IMPACT OF ONLINE SOCIAL NETWORKING ON STUDIES, ACADEMIC PERFORMANCE AND LEARNING OF UNDERGRADUATE STUDENTS

Rehan Akbar[1], Tan Cheng Ping[2], Sohail Safdar[3], Muhammad Aasim Qureshi[4]

[1,2]Faculty of Information and Communication Technology, Universiti Tunku Abdul Rahman, Kampar, Perak, Malaysia

[3]College of Information Technology, Ahlia University, Bahrain

[4]Department of Computer Science, Bahria University, Lahore, Pakistan

[1]rehan@utar.edu.my, [2]orangeapple1025@gmail.com, [3]ssafdar@ahlia.edu.bh, [4]aasim.qureshi@bahria.edu.pk

ABSTRACT: *The explosive growth of Social Networks (SN) has appeared as the young generation's interest and the most favorite hobby. The availability of social networking services such as WhatsApp, Twitter, Facebook, and Pinterest in the form of mobile applications, and WiFi and data packages, have facilitated the users to remain connected with their friends, family and acquaintances without any constraint of time, place and connectivity. It has caused young people, particularly students to use social networking applications easily, and spend most of their time in a day at the cost of their education. The dilemma is that students get addicted to these social networking portals without being aware of this fact. The present research study investigates this aspect and analyzes how the use of social networking portals affect the studies, learning, and academic performance of the university students at undergraduate levels. A survey has been conducted using questionnaire from the university students at undergraduate levels from all disciplines including Social Sciences, Basic Sciences, Computer Science, Agriculture, Engineering, and Management & Finance. The results surprisingly expose the fact that despite using social networks and spending time on them do not really directly affect the overall academic performance, learning and studies of the students. However, it has shown some positive relationship between social networking addiction, and academic performance and learning of the students.*

Keywords: Academic Performance, Learning Behavior, Social Networks, Studies, Students.

1. INTRODUCTION

Social networking portals are web-based applications used by the people of all ages to connect with their friends, families, acquaintances and colleagues, sharing information and communicating with them daily. Individuals create their public and private profiles on these social networking portals with their personal information they want to share, and find common interests with different people including learning of various cultures across the globe. During recent years, social networking sites (SNS) like Facebook, Instagram, Linkedin, Vine, YouTube, Pinterest and Google Plus have become the most visited websites in the world [1], [67]. During this decade, social media has become the major source of information [68].

Smart mobile devices and their increasingly faster data transmission speed have enabled youngsters to search knowledge without any difficulty avoiding limitations of time and place [2]. People keep themselves updated on daily basis by reading the latest news and stories like CNN on their smart phones [3]. Checking the status updates is what most of the people do first of all when they wake up at night or any other time [17]. The fear of missing out (FOMO) and their personal failure appears in the form of anxiety in them [4].

Highly populated social games such as SecondLife, Zynga, Electronic Arts and Playdom, on the other hand, have provided mobile versions of their games. Easy accessibility and attractive features of these games where continuously grab more new users, also keep existing users motivated to play these games. Young people get easily attracted to these social products and applications [65]. According to a recent study [5], regardless of the busy and tiring schedules, the students spend plenty of their time on social networking using Facebook as an integral part of their daily activities. Subscription to almost all types of social networks is free. Students do not need to spend even a single rupee to join which is leading to the addiction of virtual socializing without any time constraints [6]. This attitude and increasing addiction of virtual socializing and spending uncountable time on this media is a growing disadvantage of cyber social networks that may affect the studies, focus, and learning behavior of the students.

Apparently, online social networks have twofold impact on learning of the students. Social intelligence and learning performance of the students do have some relationship [66]. Students are among the top early adopters of the latest technological trends of recent time. With the advent of online social networking, its consequences can be seen as compromising family time [7], poor academic performance [8], lower academic confidence [9] and under-developed personality and characteristics [10]. In this regard, it is necessary to know that how the overwhelming use of online social networking affects the studies, learning and academic performance of the students. The present study aims to investigate the effect of online social networking on the studies, learning, and behavior of the students in terms of time, activities performed at social media and overall academic performance.

