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The American University in Cairo

Graduate School of Education

THE EFFECTS OF SOCIAL MEDIA ON THE ACADEMIC PERFORMANCE OF NILE UNIVERSITY STUDENTS

A Thesis Submitted to the Department of International & Comparative Education

In partial fulfillment of the requirements for the degree of Master of Arts in

Educational Leadership

By Gina Mowafy

Under the supervision of Dr. Gihan Osman

Spring 2018

Abstract

The Internet and in particular social media applications such as Facebook, YouTube and many others, are obviously "overtaking the world" and could be regarded as "a global consumer phenomenon" (Camilia, Ibrahim, & Dalhatu, 2013) . Social media usage is one of the most common activities among children, adolescents, and emerging adults nowadays. It offers today's youth a portal for entertainment and communication and it is becoming one of the main platforms for accessing information and news. This aggressive adoption of social media among the younger generation could be attributed to their up to date knowledge of and comfort with the latest technology and the convenient accessibility to these social networking tools (Vorderer, 2016). This study aims to shed the light on the social media effects on the academic performance of university students in Egypt and aims to clarify to different stakeholders the relationship between the social media usage and academic performance and to harness full potential of social media. This study examines the role of social media in students' academic endeavors and ultimately their academic performance through their reported perceptions and reflections. It also examines factors that might influence the nature of this relationship, and its tentative impact on the academic performance of Nile University undergraduate students. An explanatory sequential mixed method approach is employed in order to get both quantitative and qualitative data, the responses of 442 Nile university undergraduate student were collected and were scored, coded and inserted into SPSS, and were analyzed using multiple statistical descriptive and inferential statistical tests based on the research question and the nature of the data to be analyzed using frequency tables, crosstabs, Anovas, post hocs and t-tests. The findings of the study explains the perception of Nile university students of social media effects on their academic performance, and to what extend do they use social media for academic related purposes, and it explores the effect of the different academic majors, academic statues and gender on the social media usage perception and usage. Significant differences in the behavior of students from different academic majors and different academic status in perceiving and using social media emerged which might require further investigation.

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Chapter 1

Background and Significance

Advances in Internet technologies have spurred on compelling changes in how we interact, communicate, learn, and build knowledge. For much of the connected world, it permeates nearly every aspect of our existence from shopping and banking, to communication and education among many other pursuits (Tariq, Mehboob, Khan, & Ullah, 2012). In general worldwide Internet users have increased rapidly between 2005 and 2014 (Freund & Weinhold, 2002). In 2015, there were 6.5 billion Internet users around the world and in 2014 they became 7.2 billion (Singh, 2017). The Internet and in particular social media applications such as Facebook, YouTube and many others, are obviously "overtaking the world" and could be regarded as "a global consumer phenomenon" (Camilia, Ibrahim, & Dalhatu, 2013). According to Grossman (2010) if Facebook were a country it would be the third largest country after China and India and twice as big as the United States of America. According to Facebook statistics "more than 30 billion pieces of content (web links, news stories, blog posts, notes, photo albums) are shared each month" and "People on Facebook install 20 million applications everyday" (2011,PARA.2&4). On YouTube every minute, 10 hours of content are uploaded to the video sharing platform.

It is not surprising that social media usage is one of the most common activities among children, adolescents, and emerging adults nowadays. It offers today's youth a portal for entertainment and communication and it is becoming one of the main platforms for accessing information and news. The social media usage of American adults aged 18–29 years who represent the higher percentage of university students rose from 12 percent in 2005 to 90 percent in 2015 (Perrin, 2018). Also in Egypt, the rate of social media users is increasing, El Gazzar (2013) mentioned that social media users specifically those who are using Facebook have exceeded seven million which is (9.76%) of the population, (40%) of these are between 18-24 years old. Saied, ElSabagh and El-Afandy, (2016) reported that this percentage has increased to 54.6% in 2015; more than 80 percent of them are young people specifically university students.

This aggressive adoption of social media among the younger generation, according to Vorderer (2016) could be attributed to their up to date knowledge of and comfort with the latest technology and the convenient accessibility to these social networking tools. For instance, they can access social media from their cell phones any time any place. This encourages them to use social media not only for receiving and retrieving information, but also for being online and connecting with others, and from being from being consumers and participants to "prosumers" which means that they consume and produce media on the social media platform (as cited in Obar & Wildman, 2015)

The social media craze has also hit university and post-secondary institutions, which cannot remain impartial to these rapidly changing technologies (Dumpit & Fernandez, 2017). Putting into consideration how social media became embedded within the young generation lifestyle, college student affairs professionals found a way to use social media as a method of communication between the college administration and the students (Junco, 2012). Furthermore, most of the universities nowadays have an official page or group on one of the social media networks where students, professors and staff can share resources and interact (Selwyn, 2009). DeAndrea, Ellison, LaRose, Steinfield and Fiore (2012) mentioned that many universities have even established their own social media networks in order to help new students to socialize and connect with the faculty members, staff, and alumni and to establish a sense of connection with the institution. Using social media networks in such a way helps in facilitating the process of knowing more about campus facilities, activities and events especially for the freshman students, and ultimately adjusting to university life.

Researchers found various effects of social media use on college students' experiences Junco (2014). Some of the mentioned effects are: enhanced self-esteem (Gonzales & Hancock, 2011; Mehdizadeh, 2010; Tazghini & Siedlecki, 2013) as well as the development of identity and peer relationships (Pempek, Yermolayeva & Calvert, 2009), relationship building and maintenance (Ellison, Steinfield & Lampe, 2007; 2011; Ellison, Vitak, Gray & Lampe, 2014; Manago, Taylor & Greenfield, 2012; Valenzuela, Park & Kee, 2009), higher life satisfaction, social trust, civic engagement, and political participation (Valenzuela, Park & Kee, 2009) student engagement (Heiberger & Harper,

2008; HERI, 2007; Junco, 2012; Junco, Elavasky & Heiberger, 2012; Loken, 2011), as well as perceptions of social and academic integration (Selwyn, 2009; Yu, Tian, Vogel & Kwok, 2010), perceptions of social support (DeAndrea, Ellison, Larose, Steinfield & Fiore, 2011; Manago, Taylor & Greenfield, 2012).

The impact of social media on learning and teaching is increasingly considered and debated among higher education scholars, administrators, and stakeholders. Lynn, Healy, Kilroy, Hunt, Werff, Venkatagiri and Morrison (2015) considered social media as one of the game-changers in the realm of learning and instruction. Selwyn (2012) discussed the implications of social media for new types of learners, learning and higher education provision. McLoughlin & Lee (2010) stated that using social media networks in the educational process could help educators to apply the inquiry-based approach and encourage the collaboration between the instructor and the students, thereby encourage engagement. Also important is the potential of these technologies for encouraging independent self-directed learning as well as encouraging students' as active producers of knowledge (Dumpit & Fernandez, 2017), which once again is commonly regarded as a positive affordance for media.

Although a very large community exists online, including on social media, that focuses on education, this might not be the case for university students (Tariq et al., 2012); even though the majority of students are active users on social media networks, yet 70 percent of them do not use social media for academic purposes (Jones, Blackey, Fitzgibbon, & Chew, 2010). Tariq et al. (2012) are some of the researchers that emphasize that the affordances of technologies might have severe negative consequences on "social networks addicts." They, for example, fear that "social networks grab the total attention and concentration of the students and divert them towards non educational, unethical, and inappropriate actions such as useless chatting, time killing by random searching "(p. 409).

Statement of the Problem

Bennett, Maton and Kervin (2008) are an example of educators that suggested that using media technology can help students enhance their academic performance. Yet, many educators and parents are worried that their children and students are spending too

much time using social media networks. Some institutions and instructors ban the use of social media in classrooms believing that it negatively impacts students' attention, engagement, and accordingly their GPA.

Rambe (2012) indicated that "the essentialist view that new technological innovations (especially Social Media) disrupt higher education delivery ride on educators' risk averse attitudes toward full scale adoption of unproven technologies. However, this unsubstantiated logic forecloses possibilities for embracing the constructive dimensions of disruptions, and grasping the tremendous academic potential of emerging technologies." (p.132). The results of previous research is not conclusive, with some studies suggesting a negative impact for social media, and others suggesting promising opportunities for engagement. Over generalizations regarding the impact of social media are obviously not justified. More needs to be discovered about the variables that influence this relationship and about strategies that help students, faculty, and higher education institutions harness the full potential of these pervasive technologies. The study aims to uncover some of these factors. Culture and context also play an important role in the adoption and usage of innovation. The study fills yet another gap by shedding the light on the social media effects on the academic performance of university students within the Egyptian context.

Purpose of the Study

The purpose of the study is to examine the role of social media in students' academic endeavors and ultimately their academic performance through their reported perceptions and reflections. It also seeks to examine factors that might influence the nature of this relationship, and its tentative impact on the academic performance of Nile University undergraduate students. The results of this study are expected to be of benefit to stakeholders at Nile University and beyond. It is expected that the results will provide a deeper understanding of the phenomenon at hand, especially within the Egyptian local context. It will also help the university administrators and faculty members recognize the extent to which university students' use social media and in what ways it might impact their academic engagement and performance, and accordingly make more informed decisions with regard to the usage of social media for academic purposes.

Research Questions

In order to find out the relationship between the extended usage of social media among college students and their academic performance, this study will answer the following questions:

1. To what extent do undergraduate students at Nile University use social media for academic-related purposes?
2. How do students perceive the impact of social media on their academic engagement and performance?
3. What is the relationship between academic performance and use of social media?

A. Number of hours (social media)

B. Number of study hours

C. GPA

4. What is the relationship between each of the three variables, gender, academic status, and academic major and: 1) use of social media, and 2) perception of the impact of social media on academic engagement.

Chapter 2

Literature Review

In this study four main themes will be addressed through analysis and research that will help in understanding the effect of social media usage among college students on their academic performance followed by the theoretical framework. The four main themes that were are: the concept of social media, influence of Social Media on Students' Academic Performance, gender usage of social media and social media usage in Egypt.

1) The Concept of Social Media

Kaplan and Haenlein (2010) defined social media as "Internet based applications that allow the creation and exchange of content which is user generated" (p.61). They stated that social media was first known in1979, when Tom Truscott and Jim Ellis from Duke University created the Usenet, a worldwide discussion system that allowed Internet users to post public messages; and also when Bruce and Susan Abelson founded "Open Diary" in 1998.*Open Diary* was an early social networking site in which members of a certain community shared their daily diary online and the word "blog" was first used at the same time. Before the second stage of development of the Internet, "Web 2.0," in the late 1990's, users browsed only for the aim of getting information through reading from various resources and watching videos (Kaplan & Haenlein, 2010). According to Kaplan and Haenlein (2010) users at this time were considered consumers not participants. It was mentioned in Ritzer and Jurgenson (2010) study (as cited in Obar & Wildman, 2015) afterwards, Web 2.0, representing the second stage of the Internet development namely "User Generated Content (UGC)", Internet users were transformed from being consumers and participants to "prosumers" which means that they consume and produce media (as cited in Obar & Wildman, 2015). These new affordances are what made the applications and dynamic interaction of social networking possible. Some of the common features that qualify a tool to be considered a social networking site are: enabling users to communicate with each other in an easy way and allowing users to exchange information, pictures and messages (Dijck, 2011). There are many forms of social media, presented in the table below, which allow users to interact with other media users of their choice.

Table 2.1

Forms of social media adapted from Grahl (2012) as cited in Alwagait (2015)

Forms of social media	Description
Social networking sites (SNS)	Services in which users set up a profile in order to establish a connection with friends or other users, who have similar backgrounds or interests. The profile contains a users' personal information. SNS provide various ways for users to interact with one another. Examples of SNS include *Facebook* and *LinkedIn*
Bookmarking sites	Services which allow users to save, search and organize links to various Internet resources and websites. Some services will allow the tagging of links in order for them to be shared easily as well as being searched for. Examples of bookmarking sites are *Diigo* and *Delicious*
Micro blogging sites	Services which combine SNS and blogging but the messages exchanged are limited in terms of size. Users have to subscribe to the services. Examples of micro blogging sites include *Twitter*.
Media sharing sites	Services which allow users to upload and

	share media such as videos and photos as well as allowing users to comment and tag media. Examples of media sharing services include *YouTube* and *Flickr*
Social news sites	Services that allow other users to vote on news articles and links to external articles, which are posted by users. The news articles that get the most votes are displayed more prominently on the site. Examples of social news sites include *Digg* and *Reddit*
Blogs and forums	Blogs are like online diaries of thoughts, which give other users the opportunity to post comments on the blog postings. Forums allow registered users to have conversations with other users by post messages. Examples of blogging sites include *WordPress* and *Blogger*

While social media networks collect a lot of personal data about the users, they also afford the privacy of the users. For example, the visibility of the online profiles depends on the social media network website privacy terms and conditions. Boyd and Ellison (2007) mentioned that LinkedIn controls what the user can display and see according to the user's subscription and paid fees. On the contrary, Facebook users' profiles are available to all other users in the same network, unless a profile owner decides to change the privacy options. Moreover, private messaging, comments and

friends features differ from one social media network website to another depending on the feature and user base (Boyd & Ellison, 2007).

With all the features social media are providing, they have facilitated the lives of millions of people. Although they are easily accessible and despite the tremendous opportunities they offer, social media can have their drawbacks. Issues of privacy, detachment from reality and being the target of advertisers are some of the main concerns. However, they are creating a new communication landscape that is yet to be discovered and used.

2) Influence of Social Media on Students' Academic Performance

Using social media to enhance the learning process can take a number of forms, target various skills, and utilize different tools. University educators propose that social media can have a positive influence on interaction, engagement, knowledge building, and sense of community (Rovai, 2001). However there is also research that shows that these same tools can distract learners from their studies, and encourage procrastination and superficial thinking. The following section will present some of the studies that addressed the relationship between social media and academic performance and learning. This review presents a snapshot mainly on studies dealing with the most popular social networking tools such as Facebook, rather than a comprehensive review of all forms of social media.

Studies generally imply that social media is mainly used by college students to socialize rather than for academic pursuits. Raacke and Bonds-Raacke (2008) found out that college students around the age of 20 with accounts on Myspace or Facebook use these systems "to keep in touch with old friends" (96.0%), "to keep in touch with my present friends (91.1%), "to post/look at pictures" (57.4%), "to make new friends" (56.4%), and "to locate old friends" (54.5%). But only 10.9 percent stated that they used it "for academic purposes", and only 12.9 percent listed their courses on their profiles. Similarly, Michikyan, Subrahmanyam, and Dennis (2015) used a mixed-method approach to investigate the relationship between online academic disclosure (namely status updates about their academic experiences) and academic performance for 261 students with an average age of 22 years. Thematic analysis of their posts indicated that

14% of their contributions to Facebook were academic in nature. On the other hand, the majority of students in Camilia, Sajoh, and Dalhtu (2013) used social media for academic purposes.

Several studies suggest that the time spent on social media takes away from the time available for studying. Alwagait, Shahzad, and Alim (2015) investigated to role of social media on academic performance of 108 Saudi students. Survey data revealed that Twitter was the most popular social network followed by Facebook. The average number of hours spent by students on social media was 25.3 hours. Sixty percent of the respondents acknowledged that excessive use of social media negatively impacted their performance, and indicated that 10 hours per week of use would ensure that their academic performance is not negatively impacted. SimilarlyKrischner and Karpinski (2010) noted that some students do not have control on their social media while engaged in academic activities, and that they spend more time on these networks than they do studying or sleeping. They point out that empirical research suggests the negative impact of multi-tasking, or attempting to simultaneously process different sources of information, on performance. They underscore that this leads to increased study time and an increased number of mistakes on assignments. Junco (2013) examines the relationship between Facebook activity, time taken for class preparation and overall GPA for 1839 students. Hierarchical linear regression analyses indicated that time spent on Facebook was significantly negatively correlated with overall GPA, but only weakly related to time spent on class preparation. Moreover, using Facebook to search for information was a positive predictor of GPA while time spent on socializing was a negative predictor.

Some studies delve deeper into the phenomenon of spending too much time on social media and almost portray it as a coping mechanism. Student in Krischner and Karpinski (2010) for example, did not believe that it impacted their academic performance negatively. Those who did report a negative influence explained social media as a strategy for guiltless procrastination. The path analysis conducted by (Michikyan, Subrahmanyam, & Dennis, 2015), mentioned earlier, for example, determined that academic performance was a predictor of Facebook use rather than the opposite. Students with low GPA are more active on Facebook than students with high GPA; one of the

reasons of this is the fact that students, who are facing academic or social problems turn to Facebook as a way of distraction from the difficulties that they are facing. Similarly, Fogel, and Nutter-Upham (2011)'s study about the self-reported executive functioning associated with academic procrastination by distributing a thirty minutes questionnaire on 212 university students, showed that there is a relationship between social media use, procrastination and poor academic performance, between 30 to 60 percent of college students stated that they use social media to procrastinate on their academic duties and socialize or surf the internet.

