

Effects of Social Networking on Adolescent Education

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Abstract

In recent years, the use of social networking sites has grown tremendously especially among the teens and high school students. However, very little is known about the scale of use, the purpose, how students use these sites and, more specifically, whether these sites help or hurt their academic progress. This study investigates how high school students are using social networks for school- or education-based work. The study conducts survey among students of four schools in Rapides Parish, Louisiana and measures the usage, time spent on social networking sites, the specific websites that are being accessed, and the subjects being studied while on social networking sites, and tries to find out if these are helping or hurting the students' academic progress. The purpose of this research is to help education administrators, teachers and parents to discover how and whether social networking sites helping their students in their learning process. The study also provides recommendations to make the use of social networking sites effective and beneficial for the students.

Keywords: social networking, adolescent education, academic progress.

1. INTRODUCTION

Social Networking is the new wave of communication, whether it be for personal use, business, education and/or employment opportunities. Thanks to the growth in technology, individuals or groups in any area of the world can now access someone's information and connect through social networking sites (SNS). The users of social networking websites continue to grow rapidly. According to the Nielsen Company, global consumers spent more

than five and a half hours on social networking sites like Facebook and Twitter in December 2009, an 82% increase from the same time in the previous year when users were spending just over three hours on social networking sites. In addition, the overall traffic on social networking sites has grown over the last three years (Nielsen Wire Blog Page, 2010). Facebook (FB) currently leads the social networking sites in the number of users. Although anyone can freely become a member of other websites, FB is the leader of its kind. "We had 845 million

monthly active users at the end of December 2011. Approximately 80% of our monthly active users are outside the U.S. and Canada. We had 483 million daily active users on average in December 2011" (Facebook Newsroom, 2012).

All things have their positive and negative aspects. Even with social networking, there can be advantages and disadvantages of using the sites. Some advantages from using social networks are that one can be in touch with someone who is over a great distance within a few seconds as long as they have Internet access and a networking device such as a computer, cell phone, net books, tablets or game consoles like the Xbox and Wii. Another advantage is that one can easily communicate a message to a wide audience to view. For example, when a user posts a message on his or her Facebook wall, it is available for all of the user's friends to view. It is a great tool for marketing and getting a message out without sending multiple messages. One can also choose to send a private message for one person to view or to a specific group to view. The overall advantage of social networking is that it does what it is made for, which is communication. Although these things seem great, one must keep in mind the disadvantages of having such freedom and mobility in order to communicate.

A major disadvantage of using social networking websites is that most folks are not aware of the dangers they undergo once they display their personal information on these websites. Strangers, stalkers and hackers are able to possibly use someone's personal information for unethical reasons. For example, hackers can place a link on Facebook displaying information that a user may find interesting. The user who clicks on the hacker's link, may compromise personal information leaving the user's networking device open to pollution by spam, viruses and worms. Hacking is one of the main factors leading to identity theft. A person should never store their passwords, credit cards or personal information on their computer. It is important to have a good firewall installed on the computer if one chooses to engage in social websites to prevent such a cause. Hacking accounted for the largest number of compromised personal records in the last 12 months, involving an estimated 43 million in America (Computer Hacking and Identity Theft, 2012). Viruses can cause one to lose every piece of information on their computers, causing one to have to pay money to get their computer

back up and running; however, sometimes the important files stored on an infected computer can be lost forever. Another disadvantage is more personal. Since the rise of the popular social websites like Facebook and Twitter, users are constantly logging on to the websites to update their status, check their messages, add pictures, update locations and chat with another person online. This has caused many conflicts in the workplace, especially those that have not blocked social networking websites. Since one can now use a phone to log on, accurately monitoring workplace productivity is almost impossible, which can cause a company to suffer. The same can occur with students in grade school, who have many obligations to meet daily. Young teens are being affected the most because they are still learning what it is to be responsible. They are being targeted by predators and the academic progress of some may suffer because of it.

