study examines grade differences among students at small, liberal arts college based on social media usage. The study was also undertaken to determine how much time students actively use social media and if there has been an increase or decrease in usage over time.*

## **INTRODUCTION**

Over the years, social networking among college students has become more and more popular. It is a way to make connections, not only on campus, but with friends outside of school. Social networking is a way that helps many people feel as though they belong to a community. Due to the increased popularity of it, economists and professors are questioning whether grades of students are being affected by how much time is being spent on these sites (Choney, 2010). For the purpose of this study, social networking is defined as the use of Facebook, YouTube, blogs, Twitter, MySpace, or LinkedIn. With smart phones being able to access the internet and have applications of social networking, many are concerned about how smart phones with social networking applications will affect students' grades.

Social networking became popular between 2004 and 2006, after Facebook and MySpace were created. Facebook has over 500 million members and it is still growing. Approximately "85% of

undergraduate students [are] Facebook users (Schneider, 2009)." These numbers are only expected to grow since the number of members continues to grow. And this is not only true for Facebook. Numbers for YouTube closely follow as well (University of New Hampshire, 2009).

Smart phones are a new concern to the academic world when it comes to social networking. A smart phone is a cell phone that "allows users to choose the applications they want to install" while acting as a communication and computing device (tech-faq.com). A study done at Ball State showed that the number of smart phones purchased by students had doubled over the last year (Hernandez, 2010). This means that 27% of students had smart phones as of February 2009; and as of February 2010, 49% of students had a smart phone. The reason that owning a smart phone has made colleges more aware of grades relating to the smart phone is because "9 in 10 students with smart phones access the internet from the device," which allows for easier access to social networking sites as well (Hernandez, 2010). However, when looking at mobile phones as a whole, only "1 in 10 used the device's browser to connect to a social network" (Gonsalves, 2010).

Several studies have been done regarding social networking and grades. Whittemore School of Business and Economics recently conducted a survey of over 1,000 students. They asked questions regarding which social network sites were used, how much time they spent on a site, what their grade point average (GPA) was, and what they were going to school for. It was concluded that there is no correlation between how much time is spent on a social networking site and grades (Martin, 2009).

The University of New Hampshire agrees, and believes that current college students grew up in the technology era and social networking is now just a part of a student's daily routine. Their research show that "63% of heavy users received high grades, compared to 65% of light users" (U of NH, 2009). The University of New Hampshire said that a majority of students use social networking for social connections and entertainment, but are also using it for education and professional reasons.

Northwestern University recently published research stating that social networking sites are not affecting students' GPAs. In fact, ethnic background, and parental education appears to have more of an influence than the amount of time used on social networking sites. Northwestern researchers believe that "social networking use didn't affect the difference in GPAs between male and female or white and African American students. However, social network use did eliminate the difference in GPAs between students whose parents had differing levels of higher education" (Cheng, 2010). When researchers controlled the demographic of parental education, there seemed to be a positive relationship between internet use and GPA.

However, there are always two sides to every story. Karpinski focused on the relationship between time spent on Facebook and the academic performance of students (San Miguel, 2009). The overall finding indicated "more time on Facebook equals slightly lower grades" (San Miguel, 2009). In Karpinski's study the average Facebook user had a GPA of 3.0 to 3.5, while the non-Facebook user had a GPA of 3.5-4.0. Also, the average Facebook user studied for 1-5 hours per week, while the non-Facebook user would student 11-15 hours per week. Many researchers are aware that Facebook is not the only thing that could possibly be taking away study time. However, 55% of those surveyed "access their pages several times a day or at least once a day for a long period of time" (San Miguel, 2009). This time has to eat away at study time.