Very few studies have investigated variables that might impact how, when, and to what extent students used social media. Krischner and Karpinski (2010) conducted an exploratory survey study to examine if and how 102 undergraduate and 117 graduate students in public US University used Facebook, and how this usage related to hours of studying and GPA. The survey they used also elicited information about students' own perceptions on Facebook use. Facebook users reported lower GPA and fewer hours studying. Users and nonusers did not however differ in terms of the amount of time they spent on the Internet, but their studying strategies differed. These results held regardless of student status (whether they were an undergraduate or graduate) or their major (humanities, social sciences, medical, STEM or business). The study also suggested that personality and hours spent working are related to Facebook use.

Boogart (2016) conducted a study in four universities to investigate the impact of Facebook on campus life at four higher education institutions, analyzing the responses of 3134 students. He found significant relationships between time spent on Facebook, and several demographic variables. Females spent significantly more time on Facebook. Students with a GPA of 2.99 or less reported being longer on Facebook than those with a higher GPA. Also, students who are in their first and second years of undergraduate study spend more time using Facebook than those in their third year – the majority of the third year students (almost 70%) spent less than 30 minutes on day using it.

Julia, Langa & Miquel (2015) underscored the importance of social and relational factors in for educational attainment within higher education. They examined the impact of the connectedness afforded by social media tools on the performance of students

within desperate disciplines of study – creative and non-creative – at the bachelor's level, 76 students participated from the business administration and management discipline which is considered as non-creative and 78 students participated from the industrial design engineering discipline which is considered as creative. The results of their study suggested that close social ties within the network of their discipline helped students within the non-creative discipline perform better. The same was not true for the creative discipline in which the relationship between social ties and performance was inversely proportional.

A few studies suggested a more positive potential for social media, but also the variation of how students interacted and perceived these tools. Camilia, Sajoh, & Dalhtu (2013) investigated this relationship in the Nigerian context. The responses of 536 students to a survey revealed that 97% of students used social media networks. Facebook was the most popular social network site, followed by "2go" and YouTube. The majority of students (91%) spent less than 4 hours a day on social networks. A quarter of the students reported that they believed that social media impacted their academic performance positively, 32% indicated that it impacted it negatively; the rest though it had no effect. About 75% of the students reported that they used it for academic assignments.

Wodzicki, Schawmmlein and Moskluik (2012) pointed out the potential of social media to develop students' self-directed learning skills because they give students a platform to explore subjects and gather information through accessing existing data on the web or interacting with like-minded students to constructively exchange ideas and build knowledge through informal and formal activities. Wodzicki et al (2012) however note that little is known about how these informal learning opportunities are harnessed and about the characteristics of the students who engage in these activities. To examine these relationships, they conducted three studies to investigate academic knowledge exchange via StudiVZ, an equivalent to Facebook on 774 users of StudiVZ students. The sample consisted of 498 women and 276 men between 19 and 29 years, which is a typical age range for German students. Analysis revealed that one fifth of students employed this social media tool to build knowledge. However, the majority, especially freshman, used it

for social purposes such as networking and getting oriented to the university environment. The researchers concluded that knowledge exchange and social functions for using social networks should be regarded as intertwined rather than mutually exclusive.

Rambe (2012) employed an ethnographic approach to examine the impact of social media on meaningful learning and pedagogical strategies. To do that they examined the Facebook postings of students and instructors enrolled in an Information Systems course within the South African context. The results of the study showed that 165 participants posted 154 wall posts, 121discussion board posts, and 139 posts to the administrator‘s inbox over two semesters. Rambe concluded that Facebook constituted a collaborative “safe” “third space” that facilitated student expression, the development of learning communities, and encouraged knowledge construction. On the other hand, Rambe suggested that postings fell short of manifesting deeper levels of conceptual engagement and learning.

Junco, Heiberger, & Loken (2011) examined the impact of twitter on university students’ engagement and GPA. Using an experimental design, students from a first year pre-health seminar were assigned to an experimental group (N=70) in which Twitter was used for a variety of academic activities and a control group (N=55). The analysis of engagement and GPA via an ANOVA test showed that students in the experimental group were significantly more engaged and had a higher GPA. Analysis of Twitter postings also reflected that high level of engagement on behalf of students and faculty. They concluded that social media has no negative impact on student academic performance if they learned to allocate their time effectively.

A number of the above studies suggest a negative relationship between social media use and student academic performance. However, several of the above studies imply that it is not the time you spend on social media or the Internet that could be related to a low GPA (e.g., Junco, 2011; Krischner & Karpinski, 2010), but there might be some underlying factors such as the activities that you engage in during that time and how you manage your studying time, etc. (e.g., Junco et al., 2011). A number of the above studies

also show that the effect might differ according to the students' academic statues and the academic discipline (e.g Boogart, 2016; Julia, Langa & Miquel, 2015).

3) Gender Usage of Social Media

Males and Females use social media at similar rates (Pew research center, 2017). However, according to Lim, Heinrichs and Lim, (2017) females perceive social media differently than males. Social media corporations found out that interest and curiosity are the main factors that affect the social media usage of females, whereas variety of contents is the main factor that affects the social media usage of males. There are also several researches mentioned that there are gender differences in the social media usage. For example one of the conducted studies to analyze this phenomenon showed that females listen to less music on social media sharing platforms than males (Putzke, Fischbach, Schoder & Gloor, 2014). On the other hand, in 2007 a research from Pew research center showed that 70 percent of female teenagers use social media and that only 54 out of the 70 are active members and post photos on different social media platforms, as compared with males with 54 people, only 40 out of the 54 are active members (Ularo, 2014).

Another study by Zheng, Yuan, Chang & Wu (2016) showed that females use to put seductive profile pictures more than males because they believe that the attractiveness of the profile picture influences the number of online followers or friends they have. This study also showed that females gave emphasis to emotional expression while using social media. On the contrary, males enjoy showing that they are having fun while using social media. A study by Chan, Cheung, Na Shi & Lee (2015) showed that the majority of females use social media for socializing and connecting with their family members, whereas males are more focused on task- oriented actions and gaming.

It was also mentioned by (Correa, Hinsley &Zungia, 2010) that the personality traits affecting the social media usage of males and females differ. For example, males who are emotionally stable tend to use social media less than the males who are not emotionally stable. However, emotional stability does not have any effect on the social media usage of the females. It was also mentioned that females who are open to experience tend to use social media more than the females who are introverts. However, openness to experience and extraversion do not have any effect on the social media usage of males.

Gender usage is also altered when it comes to the social media multitasking phenomenon. Research showed that females tend to use multiple social media platforms at the same time while doing other things. Studies showed that 50.5 percent used to talk face to face with other people and 56.2 percent use to talk on the phone while using social media (Ularo, 2014). Researches mentioned that females are better at multitasking than males. For example, Offer and Schneider (2011) reported that mothers spend 10 more hours a week multitasking compared with fathers" as cited in (Mantyla, 2013, para.1)

Studies that focus on the role of gender with reference to academic activities and performance are rare.

4) Social Media Usage in Egypt

The Arab Republic of Egypt is in Northeast Africa. Egypt has over 90 million inhabitants, making it the highest populated country in the Arab world and the third populous African country after Nigeria and Ethiopia. Two thirds of Egypt's population is below 29 years and it has a low rank in the gender inequality index; Egypt ranks 131 out of 155 countries ("About Egypt", 2018)

The Egyptian higher education system has rapidly expanded in the past decades due to the enormous increase in the population. This expansion has led to overcrowded universities; public universities can reach 400 students in one section, which also led to a poor quality of education. Furthermore, Egypt is suffering from a shortage of well-qualified trainers, teachers and professors due to the lack of training and low wages. Besides, Egypt's gender inequality in literacy is to be considered high among the other countries; 65 percent literacy for women versus 82 percent of men ("Gender Equality and Women's Empowerment", 2017). Consequently, this literacy rate means that the social media usage in Egypt may not be the same among males and females. Yet, again this might not be relevant to the higher education context under examination here.

Internet users in Egypt are increasing rapidly reaching about 54.6 percent of the population in 2015, more than 80 percent of them are young people specifically university students (Saied, ElSabagh & El-Afandy, 2016). According to a study held by Saied, ElSabagh and El-Afandy (2016), which included 484 Egyptian and 277 Malaysian

higher education students, and investigated Internet and Facebook addiction among youth of both countries, mobile phones are the most frequently used device to access social media.

A higher percentage of Egyptian students reported feeling lethargic, spent less time with their friends and spent more time using social media during their study time. Moreover, the most commonly reported effects from using social media among the Egyptian and Malaysian students were: headache, eye irritation, disturbance of sleep patterns, increase in body weight and decrease of physical exercise (Saied, ElSabagh & El-Afandy, 2016). It was also mentioned by El-Khouly (2015) that in Egypt people access Facebook in one day more than the cumulative readership of every newspaper in a week and that 18 percent spends more than eight hours on social media, which affects their academic performance. These results would support those researchers and educators that work against the substantial adverse effects of social media (Tariq et al, 2012).

Social media though might have great potential for higher education within Egypt. As a result of the big number of students attending Egyptian universities and that the existing high student-teacher ratio, the use of technology in the Egyptian higher education is considered a means of refining the reliability and efficiency in the presentation and delivery of knowledge and the use of information and communication technology aptitudes for enhancing the quality of higher education in Egypt (Eraqi, Abou-Alam, Belal & Fahmi, 2011). It was also mentioned by Sobaih, Moustafa,Ghandforoush & Khan, (2016) that higher education students may use social media in academic purposes due to the lack of communication technology and poor infrastructure of the public academic institutions, which make the use of social media have a great potential to be utilized as a communication platform. However, after questioning a sample of the academic staff in public universities, it turned out that faculty members use social media frequently but for non-academic purposes and that they do not prefer communicating with their students through social media channels to protect their privacy. It was also mentioned by (El-Khouly,2015) that in Egypt people access Facebook in one day more than the cumulative readership of every newspaper in a week and that 18 percent spend more than eight hours on social media, which affects their

academic performance. This excess of social media networks use in Egypt reached a very high level during Egypt's 2011 revolution.

The potential for social media emerged clearly during Egypt's 2011 revolution (Frost, 2016). Egypt's level of Internet usage reached 30 percent during that momentous historic moment.At that time Egypt had nearly four million Facebook users, which made the transferability of information and discussions between the protesters easy. The number of tweets from Egypt and the world wide increased from 2,300 to 230,000 tweets per day the week before Mubarak's resignation and the videos showing protests went viral (Safranek, 2012). However, it was mentioned in some studies that only 14 percent of the tweets were from inside Egypt and the rest of the tweets were from another countries (Aday,Farrell, Freelon, Lynch, Sides& Dewar, 2013; Brym, Godbout, Hoffbauer, Menard & Zhang, 2014.).

The majority of Egyptian users of social media during the 2011 revolution were young, well-educated and lacking politics awareness (Howard & Hussain, 2011; Howard & Parks, 2012). Social media had a political impact in more than one country in the past couple of years. Safranek (2012) stated that social media played a major role in the Philippines, Maldova, Iran, Tunisia, Lebanon, Syria, Libya and Egypt.

As a result of the increased number of social media networks users in Egypt during the revolution, the majority of the Egyptian youth generation became heavy users of such networks (Frost, 2016). Consequently, studying the effect of social media on their academic performance is essential. Because according the media dependency theory, the more people use social media the more social media will affect their lives (Ball-Rokeach, 1985).

5) Theoretical Framework

According to the literature review sections, the research is anchored on two theories: The Uses and Gratification theory and the Connectivism theory.

As was previously mentioned, social media offers today's youth a portal for entertainment and communication and it is becoming one of the main platforms for accessing information and news. This study aims to explore the undergraduate students'

perception of using social media on their academic performance and relate it to their actual academic performance, the results will reveal whether they have control over their social media consumption or not. Uses and gratification approach identifies the needs and motives behind online media usage. According to Olise & Makka, (2013) the theory was developed by Elihu Katz in the early 1970's Uses and gratification theory suggests that social media users have power over their media consumption and assume an active role in interpreting and integrating media into their own lives and that they are responsible for choosing media to meet their desires and needs to achieve gratification (Olise & Makka, 2013). Uses and gratification of the social media approach focuses on why and how people use social media to satisfy their needs (Larose, Mastro, & Eastin, 2001).

This study aims to explore to what extent do undergraduate students using social media in academic related purposes and whether it affects them positively or negatively. Connectivism learning approach emphasizes the role of social media context in how learning occurs and explains how Internet technologies have created new opportunities for people to learn and share information across the World Wide Web and among themselves (Siemens, 2005). The theory was developed by Stephen Downes and George Siemens (Transue, 2013). Connectivism theory suggests that students are encouraged to seek out information on their own online and express what they find and that learning may reside in non-human appliances. Connectivism suggests that the use of technology to help individuals to be connected with knowledge and information ought to improve the learning process not vice versa (Evans, 2014).

Summary

To summarize, several studies suggest that social media is mostly used to socialize – to connect with old friends and seek new relationships. Academic activities constitute a smaller time of students' time on social media (e.g., Michikyan et al., 2015; Raacke & Bonds-Raacke, 2008). However, other studies indicated that students spend substantial time employing social media for academic purposes (e.g., Camilia et al., 2013).

Many studies suggest that students spend too much time on social networking apps, and that this simply comes at the expense of time dedicated to focusing on academics (e.g., Alwagait et al., 2015; Krischner & Karpinski, 2010). Krischner and

Karpinski (2010), however, found that it was not how much time students spent on the Internet; it was rather the nature of the activity that differentiated between high achievers and lower achievers. Junco's (2013) study also underscored the importance of "how" students spent their time rather than "how much."

Some studies tried to explore some of the reasons that lead to the negative impact of social media, especially on academic achievement. One of the more researched causes is the multi-tasking phenomenon and the affordance of the social media that distract students from their studies (e.g., Krischner and Karpinski, 2010). Whereas many of the studies suggest that it is this ubiquitous connectivity to friends and the world beyond academics that are the reason for distraction, other studies suggests that social media is a venue for students to vent about their negative feelings (e.g., Fogel & Nutter-Upham, 2011; Michikyan et al, 2015) and an excuse to procrastinate about completing tasks that they dislike.

Other research attempted at finding variables that might be related to social media and academic achievement. Some of the variables explored were time spend on social media, gender, status, and discipline. Gender and time spent on Facebook, and academic status emerged as significant variables in Boogart (2016). Julia et al. (2015) suggest that the influence of social media might dramatically vary by the discipline students are pursuing. As manifested from the section on gender and social media above, the variations in how males and females use the tools imply that there might also be differences in how students use it for educational purposes.

Putting Blogging and Wikis aside, the literature implies that social media mostly had a negative impact on students' academic performance. Some exceptions to that are studies that imply that the influence of social media might vary from one student to the other (e.g., Camilia et al., 2013; Wodzicki et al, 2012). Other studies suggested that we might need to determine what kind of performance we are referring to and that the results might vary by how we measure impact (e.g., Rambe, 2012; Junko et al., 2011). The high level of adoption of social media by young Egyptians on a daily basis, and as tool for awareness raising. Knowledge creation and mobilization during the 2011 revolution portrays it a tremendous power as a catalyst for change that requires further deliberation

and examination, rather than uninformed rejection. According to both theories mentioned above students obviously can be the masters of their usage, and the connectivity social media afford have great potential for different forms of learning.

Chapter 3

Research Methods

1) Research Design

The research employed a mixed methods "Explanatory Sequential Design" to collect both quantitative and qualitative data. According to Creswell (2012), "a mixed methods research design is a procedure for collecting, analyzing, and mixing both quantitative and qualitative methods in a single study or a series of studies to understand a research problem" (p. 535). Moreover, according to Creswell (2012), "The rationale for this approach is that the quantitative data and results provide a general picture of the research problem; more analysis, specifically through qualitative data collection, is needed to refine, extend, or explain the general picture." (p.543). Following the explanatory sequential design quantitative and qualitative data were collected sequentially, using an adopted survey, as well as three focus groups for 15 students from the research sample. Both data sets were analyzed separately and the qualitative findings helped in explaining and elaborating on the quantitative results. "This design also captures the best of both quantitative and qualitative data—to obtain quantitative results from a population in the first phase, and then refine or elaborate these findings through an in-depth qualitative exploration in the second phase" "(Creswell, 2012, p.543).

2) The Context

The research focuses on the undergraduate students of Nile University in Cairo. Nile University (NU) is a research institution of learning committed to excellence in education and research. It was officially inaugurated in January 2007 as a national (Ahleya), non-governmental and non-profit university. Nile University's aim is to be one of the leaders in technology and business education in Egypt and the Middle East/North Africa (MENA) region. Its business and technology-based programs and research centers are designed to address critical areas of vital importance to the economic growth and prosperity of the people of Egypt and the region and to engage in cutting edge applied research (What is Nile University, 2017).

Nile University offers a variety of diplomas, Masters and PhD programs as well as a strategic set of undergraduate programs in selected areas, Nile University's focus is

mainly on the science majors. It also offers executive education and professional development programs. (What is Nile University, 2017).