Teens continue to be avid users of social networking websites – as of September 2009, 73% of American teens of ages 12 to 17 used an online social network website, a statistic that has continued to climb upwards from 55% in November 2006 and 65% in February 2008 (Lenhart, Purcell, Smith, & Zickuhr, 2010). The question in hand remains how students are using these social networks in connection with doing school work and/or anything educationally connected. Although the educational side of technology is defined through the National Technology Plan, there is no definition in social networking as it relates to education and how it should be used. Social networking has become one of the biggest forms of communication since the growth of technology. This wave of technology is affecting the new generation of communicators beginning with adolescent scholars. Most are not aware of how posting something that is personal or even posting something that is inappropriate can compromise their security.

This study examines the decisions that teenagers are making with the use of social networking websites in terms of personal use and educational use. From that information, recommendations are provided as to what provisions may need to be made by parents, teachers, students, administrators and information technology departments of local schools. The rest of the paper is organized as follows: Section 2 provides the literature review, Section 3 describes the research methods,

Section 4 analyzes the data and provides the results, Section 5 describes the recommendations, Section 6 is the conclusions and Section 7 provides the references.

2. LITERATURE REVIEW

Greenhow & Robelia (2009) explore SNS uses and perceptions among high school teenagers from low income families, an adolescent subgroup rarely featured in either the scholarly or popular discourse. The study focused on three questions regarding social networking and learning: how do students view the social networks for learning in and out of school, what role does the SNS play in learning identities' formation and what kind of twenty-first century learning do the students demonstrate on the social networking sites. The study focused only on the subjects whose family income was \$25,000 or below. The first result focused on the students' view of learning on SNS. The researchers discovered that the students felt they learned technology skills, creativity, and communication skills by using MySpace (Greenhow & Robelia, 2008); however, they saw little connection between their use of this social software and the knowledge and skills they believed their teachers valued in school (Greenhow & Robelia, 2009). Using social and technical features, they engaged in self-discovery and self-presentation within a semipublic context (e.g., all profiles were set to be viewed by 'friends only'). The majority of the students (7 out of 11) posted truthful first and last names. Nine out of eleven students posted pictures of themselves.

In all cases, students believed they were developing technological fluency by using MySpace, although this varied according to their intensity of use, with the more intense MySpace users feeling most strongly that MySpace developed their fluency (Greenhow & Robelia, 2008). In talking with participants and viewing MySpace accounts in-depth, the authors learned that simply participating in the SNS to the extent they did required knowledge of arrange of information and communication technologies, including: the ability to seek, preview, select, incorporate, and share audio and video files; the ability to create, edit, copy, find, upload, tag, and arrange image files; the capacity to strategically monitor, respond, multitask, and navigate multiple communication channels (e.g., instant messaging, MySpace email, wall posts, blog comments, tagged photos, video shares,

etc.), and more (Greenhow & Robelia, 2009). In summary, students are utilizing the skills and technology for twenty-first century learning competencies, but not in the formal learning style expected by school standards.

Fodeman and Monroe (2009) focused on the social network of Facebook and why students should not use the website. The authors gave eight reasons to support their claim. Some include time usage, false sense of privacy, scams targeting teens, the unawareness of how they are being marketed, lack of social interaction and unethical behaviors. These indicators, although not measured through scientific study, should cause major concern among parents of adolescent children who use the social network. For many of our kids there is little or no "downtime." Since Facebook is available 24 hours a day and seven days a week, these teens, who have minimal to no responsibilities, may not be responsible in accessing and monitoring their time on the social networking sites, thus affecting their studies and grades. Another concern the authors expressed is how the young students are being targeted without realizing it. Their lack of experience on Internet sites causes them to fall prey to contacting often non-repairable viruses on the computer systems. An important aspect of this claim is the absence of privacy awareness by young adults.

Social network is also used by universities to find and select their potential students. According to Dr. Nora Barnes, Director for the Center of Marketing Research at University of Massachusetts, Dartmouth, more than 20% of colleges and universities searched social networks for their admissions candidates in fall 2007 (Fodeman and Monroe, 2009).