Kirschner revealed that students who multi-task between social networking sites and homework are likely to have 20% lower grades than a student who does not have a social networking site in visual range. Kirschner believes that even running a social networking site on the background on

a student's PC while studying or doing homework could lower a student's grade. He believes that "the problem is that most people have Facebook or other social networking sites, their e-mails and maybe instant messaging constantly running in the background while they are carrying out their tasks" (Enriquez, 2010). Users of Facebook have an average "GPA of 3.06, while non-users have an average GAP of 3.82" (Choney, 2010). Facebook, and other social media websites, are beginning to take up more time due to our society's increasing reliance on computers.

At the American Educational Research Association 2009 annual conference a presentation stated that United States college students who use social networking sites tend to have lower grades. Again, researchers found the same findings as Karpinski. Students who work tend to use social networking sites less than those students who are more activities based within campus. However, "researchers indicated that they couldn't be certain that Facebook use was the direct link to lower grades because of less studying" but they felt that it was an obvious connection to make (Schneider, 2009).

## **HYPOTHESES**

*Hypothesis 1a: Students with smart phones are more likely to be involved with social networking than students without smart phones.*

*Hypothesis 1b: Students with smart phones will spend a longer amount of time on social networking than students without smart phones*

A crucial aspect of using social networking tools such as Twitter is the immediacy of being able to access those sites. Having to be tethered to a central location, such as a computer lab or at a desk, will lessen the likelihood of using and engaging these tools.

*Hypothesis 2: Social media use will differ based on class standing.*

Certain sites, such as LinkedIn, will have much more value to a senior looking for a job than a freshman spending their first year in college.

*Hypothesis 3: Social Science majors will utilize social media more than Natural Science or Humanities and Fine Arts majors*

Given the emphasis placed on the application of social networking tools in classes such as marketing, social science majors will more likely use social media more than their peers in other divisions.

*Hypothesis 4: A negative relationship exists between social media use and grade point average.*

As noted earlier, there has been mixed findings regarding use of social media and its impact on grade. We will examine if time spent on social media has a negative impact on grades.

## **METHODOLOGY**

An online questionnaire asking students about social media, and its usage, was sent by e-mail to all students (approximately 2,100) at a small, liberal arts college in the Midwest in the Fall of 2010. A reminder e-mail was sent to all students two weeks later.

**BACKGROUND INFORMATION**

Of the approximately 2,100 surveys sent, 430 were received (20.47%). The primary respondents were freshman (42.5%) followed by sophomores (21.6%), seniors (19.8%) and juniors (14.8%). Gender was queried, but more than two-thirds (69.6%) chose not to answer. A significant majority (83.4%) had a grade point average (GPA) above 3.00, with 45.1% self-reporting a GPA above 3.50, 38.3% with a GPA between 3.00 and 3.50, 13.3% between 2.50 and 3.00, 2.7% between 2.00 and 2.5, and 0.5% below 2.00.

31.7% of students were able to access at least one networking site on their phone, with 98.5% able to access Facebook, 72.7% able to access YouTube, 58.3% able to access Twitter, 49.2% able to access MySpace, 45.5% able to access blogs, and 34.8% able to access LinkedIn.

Of the 430 respondents, 97% use one or more of the following social networking sites: Twitter, YouTube, blogs, Facebook, LinkedIn, or MySpace. The largest percentage of respondents used Facebook (95.4%), followed by YouTube (90.7%), reading blogs (27.6%), Twitter (17.6%), LinkedIn (7.2%) and MySpace (3.9%).

The time spent on the social networking sites echoed the order listed above, with 78.3 % indicating they spent the most time on Facebook, followed by YouTube (58.4% ranked it 2nd), reading blogs (41.7% ranked it third), Twitter (26.3 % ranked it fourth), MySpace (29.2% ranked it fifth, and LinkedIn (43.0 % ranked it last).

How much time do students spent on social networking sites? Students, for the most part, spend less than 15 minutes a day on most social media sites. However, Facebook is the exception. A significant majority of students (77.2%) spend more than 30 minutes a day on Facebook. Table 1 demonstrates the time spent on each of the networking sites.