3) Population of the Study

The population in this research is all the registered undergraduate students in Nile University. The total population includes 884 registered undergraduate students majored in Computer Engineering, Civil Engineering, Electronics and Communication Engineering, Computer Engineering, Industrial Engineering, Mechanical Engineering and Business Administration). The numbers and percentages of all registered undergraduate students was obtained through the Student Affairs Office, classified by major and gender, outlined in Table 3.1 below. The aim for obtaining this information was to evaluate the representativeness of the sample of students participating in the study of Nile University's undergraduate population.

Table 3.1

Nile University Undergraduate Students

Major	# of Students	Males	Females
Computer Engineering	124	80.6%	19.4%
Civil Engineering	53	77.4%	22.6%
Computer Science	51	94.1%	5.8%
Electronics and Communication Engineering	77	68.8%	31.2%
Industrial Engineering	81	70.4%	29.6%
Mechanical Engineering	224	88.8%	11.2%
Business Administration	274	56.9%	43.1%
Total	884	73.9%	26.1%

4) Sampling

For the quantitative component of this study, and in order to get a representative sample covering different characteristics such as: gender, academic status, and major, the purposeful sampling technique was applied. The researcher chose the English language classes because such classes include a huge number of students with different academic statuses and majors. The researcher distributed the survey during the English language classes after getting the English department consent. The English department in Nile University offers 5 levels of English proficiency courses, which range from the elementary to the advanced levels. Passing all five levels is required for the undergraduate students to be able to graduate. It was expected that students enrolled in these classes would be representative of the population. To gather the qualitative data for this study, the researcher sent an email to 15 students from the students who completed the survey asking them to attend the focus group. The researcher chose 5 students from those who mentioned that the social media use has affected their academic performance positively and 5 from those who mentioned that the social media use has affected their academic performance negatively, and five from those who mentioned that the social media use have no effect on their academic performance. Participation in this study was voluntary for all data collection methods.

5) Participants

The Participants in this study were 424 undergraduate students. Two participants failed to respond to all items so their data was not included in the analysis, thus the valid responses were 422. Participants ranged in age from 18 to 23. After comparing the demographics of the sample with the demographics of the population, the researcher revealed that the sample is representative in terms of gender and academic major. The demographics of participants are outlined in the below 3 tables.

Table 3.2

Gender

	Frequency	Percent
Female	134	31.8%
Male	288	68.2%
Total	422	100%

Table 3. 3

Academic Status

	Frequency	Percent
Freshman	142	33.6%
Sophomore	157	37.2%
Junior	67	15.9%
Senior	56	13.3%
Total	422	100%

Table 3. 4

Major

	Frequency	Percent
Computer Engineering	44	10.6%
Civil Engineering	24	5.5%
Computer Science	22	5.3%
Electronics and communication Engineering	46	10.9%

Industrial Engineering	51	12.1%
Mechanical Engineering	88	20.8%
Business Administration	147	34.8%
Total	422	100

For the qualitative research method, a total of fifteen students attended the focus groups, an email was sent to the students who answered a specific question about the social media effect on their academic performance from the survey inviting them to attend the focus groups. The researcher chose five from each of the 3 groups: those who responded that social media had a positive influence on their performance, and those who responded that social media had a negative influence, and those who are undecided about whether it had a positive or negative impact on their performance. Table 3.5 outlines their demographics each student have a code, the coding system is explained in the data collection section.

Table 3.5

Focus group participants' demographics

Student	Status	Major	Gender	Student Code
Negative 1	Senior	Business	Female	G2,S1
Negative 2	Senior	Engineering	Male	G2,S2
Negative 3	Freshman	Engineering	Male	G2,S3
Negative 4	Junior	Business	Male	G2,S4
Negative 5	Junior	Engineering	Female	G2,S5
Neutral 1	Senior	Engineering	Male	G3,S1

Neutral 2	Junior	Business	Male	G3,S2
Neutral 3	Senior	Engineering	Female	G3,S3
Neutral 4	Freshman	Engineering	Male	G3,S4
Neutral 5	Junior	Business	Female	G3,S4
Positive 1	Freshman	Business	Male	G1,S1
Positive 2	Senior	Business	Male	G1,S2
Positive 3	Junior	Engineering	Female	G1,S3
Positive 4	Sophomore	Engineering	Male	G1,S4
Positive 5	Senior	Engineering	Female	G1,S5

6) Research Instrument

The quantitative instrument for this study is a survey. Ohaja (2003) defines a survey as the study of the characteristics of a sample through questioning, which enables the researcher to make generalizations concerning the population of his/her study. This design is considered appropriate because it enables the researcher to establish the range and distribution of some social characteristics, and to discover how these characteristics may be related to certain behavior patterns or attitudes (Zurmuehlin, 1981).

The researcher adapts Peter Osharive's (2015) Social Media and Academic Performance of Students Questionnaire (SMAAPOS) (Appendix 1).The researcher checked the reliability of the research instrument which was determined by Peter Osharive (2015) using a split half test using the odd and even numbered items to form the two halves. The two halves were administered to a sample of students from a university not selected for the main study. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.65 indicated that the research instrument was reliable

(Osharive,2015) The researcher chose this survey because it was the only available survey that is addressing the same population (undergraduate students), moreover, it was also made to test the relationship between the social media networks usage and the student's academic performance. In light of those two reasons, the researcher thought that using this instrument will give adequate answers to the research questions. However, this tool was used in Nigeria. Thus, the researcher added and edited some questions to make sure that the questionnaire would fit in the Egyptian context.

The questionnaire is divided into two sections (A and B). Section A consists of 7 questions and elicits demographic information. Section B consists of 22 likert-scale questions that elicited information about the students use of social media: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD) (Osharive, 2015) and one open-ended question at the end of the questionnaire asking them if they have any further comments on the impact of social media on your academics.

As for the qualitative research instrument, the researcher employed focus groups. As per Creswell (2012), "Focus groups can be used to collect shared understanding from several individuals as well as to get views from specific people" (p.384) . The researcher selected 10 questions (Appendix 5) from the survey and rephrased them in order to better understand and interpret some answers in more depth. The questions varied slightly as that the focus group solicited the input of students who report that social media had a positive influence on their performance, a negative influence, and those who didn't mentioned that social media has no impact on their performance.

7) Pilot Study

The survey was tested on 50 students from a representative sample of potential participants. The pilot was conducted for the intentions of timing the length of the survey per participant, to check the feasibility of conducting the survey on campus, and to test the clarity of the items of the survey. The pilot study showed that the items of the survey were clear and did not cause any confusion, the response and completion rate of the pilot survey was 100% – all the 50

participants responded and completed the survey. There were no logistical problems at all in conducting the pilot study. Data collected from the pilot study was not included in the results.

8) Reliability and Validity of the Instrument

The reliability and validity of the research instrument was determined. The Pearson Correlation Coefficient was used to determine the reliability of the instrument. A co-efficient value of 0.68 indicated that the research instrument was relatively reliable. According to (Taber, 2017) the range of a reasonable reliability is between 0.67 and 0.87.

9) Data Collection and Analysis Procedures

9.1. Approvals.

The researcher has taken the below approvals before collecting data:

a) Institutional review board (IRB) (Appendix2)
b) Central Agency for Public Mobilization and statistics (CAPMAS) (Appendix3)

9.2. Data Collection Procedures.

For the quantitative data collection, the researcher has created the questionnaire in Google Forms and used it to collect data. Data collection took place on Nile University campus during the English classes. The questionnaire link was sent to the class attendees through MOODLE – the official course management system used at the university; students were familiar with it. The researcher solicited the input of students in 28 different English classes from all levels. At the beginning of each class the researcher would introduce the survey, and assure the students that this survey is anonymous. As for the qualitative data collection, after obtaining the IRB approval to do this follow up, an email was sent to the participants inviting them to attend the focus group sessions on Nile University campus.

9.3. Data Analysis.

The collected quantitative data were scored, coded and inserted into SPSS, and were analyzed using multiple statistical descriptive and inferential statistical tests based on the research question and the nature of the data. to be analyzed using frequency tables, crosstabs, Anovas, post hocs and t-tests.

Eighty students responded to the open-ended question of the survey soliciting additional comments on the topic of social media with reference to their performance. Based on the initial reading of students' contributions the responses were classified into two categories: informative results category (62.5%) and uninformative results category (37.5%). The uninformative results category consisted of thank you notes, as for the informative results category, it consisted of different point of views about social media use. The researcher read the answers thoroughly in attempt to formulate any themes, however there were no themes due to the short and different answers.

As for the qualitative data, the researcher has adopted the "bottom up" approach in analyzing the data. According to Creswell (2012) "This analysis initially consists of developing a general sense of the data, and then coding description and themes about the central phenomenon" (p.237). Therefore, focus groups discussions were audio-recorded then transcribed. After data transcription, the researcher started to highlight influential quotes that are relevant to the research questions objectives which led to themes formulation that are related to the research questions. Students who attended the focus groups were given codes based on the focus group number and the number of participants in each group, for example (G1,S1) (See Figure 1)

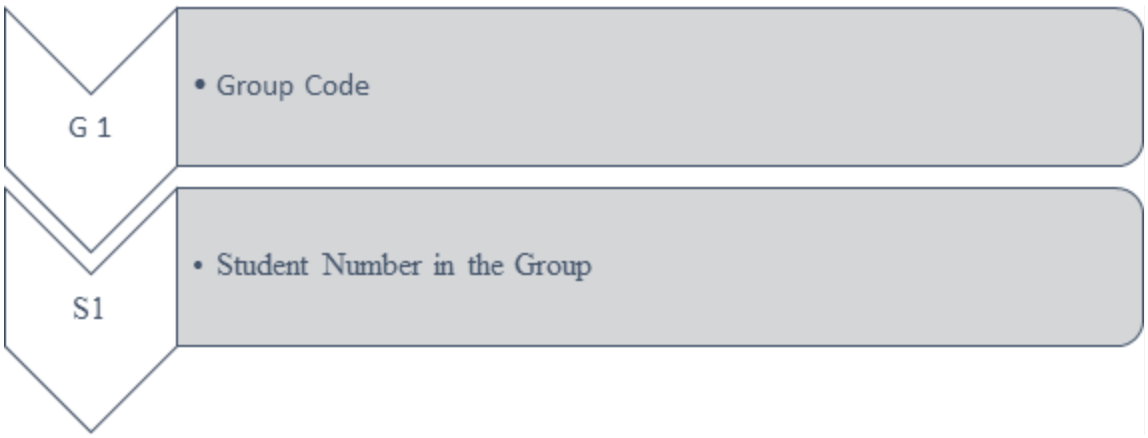

Figure 1 Coding System of the Students

Chapter 4

Results

In this section, the results will be addressed through answering the four research questions using the quantitative method first, followed by the findings and discussion of the qualitative method.

Quantitative Results

Question 1

1. To what extent academic-related purposes do undergraduate students at Nile University use social media?

Ten statements sought to investigate to what extent undergraduate students were engaged in activities commonly associated with social media. Table 3.6 below depicts the extent to which students engaged in these activities.

Table 3.6

Responses on the students' usage of social media for academic related purposes

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
I engage in academic discussions on social media platforms	13.50% 57	19% 80	37.40% 158	17.10% 72	13% 55
I make use of WhatsApp or alternatives to share information with my classmates	49.30% 208	23.20% 98	11.10% 47	8.80% 37	7.60% 32
I follow the latest developments in my field through social media	28.70% 121	23.20% 98	27% 114	13.50% 57	7.60% 32
I solely rely on information gotten from social media to do my assignments without consulting other sources	9% 38	14.50% 61	25.60% 108	24.60% 104	26.30% 111
Engaging in academic forums on social media confuses me	8.10% 34	10.20% 43	38.40% 162	22.70% 96	20.60% 87
Sometimes I use social media to understand what I have been taught in class	27.30% 115	20.90% 88	25.80% 109	11.80% 50	14.20% 60
Social media is encouraged by professors as part of class assignments	12.60% 53	18% 76	35.50% 150	19.40% 82	14.50% 61

We have a social media group for some of my courses	52.10% 220	22% 93	13.70% 58	4.70% 20	7.30% 31
I have to use social media extensively because most of my course assignments/projects are in the forms of blogs/online presentations	21.10% 89	24.40% 103	30.60% 129	15.20% 64	8.80% 37
I communicate with the professor through social media	16.80% 71	19.90% 84	25.80% 109	17.50% 74	19.90% 84

Table 3.6 shows that the majority of the participants have chosen the categories "agree to strongly agree" for two statements. For instance, the percentage of "I make use of WhatsApp or alternatives to share information with my classmates" is (72.5%), "We have a social media group for some of my courses" is (74.1%). About 16% of students disagreed or strongly disagreed with the first statement and 12% with the second, whereas the rest were neutral. The qualitative results implies that the majority of the students use social media networks as a communication platform due to the various number of available features and benefits. For example, they can reach each other easily and quickly via WhatsApp groups whether by texting, voice notes or video calls.

Almost half of the students agreed to strongly agreed with the following statements: "I follow the latest developments in my field through social media" (51.9%);"Sometimes I use social media to understand what I have been taught in class" (48.2%); and "I have to use social media extensively because most of my course assignments/projects are in the forms of blogs/online presentations" (45.5%). For the first statement, almost 25% disagreed and the rest were neutral. The same trend was

noticed for the second statement. For the third statement, disagreement was slightly lower, and those who chose the “neutral” choice reached 30 percent. The results of the last statement slightly conflict with those of another statement, “Social media is encouraged by professors as part of class assignments”, to which only about 30% of students agreed or strongly agreed. About 25 percent disagreed and the rest were neutral. The latter results mirrored those of the statement “I engage in academic discussions on social media platforms” to which 32.5% agreed or strongly agreed. About 20% of students disagreed to this latter statement, and about 37% were neutral. Also with reference to academic forums via social media, only 18.3% of students reported that “Engaging in academic forums on social media confuses me”. Over 43% disagreed with that statement and about 39% were neutral. These results are mostly good, partially bad. In the qualitative results students talked about the lack of credibility or the internet yet mentioned that it often opens links that are lead you to interesting ideas even if they are not credible. Also it might be based on the results that students in some subject rely more on data from the internet especially if they are using social media as a data collection instrument such as in marketing. The qualitative results also show that business students are more likely to opt for social media for academic reference whereas engineering do not find social media interesting as a source of knowledge

On the contrary, table 3.6 shows that the minority of participants selected the categories “agree to strongly agree” on five statements, such as “I engage in academic discussions on social media platforms” amounted (32.5%), ”I solely rely on information gotten from social media to do my assignments without consulting other sources” is (23.5%), ”Engaging in academic forums on social media confuses me” is (18.3%), “Social media is encouraged by professors as part of class assignments” is (30.6%) and ”I communicate with the professor through social media” counts (36.7%).

It was also noted that the table demonstrates that a large number of participants picked out the categories “disagree to strongly disagree” for two statements: “I solely rely on information gotten from social media to do my assignments without consulting

other sources" (50.9%). Only about 25% agreed with this statement, and the rest of the students opted for the neutral choice.

Moreover, according to the last open question asking them if they want to leave a comment about social media, some students have mentioned that using social media for academic related purposes is easier for them. A senior engineering student gave an example of using social media for academic purposes as follows:

> I think it is good if you make the most use of it in a proper way. In my last university we used to make a group for each subject and ask the doctor to share the slides information and any notes with us, having the ability of discussing these posts as students and sharing and commenting brings us more together. It is also very important when you are posting important things for events or opportunities

Whereas a junior business student explained" I think if each course in the university has a group on Facebook this will help us as a student's so much to be aware of everything happens in this course".

Question 2

2. How do students perceive the impact of social media on their academic engagement and performance?

Eleven statements sought to investigate how the undergraduate students of Nile University perceive the impact of social media on their academic performance. Table 3.7 below depicts how they perceive the effect of social media on their academic performance.

Table 3.7

Responses on the impact of social media on the students' academic engagement and performance

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The time I spend online on social networks takes away from my time studying	15.20% 64	21.80% 92	34.10% 144	19.20% 81	9.70% 41
Online social networks distract me from my studies	13.50% 57	23.20% 98	32.50% 137	21.60% 91	9.20% 39
The hours I spend online on social media are more than the hours I spend reading university stated content	32.70% 138	22.50% 95	21.10% 89	11.80% 50	11.80% 50
My unlimited access to social media through my cell phone distracts me in class	10% 42	13.70% 58	21.10% 89	23.50% 99	31.80% 134
Social media have impacted my GPA positively	11.40% 48	15.20% 64	42.20% 178	22.30% 94	9% 38
Social media have impacted my GPA negatively	7.60% 32	17.80% 75	27.30% 115	26.30% 111	21.10% 89
The usage of social media for class related research has helped	16.80% 71	19.40% 82	36.50% 154	18.70% 79	8.50% 36

improve my grades

Social media has negatively impacted my writing skills	12.30% 52	10% 42	17.80% 75	22.30% 94	37.70% 159
I will not perform well in my academics even if I stop using social media	14.20% 60	13.50% 57	28.90% 122	19.20% 81	24.20% 102
Social media has improved my communication skills	28% 118	24.40% 103	26.30% 111	10% 42	11.40% 48
Once I interrupt my study time with social media, I lose concentration	27% 114	23.20% 98	27.70% 117	13.50% 57	8.50% 36

A high proportion from the participants in Table 3.7 selected the categories “disagree” and “strongly disagree”. For instance, the percentage of “Social media have impacted my GPA negatively” is (47.4%), “Social media have impacted my GPA positively” is 26.6%. For the first statement, 25.4% agreed and 27.3% were neutral. As for the second statement, 26.6% agreed and 42.2% were neutral. It was noticed that a high percentage of students disagreed about the negative impact of social media on their academic performance and a low percentage of students disagreed about the positive impact of social media on their academic performance. However, a high percentage of students were neutral about the second statement and a low percentage of students were neutral about the first statement. The qualitative results show different

opinions from those who are not academically affected by social media and those who are affected positively and negatively.