Kirschner & Karpinski (2010), examining the ability for subjects to multitask and the negative effects of attempting to simultaneously process different streams of information, show that such behaviors lead to both increased study time to achieve parity and an increase of in mistakes while processing information than those who are sequentially or serially processing the same information. In laymen's terms, those who choose not to multitask and stick to one project or assignment at a time, have a higher success rate than those who don't. The authors' purpose is to diffuse previous studies from prior research from other sources that claim students can multitask and be effective while using the social

network, Facebook. They chose this particular site because it is currently the leading social networking site used by all ages. Specific to FB use, Vanden Boogart in 2006, in an unpublished Master's thesis, found that heavy FB use (i.e., more time spent on FB) is observed with students with lower GPA, although no control variables were implemented in the analyses (Kirschner & Karpinski, 2010). In their study, Kirschner & Karpinski (2010) sampled 102 undergraduate students and 117 graduate students by using a survey which consisted of demographic information, academic, hours spent studying, computer and Internet use and specific FB use. The final section was based on the subjects' perception of the impact of usage and academic achievement. The finding supported the authors' hypotheses that FB, not Internet, usage negatively affected student achievement. Professor Kirschner said that he expected to see similar results in younger pupils (Nic Fleming, 2010).

The article by Kessler (2010), talks about the positive effects of social networking based on a report from a Portland, Oregon, classroom where students struggled with attendance and participation at school. For the first time in its history, the school met its yearly progress goal for absenteeism. The article gives six reasons that made social networking such a positive change in the classroom. The first reason, "social media is not going away", is basically self explanatory when one observes where technology currently stands on a global aspect. It is something that is not only going to grow, but consume the way of life in the future. "Don't fight a losing battle," says Delmatoff, an English teacher. "We're going to get there anyway, so it's better to be on the cutting edge, and be moving with the kids, rather than moving against them." The remaining reasons are as follows: when kids are engaged, they learn better; safe social media are available and they are free; replace online procrastination with social education, since social media encourages collaboration instead of cliques; and cell phones aren't the enemy. In summary, the article focuses on the positive outlooks of using social media and argues that it should be embraced, and that our students taught how to use it and become responsible, experienced positive learners with the use of social networking and technology. "Almost three-fourths of 7th through 12th graders have at least one social media profile, according to a recent survey by the Kaiser Family Foundation" (Kessler, 2010).

Prensky's weblog talks about the National School Board Association (NSBA) study on online behaviors and is based on three surveys: an online survey of nearly 1,300 9- to 17-year-olds, an online survey of more than 1,000 parents, and telephone interviews with 250 school district leaders who make decisions on Internet policy. The study was carried out with support from Microsoft, News Corporation, and Verizon (Prensky, 2007). To summarize, 96% students with online access use social networking technologies, such as chatting, text messaging, blogging, and visiting online communities such as Facebook, MySpace, and Webkinz. Nearly 60% of students reported using the Internet for school based discussions and 96% of schools districts say that teachers assign homework that sometimes require the Internet. Giving his opinion on the results of the findings, the author says, "Kids used to grow up in the dark intellectually, and educators were the people who showed kids the light. Today kids grow up in the light – they are connected to the world through television, the Internet, Social Networking, etc. If educators were smart, they would find ways to build on this to increase the kids' understanding. But instead they make the kids shut off all their connections to the world as they enter the building. In effect, rather than showing the kids the light, they bring the kids out of the light back into the darkness." (Prensky, 2007).

A session of the American Psychological Association entitled "Poke Me: How Social Networks can Help and Harm our Kids" (2011) features Dr. Larry Rosen's study of the effects of Facebook and education. Social media icon, Facebook, has changed our culture forever. Since its inception in 2004, Facebook has served as not only as a way to get connected and stay connected, but it has been a great way to waste serious amounts of time clicking from page to page, picture to picture (Youth Resources, 2011). Rosen found that middle school, high school, and college students who checked Facebook at least once during a 15-minute study period achieved lower grades. The study also concludes that the more windows students have opened while studying, the lower the students achieved. Rosen furthermore suggests the concept of implementing "tech breaks" (Youth Resources, 2011). It allows the student to work for 15 minutes straight and after completion get a one minute tech break, which caters to the students' awareness of their study time. He also mentions that parents play a huge part by

staying involved and knowing what is out there concerning their child's exposure on the Internet.

Lenhart and Madden (2007) studied teenagers' views on their personal privacy and online security. Pew Internet & American Life Project examined how teens understand their privacy through several lenses: by looking at the choices that teens make to share or not to share information online, by examining what they share, by probing the context in which they share it and by asking teens for their own assessment of their vulnerability. The study was covered in four sections that covered Internet use and teens' computing environment; teens and online social networks; online privacy: what teens share and restrict; and friendship, strangers and online safety.