Table 1: Minutes Spent On Various Social Networking Sites

Sites	0 to 15 minutes	16 to 30 minutes	31 to 45 minutes	46 to 60 minutes	61 to 90 minutes	More than 90 minutes
Twitter	65.8%	15.8%	2.6%	10.5%	3.9%	1.3%
YouTube	73.1%	16.4%	5.6%	2.6%	1.3%	1.0%
Blogs	73.2%	14.6%	8.9%	3.3%	0.0%	0.0%
Facebook	7.1%	15.8%	17.8%	22.9%	17.3%	19.2%
LinkedIn	97.3%	0.0%	0.0%	2.7%	0.0%	0.0%
MySpace	94.1%	0.0%	0.0%	0.0%	5.9%	0.0%

**RESULTS**

Two-sample t-tests were conducted to see differences in social media usage between those who have smart phones (and can access social networking tools), and those without smart phones. Significant differences were found in usage of Twitter ( $t=-2.52, p=.012$ ), reading blogs ( $t=-2.01, p=.046$ ), Facebook ( $t=-2.47, p=.014$ ) and LinkedIn ( $t=-1.68, p=.047$ ). Those with smart phones were more likely to access these social networking tools than those without a smart phone. No significant difference was found on use of YouTube ( $t=-0.10, p=.920$ ).

Similarly, significant differences were found in the time spent on Twitter ( $t=2.28, p=.013$ ), You Tube ( $t=2.11, p=.018$ ), and Facebook ( $t=1.161, p=.054$ ). Those with smart phones spent significantly more time engaging in social media than those without smart phones. However, no

significant difference was found in the time spent reading blogs ( $t=.496$ ,  $p=.621$ ) or using Linked ( $t=1.00$ ,  $p=.334$ ).

One-way analyses of variance (ANOVAs) were first conducted to compare differences based on class standing. First, no significant difference was found in use of social media sites ( $F=.289$ ,  $p=.885$ ) based on one's year in college. No class was more likely to use social networking sites than another.

No significant difference was found in use of YouTube ( $F=.685$ ,  $p=.603$ ) or Facebook ( $F=1.615$ ,  $p=.170$ ) based on class standing. Unfortunately, the sample size was too small for analysis on use of MySpace. However, a statistically significant difference was found in use of Twitter ( $F=2.344$ ,  $p=.054$ ), blogging ( $F=2.796$ ,  $p=.026$ ), and LinkedIn ( $F=13.192$ ,  $p=.000$ ). Juniors and seniors were more likely to use Twitter and read blogs than sophomores and freshman. Similarly, use of LinkedIn increased as one advanced in college.

Similar comparisons were examined in terms of minutes spent on social networking based on class standing. No significant difference was found on time spent on Twitter ( $F=1.921$ ,  $p=.134$ ), YouTube ( $F=1.451$ ,  $p=.216$ ), blogging ( $F=1.85$ ,  $p=.124$ ), or LinkedIn ( $F=.892$ ,  $p=.456$ ). However, a significant difference was found in the amount of time spent in Facebook ( $F=3.273$ ,  $p=.012$ ). Sophomores and freshman spent significantly more time on Facebook than juniors or seniors.

One-way ANOVAs were also conducted based on major. No significant difference was found in the use of YouTube ( $F=.546$ ,  $p=.702$ ) or Facebook ( $F=.503$ ,  $p=.734$ ). However, statistically significant differences were found with regard to use of Twitter ( $F=2.492$ ,  $p=.043$ ), reading blogs ( $F=3.18$ ,  $p=.014$ ), and LinkedIn ( $F=2.874$ ,  $p=.023$ ). In the case of Twitter and reading blogs, it was the Humanities and Fine Arts who were more likely on average to access these sites than their Social Science and Natural Science counterparts. However, it was the Social Science majors who were more likely on average to use LinkedIn.