2. SIGNIFICANCE OF STUDY

The outcome of the present study is significant that excessive use of online social networking portals have affected all streams of our life including office, education, and family life. The consequences of their addiction are considered more severe for young generation and particularly students. It is affecting their academic performance and learning behaviors which are changing tremendously. The current impact is being realized as worrisome because social networks are changing the life, inter-communications and relationships. Gradual addiction to these social networking portals without being realized this fact is alarming. The existing environments facilitate them to remain connected with these sites at anytime and from anywhere [6]. It may influence them as living inside their fantasy world which is not real [11]. Students using online social networks compulsively, eventually become a nerd, staying all the time at home, socializing and playing

games for longer hours. The social networking games tempt them to reach the highest level until then they are unable to stop it [12]. As consequences, students start spending more time in various activities on these online social networks paying least time and concentration on their studies [8], using social networking in parallel while studying [13], do not prefer physical and outdoor activities; and even give less emphasis to their relationship with family members [14]. Rather, they preferably choose spending their time on social networking avoiding facing the stressful study environment and other real life problems [15].

3. RESEARCH METHODOLOGY

Quantitative approach has been used in the present study. A survey questionnaire is conducted to collect and analyze data. This instrument has been used because it is easy to distribute questionnaire copies to the respondents and standardizing it as all the respondents have to answer the same set of questions. It makes data analysis easier and results are reliable, interpretation of results is well formed [16]. Anonymous survey is conducted from the respondents keeping their identities and personal information secured. It helps getting accurate and reliable data because respondents are aware that their identities are safe and personal information cannot be tracked [17]. Honestly giving answers of the questions increases the reliability of collected data and so as the results. Survey questionnaire are useful when population size is large and a true sample of the population is enough. A correct sample size representing the whole population is very important to determine for accuracy of the results. Too small sample size does not reflect the facts truly and provide valuable information while a sample size that is too large requires extra time and money [18]. A sample size in the range of 30 to 500 is considered as suitable for most of the research studies [19]. In statistical analysis and interpretation of results, the confidence interval or margin of error represents a random sample of the relevant population. A sample size with 95% confidence interval reflects that there is only 5% chance that the results will be different from the actual population [20]. The comparisons between groups of data and estimates from the related populations are made easily using questionnaire. Briefing the respondents and communicating with them about the key topics in the questionnaire helps them to develop better understanding of the problem being investigates and objective of the survey. It also helps in benchmarking where comparisons are made to know whether the perception of the target population about problem being investigated in the survey is getting better or relatively worse [21]. Besides, the questionnaire method provides conclusive results by quantifying the problems [22]. The findings from the questionnaire method are valuable to understand and validate the phenomena being investigated. It helps to remove the confusing relationship among many variables concurrently to establish the cause and effect relationships.

The questionnaires normally are designed using Likert scale measuring the responses through psychometric testing [23]. The scales created through Likert procedures are logically associated compared to those which are not summated scales. The statements of the questions are set in a way that finds out if the responses tend to negative or positive [24]. The method is direct and accuracy is high as respondents state their level of agreement or disagreement according to the intensity of their feelings [25]. This makes questions easy to answer by the participants. On the other hand, it does not lead the participants to give their verdict about certain topics but allow them to respond in terms of the degree of agreement [23].

The survey questionnaires are importantly used to measure the existing hypotheses or develop new theories [26]. The results express the phenomena of cause factors that determine and explore the research problems. The results are analyzed and interpreted intensely to decide about the acceptance or rejection of the presumed hypotheses which in present research study is that "whether social networks nowadays have negative impacts on the academic performance and learning behavior of the university students." The survey questionnaire is a cost saving way of collecting data when time is short [27]. Another benefit is correctly finding the characteristics of the respondents without interviewing each of them in the population [28]. Statistical inference methods are extensively used to specify the findings, compare and analyze the results calculated based on the opinions of the respondents. Results are interpreted through descriptive statistics or applying statistical model and presents a complete picture of the relationship between variables and model development [29].