3. RESEACH METHODS

The research involved data collection from high school students. Data collection was done by administering paper and pencil based questionnaires that sampled four schools in Louisiana. The researchers chose to administer 150 surveys for each school which resulted in the collection of approximately 569 surveys. Two out of the four schools were for junior high schools with students aged 11-14, and the other two schools were for high schools with students aged 14-18.

To conduct research on the topic, a quantitative data analysis approach was used. Four schools were visited all on different days. Each school had a contact from the schools' administrative department who led the direction of the classrooms from which the surveys would be gathered. In all except one school, the collector was able to administer the surveys; the collection was facilitated by school administration staff. Actual collection by the facilitator was done by first visiting the classroom and explaining to the students what they were participating in and what it was for. The surveys were all passed out face down to students. They were all constantly informed not to write their names on the surveys as the information was totally confidential. Instructions were given after the surveys were distributed. Students were allowed to ask questions while completing the survey. Junior high school students received a more in depth instruction on what to do and also had a read-through of all questions on the surveys. Once they completed

the surveys, they were asked to place their papers face down on the desk and pass them to the front, which ensured their anonymity. All students were asked to be honest on the surveys and were made aware that the information was all voluntary. The survey consisted of three demographic questions that asked their grade level, age and gender. The remaining eleven questions focused on the use of social networking, how they used it, and what they used it for. The total time period for collecting all data was approximately 3 weeks. The survey questionnaire is shown in the Appendix. The collected data was then analyzed and the findings shown in Section 4 (Data Analysis and Results).

4. DATA ANALYSIS AND RESULTS

The results of the study are described in this section. These results are supplemented with relevant figures.

Figure 1 indicates the results from 556 students who reported their grade level in the survey. According to the information, the majority of students were in the 8th grade.

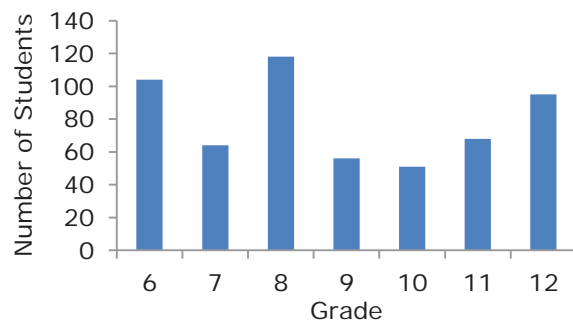


Figure 1: Students by Grade

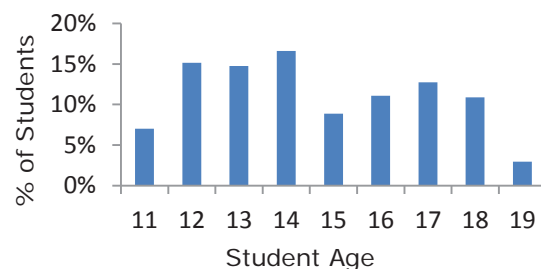


Figure 2: Percentage of Students by Age

Figure 2 shows the percentage out of 542 students who reported their actual age. More students reported to be 14 years old, which was the majority at 16.6%, while 19-year-olds, the fewest, constituted 3% of the total.

Figure 3 shows the percentage by gender of students who completed the survey. The graph also indicates that 4% of the students who took the survey did not report their gender. The majority of the survey takers were female (58%).

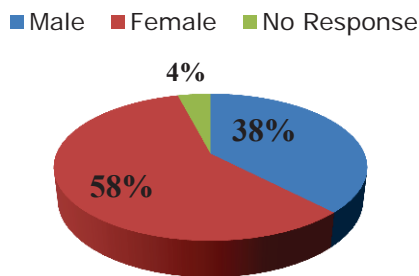


Figure 3: Percentage of Students by Gender

Figure 4 shows which social websites the students reported using, for which they have their own account. From the data collected, the majority of students use Facebook which made up 38% of the students. The least used website was MySpace at 8%.