Almost half of the students disagreed or strongly disagreed with the following statements: “I will not perform well in my academics even if I stop using social media” (43%), “My unlimited access to social media through my cell phone distracts me in class” (55.3%). For the first statement, 27.7% agreed and the rest were neutral. The same trend was noticed for the second statement.

On the other hand, table 3.7 shows that almost half of the students were within the categories “agree” to “strongly agree” for instance, the percentage of “The hours I spend online on social media are more than the hours I spend reading university stated content” is (55.2%), “Once I interrupt my study time with social media, I lose concentration” is (50.2%); and “Social media has improved my communication skills” (52.4%). For the first statement, 23% disagreed and the rest were neutral. The same trend was noticed for the second statement. For the third statement, disagreement was slightly lower, and those who chose the “neutral” choice reached almost 22%.

It was also noted that table 3.7 demonstrates that a small number of students picked out the categories “agree to strongly agree” to three statements with reference to social media negative effects: 30% of students reported that “The time I spend online on social networks takes away from my time studying”, 36.7% reported that “Online social networks distract me from my studies”; and 22.3% reported that “Social media has negatively impacted my writing skill”. For the first two statements, almost 30% disagreed and the rest where neutral. For the third statement, disagreement was higher, it reached (59.9%) and the rest were neutral.

Question 3

What is the relationship between academic effort, academic performance and use of social media?

A. Number of hours (social media)

B. Number of hours spent studying

C. GPA

For the purpose of this question the numbers of hours of study per week were used to determine academic effort, GPA was used as an indicator of academic performance, and number of hours students reported spending on social media per day were used as a measure of "use of social media".

The below three tables show the categorization of the three variables: GPA, number of study hours per week and number of hours on social media per day.

Table 3.8

GPA Categorization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<2.5	108	25.6	26.7	26.7
	2.6-3	88	20.9	21.7	48.4
	3.1-3.5	107	25.4	26.4	74.8
	3.6-4	102	24.2	25.2	100
	Total	405	96	100	
Missing	System	17	4.0		
Total		422	100		

Table 3.9

Social Media Hours Categorization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<=4.00	160	37.9	38	38
	4.01-8.00	146	34.6	34.7	72.7
	8.01+	115	27.3	27.3	100
	Total	421	99.8	100	
Missing	System	1	.2		

Total	422	100	

Table 3.10

Number of Hours on Social Media Categorization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<=8.00	142	33.6	33.6	33.6
	8.01-14.00	154	36.5	36.5	70.1
	14.01+	126	29.9	29.9	100
	Total	422	100	100	

Furthermore, table 3.11 below shows a descriptive statistics of the three variables GPA, number of study hours per week and number of hours on social media per day.

Table 3.11

Means and standard deviations of the GPA, number of study hours and number of hours on social media.

	N	Mean	Std. Deviation
What is your current GPA? Please use the traditional U.S. numerical format (Examples: 3.0, 3.4, 2.5)	418	3.029	0.662
How many hours do you spend studying per week? (Examples: 10, 15, 11.5. Numerical answer only)	422	11.698	8.798
How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)	421	6.711	5.154

Measures of central tendency were computed to summarize the data for the three variables. The following are the results of this analysis for the three variables; (GPA) N=418, M=3.02, SD=0.66, (Hours spend studying per week) N=422, M=11.69, SD=8.79, (Hours spent on social media per day) N=421, M=6.711, SD=5.154.". The above data demonstrates that the average hours spent on social media is more than the average hours spend studying; given that the hours spent on social media is by day and the hours spent studying is by week it is not expected to influence the statistical analysis. Correlation analyses in the below table was used to examine if there is a significant relationship between the three variables GPA, number of study hours and number of hours on social media.

Table 3.12

Correlation between GPA, number of study hours and number of hours on social media

		What is your current GPA? Please use the traditional U.S. numerical format (Examples: 3.0, 3.4, 2.5)	How many hours do you spend studying per week? (Examples: 10, 15, 11.5. Numerical answer only)	How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)
What is your current GPA? Please use the traditional U.S. numerical format (Examples: 3.0, 3.4, 2.5)	Pearson Correlation	1	0.113*	-0.155**
	Sig.		0.021	0.002
	N	418	418	417

How many hours do you spend studying per week? (Examples: 10, 15, 11.5. Numerical answer only)	Pearson Correlation	0.113*	1	-0.005
	Sig.	0.021		0.912
	N	418	422	421
How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)	Pearson Correlation	-0.155**	-0.005	1
	Sig.	0.002	0.912	
	N	417	421	421

* Correlation is significant at the 0.05 level

**Correlation is significant at the 0.01 level

Results indicated that there is a significant, though weak, positive relationship between GPA and hours of study, r = .113, n= 418, *p* =.021; and a significant, though weak, negative correlation between number of hours spent on social media and GPA, r = -.155, n=417, *p*=.002. The results suggest that an increase in the number of hours studying is associated with a higher GPA, which an increase in the number of hours spent on social media is associated with a lower GPA. However, there is no significant relationship between number of hours on social media and number of hours studying.

Question 4

Is there a relationship between gender, academic status, and academic major and: 1) use of social media, and 2) perception of the impact of social media on academic engagement?

In order to answer this question, the researcher has divided the answer under three themes and examined each theme with three variables: gender, academic status, and academic major. The three themes are: Engagement in academically related social media activities, Perception of the impact of social media on academic engagement, and how much time they spend on social media. Due to large amount of data collected, only significant results will be presented below whereas the rest of the results are in the appendices.

1) Engagement in Academically Related Social Media Activities:

a) Gender.

A cross tabulation sought to investigate the frequency distribution of the gender variable, followed by a chi square test to indicate if there is any significant relationship between engagement in academically related social media activities and gender.

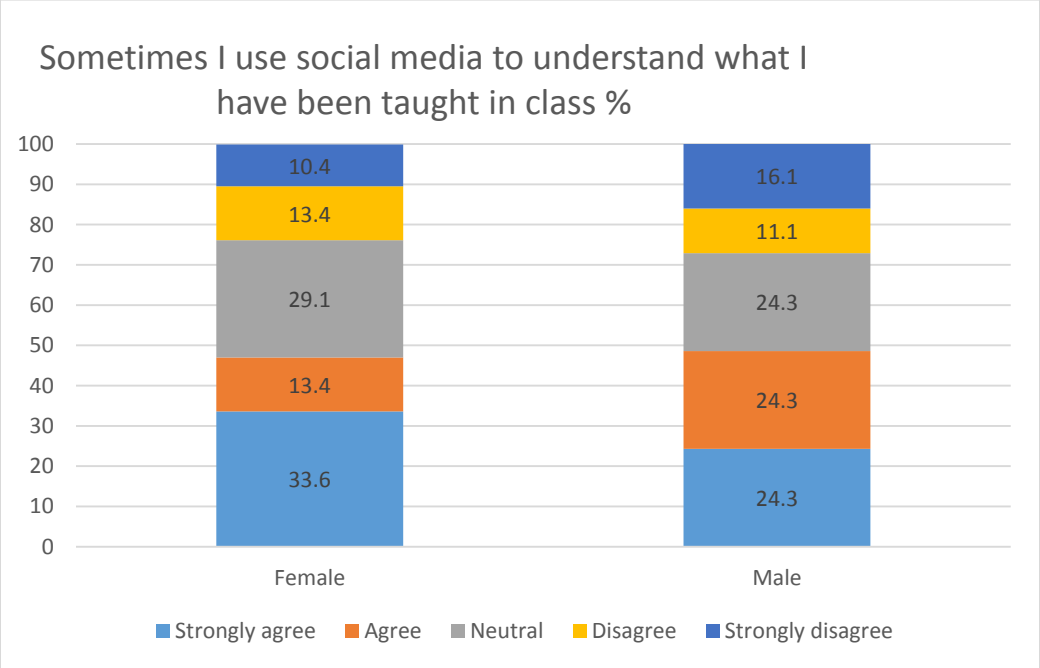

Figure 2 Gender and engagement in academically related social media activities

The above figure shows that 48.6% males are within the categories agree to strongly agree about using social media to understand what they have took in class. Similarly, 47% of the females are also within the categories agree to strongly agree about the same statement. Overall, the results suggest that both males and females have the same attitude about using social media to understand what they were taught in class. However, the extreme choices are more prominent. Females strongly agree at a higher percentage that they use social media to learn in class, which male more strongly disagree that they do not use it to understand.

Table 3.13

Chi-Square Test for Gender and engagement in academically related social media activities

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	11.267[a]	4	.024
Likelihood Ratio	11.683	4	.020
N of Valid Cases	422		

*0 cells (0.0%) have expected count less than 5. The minimum expected count is 15.88.

The results of the chi square analysis explains the significant association between females and males in using social media to understand what was taught in class, $X^2(1, N = 422) = 11.267$, $p = .024$.

b) Academic status:

A cross tabulation sought to investigate the frequency distribution of the academic status variable, followed by a chi square test to indicate if there is any significance between engagement in academically related social media activities and academic status.

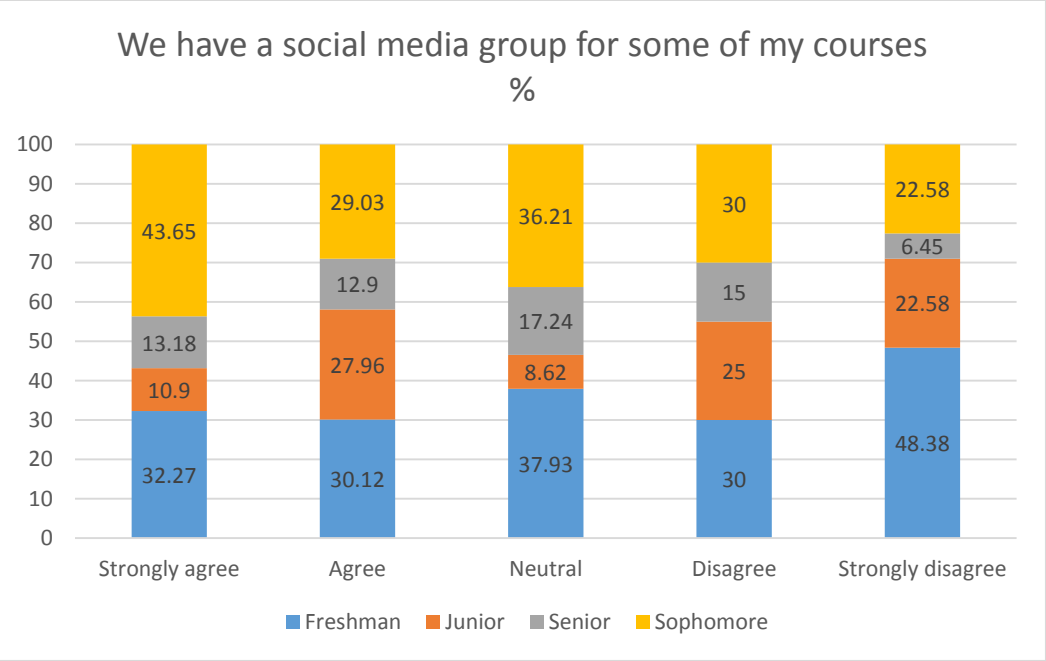

Figure 3 Academic status and engagement in academically related social media activities

The above figure shows that (72.68%) sophomore are within the categories agree to strongly agree of having a social media group for some of their courses. the same trend was noticed with the freshmen. For the juniors and seniors, they have reported lower percentages. However, the extreme choices are more prominent. Sophomores strongly agree at higher percentages that they have social media group for some of their courses, which freshman more strongly disagree that they do not have such groups. The qualitative results show that freshman students don't use social media in academically related purposes compared to the other academic status due to their unknowingness of how things will go in the university, then they get caught up with the trend.

Table 3.14

Chi-Square Test for Academic status and engagement in academically related social media activities

	Value	df	Asymptotic Significance

			(2-sided)
Pearson Chi-Square	26.707[a]	12	.009
Likelihood Ratio	25.945	12	.011
N of Valid Cases	422		

*4 cells (20.0%) have expected count less than 5. The minimum expected count is 2.65.

The results of the chi square analysis revealed a significant association between academic status and having a social media group for some of the courses, $X^2(1, N = 422) = 26.707$, p = .009. Sophomores, juniors and seniors tend to use social media for academic related purposes more than the freshman students.

c) Major:

A cross tabulation sought to investigate the frequency distribution of the academic major variable with the survey statements, followed by a chi square test to indicate if there is any significance between engagement in academically related social media activities and academic status.

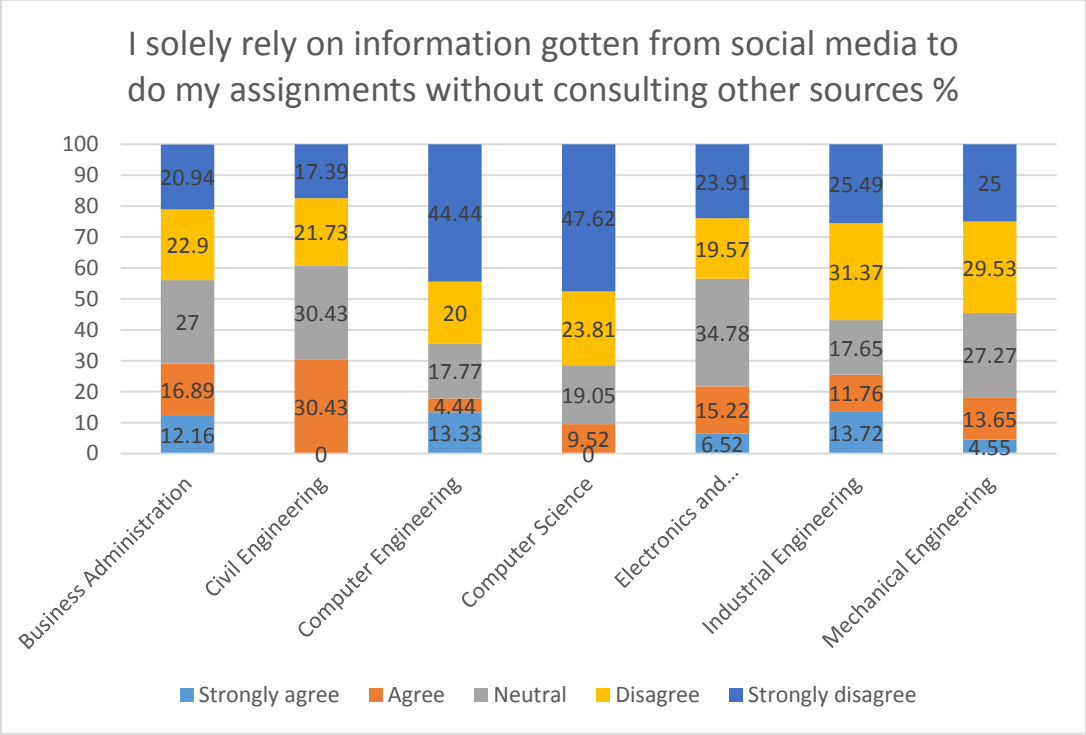

Figure 4 Frequency distribution of the academic major variable

Figure 4 shows that the majority of the students who chose disagree to strongly disagree for solely relying on social media in doing their assignments are from the engineering majors. For instance, the percentage of computer engineering students who disagreed is (71.43%) and only 17.77% agreed and the rest were neutral. The same trend was noticed for all engineering majors except civil engineering. The percentage of civil engineering students who disagreed with the statement is lower than the rest of the engineering majors. On the other hand, the percentage of business administration and civil engineering students who opted agree to strongly agree is almost the same and higher than the rest of the majors. The qualitative results spectacle that business students are more likely to opt for social media for academic reference whereas engineering do not find social media interesting as a source of knowledge.