(i)   Research Questions Design

The questionnaire instrument is designed in two sections. First section comprises of six questions related to the demographic data of the respondents. Second section contains 21 questions related to the effect of social networks on academic performance and learning behavior of the university students. The questions in this section are designed on the five point Likert scale ranging from strongly disagree (1) to strongly agree (5). The sample size is 50 and the respondents are undergraduate students including 17 male and 33 female students. The students belong to different academic faculties and programs consisting of freshmen and sophomores. The academic faculties, departments and programs of the students are not restricted in the study because it has no effect on the results rather generalize them and present complete picture of undergraduate students.

Three important ingredients of preparing the survey questionnaire are knowledge of the area being investigated, current situation and problem statement [27]. The foremost activity in this regard is understanding the problem using the technique of considering yourself into somebody's shoes. It helps to understand the problem by enhancing creativity and brainstorming of various ideas [27]. It is avoided to set questions that are hard to answer. The questions are preferably kept quite simple and straightforward that easily understandable by undergraduate students. The curiosity level is appropriately set in the questions to keep students intact with the responses and to know the answers of the research questions.

The existing literature have been thoroughly studied to investigate the related studies and opinions of experts and researchers towards the problem [30]. Pilot study has been conducted in order to improve the questionnaire design, complexity, relevance and understandability of the questions as well as analysis of the desired result outcome [31]. The questionnaire has been given to an expert researcher working in the relevant area of research to review and suggest improvements in the statements of the questions, and modifying contradictory, ambiguous, redundant and double

meaning questions. Before finalizing the survey questionnaire and distributing to respondents, pilot study or test verifies the questionnaire design and verifies that question statements are clear to understand and convey same meaning to all the respondents [27]. The questions in the current study have been set by considering ourselves as students and the activities that students perform preferably after the classes. Survey questionnaire is helpful in the present research work mainly to determine the causes that affect academic performance of the students and their learning behavior in relation to the time they spent mostly in online social networking.

(ii)   Factors Measuring Effect of Social Netowrking
The data collection requires a set of goals that need to be satisfied and translated into a set of questions. The answers of those question are found through survey. The questions are defined based on the identified variables or factors related to the research problem and proposed model. In present research study, three factors or research variables have been identified. The effect of these factors and their relationship with each other and overall on the performance and learning of the students have been determined. For example, in order to study the effect of online social networking on attitude of the students, it is necessary to know how they use social networks, what activities do they perform and how much time do they spend on online social networking websites. Considering the importance of these two factors, both have been selected as main variables for the study. The effect of both time and activities performed on overall academic performance of the students have been determined. Both variables have also been studied in relation to the influence on habits of the students. These factors have been discussed in detail in the following sections.

a)   Time Spent on Online Socializing
The active number of users on Facebook increased from 1.32 million in second quarter of 2014 to 1350 million by the end of year [6]. Google+ with 343 million active users per month stands second with use of +1 button five billion times in a day [6]. These statistics are just a small portion of the example of online social networking showing tremendously high and increasing use of online social networks, allowing everyone to remain connected without any constraints [32]. The use of online socializing and its effect on daily routine activities is determined in terms of time spent on online social networking portals [6]. Almost everybody irrespective of age, being involved in online socializing, the time spent is the best indicator of use and frequency. The rate of use of online social networks depends on the average time students spend on social networks in a day. According to a research study released by Ipsos Open Thinking Exchange, Americans aged from 18 to 64 on average spend 3.2 hours per day online in social networking [33]. Facebook takes the lead with 114 billion minutes a month in the United States compared to Instagram with about 8 billion minutes a month spent by the users [34].

The time spent and its effect have been measured by the questions about the effect on daily routines and delay in routine tasks due to the time spent on social networking websites. The time factor is necessary to investigate because the use of social networking websites directly affects the studies and learning behavior of the students. The excessive use of social networking websites, particularly Facebook holding the top position, LinkedIn and Google+ leads to the addiction which is considered as another problem [6]. More the time is spent on online social networks, more is the delay in other activities and tasks of daily routine life. Students are at top among those who spend their precious time in online socializing and internetworking instead of spending appropriate time on their studies [6].