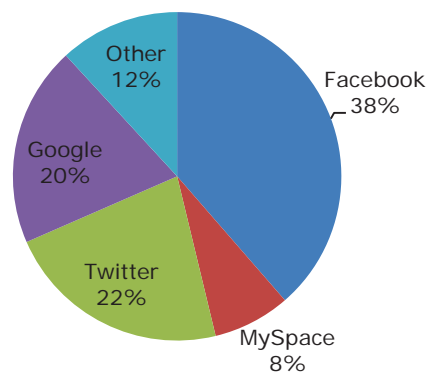


Figure 4: Percentage of Social Networking Websites Usage

Figure 5 shows the response in percentage of why students reported to have used social websites. Most of them talk to friends (42%).

Education in general was at 11% and homework was at 12%.

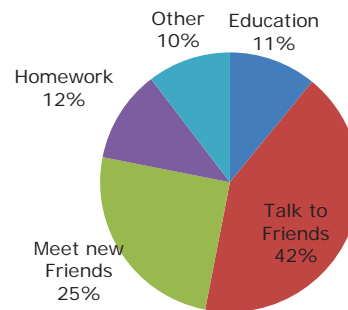


Figure 5: Reasons for Using Social Networking Websites

Figure 6 display the results of how many days per week on average they log on and use social networking websites. The majority of students were almost 250 responders who claimed that they use the sites at least 7 days a week, which was 42% of the total responders.

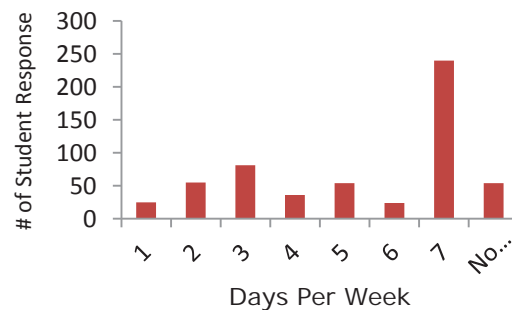


Figure 6: Average Days per Week on Social Networking Websites

Figure 7 shows the reported average hours a day that students are using social websites. The majority, 70.3%, used them at four hours or less. Eleven students reported their average daily usage at 20-24 hours per day.

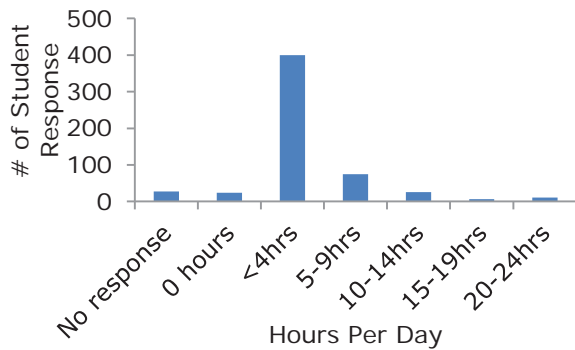


Figure 7: Average Hours per Day on Social Networking Websites

Figure 8 shows the results of the actions students reported to participate in while on social websites. The students were allowed to answer all that applied.

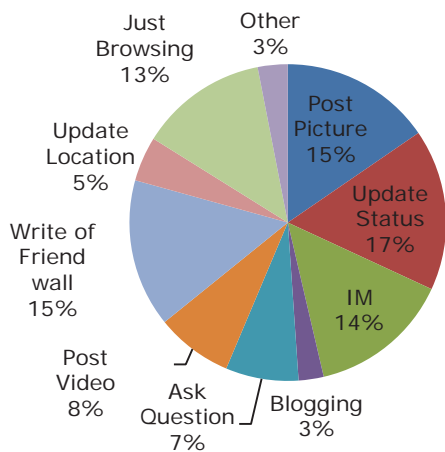


Figure 8: Percentage of Actions Spent on Social Networking Websites

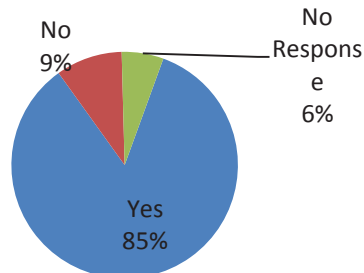


Figure 9: Percentage of Students who are Aware of Security and Privacy of Personal Information

Figure 9 shows the percentage of students who are aware of security and privacy problems resulting from their personal information on the social websites. The majority of students reported that they are aware of how their information is used on the Internet. Six percent of students did not respond to the question.