In terms of minutes spent accessing social media sites, there was no significant difference in time spent on Twitter ( $F=.552$ ,  $p=.698$ ), YouTube ( $F=1.862$ ,  $p=.116$ ), reading blogs ( $F=.728$ ,  $p=.575$ ), and LinkedIn ( $F=.411$ ,  $p=.666$ ). There was, however, a significant difference in minutes spent per day on Facebook ( $F=2.396$ ,  $p=.050$ ). Social Science majors spent more time per day on average than Humanities and Fine Arts and Natural Science majors.

One-way ANOVAs were also conducted to compare differences based on GPA. There was no significant difference based on use of Twitter ( $F=.322$ ,  $p=.863$ ), YouTube ( $F=.831$ ,  $p=.506$ ), blogging ( $F=1.222$ ,  $p=.301$ ), Facebook ( $F=.927$ ,  $p=.448$ ), or LinkedIn ( $F=.744$ ,  $p=.562$ ). Similarly, there were no significant differences on time spent on Twitter ( $F=.649$ ,  $p=.586$ ), blogging ( $F=.769$ ,  $p=.514$ ), or LinkedIn ( $F=.266$ ,  $p=.849$ ).

There was, however, a significant difference in the amount of time spent on YouTube ( $F=3.123$ ,  $p=.015$ ). Those with a GPA between 2.00 to 2.50, and 3.50 to 4.00 were spending less time watching videos than those with a GPA between 2.50 to 3.00 and 3.00 to 3.50. Similarly, there was a statistically significant difference in the amount of time spent on Facebook ( $F=3.840$ ,  $p=.004$ ). Those with a GPA of 3.5 or higher spent an average of 31 to 45 minutes a day, while those with a GPA of 2.50 to 3.00 and 3.00 to 3.50 spent an average of 46 to 60 minutes a day, and those with a GPA below 2.5 spent an average of 61 to 90 minutes a day on Facebook. Clearly, there is a negative relationship between GPA and Facebook usage.

**FINDINGS**

There was general support for hypotheses 1a and 1b. Students who have smart phones were more likely to both access social media tools and spend time engaging with others. From an educational standpoint, this means there may very well be a “digital divide” between those who are making connections with others, and those who might be left behind. Similarly, professors may have to be wary of assigning projects involving social media to students as some may have an advantage in completing the work than others.

There was partial support for hypothesis 2. Juniors and seniors were more likely to use Twitter and LinkedIn, and read blogs, than their younger colleagues. However, other than Facebook, there was no significant difference in the amount of time spent accessing these sites. As expected tools such as Twitter and LinkedIn have more relevance to older students as they try to connect with others in their job search or find work. Similarly, perhaps younger students use Facebook longer as they are building their social connections, whereas older students already have a well-established network of friends and colleagues.

There was also minor support for hypothesis 3. Social science majors were more likely to use LinkedIn and spend more time on Facebook. However, it was the Humanities and Fine Arts majors who were more likely to use Twitter and read blogs. Perhaps the difference lies in the emphasis placed on the written word, and Tweeting and reading blogs has more appeal to this group.

Finally, there was little support for hypothesis 4. GPA did not play a role in the use of any of the major social networking tools, and minutes spent on several of the sites did not differ. The major difference lay in time spent with Facebook, which did show a negative relationship between time spent on the social network and one’s grades. As noted in table 1, while most students spent 15 minutes or less accessing that particular tool, Facebook was the only social networking site where a majority of students spent more than 30 minutes of their time accessing. Students and teachers should be concerned about its impact on learning.

Some caveats should be mentioned. These findings are based on a relatively small sample at one location. Would similar findings exist in a larger sample from multiple locations? Similarly, not all social networking sites were used equally. A larger sample should be generated with regard to sites such as MySpace.

**CONCLUSION**

Social networking is here to stay. As demonstrated above, its use has an impact on how students interact with others, and on grades.

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