Social networking websites are overwhelmingly popular because of their accessibility on mobile devices. These smart devices provide easy access to all types of content and media. Eventually, users are encouraged to spend more time in looking at photos, status updates, using maps, playing games and socializing with friends on their mobiles instead of desktop computers [35]. Considering these scenarios, time has been identified as an important factor that determines the effect of online social networking on academic performance and learning behavior of the students. It has been selected as one of the important factors in the present research study [6].

b)   Favorite Activity Performed
Different individuals have different tastes, interests and preferences. The activity is actually what people love to do that attracts them and force them to spend more time on social networking websites [36]. This behavior shows activities that people like to do. Excellent content sharing creates Pinterest user profile and provides a way to the users to develop their relationships [37]. Accessibility of information on the web by the users of the online social networks have increasingly replaced the conventional newspapers, and TV news [38]. During recent times, Facebook has appeared as a big source of sharing interests, information and latest news thus attracting mostly young generation by developing curiosity in them. Young generation and mostly students keep themselves involved all the time in various activities on online social media. Status updates, sharing information, pictures, audio and video clips, like, dislike, sharing different posts, tagging friends, tweets, messages, and chatting are most actively and frequently performed activities on social media websites.

According to a study, 91.7% of participants mentioned that communicating with family and friends is the biggest reason for students for using social media, 59.4% claimed entertainment as the reason to use social media online while 57.3% use the social media websites to get rid of boredom [39]. According to an estimate, 60% to 80% people waste their time on online social networking websites and do not do their work responsibly [6]. Facebook content is categorized into list posts, quizzes, videos, giveaways and infographics [40]. Quizzes are one of the most engaging content type on Facebook. On average 51,968 of total Facebook shares are quiz results giving friends an idea of what users are interested in [40]. Only on Instagram, 5 million images are shared daily and 500 million tweets are sent out per day [6].

For most of the students, the use of social networks is just for the sake of fun. It appears an easy way to remain connected with friends, family, spending time and taking rest. On returning back to home after a tiring day, sitting in front of computer screens and checking the comments of friends, chatting with them and playing games gives relaxation [35]. As the average time spending on various activities on online social networks is increasing, the activities performed is a

significant determinant of the social networking effects. This factor helps to find the purpose of the activities performed by the students on social networking portals and their effect on academic performance and learning behavior of the students.

c) Overall Performance

In present research study, the overall performance of students has been defined in terms of obsession of social networks, motivation for study, less time, and the academic performance. Overall performance has been used as a factor to determine the reasons of drop in the academic performance. There is an inverse relationship between more time spent on social networking websites and direct face-to-face communication [41]. They might be turned up as introverts in a crowd but extroverts and sharp minded when online [42]. Online socializing provides an opportunity for students to be heard and published which is good for their resume [43]. Spending more time online makes people around isolated and hurt eventually [42]. Online social networking is a great time passing activity to kill the boredom at home or school, relieveing stress and escaping from reality [15]. A study shows that students who are used to be multitasking between online socializing and homework tend to have 20% lower grades than a student who does not use social networking websites [13]. It is believed that Facebook or other social networking websites are running in the background while studying or doing homework [44].

In addition, the social networks websites promote improper English grammar due to which students spell words wrongly and in short form [45]. Students who spend most of the time on social networks have been observed with unsatisfactory academic behaviors associated with completing homework, lower confidence, and lack of sleep [46]. The overall performance is important to find that social networking websites have consequences on academic performance and learning behavior of the students.

4. RESULTS AND DISCUSSION

The questionnaire was distributed to more than 150 undergraduate students. It is found difficult to get answers from the students at undergraduate levels because of their willingness to fill up the survey forms, lack of seriousness and understanding of the matter. Many surveys forms were not returned back and quite many were partially filled and incomplete. Therefore, only 50 fully completed surveys have been selected for the analysis. Descriptive statistics has been used to analyze the data collected and for interpretation of the results. Descriptive statistics is useful in these types of research studies because the research problem and objectives are straightforward and can easily be measured through descriptive statistical method. It provides enough estimates to derive conclusion, theory and hypothesis for a research problem.

The demographic data describes gender information only just to know the division of the respondents. Age, institution name, city and country of the respondents have no significance in the present study because the objective of the research requires only one criteria for the selection of the respondents that is being an undergraduate student. Table 1 shows that 66% of the respondents were female students and 34% were male students, and all belong to different undergraduate programs.