Figure 10 displays the students who felt that they were spending too much time on social networks. The majority, at 78%, said no, while 16% of students said yes.

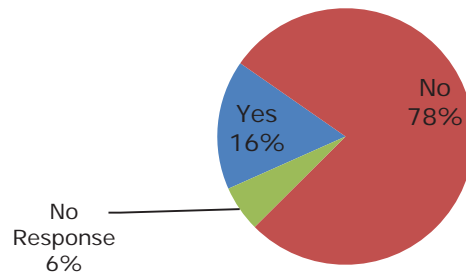


Figure 10: Student Opinions on Time Use of Social Networking Websites

Figure 11 displays the percentage of students using social network for classwork; 51% of students said they don't use social websites for class work while 44% said they do.

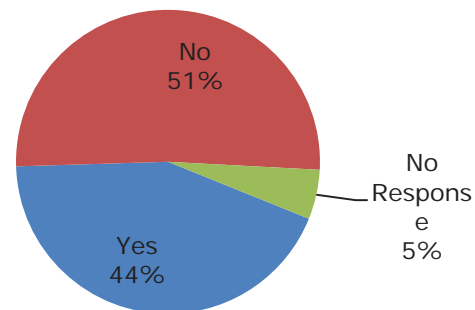


Figure 11: Percentage of Students Use of Social Networking Websites for Classwork

Figure 12 shows students who answered yes from the previous question. Those who selected yes were then able to select what subjects they used to complete class work via social networking websites. English had the most respondents at 139. The least selected subject was other, which included subjects such as science, art, A.P. classes, and research.

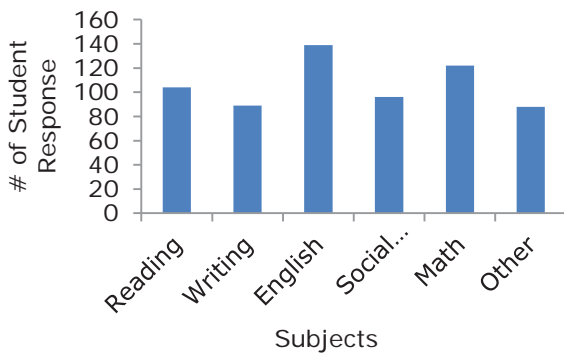


Figure 12: Subject Studied on Social Networking Websites

Figure 13 shows the number of students who felt that social networking websites were helping, hurting or causing no impact. The question was a general question and did not specifically ask whether they felt social networks were the problem academically. Sixty seven percent of the students felt that there was no impact on them. Five percent of the students did not respond. However, 16% felt that it was helping and 12% felt it was hurting.

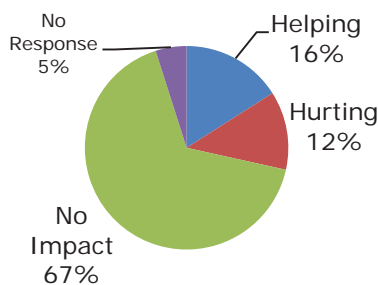


Figure 13: Impact of Using Social Networking Websites

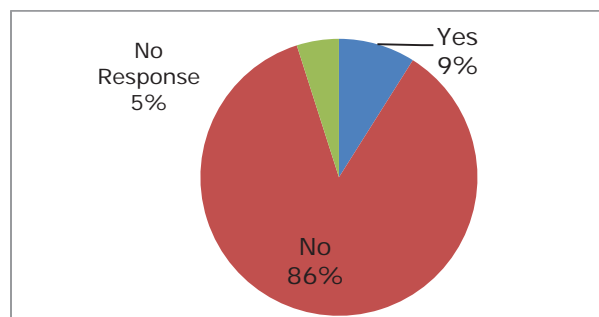


Figure 14: Troubles through Social Networking Websites

Figure 14 shows the students responses when they were asked whether they had been in any school related trouble because of social networking websites. The majority of students, at 86%, answered no. The remainder reported yes at 9% or gave no response at 5%.

Figure 15 displays the results of the student response to the question asking them whether they had ever been a victims of cyber bullying or whether they had ever been hacked. 83% of the students said no, while 12% said yes. The remainder did not respond.