Table 3.15

Chi-Square Test

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.803[a]	24	.036
Likelihood Ratio	40.621	24	.018
Linear-by-Linear Association	3.331	1	.068
N of Valid Cases	422		

The results of the chi square analysis revealed a significant association between major and relying solely on social media for solving the assignment, $X^2(1, N = 422) = 37.803$, $p = .036$. Students who are majored in Business administration and civil engineering tend to agree on relying on solely relying on information gotten from social media to do their assignments without consulting other sources more than the students who are majored in different fields.

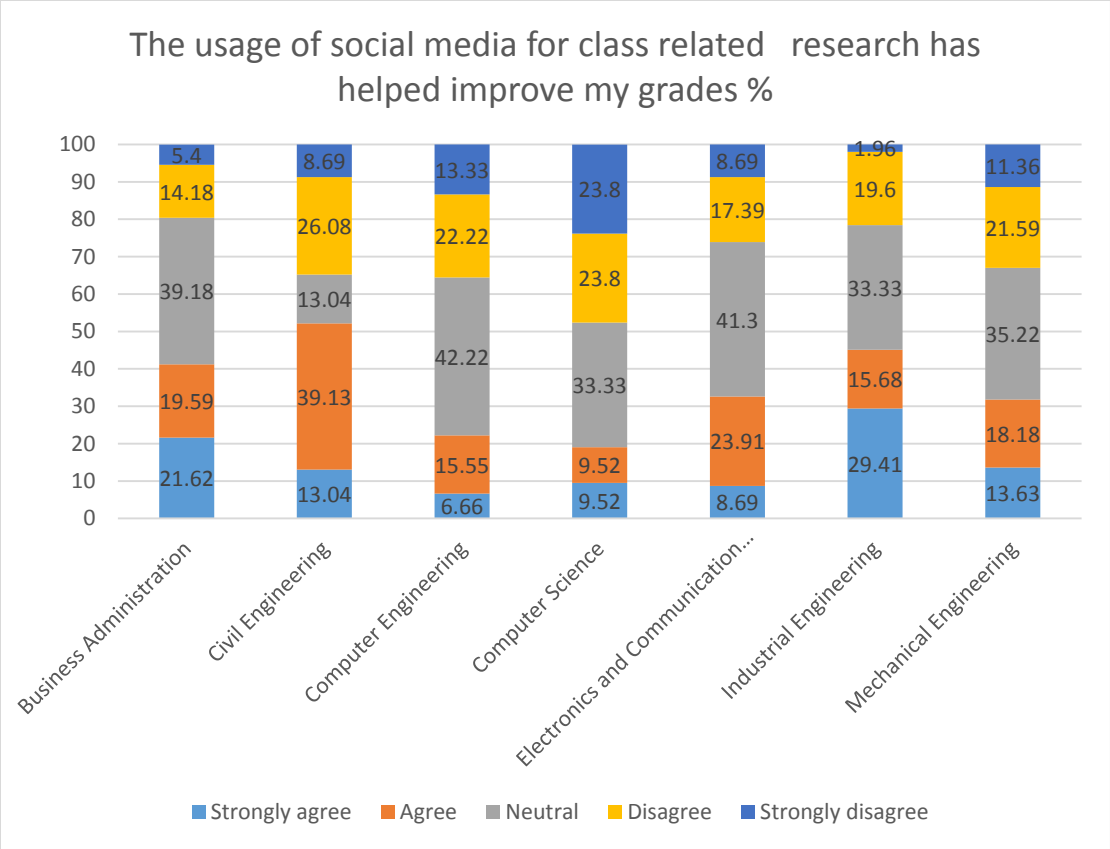

Figure 5 Frequency distribution of the academic major variable

Figure 5 shows that computer science major have the smallest number of students 19% who picked agree to strongly agree that the use of social media for class related research has helped them in improving their grades. On the contrary, Civil engineering students have the largest number of participants (52.14%) who agree to strongly agree to the same statement.

Table 3.16

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	39.793[a]	24	.023

Likelihood Ratio	39.763	24	.023
Linear-by-Linear Association	2.376	1	.123
N of Valid Cases	422		

The results of the chi square analysis revealed a significant association between majors and the improvement of grades due to social media use, $X^2(1, N = 422) = 39.793$, p = .023. The table shows that the civil engineering major students followed by the business administration major students perceive that the use of social media for class related research helped has helped them in improving their grades more than the other majors.

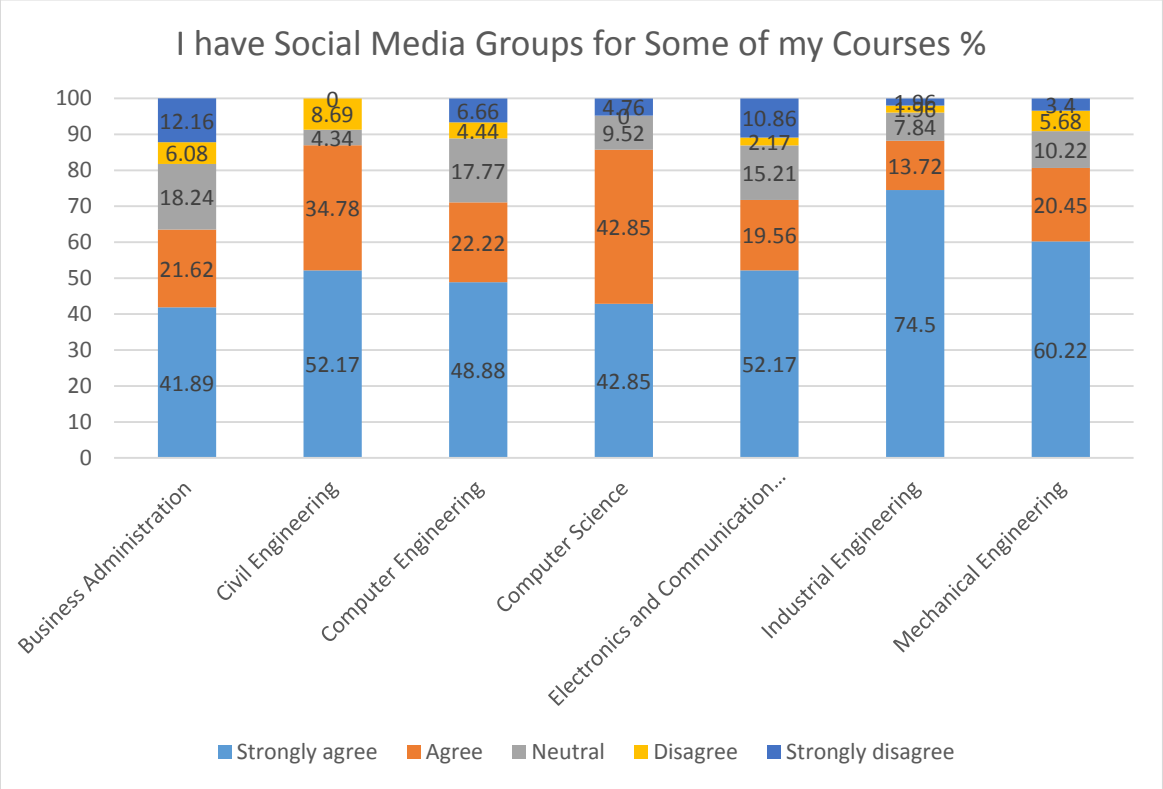

Figure 6 Frequency distribution of the academic major variable

Figure 6 shows that more than 50% of all the majors selected agree to strongly agree for having a social media groups for some of the courses. However, the extreme choices are more prominent. Industrial engineering students strongly agree at a higher percentage than the other majors. Qualitative results indicate that almost all the students have a social media group for at least one of their courses. The qualitative results also demonstrate that this high percentage doesn't mean that all students prefer having a social media group for their courses. However, sometimes they are forced to join to keep up with the course updates, given that as mentioned before more than half the students use social media platforms in discussing course related content.

Table 3.17

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	38.892[a]	24	.028
Likelihood Ratio	41.569	24	.014
Linear-by-Linear Association	15.103	1	.000
N of Valid Cases	422		

The results of the chi square analysis revealed a significant association between majors and having a social media group for some of the university courses, $X^2(1, N = 422) = 38.892$, $p = .028$. The results show that industrial engineering students tend to have a social media groups for their courses more than all the other majors.

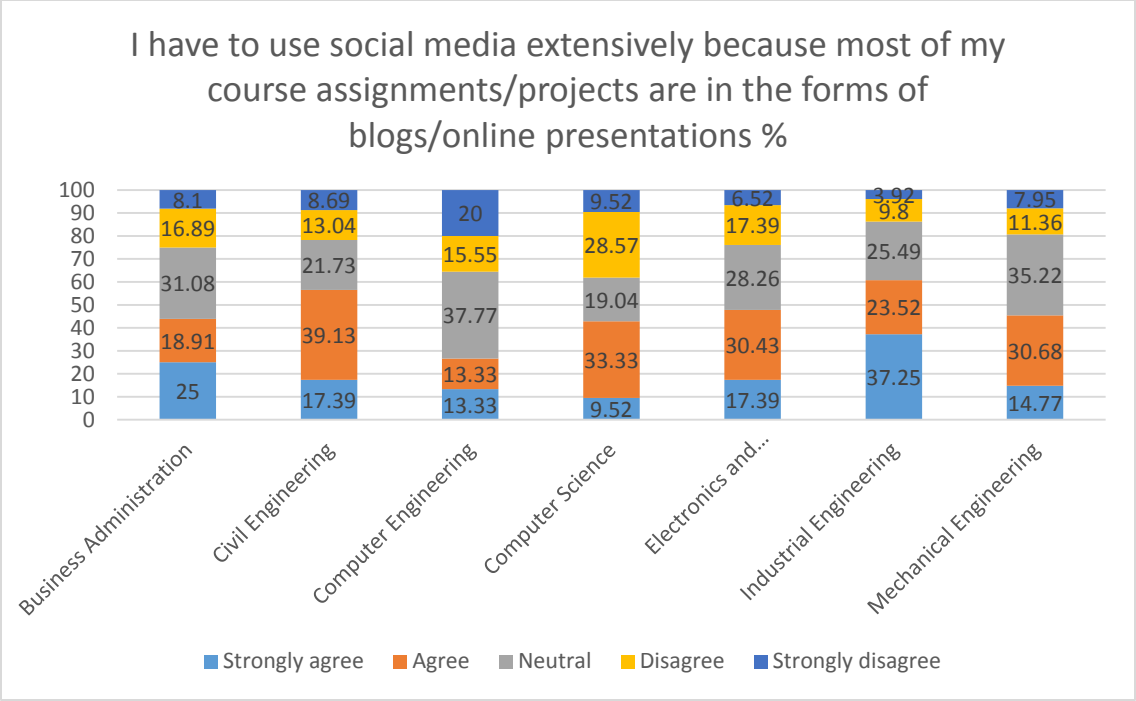

Figure 7 Frequency distribution of the academic major variable

Figure 7 shows that civil and industrial engineering have a larger number of participants who agreed to strongly agree that they have to use social media extensively because most of their courses are in the forms of blogs/online presentations more than the rest of the majors. Qualitative results show that some of the course assignments require them to use word press management system.

Table 3.18

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	37.535[a]	24	.039
Likelihood Ratio	35.601	24	.060
Linear-by-Linear Association	.817	1	.366

N of Valid Cases	422

The results of the chi square analysis revealed a significant association between majors and having to use social media extensively because their courses are in a form of online blogs, $X^2(1, N = 422) = 37.535$, p = .039. For instance, civil engineering students reported the highest percentage of the students who agreed on the statement.

2) Perception of the Impact of Social Media on Academic Engagement:

To examine whether students' perception of the impact of social media differed among students' based on gender, academic status or academic major: the researcher averaged the results of 10 statements: (q30, q23, q21, q20, q13, q12, 11, 10) and two of the ten items were reversed: q 16, and q29.

a) Gender:

An independent samples t-test was run to determine if there were differences in the perception of the impact of social media on academic engagement between males and females. The results indicated that there is no significance t (420) = -.066, p=.947 between gender and the perception of the impact of social media on academic engagement.

b) Academic Status:

Analysis of variance was conducted to determine if there was a relation between the perception of the impact of social media on academic engagement and the students' academic status. The results indicated that there is a significant difference between the four different groups at the p<.05 level for the three conditions [F (3,418) = 3.91, p=.009]. Post hoc analysis indicated that there is a difference between juniors and sophomores SRA (p =.005). The results shows that juniors perceive positive impact of social media on their academic engagement more than the sophomores do as outlined in the below multiple comparisons table.

Table 3.19

Multiple Comparison table for 10 statements:

(q30, q23, q21, q20, q13, q12, 11, 10) and two of the ten items were reversed: q 16, and q29.

		Mean Diff.	Std. Error	Significance
Junior	Freshman	-.20706	.08799	.088
	Senior	-.27716	.10749	.050
	Sophomore	-.28716*	.08663	.005

*The mean difference is significant at the 0.05 level.

Academic Major:

Analysis of variance was conducted to determine if there was a relation between the perception of the impact of social media on academic engagement and the students' academic major. The results indicated that there is no significant relationship between the two variables [F (6,415) = 1.279, *p*=.266].

3) How much time they spend on social media:

To examine whether the time in which students spend on social media differed among students based on gender, academic status and academic major. The researcher have used the question about the time in which students spend on social media per day as the dependent variable and the gender, academic status and academic major as the three independent variables.

a) Gender

An independent samples t-test was run to determine if there were differences in the perception of the impact of social media on academic engagement between males and females. The results indicated that there is no significance in the scores between females (M=12.09, SD=8.14) and males (M=11.51, SD=9.09); t (420) =.625, *p*=.575 in the perception of the impact of social media on academic engagement.

b) Academic Status:

Analysis of variance was conducted to determine if there were differences in the time in which the students spend on social media per day and the students' academic major. The

results indicated that there is no significant relationship between the two variables [F (3,417) =.408, p=.704]. The analysis of variance also shows that the mean average of time spent on social media daily by all the students is 10.88 hours a day.

c) Academic Major:

Analysis of variance was conducted to determine if there were differences in the time they which the students spend on social media and the students' academic major. The results indicated that there is significant relationship between the two variables at the $p<.05$ level for the three conditions [F (6,414) = 2.26, p=.037]. A multiple comparison (Appendix 4) was conducted to determine which majors exactly differed in the amount of hours spent on social media and the comparison showed that there is a statistically significant difference between business administration and computer engineering students ($p=.037$). Business administration students spend more time on social media than the computer engineering students.

Qualitative Results

The results show the different as well as the similar perspectives of Nile University students regarding how they perceive the social media effect on their academic performance, which will further explain the relationship between their social media usage and their academic performance. Results will also show to what extent the undergraduate students of Nile University are using social media in academic related purposes. Also, to what extent is the use and perception of social media differs between gender, academic statues and academic majors. Findings are displayed for each research question and the different themes under it.

Question 1: The Use of Social Media in Academic Related Purposes

The first research question attempts to understand the reasons of social media use in academic related purposes in light of two themes and each theme has subthemes as outlines in figure 8 below.

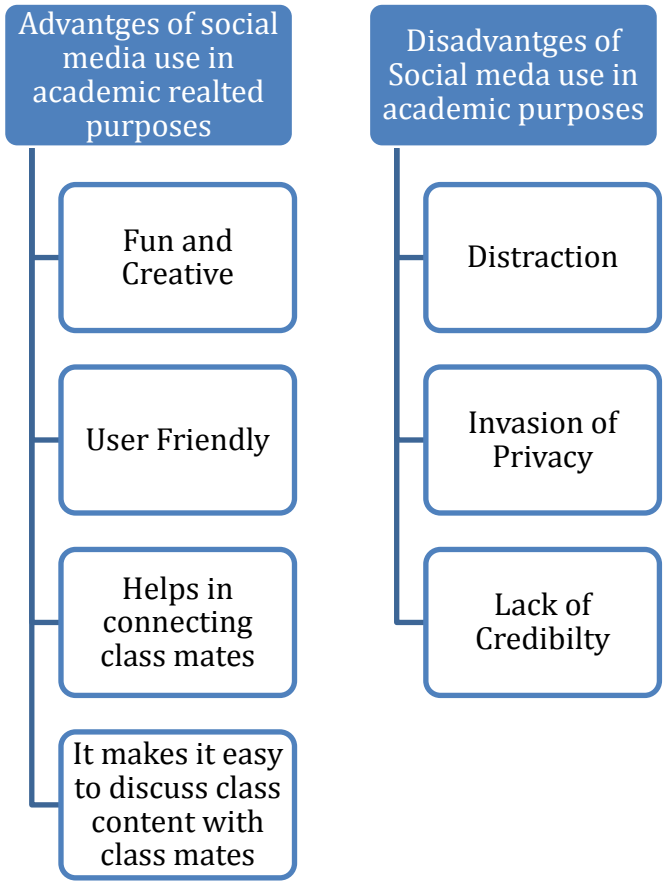

Figure 8 the first research questions themes and subthemes

The first theme discussion findings are aligned with the quantitative results, which show that more than (70%) of the students use social media to share information with their colleagues. The students' responses reinforced that communication is one of the most advantages of using social media in academic related purposes due to its user-friendliness compared to the formal communication channels that they are not comfortable with. Some of the student's statements about using social media as a communication platform were: "Throughout the university years I have learned that having a group on Facebook or WhatsApp is the best and easiest way for discussing any course content with my colleagues" (G2, S1) and "I prefer using WhatsApp and Facebook because my classmates can reach me at any time, you know nowadays we all have smart phones with internet" (G1, S1). However, it was noticed from the discussions that using social media as a mean of communication doesn't necessarily mean that the students prefer it, some students mentioned that they use social media in academic related purposes due to the difficulty of

using Moodle; the university formal channel of communication. Some of these statements were: “The university formal channels of communication is down most of the time, and it’s not user friendly at all it takes forever to initiate a chat with my classmates” (G1, S3) and “I have complained a lot about MOODLE (university channel) In addition, I don’t feel comfortable with the interface of the university formal channels” (G1, S5).