Table 1. Gender Information

Respondents' Gender	Sample (N)	Percentage (%)
Male	17	34
Female	33	66

Table 2 shows the overall time spent by the students, per day, in various activities on online social networking websites. On average, the highest time spent by the students on daily basis is more than 2 hours i.e. 64%. Only 4 students i.e. 8% spend about 30 minutes per day in online social networking. Interestingly, equal number of students i.e. 7 (14%) responded that on average they spend 1 – 2 hours daily online using the social networking portals.

Table 2. Time Spent (per day)

Time Spent on Social Networks	Sample (N)	Percentage (%)
30 minutes	4	8
1hour	7	14
2 hours	7	14
More than 2 hours	32	64

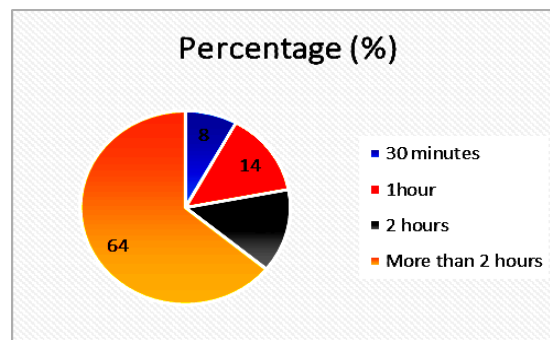Figure 1 shows the time spent on social networks by students per day.

Fig. 1. Time Spent on Social Networks (per day)

Table 3 shows the social networking applications and their percentage use by the students. The statistics shows that 90% of the students have Facebook profiles while YouTube 56%, Whatsapp 38%, Instagram 36%, Skype 10% and Blogger 4%. Blogger appears to be the least used social networking platform and Facebook the highest followed by Youtube, Whatsapp, Ianstagram, and Skype as shown in Figure 2. It is also found that most of the students have more than one social networking profiles, and use multiple services.

Table 3. Percentage Use of Social Networking Applications

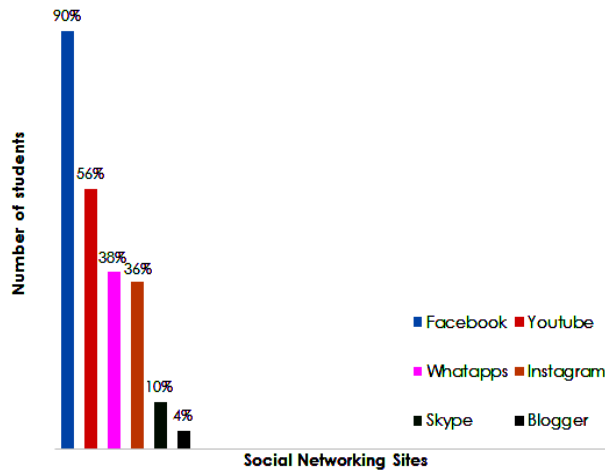| Use of Social Networking Websites	Yes (%)	No (%)
Facebook	45 (90%)	5 (10%)
Whatsapp	19 (38%)	31 (62%)
YouTube	28 (56%)	22 (44%)
Instagram	18 (36%)	32 (64%)
Skype	5 (10%)	45 (90%)
Blogger	2 (4%)	48 (96%)

Fig. 2. Use of Social Networks

Findings on the effect of social networking websites on learning of the students are presented in Table 4. The table shows the statistics on the effect in terms of distraction by online social networking activities and time management.

Table 4. Distraction and Time Management

Question	Mean	SD
When I receive a message notification from a social network friend, time of study is cut short to chat with her/him.	3.18	1.04
Excessive use of social networks distracts study motivation.	3.24	1.13
My priority on social networking site is always be the first after coming back from the campus instead of doing my homework.	3.26	1.17

More than 3.0 mean values on the scale of 5 shows that more than 60% of the students agree that they get distracted by social networking activities, give them priority and are unable to do time management between their studies and online social activities. Standard deviation is small and is in the range of 1 which shows that there is consistency in the answers of the students and answers do not vary much from the mean.