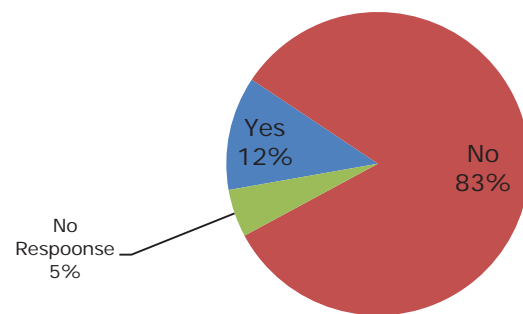


Figure 15: Cyber-Bullied or Hacked Using Social Networking Websites

5. RECOMMENDATIONS

Based on the survey results, the following recommendations are proposed. First, school administrations should create a technology policy that prohibits students from using social networking sites at school. According to the study, majority of students use social networking websites at least four hours per day, seven days a week. If schools can help cut the time that students spend on these social networking sites by blocking the websites, it could help students become more focused on their schoolwork while at school. Approximately 16% of students reported that they are spending too much time on social websites; and 12% reported that they feel that these websites are hurting them. There also needs to be awareness among students about what social networking is and the possible consequences of incorrect social network use. Attention should also be paid to ethical vs. unethical behaviors and how to protect security and privacy information. Local schools should ask volunteers in their communities to assist with this project. Technology teachers could give information

sessions to students at the beginning of the school year before technology is used for the school year. Since the second largest number of this study's students are 6th graders, awareness should begin before students leave elementary school. Although a majority reported that they are aware of how their information is being used on these websites, 9% did not know, and 6% did not respond, which means that there is a small gap in the awareness of security and privacy of personal information.

According to the analysis, 11% of reported students claim to use social networks for education-based reasons, while 45% of students said that they use social websites for class work, with English being the subject most studied. Since the majority of students use Facebook, school staff can adopt a social networking website that is educationally based that is similar to Facebook, such as Edmodo. It is free and it creates interaction between teachers and students keeping the outsiders out. Teachers can promote an ethical behavior of using social networks if it can be monitored.

6. CONCLUSIONS

The rise of social networking has increased dramatically in recent years, causing questions as to how young adolescent students are adjusting to this shift and means of communication, since it is the norm for their generation. Questions also remain on how it affects their learning process. To answer this question, this research collected 569 surveys from students at four Rapides Parish schools in the 6th-12th grades. The study measured the usage, time spent on social networking sites, the specific websites that are being accessed, and the subjects that are being studied while on the social networking sites; and tried to find out if these are helping or hurting the students in their academic progress. The questionnaire also surveyed students' awareness of security and privacy of the information that they post on social networking websites. The purpose of this research was to help education administrators, teachers and parents to discover how and whether the social networking sites are helping their students in their learning process. Some recommendations are made based on the findings from the survey results after analyzing the data.

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Appendix

Survey on use of social network

The survey is for research purposes only. No personal information will be obtained from this survey.

Please circle your grade: 7 8 9 10 11 12

Your Age: _____ Your Gender (circle): Male Female

1. Which social network website(s) do you use under your **own account**?

Facebook
MySpace

Twitter
Google

Other

2. Check **all** reasons for which you utilize the social network website(s)

Education
Talk to friends

Meet new friends
Talk to teachers

Homework
Other

3. **On average**, how many **days a week** do you use social network websites? _____

4. **On average**, how many **hours per day** are you on social network websites? _____

5. In what actions do you participate while on social network websites? (**Check below all that apply**)

Post pictures
Update status
Instant messages
Blogging
Ask a question

Post videos
Write on friends wall
Update your location
Just browsing
Other

6. Are you aware of the security and privacy of your information posted on social network websites?

Circle: YES or NO

7. Do you think you are spending too much time on social network websites?

Circle: YES or NO

8. Do you use social networks for any of your class work?

Circle: YES or NO

If YES, please check the subject(s) below:

Reading
Writing
English

Social Studies
Math
Other

9. Do you think that social networks are (helping) or (hurting) your grades in school?

Circle: Helping Hurting No impact

10. Have you ever been in any trouble related to school for using social network website?

Circle: YES or NO

11. Have you ever been a victim of Cyber bullying and/or hacking through social network?

Circle: YES or NO