In the quantitative results, more than half of the students reported that they use social media to follow the latest developments in their field through social media. It was interpreted from the discussions that students preferred using social media networks such as YouTube and WordPress in following the latest developments in their field due to its ingeniousness as was mentioned by (G3, S2) “it’s more fun and creative to use YouTube and Facebook rather than using the formal dull channel of communication Moodle”

As for the second theme, which discusses the disadvantages of social media use in academic related purposes. The discussions with the three groups show that students might use social media as a data collection instrument but they don’t depend on it due to its lack of credibility. The latter results mirrored the quantitative results, when only 9% of the students agreed that they can solely rely on information gotten from social media. Some of the interesting statements were: “I agree that social media networks are not credible but when I search for a topic it opens a lot of other links for me” (G1, S5) and:

> The main disadvantage that I see in using social media networks for related academic purposes is the lack of control of the content, sometimes I find very interesting data that I would like to use in my assignments but I don’t because I don’t know who said it and when and why, I feel that it’s not credible specially that anyone can post anything. (G3, S5)

The discussions demonstrate that social media use in academic related purposes distract some of the students. This opinion echoes the 18.30% who agreed that engaging in academic forums on social media confuses them, as was mentioned by (G2, S3) “I don’t feel at ease because I concentrate more when using hard copies of my studying material”. The discussion also demonstrates that a few numbers of students consider using social number in academic related purposes an invasion of their privacy, which emulates the

37.40% who disagreed on using social media to communicate with their professors. It was stated by (G2, S5):

> I feel uncomfortable in dealing with the professor or the TA from my social network profile; there are a lot of information about me that I would like to keep away from my professors and classmates. Social media should be for socializing and having fun only (G2, S5).

Most of the students who were involved in the discussions had a similar opinions about the advantages and disadvantages of social media use in academic related purposes, where they all agree that social media is the most convenient communication platform to be used among students, however a few have reported that it is not preferable for them to use this platform in academic related purposes.

Question 2: Perception of Social Media Effects on the Academic Performance

Research question 2 attempts to understand how students perceive the effects of social media use on their academic performance. The three themes related to this question are: positive effects of social media on the academic performance, negative effects of social media on the academic performance and no effects of social media on the academic performance. The findings of this question demonstrated that each student perceive social media effects according to his/her use which aligns with the uses and gratification approach that the behavior of the social media consumers differs from one to one in interpreting and integrating social media into their lives.

During the discussion of the positive effects of social media on the academic performance, the students revealed that they believe that their use of social media have a positive effects on their academic performance in a direct and indirect ways. For instance, it facilitates communication with their teacher assistants, it keeps them aware of any new course announcements, and sometimes they find internship opportunities through social media networks. As was mentioned by (G1, S3):

> I use to check the Facebook/WhatsApp group for any updates and announcements we even have the TAs of the courses on the group which is awesome. Also one of the most important social media channels is LinkedIn. It's really awesome and there students are able to enhance their career by reading great success stories and finding internships to enrich their hands on experiences (G1, S3)

Focus group has helped in clarifying the contradictory extreme responses of the quantitative results. For instance, the (60%) who disagreed that social media has negatively impacted their GPA and the (52%) who agreed that social media has improved their grade responses were explained in the above statement.

The discussion of the negative effects of social media on the academic performance with the students revealed a lot of similar answers. For instance, the whole group reported that distraction and social media addiction are the two main reasons for the negative effects. Interestingly, these results explain the 50.2% who agreed that they lose concentration when they are interrupted by social media during studying. Some of the very expressive statements were:

> Unfortunately I am addicted to social media, I have Facebook, WhatsApp, Instagram and YouTube on my cell phone and I can't stop myself from checking the updates every couple of minutes. Therefore, using social media networks in any academic related purposes will end up by me distracted from whatever I'm doing by checking the updates (G2, S1).

> Every time I use social media especially Facebook to check the course group I get dragged to read my friends status and sometimes I engage in long conversations with my school friends and family members and out of a sudden I find myself wasted a couple of hours in nothing. I know that a lot of courses use social media for educational purposes; on the other hand distractions are all over the place. Starting from simple chats to new song hits and episodes of my favorite series that I watched 3 times before. I believe that less hours on the phone (engaged in social media) Equals too many advantages in life (G2, S3).

> Social media networks have impacted my writing skills and communication skills negatively, whenever I use social media to communicate with my colleagues or to post something I use to write using the franco-arab language because this is the most common used language on social media networks, even the TAs use it. Additionally, social media networks takes away from my studying time to the extent that I use to open the social networks apps (Facebook) during the class time, even if the class is interesting and the professor is good it's just so tempting and as a young adult sitting in a class in University, I feel the urge to check my social media apps like Instagram every 10 minutes (G2, S2).

There are also few students who admit that social media have both effects on their academic performance, as was mentioned by (G2, S4):

> What can I say! Social media is a double edge weapon, I can't deny its importance in my life; it helps me in socializing and connecting with my friends especially with my school friends and family members who travelled abroad. Social media also keeps me posted with the recent updates of everything going around us. But unfortunately it waste a lot of time, I remember that one day I stayed flipping between different social media networks for a whole day. So it definitely takes away from my studying time, mainly YouTube, it has negative impact on the way and time I dedicate for studying (G2, S4).

Lastly, the discussion of the no effects of social media on the academic performance with the students revealed that some students believe that social media doesn't have any negative nor positive effects on their academic performance, which mirrors the high proportion of students who picked neutral in most of the survey questions. It was interpreted from the students discussion that they were not affected by social media because they are aware of its disadvantages and because they know how to set priorities and control their time. Some of expressive statements were:

> Social media as in (Facebook, WhatsApp, Instagram....etc.) doesn't affect me that much, I only use it for some purposes only. I open the social media apps that I have on my phone whenever I want to connect with my friends and I sometimes use it to search for something interesting for me, therefore, social media for me is a tool which means that I can use it whenever I want to. I am the one who is in control of social media not vice versa. I never felt the urge of checking my social media apps continuously; it really saddens me to see that most of the people don't know how to use social media in a good way (G3, S1).

> Social media networks has nothing to do with academic performance that is why it's called SOCIAL media network, I guess that using such networks while studying cause distraction, that's why we should be cautious and aware of the consequences of wasting our time. However, at the end it depends on the person, if one has the will to study he'll find a way (G3, S2).

> Social Media helps me to relax from the stress caused by academics, but it doesn't affect me in any way! In my opinion, there is no relationship between social media networks and studying, it is as if you are comparing the English courses with the science courses. I have my own priorities and I know when I can use social media to have some fun and when to study to get better grades. At the end of the day everyone does what he/she wants (G3, S5).

After discussing the themes with three different groups, it was noticed that each group perceive social media effects on their academic performance according to their social media usage behavior. For instance, those who perceive social media effects positively

use it effectively, and those who perceive social media effects negatively use it extensively, and those who are not affected by social media, use it wisely.

Question 3: The relationship between study hours and social media hours spent by students and its effect on their academic performance

Research question 3 attempts to understand if there is a relationship between the number of hours spent studying and the number of hours spent on social media, and the academic performance of the students. Thus, there is one theme and three subthemes for this question. The theme is "The hours spent on social media" and the three sub themes are: positive relationship between the theme and the academic performance, negative relationship between the theme and the academic performance, and neutral relationship between the theme and the academic performance.

Looking further into the three subthemes. Some students mentioned that the hours they spend on social media affects their academic performance in a good way "Whenever I attend a course I find myself dragged to join a WhatsApp group for the course, followed by a Facebook group for the same course and honestly speaking such groups benefit me a lot because we all share valuable information on it" (G1, S4). On the contrary, some students mentioned that the hours they spent on social media affects their academic performance in a negative way " Social media takes away from my studying time, mainly YouTube, it has negative impact on the way and time I dedicate for studying" (G2, S4). However, some students mentioned that the hours that they spend on social media don't have any effects on their academic performance, because they know how to organize their time and set their priorities "It really saddens me to see that most of the people don't know how to use social media in a good way" (G3, S1). "There is no relationship between social media networks and studying" (G3, S5). Looking at the three different point of views, there is no consistency in any of the three opinions. Hence, it seems that there is no actual relationship between the spent hours on social media and academic performance if the student know how to set his priorities and manage his time in an effective way, which emulates the 34.10% who picked out the category neutral in the survey for the statement "The time I spend online on social networks takes away from my time studying".

Question 4: The use and perception of social media According to different Academic Statues, Academic Majors and Gender

Research question 4 attempts to understand the relationship between the students use and perception of social media use in academic related purposes and the different academic statues, academic majors and gender of the students. The three themes related to this question are: Students' experience throughout their academic stages, students' academic majors and social media use in academic related purposes, and gender differences in using social media in academic related purposes.

Looking further into the first theme, which is the students' experience throughout their academic stages. The discussions show that there are differences in the social media use in academic related purposes for the same student throughout his/her academic stages, as was mentioned by a senior student (G3, S1):

> I was literally addicted to social media and playing online games till my second semester when my GPA reached 1.98 and I was placed on probation. So I tried hardly to focus on my studies and I found out that when I stopped spending a lot of time on social media it really differed with me. By the way I am not saying that I have increased my studying time but not spending so much time on social media made me have more time for relaxation and practicing my hobbies. Therefore, as a senior, yes my attitude towards using social media networks have changed throughout the university years (G3, S1).

Moreover, discussions also show that freshman students don't use social media in academically related purposes extensively, however they use it more in socializing with their friends. These results mirror the quantitative section results about having a high percentage of freshman students who disagree of having a social media group for some of their classes.

As for the second theme, which is students' academic majors and social media use in academic related purposes. The discussions show that social media use in academic related purposes differed from a major to major. Engineering students vary greatly in answers on how long they spend on social media from: not know how long, to declaring a set number of hours that does not exceed 3, to saying that it's only when it is academically needed. It was also interpreted from the discussions that engineering

students can't use social media in academic related purposes due to the nature of their field of study. Some of the engineering students' expressive statements were:

> For me I definitely use the internet in order to explore new information about my courses. But when it comes to social media, I only use it as a way of communication between me and my colleagues to discuss course related assignments. I can't for example use Facebook to get information about heat transfer or thermodynamics course. I believe when it comes to academic related matters, social media is only a mean of communication (G1, S4).

> As engineering students I can't by any mean use social media networks in any academic related purposes. We use the Egyptian knowledge bank and google scholar websites for academic related purposes the most. However, sometimes I find an interesting links on Facebook about an academic related topic to my studies (G1, S5)

> I hear my friends from the business major talking about their assignments; I get the impression that in some of the assignments they can depend on social media. For example, one of my friends used Facebook to do an assignment about the social media marketing techniques. I only use it to discuss course material with my classmates and the teaching assistants (G1, S3).

On the contrary, unlike engineering students business administration students stated that they use social media for academic related purposes. Some of the business major students' statements were:

> It's easier for me to use social media in academic related purposes because most of my course work is about conducting surveys (which I can easily do it via social media networks). Also, I use social media a lot in the courses that are related to mass communication, supply chain and marketing courses. I think that the nature of my major allows me to utilize social media. However, I think that engineering students work in labs and the nature of their major is more practical than ours (G1, S1).

All students in the focus groups said that they use social media mostly for socialization, and less for academic purposes. However, the above statements show that there was a difference between businesses and engineering in how useful they regarded social media and how often they used it for academic purposes. On the other hand, Regardless of major, all regard social media as much easier to communicate since they are on it all the time. Also, the engineering students described Moodle as technically clunky, inefficient,

and not seamlessly integrated into their activities. Several students from both majors talked about the importance of regulating their usage of social media.

As for the third and last theme, which is gender differences in using social media in academic related purposes. Both males and females reported they prefer using social media channels than the formal channels because social media channels is more accessible, user friendly and open part of their daily life. There is variation among the females usage of social media, most of them use it for activities around campus and to know more about colleagues. As for the males,

There was a more deliberate shift to using it better for academic purposes and using it less for socializing.

Discussion

This study investigated the effect of social media usage on Nile university undergraduate students, the primary objective of this study was to examine if there is a relationship between social media usage and students' major, academic status and gender, and to what extent are the students using social media in an academic related purposes and how are they perceiving the effect of their social media usage on their academic performance.

Surprisingly, in this study the majority of the participants indicated using social media in academic related purposes such as: sharing information with classmates and having social media groups for some of the courses and following the latest developments in their field through social media. However, Alwagait (2015), Wodzicki, Schawmmlein & Moskluik (2012) and Raacke & Bonds-Raacke (2008) have shown that students were hardly interested in using social media networks for study related knowledge. The difference may be explained by the fact that the latest one of the mentioned studies was three years ago and according to Vorderer (2016) the use of social media is rapidly increasing especially among the younger generation, or what was mentioned by Sobaih, Moustafa,Ghandforoush & Khan (2016) that higher education students may use social media in academic purposes due to the lack of communication technology and poor infrastructure of most of the Egyptian academic institutions, or

because the mean of the participants GPA in this study is 3.02 out of 4.00 which may show that they are generally good students and according to (Michikyan, Subrahmanyam, & Dennis, 2015) Students with low GPA are more active on Facebook. Yet, as was shown in the results the majority of the participants use social media in academic related purposes but they don't solely rely on it which might show that the students are aware that social media is not a credible pool of information or the assignments are challenging enough. Moreover, the focus groups discussions show that the field of study plays an important role in this issue. For instance, engineering students find it difficult to use social Media in any academic related purposes. On the contrary, business students especially those who are majored in mass communication and marketing find using social media useful to their studies.

The present study also shows that multitasking doesn't affect the students' academic performance and that for instance accessing social media networks using their cellphones inside a classroom or while studying doesn't distract them. However, according to other studies Lau (2017) and Janssen, & Brumby (2010) have shown that media multitasking behavior is a predictor of a poor academic performance and that it affects the students' concentration specially during studying. The difference may be explained by the fact that the majority of students in the current study use social media for academic related purposes, consequently, it doesn't distract them from studying. However, it is helping them.

Consistent with previous research (Tariq, Mehboob, Asf, & Khan, 2012; Boogart, 2016; Michikyan, Subrahmanyam, & Dennis, 2015; Kirschner & Karpinski, 2010) which had proposed a negative impact of social media usage on the students' academic performance. In the present study, the results indicated that there is a negative correlation between the time spent on social media and the students' academic performance. On the other hand, the present study indicated that there is a positive correlation between study hours and academic performance and negative correlation between the time spent on social media and the time spent studying, consequently, the more students use social media the less they study and the lower their GPA gets. What is worrying is that more than half the population stated that the time they spend on social media is more than the

time they spend studying and that they lose concentration once their study is interrupted by social media.

Ularo (2014) have empirically demonstrated that females are more interested in using social media than males. However, the present study obtained a different result, it shows that there is no difference between males and females in using social media but further it reveals that females use social media in academic related purposes more than males. Furthermore, the present study results demonstrated a relationship between the students' academic status and the use of social media in academic related purposes, consistent with other research (Pempek, Yermolayeva & Calvert, 2009) freshmen are the least category from the students' academic status in using social media in academically related purposes. However, they use social media for socializing more than the sophomores, juniors and seniors. Moreover, the present study shows that there is a difference between different majors in the social media use in academic related purposes, engineering students use social media for academic purposes more than business administration students.