The time spent on online social activities is a determinant of favorite activity and overall performance of the students. It is evident from mean value of 3.26 that more than 65% of the students access social networking websites on priority basis right after coming back from the university. 40% of them login to their accounts to check the notification from friends, watch videos, and comment on the posts from the friends instead of study or other such activities. The consequences of the use of social networks appears in the form of demotivation of the students for their academic learning. Likewise, about 48% of the students agree that variety of the online entertainments on social networks affect their focus on the study, and homework. The excessive time spent and improper time management as well as the differing levels of priority for various online activities, and studies and homework cause demotivation trends towards their studies. Notably, the study time is cut short when chatting is started with a social network friend as indicated by 3.18 mean value. Apparently, the results show that unplanned use of online social networks without time management and during classes and study time appears to be serious issue.

Table 5 shows the statistics of the responses on favorite activity.

Table 5. Favotrite Activity

Question	Mean	SD
I use social networks to browse information related to my studies and group assignments discussion.	4.06	0.79
I use social networks to get the daily latest news.	3.74	1.07
I use social networks to help to kill the boredom of study.	3.40	1.03

The relatively higher mean value of 4.06 shows that more than 80% of the students browse social networks seeking for the information related to their studies and discussion of group assignments with friends and classmates. This big group of students search study material, and create as well as join group forum through social media for academic purposes. The second largest group of students who are almost 75% with 3.74 mean value like to use social networks for daily latest news. These students get latest and updated information through online social networking without accessing the newspaper or other broadcasted media. Similarly, the mean value of 3.40 indicates that about 68% of the students use social network to find a way out of releasing stress and boredom. However, it encourages students to develop more interest in spending time on social networks to get rid of their tiredness after class and boring time. It is found that social networking websites are being used by the students for both academics and recreational purposes.

The results of the performance factor are given in Table 6. The lowest mean value of 2.30 shows that 46% of the students agree that the use of online social networking activities cause the drop in their grades while 54% disagree with the effect on their grades. 8% difference though is not very significant in these types of the studies because the varying levels of understanding and maturity of the undergraduate students may cause that much difference. Generally, it can be concluded that use of social networking websites is one of the factors responsible for grade drops or lower grades of the students. 66% of the students agree that multitasking by using social network while studying reduces their concentration on the study. It shows that majority of the students believe that they do online social activities in parallel to their studies and realize that it diverts their focus from the studies. Having social networking sites running in the background distract short memories and listening skills of the students [44].

Table 6. Performance

Question	Mean	SD
I notice that my grade is continuously dropping after using social network.	2.30	0.93
Multitasking by using social network while studying reduces my concentration on study as well.	3.32	1.04
Social network induces lack of focus on class participation.	3.08	1.00

In another response on the lack of focus in class participation, 61.6% students admitted that use of social networking sites persuades less focus in them on class participation. Students easily get their attention switched to the social networks applications on their mobile phones when feeling bored during the lectures. Though it does not seem to have a direct impact on the grades of the students but this multitasking has persistent connection with online social networking to distract concentration of the students from their lectures and studies.

Overall, students answered the questions divided according to three main measures of the study i.e. time spent, favorite activity and overall performance. The results show that time spent has significant effect on learning behavior of the students as compared to other two measures of favorite activity and overall performance. A well-managed approach of balancing time between online social networking use and studies is required. It is necessary to control the excessive use of social networking and wasting major portion of the time in such activities instead of studies and family time. The effect of overall performance and favorite activity also concerns the learning of the students and meeting their study objectives. Multitasking greatly impact by reducing concentration on the study as well as inattention to the lecture. Favorite activity is found to be of least importance having no direct relationship on learning and academic performance. The results emphasize that students choose to use online social networking mainly to kill their boredom most of the time.

The results of the study are reliable as evident by Cronbach's alpha (α) which is an indicator of reliability and internal consistency. For each measurement, the Cronbach's alpha values are given in Table 7. For time spent, it is 0.79, 0.61 for favorite activity and 0.73 for overall performance. In case of time spent and overall performance, more than 0.7 Cronbach's alpha values show that results are reliable and consistent. The results with Crobach's alpha value of 0.7 are considered consistent and reliable. For favorite activity, it is 0.61 because answers of some of the questions were not consistent as none of the students disagree using social networking websites for their studies and discussion on the assignments. Cronbach's alpha value above 0.6 is acceptable [47] in a study with small sample size [48].

Table 7. Reliability Analysis

Factor	Cronbach Alpha
Time Spent	0.79
Favorite Activity	0.61
Overall Performance	0.73

On average, 0.78 Cronbach's alpha coefficient shows high consistency and reliability of the results. The lower limit of Cronbach's alpha value is not defined values closer to 1 are considered good and acceptable for more internal consistency. As cited by Joseph [49], Cronbach's alpha coefficient having value of 0.7 is considered acceptable for reliability and consistency of data.

5. CONCLUSION

Online social networking applications are influential and ubiquitous attracting majority of the students to have their profiles [50]. Facebook is ranked highest by the students among all other sites [50]. Easy accessibility of these applications from the laptops and above all mobile devices has made online socializing a regular habitual activity of daily life especially generation Y have unconsciously been addicted to it [32]. A variety of interesting social networking applications, games and entertainments increases the temptation of the students [51]. Social networks are used as an entertainment tool by the students when they leave their hometowns for four years' university life, and during this longer period may eventually starts feeling bored with the environment [52].

Investigations in the present study requires to determine the implication of the existence of social networks and why it is necessary. Three main objectives achieved from this exploratory study are (1) examining the impact of social networks on students' learning behavior, (2) highlighting the role of social networks in education and (3) examining the significance of social networks in studies of the students and for notions of impact or lack thereof on overall performance.

Regarding the impact on students' learning behavior, the analysis shows that students waste much of their time on online social networks thus tend to demotivate for study. Findings show that about 92% students access social networking websites through their mobile phones during study. It evidences that students waste much of their time by remaining connected on social networks as mobile phones allow them an easy access [53]. It allows the students to view the information they want at any time because applications are free to use and require only to connect with the internet [54]. As shown in Table 2, on average, most of the participants spent more than two hours in a day to access online social networking sites. The information related to the campus life, events, videos, photos, Instagram and Youtube is mostly shared [43]. Sending and receiving messages and exchanging news daily with friends are among the favorite activities of the students [55]. It is evident from the results that study time has been cut short due to chatting with friends. The excessive usage, as consequences, demotivates them from their studies. However, students believe that online social networking is a good way for them to release stress and kill their boring time [15].

Regarding the role of social networks in education, the results show that 41 out of 50 students use social network platforms to search for study materials, discussion on group assignment. Without any restriction, it is easy to start a private secure group on social networks to communicate with each other. In fact, online social networks save time and money because more people can join it and it is easy for them to seek peer assistance when they face any difficulty [56]. A variety of information of all kinds is available on social networking sites. YouTube provides diversify of contents such as tutorials for students to help them improve their understanding and eliminating doubt of any problem in study [57]. Latest and updated information about recent happenings is quickly and easily reachable [3].

The significance of social networks in studies of students in relation to their impact on overall performance, multitasking by using social networks in parallel to studying or doing homework is compromised by diverting attention from studies or tasks given. According to a study, using Facebook and texting while doing homework limit the capability of the student for cognitive processing and interfere their deeper learning [58]. Also, the analysis discovers that 60% of the students disagree that their examination marks get affected and grades are dropped by the use of social networks. It

shows that online social networks are not the main factor that affect the studies, academic performance and learning of the students. However, their impact is significant and considerable. Poor preparation of examination, heavy workload like many subjects in one semester, poor time management, and stress are the other reasons for lower grades.

The research study presented in this paper, describes different aspects of the impact of using online social networks that affect the studies and learning of the students. The findings of the study show that there is an inverse relationship between use of online social networking sites and good learning and academic performance of the undergraduate students but it is not very alarming. Student can use social networking sites for academic purposes besides other activities but it could have destructive effect if both are done concurrently [59]. It is far easy to get involved in entertaining social networking activities while doing homework [60]. It is concluded that online social networking sites do not directly affect the learning behavior of the students and their academic performance but the time of study is greatly compromised that may lead to the poor academic performance and their learning. Students do involve in other activities too but they do not realize that they are spending more time on online social networking at the cost of their studies.

6. RECOMMENDATIONS

Correlating the possibility of all issues of online social networking with time spent on online social networking sites is required to study them altogether. To being with, the problem of academic procrastination is related with loss of motivation. It is evident that online social networks cause distraction to students from using social networking websites for academic purposes [61]. Sometimes, students use online social networks trying to escape from study stress before finishing their homework [12]. It is suggested that students should find a study partner, keep track the time and plan their time for using online social networking sites [62].