Conclusion and Recommendations

This study aims to shed the light on the social media effects on the academic performance of university students in Egypt and aims to clarify to different stakeholders the relationship between the social media usage and academic performance and to harness full potential of social media. Interestingly, this study shows that there are three different students opinion of the social media effect on their academic performance, according to the survey analysis and the focus group discussions; the students are divided into three groups. The first group believes that social media have a positive effects on their academic performance, the second group believes that social media have a negative effect on their academic performance, and the third group believes that social media does not have any effects on their academic performance. As per the focus group discussions, each group has discussed how do they perceive this effect and why do they think that this effect take place. For instance, the positive effects group mentioned that using social media as a way of communication in discussing course related contents have a positive effect on their academic performance, the negative effects group mentioned that their

addiction to social media takes away from their studying time which have a negative effects on their academic performance, and the no effects group mentioned that social media have nothing to do with their academic performance and as long as they know how to control their time nothing will affect their academic performance. The discussion and the results show that the relationship between the social media use and the academic performance depends on the students' usage of social media. This explains the negative correlation between the students' academic GPA and the time they spend on social media, which can be addressed by increasing the students' awareness about the social media addiction effects. Furthermore, the results of the present study show that the majority of the participants use social media for academic related purposes as a mean of communication, they use it connect with their colleagues in order to discuss class related contents. Higher education institutions in Egypt may utilize this fact in creating a semi-formal social media networks to be monitored by teacher assistants to better assist the students and to insure the credibility of the exchanged information between students. Also, faculty might consider harnessing on this engagement with social media, and think of ways to creatively engage students with class content. Social media awareness for students is needed to address the social media addiction issue. Significant differences in the behavior of students from different academic majors and different academic status in perceiving and using social media emerged which might require further investigation. Also, using social media as a communication platform in discussing course related content falls with the development of communities of learners which is seemingly on high demand, this area might require further investigation.

Limitations

There are a number of limitations in this study that should be further addressed in the future. First, the survey was too long for the students to an extent that some students didn't complete it out of boredom. Second, the survey was conducted during the English classes which made it difficult for students to use their cellphones in filling the survey due to internet network issues, future researchers should conduct the survey in a computer lab. Third, the number of female participants was quite low in the focus groups.

Fourth, the survey needs to be further refined and validated to accurately capture the conceptual dimensions of the phenomenon under study. Fifth, asking for the time spent on social media is general because the answers didn't specify if the app is just open, whether they are socializing, or doing academically related study. Sixth, the neutral option in the survey in some way encouraged the students to choose it to avoid the effort of thinking and deciding.

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Appendices

Appendix 1

Social Media and Academic Performance of Students Questionnaire (SMAAPOS)

A student Survey conducted by Peter Osharive (Osharive, 2015)

Section A: General Information

Dear respondents,

The purpose of this study is to examine the influence of social media on the academic life and performance of students at Nile University.

Please read carefully and tick the appropriate choice for each statement. Make sure to pick ONLY one answer.

All information gathered shall be used purely for research purposes and shall be treated with confidentiality.

1)Gender	□ Male	□ Female		
2)Year	□Freshman	□Sophomore	□Junior	□Senior
3)Program	□Business Administration	□Computer Science	□Mechanical Engineering	
		□Electronics & Communication Engineering		
	□Civil Engineering		□Industrial Engineering	

4) What is your current GPA? Please use the traditional U.S. numerical format (Examples: 3.0, 3.4, 2.5)

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5) Which forms of social media do you use the most?

□Facebook □WhatsApp □Instagram □Snapchat □If other, please specify: ----------

6) How many hours do you spend studying per week? (Examples: 10, 15, 11.5. Numerical answer only)

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7) How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)

Section B: Likert Scale

Instructions: Instructions: Please read each statement carefully and choose the most appropriate answer.

Statement:	Strongly Agree	Agree	Neutral	Disagree	Strong Disagr
1)The time I spend online on social networks takes away from my time studying					
2)Online social networks distract me from my studies					
3)The hours I spend online on social media are more than the hours I spend reading					
4)My unlimited access to Facebook through my cell phone has affected my academic performance negatively.					
5)I engage in academic discussions on social media platforms					
6)I make use of WhatsApp to share information with my classmates					

7)Social media have impacted my GPA positively					
8)I follow the latest developments in my field through social media.					
9)I solely rely on information gotten from social media to do my assignments without consulting other sources					
10)The usage of social media for research has helped improve my grades					
11)Social media has negatively impacted my writing skills.					
12)Engaging in academic forums on social media confuses me					
13)Sometimes I use social media to understand what I have been taught in class					
14)Social media have impacted my GPA negatively					
15)I will not perform well in my academics even if I stop using social media					
16)Social media is encouraged by professors as part of class assignments.					
17)We have a social media group for some of my courses.					
18)I use social media for making new friends and socializing more than I use it for academic purposes					
19)I have to use social media extensively because most of my course assignments/projects are in the forms of blogs/online presentations					
20)Social media has improved my communication					

skills.					
21)Once I interrupt my study time with social media, I lose concentration					
22)I communicate with the professor through social media.					

23) If you have any further comments on the impact of social media on your academics, please share it below.

Appendix 2

CASE #2017-2018-080

THE AMERICAN UNIVERSITY IN CAIRO
INSTITUTIONAL REVIEW BOARD

To: Gina Mowafy

Cc: Dena Riad and Salma Serry

From: Atta Gebril, Chair of the IRB

Date: Jan 18 , 2018

Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "**The Effects of Social Media on the Academic Performance of Nile University Students**" and determined that it required consultation with the IRB under the "expedited" category. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Ashraf Hatem. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

Atta Gebril

Dr. Atta Gebril
IRB chair, The American University in Cairo
2046 HUSS Building
T: 02-26151919
Email: agebril@aucegypt.edu

Institutional Review Board
The American University in Cairo
AUC Avenue, P.O. Box 74
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Appendix 3

جمهورية مصر العربية

الجهاز المركزى للتعبئة العامة والإحصاء

قرار رئيس الجهاز المركزى للتعبئة العامة والإحصاء

بالتفويض

رقم (١٢٢٠) لسنة ٢٠١٨

فى شأن قيام الباحثة / جينا عبد المنعم محمد فتحى – المسجلة لدرجة الماجستير بكلية الدراسات العليا فى التربية / الجامعة الامريكية بالقاهرة - بإجراء دراسة ميدانية بعنوان: (تأثير وسائل الإعلام الإجتماعية على الأداء الأكاديمى للطلاب بجامعة النيل).

رئيس الجهاز

- بعد الإطلاع على القرار الجمهوري رقم (٢٩١٥) لسنة ١٩٦٤ بشأن إنشاء الجهاز المركزى للتعبئة العامة والإحصاء.
- وعلى قرار رئيس الجهاز رقم (٢٣١) لسنة ١٩٦٨ في شأن إجراء الإحصاءات والتعدادات والإستفتاءات والإستقصاءات.
- وعلي قرار رئيس الجهاز رقم (١٣١٤) لسنه ٢٠٠٧ بشأن التفويض في بعض الاختصاصات.
- وعلى كتاب الجامعة الامريكية بالقاهرة الوارد للجهاز في ٢٠١٨/٢/٦.

قـــرر

مادة١: تقوم الباحثة/ جينا عبد المنعم محمد فتحى - المسجلة لدرجة الماجستير / بكلية الدراسات العليا فى التربية / الجامعة الامريكية بالقاهرة - بإجراء الدراسة الميدانية المشار اليها عالية.

مادة٢: تجري الدراسة علي عينة حجمها (٤٤٢) أربعمائةوإثنتا وأربعون مفردة من (طلاب جامعة النيل الاهلية).

مادة٣: تجمع البيانات اللازمة لهذه الدراسة بموجب الإستمارة المعدة لذلك الغرض وعدد صفحاتها أربعة عشر صفحة والمعتمدة كل منها بخاتم من الجهاز المركزي للتعبئة العامة والاحصاء.

مادة٤: تقوم جامعة النيل - وتحت إشراف السيد/ أمين عام الجامعة - بتيسير إجراء هذه الدراسة الميدانية - مع مراعاة الضوابط الخاصة بتقييم درجة سرية البيانات والمعلومات المتداولة مسبقا بمعرفة كل جهة طبقا لما جاء بخطة الأمن بها.

مادة٥: يراعى موافقة مفردات العينة - مع مراعاة سرية البيانات الفردية طبقا لقانون الجهاز رقم (٣٥) لسنة ١٩٦٠ والمعدل بالقانون رقم (٢٨) لسنة ١٩٨٢ وعدم استخدام البيانات التي يتم جمعها لأغراض أخري غير أغراض هذه الدراسة.

مادة٦: يجري العمل الميداني خلال شهرين من تاريخ صدور هذا القرار.

مادة٧: يوافى الجهاز المركزى للتعبئة العامة والإحصاء بنسخة من النتائج النهائية لهذه الدراسة.

مادة٨: ينفذ هذا القرار من تاريخ صدوره.

صدر في: ٢٠١٨ / ٢ / ٧.

محمد ممدوح محمد

مدير عام الإدارة العامة للامن

Appendix 4

Multiple Comparisons

How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)

LSD

Dependent Variable	(I) q5new 3) Major	(J) q5new 3) Major	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
q18 9)I solely rely on information gotten from social media to do my assignments without consulting other sources	1 Business Administration	2 Civil Engineering	-.024-	.281	.931	-.58-	.53
		3 Computer Engineering	-.541-*	.214	.012	-.96-	-.12-
		4 Computer Science	-.859-*	.293	.004	-1.43-	-.28-
		5 Electronics and Communication Engineering	-.155-	.212	.465	-.57-	.26
		6 Industrial Engineering	-.195-	.204	.340	-.60-	.21
		7 Mechanical Engineering	-.332-	.169	.050	-.66-	.00
	2 Civil Engineering	1 Business Administration	.024	.281	.931	-.53-	.58

	3 Computer Engineering	-.517-	.322	.109	-1.15-	.12
	4 Computer Science	-.834-*	.379	.028	-1.58-	-.09-
	5 Electronics and Communication Engineering	-.130-	.321	.684	-.76-	.50
	6 Industrial Engineering	-.171-	.315	.589	-.79-	.45
	7 Mechanical Engineering	-.307-	.294	.296	-.89-	.27
3 Computer Engineering	1 Business Administration	.541*	.214	.012	.12	.96
	2 Civil Engineering	.517	.322	.109	-.12-	1.15
	4 Computer Science	-.317-	.332	.339	-.97-	.33
	5 Electronics and Communication Engineering	.386	.263	.143	-.13-	.90
	6 Industrial Engineering	.346	.257	.178	-.16-	.85
	7 Mechanical Engineering	.210	.230	.363	-.24-	.66
4 Computer Science	1 Business Administration	.859*	.293	.004	.28	1.43

	2 Civil Engineering	.834*	.379	.028	.09	1.58
	3 Computer Engineering	.317	.332	.339	-.33-	.97
	5 Electronics and Communication Engineering	.704*	.331	.034	.05	1.35
	6 Industrial Engineering	.664*	.325	.042	.02	1.30
	7 Mechanical Engineering	.527	.305	.085	-.07-	1.13
5 Electronics and Communication Engineering	1 Business Administration	.155	.212	.465	-.26-	.57
	2 Civil Engineering	.130	.321	.684	-.50-	.76
	3 Computer Engineering	-.386-	.263	.143	-.90-	.13
	4 Computer Science	-.704-*	.331	.034	-1.35-	-.05-
	6 Industrial Engineering	-.040-	.255	.875	-.54-	.46
	7 Mechanical Engineering	-.177-	.228	.439	-.63-	.27
6 Industrial Engineering	1 Business Administration	.195	.204	.340	-.21-	.60
	2 Civil	.171	.315	.589	-.45-	.79

		Engineering					
		3 Computer Engineering	-.346-	.257	.178	-.85-	.16
		4 Computer Science	-.664-*	.325	.042	-1.30-	-.02-
		5 Electronics and Communication Engineering	.040	.255	.875	-.46-	.54
		7 Mechanical Engineering	-.137-	.221	.536	-.57-	.30
	7 Mechanical Engineering	1 Business Administration	.332	.169	.050	.00	.66
		2 Civil Engineering	.307	.294	.296	-.27-	.89
		3 Computer Engineering	-.210-	.230	.363	-.66-	.24
		4 Computer Science	-.527-	.305	.085	-1.13-	.07
		5 Electronics and Communication Engineering	.177	.228	.439	-.27-	.63
		6 Industrial Engineering	.137	.221	.536	-.30-	.57
q19 10)The usage of social media for class related	1 Business Administration	2 Civil Engineering	-.161-	.257	.532	-.67-	.35
		3 Computer	-.578-*	.196	.003	-.96-	-.19-

research has helped improve my grades		Engineering					
		4 Computer Science	-.807-*	.268	.003	-1.33-	-.28-
		5 Electronics and Communication Engineering	-.313-	.194	.107	-.69-	.07
		6 Industrial Engineering	.131	.187	.481	-.24-	.50
		7 Mechanical Engineering	-.367-*	.155	.018	-.67-	-.06-
	2 Civil Engineering	1 Business Administration	.161	.257	.532	-.35-	.67
		3 Computer Engineering	-.417-	.294	.157	-1.00-	.16
		4 Computer Science	-.646-	.347	.063	-1.33-	.04
		5 Electronics and Communication Engineering	-.152-	.293	.604	-.73-	.42
		6 Industrial Engineering	.292	.289	.311	-.27-	.86
		7 Mechanical Engineering	-.206-	.269	.444	-.73-	.32
	3 Computer Engineering	1 Business Administration	.578*	.196	.003	.19	.96
		2 Civil	.417	.294	.157	-.16-	1.00

	Engineering					
	4 Computer Science	-.229-	.304	.452	-.83-	.37
	5 Electronics and Communication Engineering	.265	.241	.271	-.21-	.74
	6 Industrial Engineering	.710*	.235	.003	.25	1.17
	7 Mechanical Engineering	.211	.211	.316	-.20-	.63
4 Computer Science	1 Business Administration	.807*	.268	.003	.28	1.33
	2 Civil Engineering	.646	.347	.063	-.04-	1.33
	3 Computer Engineering	.229	.304	.452	-.37-	.83
	5 Electronics and Communication Engineering	.494	.303	.103	-.10-	1.09
	6 Industrial Engineering	.938*	.298	.002	.35	1.52
	7 Mechanical Engineering	.440	.279	.116	-.11-	.99
5 Electronics and Communication Engineering	1 Business Administration	.313	.194	.107	-.07-	.69
	2 Civil	.152	.293	.604	-.42-	.73

	Engineering					
	3 Computer Engineering	-.265-	.241	.271	-.74-	.21
	4 Computer Science	-.494-	.303	.103	-1.09-	.10
	6 Industrial Engineering	.445	.234	.058	-.01-	.90
	7 Mechanical Engineering	-.054-	.209	.797	-.46-	.36
6 Industrial Engineering	1 Business Administration	-.131-	.187	.481	-.50-	.24
	2 Civil Engineering	-.292-	.289	.311	-.86-	.27
	3 Computer Engineering	-.710-*	.235	.003	-1.17-	-.25-
	4 Computer Science	-.938-*	.298	.002	-1.52-	-.35-
	5 Electronics and Communication Engineering	-.445-	.234	.058	-.90-	.01
	7 Mechanical Engineering	-.498-*	.202	.014	-.90-	-.10-
7 Mechanical Engineering	1 Business Administration	.367*	.155	.018	.06	.67
	2 Civil Engineering	.206	.269	.444	-.32-	.73

		3 Computer Engineering	-.211-	.211	.316	-.63-	.20
		4 Computer Science	-.440-	.279	.116	-.99-	.11
		5 Electronics and Communication Engineering	.054	.209	.797	-.36-	.46
		6 Industrial Engineering	.498*	.202	.014	.10	.90
q26 17)We have a social media group for some of my courses	1 Business Administration	2 Civil Engineering	.554*	.270	.041	.02	1.08
		3 Computer Engineering	.272	.205	.185	-.13-	.67
		4 Computer Science	.440	.281	.117	-.11-	.99
		5 Electronics and Communication Engineering	.250	.203	.219	-.15-	.65
		6 Industrial Engineering	.819*	.195	.000	.43	1.20
		7 Mechanical Engineering	.534*	.162	.001	.22	.85
	2 Civil Engineering	1 Business Administration	-.554-*	.270	.041	-1.08-	-.02-
		3 Computer Engineering	-.282-	.309	.361	-.89-	.32

	4 Computer Science	-.114-	.363	.754	-.83-	.60
	5 Electronics and Communication Engineering	-.304-	.307	.323	-.91-	.30
	6 Industrial Engineering	.264	.302	.383	-.33-	.86
	7 Mechanical Engineering	-.020-	.282	.943	-.57-	.53
3 Computer Engineering	1 Business Administration	-.272-	.205	.185	-.67-	.13
	2 Civil Engineering	.282	.309	.361	-.32-	.89
	4 Computer Science	.168	.318	.597	-.46-	.79
	5 Electronics and Communication Engineering	-.022-	.252	.930	-.52-	.47
	6 Industrial Engineering	.546*	.246	.027	.06	1.03
	7 Mechanical Engineering	.262	.221	.236	-.17-	.70
4 Computer Science	1 Business Administration	-.440-	.281	.117	-.99-	.11
	2 Civil Engineering	.114	.363	.754	-.60-	.83

	3 Computer Engineering	-.168-	.318	.597	-.79-	.46
	5 Electronics and Communication Engineering	-.190-	.317	.548	-.81-	.43
	6 Industrial Engineering	.378	.312	.226	-.24-	.99
	7 Mechanical Engineering	.094	.292	.749	-.48-	.67
5 Electronics and Communication Engineering	1 Business Administration	-.250-	.203	.219	-.65-	.15
	2 Civil Engineering	.304	.307	.323	-.30-	.91
	3 Computer Engineering	.022	.252	.930	-.47-	.52
	4 Computer Science	.190	.317	.548	-.43-	.81
	6 Industrial Engineering	.569*	.245	.021	.09	1.05
	7 Mechanical Engineering	.284	.219	.195	-.15-	.71
6 Industrial Engineering	1 Business Administration	-.819-*	.195	.000	-1.20-	-.43-
	2 Civil Engineering	-.264-	.302	.383	-.86-	.33
	3 Computer	-.546-*	.246	.027	-1.03-	-.06-

		Engineering					
		4 Computer Science	-.378-	.312	.226	-.99-	.24
		5 Electronics and Communication Engineering	-.569-*	.245	.021	-1.05-	-.09-
		7 Mechanical Engineering	-.285-	.212	.180	-.70-	.13
	7 Mechanical Engineering	1 Business Administration	-.534-*	.162	.001	-.85-	-.22-
		2 Civil Engineering	.020	.282	.943	-.53-	.57
		3 Computer Engineering	-.262-	.221	.236	-.70-	.17
		4 Computer Science	-.094-	.292	.749	-.67-	.48
		5 Electronics and Communication Engineering	-.284-	.219	.195	-.71-	.15
		6 Industrial Engineering	.285	.212	.180	-.13-	.70
q28 19)I have to use social media extensively because most of my course assignments/proje	1 Business Administration	2 Civil Engineering	.077	.269	.776	-.45-	.61
		3 Computer Engineering	-.514-*	.204	.012	-.92-	-.11-
		4 Computer	-.310-	.280	.268	-.86-	.24

cts are in the forms of blogs/online presentations		Science					
		5 Electronics and Communication Engineering	-.010-	.203	.960	-.41-	.39
		6 Industrial Engineering	.446*	.195	.023	.06	.83
		7 Mechanical Engineering	-.029-	.162	.860	-.35-	.29
	2 Civil Engineering	1 Business Administration	-.077-	.269	.776	-.61-	.45
		3 Computer Engineering	-.590-	.308	.056	-1.20-	.01
		4 Computer Science	-.387-	.362	.286	-1.10-	.33
		5 Electronics and Communication Engineering	-.087-	.307	.777	-.69-	.52
		6 Industrial Engineering	.369	.302	.222	-.22-	.96
		7 Mechanical Engineering	-.105-	.281	.708	-.66-	.45
	3 Computer Engineering	1 Business Administration	.514*	.204	.012	.11	.92
		2 Civil Engineering	.590	.308	.056	-.01-	1.20
		4 Computer	.203	.317	.522	-.42-	.83

		Science					
		5 Electronics and Communication Engineering	.503*	.252	.046	.01	1.00
		6 Industrial Engineering	.959*	.246	.000	.48	1.44
		7 Mechanical Engineering	.485*	.220	.028	.05	.92
	4 Computer Science	1 Business Administration	.310	.280	.268	-.24-	.86
		2 Civil Engineering	.387	.362	.286	-.33-	1.10
		3 Computer Engineering	-.203-	.317	.522	-.83-	.42
		5 Electronics and Communication Engineering	.300	.316	.343	-.32-	.92
		6 Industrial Engineering	.756*	.311	.016	.14	1.37
		7 Mechanical Engineering	.282	.292	.334	-.29-	.86
	5 Electronics and Communication Engineering	1 Business Administration	.010	.203	.960	-.39-	.41
		2 Civil Engineering	.087	.307	.777	-.52-	.69
		3 Computer	-.503-*	.252	.046	-1.00-	-.01-

		Engineering					
		4 Computer Science	-.300-	.316	.343	-.92-	.32
		6 Industrial Engineering	.456	.244	.062	-.02-	.94
		7 Mechanical Engineering	-.018-	.218	.933	-.45-	.41
	6 Industrial Engineering	1 Business Administration	-.446-*	.195	.023	-.83-	-.06-
		2 Civil Engineering	-.369-	.302	.222	-.96-	.22
		3 Computer Engineering	-.959-*	.246	.000	-1.44-	-.48-
		4 Computer Science	-.756-*	.311	.016	-1.37-	-.14-
		5 Electronics and Communication Engineering	-.456-	.244	.062	-.94-	.02
		7 Mechanical Engineering	-.474-*	.211	.025	-.89-	-.06-
	7 Mechanical Engineering	1 Business Administration	.029	.162	.860	-.29-	.35
		2 Civil Engineering	.105	.281	.708	-.45-	.66
		3 Computer Engineering	-.485-*	.220	.028	-.92-	-.05-

		4 Computer Science	-.282-	.292	.334	-.86-	.29
		5 Electronics and Communication Engineering	.018	.218	.933	-.41-	.45
		6 Industrial Engineering	.474*	.211	.025	.06	.89
q29 20)Social media has improved my communication skills.	1 Business Administration	2 Civil Engineering	.026	.289	.930	-.54-	.59
		3 Computer Engineering	-.542-*	.220	.014	-.97-	-.11-
		4 Computer Science	.547	.301	.070	-.04-	1.14
		5 Electronics and Communication Engineering	.134	.218	.538	-.29-	.56
		6 Industrial Engineering	.155	.210	.460	-.26-	.57
		7 Mechanical Engineering	.093	.174	.594	-.25-	.43
	2 Civil Engineering	1 Business Administration	-.026-	.289	.930	-.59-	.54
		3 Computer Engineering	-.567-	.331	.087	-1.22-	.08
		4 Computer Science	.522	.390	.181	-.24-	1.29

		5 Electronics and Communication Engineering	.109	.330	.742	-.54-	.76
		6 Industrial Engineering	.130	.324	.690	-.51-	.77
		7 Mechanical Engineering	.067	.302	.824	-.53-	.66
	3 Computer Engineering	1 Business Administration	.542*	.220	.014	.11	.97
		2 Civil Engineering	.567	.331	.087	-.08-	1.22
		4 Computer Science	1.089*	.341	.002	.42	1.76
		5 Electronics and Communication Engineering	.676*	.271	.013	.14	1.21
		6 Industrial Engineering	.697*	.264	.009	.18	1.22
		7 Mechanical Engineering	.634*	.237	.008	.17	1.10
	4 Computer Science	1 Business Administration	-.547-	.301	.070	-1.14-	.04
		2 Civil Engineering	-.522-	.390	.181	-1.29-	.24
		3 Computer Engineering	-1.089-*	.341	.002	-1.76-	-.42-

		5 Electronics and Communication Engineering	-.413-	.340	.225	-1.08-	.26
		6 Industrial Engineering	-.392-	.335	.242	-1.05-	.27
		7 Mechanical Engineering	-.455-	.313	.148	-1.07-	.16
	5 Electronics and Communication Engineering	1 Business Administration	-.134-	.218	.538	-.56-	.29
		2 Civil Engineering	-.109-	.330	.742	-.76-	.54
		3 Computer Engineering	-.676-*	.271	.013	-1.21-	-.14-
		4 Computer Science	.413	.340	.225	-.26-	1.08
		6 Industrial Engineering	.021	.262	.937	-.49-	.54
		7 Mechanical Engineering	-.042-	.235	.860	-.50-	.42
	6 Industrial Engineering	1 Business Administration	-.155-	.210	.460	-.57-	.26
		2 Civil Engineering	-.130-	.324	.690	-.77-	.51
		3 Computer Engineering	-.697-*	.264	.009	-1.22-	-.18-
		4 Computer	.392	.335	.242	-.27-	1.05

		Science					
		5 Electronics and Communication Engineering	-.021-	.262	.937	-.54-	.49
		7 Mechanical Engineering	-.062-	.227	.784	-.51-	.38
	7 Mechanical Engineering	1 Business Administration	-.093-	.174	.594	-.43-	.25
		2 Civil Engineering	-.067-	.302	.824	-.66-	.53
		3 Computer Engineering	-.634-*	.237	.008	-1.10-	-.17-
		4 Computer Science	.455	.313	.148	-.16-	1.07
		5 Electronics and Communication Engineering	.042	.235	.860	-.42-	.50
		6 Industrial Engineering	.062	.227	.784	-.38-	.51
q7 5) How many hours do you spend studying per week? (Examples: 10, 15, 11.5. Numerical answer only)	1 Business Administration	2 Civil Engineering	-2.72312-	1.94968	.163	-6.5556-	1.1094
		3 Computer Engineering	-1.63761-	1.48082	.269	-4.5484-	1.2732
		4 Computer Science	-1.11856-	2.02844	.582	-5.1059-	2.8687
		5 Electronics and	-3.57095-*	1.4684	.015	-6.4574-	-.6845-

		Communication Engineering		2			
		6 Industrial Engineering	-1.05134-	1.4124 4	.457	-3.8278-	1.7251
		7 Mechanical Engineering	-4.19311-*	1.1709 6	.000	-6.4949-	-1.8913-
	2 Civil Engineering	1 Business Administration	2.72312	1.9496 8	.163	-1.1094-	6.5556
		3 Computer Engineering	1.08551	2.2296 9	.627	-3.2974-	5.4684
		4 Computer Science	1.60455	2.6255 0	.541	-3.5564-	6.7655
		5 Electronics and Communication Engineering	-.84783-	2.2214 7	.703	-5.2146-	3.5189
		6 Industrial Engineering	1.67178	2.1848 7	.445	-2.6230-	5.9666
		7 Mechanical Engineering	-1.46999-	2.0371 2	.471	-5.4743-	2.5344
	3 Computer Engineering	1 Business Administration	1.63761	1.4808 2	.269	-1.2732-	4.5484
		2 Civil Engineering	-1.08551-	2.2296 9	.627	-5.4684-	3.2974
		4 Computer Science	.51905	2.2988 8	.821	-3.9998-	5.0379
		5 Electronics and	-1.93333-	1.8238	.290	-5.5185-	1.6519

		Communication Engineering		7			
		6 Industrial Engineering	.58627	1.77911	.742	-2.9109-	4.0835
		7 Mechanical Engineering	-2.55549-	1.59418	.110	-5.6892-	.5782
	4 Computer Science	1 Business Administration	1.11856	2.02844	.582	-2.8687-	5.1059
		2 Civil Engineering	-1.60455-	2.62550	.541	-6.7655-	3.5564
		3 Computer Engineering	-.51905-	2.29888	.821	-5.0379-	3.9998
		5 Electronics and Communication Engineering	-2.45238-	2.29091	.285	-6.9556-	2.0509
		6 Industrial Engineering	.06723	2.25544	.976	-4.3663-	4.5007
		7 Mechanical Engineering	-3.07454-	2.11262	.146	-7.2273-	1.0782
	5 Electronics and Communication Engineering	1 Business Administration	3.57095*	1.46842	.015	.6845	6.4574
		2 Civil Engineering	.84783	2.22147	.703	-3.5189-	5.2146
		3 Computer Engineering	1.93333	1.82387	.290	-1.6519-	5.5185
		4 Computer	2.45238	2.2909	.285	-2.0509-	6.9556

		Science		1			
		6 Industrial Engineering	2.51961	1.76881	.155	-.9573-	5.9966
		7 Mechanical Engineering	-.62216-	1.58267	.694	-3.7332-	2.4889
	6 Industrial Engineering	1 Business Administration	1.05134	1.41244	.457	-1.7251-	3.8278
		2 Civil Engineering	-1.67178-	2.18487	.445	-5.9666-	2.6230
		3 Computer Engineering	-.58627-	1.77911	.742	-4.0835-	2.9109
		4 Computer Science	-.06723-	2.25544	.976	-4.5007-	4.3663
		5 Electronics and Communication Engineering	-2.51961-	1.76881	.155	-5.9966-	.9573
		7 Mechanical Engineering	-3.14177-*	1.53088	.041	-6.1510-	-.1325-
	7 Mechanical Engineering	1 Business Administration	4.19311*	1.17096	.000	1.8913	6.4949
		2 Civil Engineering	1.46999	2.03712	.471	-2.5344-	5.4743
		3 Computer Engineering	2.55549	1.59418	.110	-.5782-	5.6892
		4 Computer Science	3.07454	2.11262	.146	-1.0782-	7.2273

		5 Electronics and Communication Engineering	.62216	1.58267	.694	-2.4889-	3.7332
		6 Industrial Engineering	3.14177*	1.53088	.041	.1325	6.1510
q9 7) How many hours do you spend on social media daily? (Examples: 10, 15, 11.5. Numerical answer only)	1 Business Administration	2 Civil Engineering	.96653	1.14543	.399	-1.2851-	3.2181
		3 Computer Engineering	2.66537*	.87027	.002	.9547	4.3761
		4 Computer Science	2.01156	1.19167	.092	-.3309-	4.3540
		5 Electronics and Communication Engineering	1.53175	.86300	.077	-.1647-	3.2282
		6 Industrial Engineering	.11871	.83015	.886	-1.5131-	1.7505
		7 Mechanical Engineering	1.37439*	.68850	.047	.0210	2.7278
	2 Civil Engineering	1 Business Administration	-.96653-	1.14543	.399	-3.2181-	1.2851
		3 Computer Engineering	1.69884	1.30934	.195	-.8749-	4.2726
		4 Computer Science	1.04503	1.54178	.498	-1.9857-	4.0757
		5 Electronics and Communication	.56522	1.30452	.665	-1.9991-	3.1295

		Engineering					
		6 Industrial Engineering	-.84783-	1.28303	.509	-3.3699-	1.6742
		7 Mechanical Engineering	.40786	1.19626	.733	-1.9436-	2.7594
	3 Computer Engineering	1 Business Administration	-2.66537-*	.87027	.002	-4.3761-	-.9547-
		2 Civil Engineering	-1.69884-	1.30934	.195	-4.2726-	.8749
		4 Computer Science	-.65381-	1.34997	.628	-3.3075-	1.9998
		5 Electronics and Communication Engineering	-1.13362-	1.07104	.290	-3.2390-	.9717
		6 Industrial Engineering	-2.54667-*	1.04475	.015	-4.6003-	-.4930-
		7 Mechanical Engineering	-1.29098-	.93615	.169	-3.1312-	.5492
	4 Computer Science	1 Business Administration	-2.01156-	1.19167	.092	-4.3540-	.3309
		2 Civil Engineering	-1.04503-	1.54178	.498	-4.0757-	1.9857
		3 Computer Engineering	.65381	1.34997	.628	-1.9998-	3.3075
		5 Electronics and Communication	-.47981-	1.34529	.722	-3.1243-	2.1646

		Engineering					
		6 Industrial Engineering	-1.89286-	1.32446	.154	-4.4964-	.7107
		7 Mechanical Engineering	-.63718-	1.24060	.608	-3.0758-	1.8015
	5 Electronics and Communication Engineering	1 Business Administration	-1.53175-	.86300	.077	-3.2282-	.1647
		2 Civil Engineering	-.56522-	1.30452	.665	-3.1295-	1.9991
		3 Computer Engineering	1.13362	1.07104	.290	-.9717-	3.2390
		4 Computer Science	.47981	1.34529	.722	-2.1646-	3.1243
		6 Industrial Engineering	-1.41304-	1.03870	.174	-3.4548-	.6287
		7 Mechanical Engineering	-.15736-	.92940	.866	-1.9843-	1.6696
	6 Industrial Engineering	1 Business Administration	-.11871-	.83015	.886	-1.7505-	1.5131
		2 Civil Engineering	.84783	1.28303	.509	-1.6742-	3.3699
		3 Computer Engineering	2.54667*	1.04475	.015	.4930	4.6003
		4 Computer Science	1.89286	1.32446	.154	-.7107-	4.4964

		5 Electronics and Communication Engineering	1.41304	1.03870	.174	-.6287-	3.4548
		7 Mechanical Engineering	1.25568	.89898	.163	-.5115-	3.0228
	7 Mechanical Engineering	1 Business Administration	-1.37439-*	.68850	.047	-2.7278-	-.0210-
		2 Civil Engineering	-.40786-	1.19626	.733	-2.7594-	1.9436
		3 Computer Engineering	1.29098	.93615	.169	-.5492-	3.1312
		4 Computer Science	.63718	1.24060	.608	-1.8015-	3.0758
		5 Electronics and Communication Engineering	.15736	.92940	.866	-1.6696-	1.9843
		6 Industrial Engineering	-1.25568-	.89898	.163	-3.0228-	.5115

Appendix 5

Focus Group Questions

1. How many hours do you use social media in academic related purposes daily?

2. Why do you prefer using social media channels in communicating with your classmates such as: Facebook and WhatsApp than using the university formal channels of communication such as: Email and MOODLE?

3. What are the differences that you have noticed in your social media use in academic related purposes throughout your academic stages?

4. Do you see that your major affects your social media use in academic related purposes? Why?

5. Does social media affects your GPA? How?

6. How do using social media in academic related purposes affect your academic performance negatively? Why?

7. Does social media benefits you academically in any way? If yes, How?

8. How do you feel about the professors who require the use of social media in some of their assignments?

9. How can you manage using social media without distracting you from your studies?

10. What are some of the advantages and disadvantages of using social media on your academic performance?