Secondly, a number of studies suggest that multitasking is not a suitable way of study for students [13]. Completing one task or activity at a time is more productive because multitasking causes lack of focus and increases difficulty in organizing and filtering the thoughts [59]. On the other hand, the students might also be not aware of wasting time on social networks [63]. Developing the sense of effectiveness and importance of time management skills among students is necessary to overcome this issue. Students should learn to balance the use of online social networking and be able to plan time to complete their tasks and assignments on time.

An initiative is needed in this regard to bring awareness of this fact among students. The students need to define the boundary of their desire for online social networks [64]. The outdoor activities such as sports and community events can be helpful and alleviate stress. Furthermore, a campaign on the significance of education and side-effects of excessive use of online social networking shall be helpful.

7. FUTURE WORK

The findings of survey based research sometimes do not explain the facts completely because of the correlations among data. It cannot be stated with confirmation that only social networks cause students to compromise on study time or get lower CGPA. There is no criteria or measurement scales to quantify various activities performed by the students. With the supposition that if online social networks do not exist today then students might preferably like to spend time in other activities. It could bring more opportunities of learning for them. Other factors such as peer influence, time management, environmental distraction and stress level can also affect the academic performance and learning of students. It is required to investigate more factors or measures that affect students' learning behavior and academic performance, and correlation among those factors.

REFERENCES

[1] Greg, J., "YouTube is Now Bigger than Facebook in the U.S.," [online], Available < *http://www.reelseo.com/youtube-bigger-than-facebook-u-s/>* (2014).

[2] Chien, L.C. Fu, W.-E. Lai, K. R. Tseng, S. F., "Feasibility Study of Using Social Networks Platform for Learning Support: An Example of Facebook," *Proceedings of the 20th International Conference on Computers in Education*, pp. 151 – 158, (2012).

[3] Ricardo, B., "CNN's Latest Redesign Puts Mobile and Social Core at its Core," [online], 6 January. Available from: *<http://digiday.com/publishers/cnns-latest-redesign-puts-mobile-social-core/ >*., January, (2015).

[4] Maria, T., "Feel Like a Wallflower? Maybe it's Your Facebook Wall," Available: *https://prezi.com/wrvxsofhpgoi/feel-like-a-wallflower-maybe-its-your-facebook-wall/*, (2015).

[5] Tiffany, A.P. Yevdokia, A.Y., Sandra, L.C., "College Students' Social Networking Experiences on Facebook," *Journal of Applied Developmental Psychology*, **30**(3), pp. 227-238, (2009).

[6] Lokanksha, S., "Social Media Addiction: 39757 Years of Our Time is Collectively Spend on Facebook in a Day," Available: *http://dazeinfo.com/2015/01/12/social-media-addiction/*, (2015).

[7] Elizabeth, C., "Five Clues that You are Addicted to Facebook," [online], 23 April. Available from: *http://edition.cnn.com/2009/HEALTH/04/23/ep.facebook.addict/*, (2009).

[8] Peter, S., "Social Media Linked to Poor Academic Performance," [online], 11 April. Available from: *http://www.redorbit.com/news/technology/1112821454/facebook-social-media-use-poor-academic-performance-bad-grades-041113/*, (2013).

[9] Walsh, J.L. Fielder, R.L. Carey, K.B. Carey, M.P., "Female College Students' Media Use and Academic Outcomes: Results from a Longitudianal Cohort Study," *Emreging Adulthood*, **1**(3), pp. 219-232, (2013).

[10] Rosen, L., "Social Networking's Good and Bad Impacts on Kids," [online], 6 August. Available from: *http://www.apa.org/news/press/releases/2011/08/socialkids.aspx*, (2011).

[11] Ross, Q., "How Social Media Influences People-Infographic," [online], 28 Feb. Available from: *http://www.socialmagnets.net/how-social-media-influences-people/*, (2013).

[12] Mobidia Technology Inc., "New Research Provides Insight Into High Levels Of Engagement For Leading Mobile Gaming Apps," [online], 10 Feb. Available from: *http://thesocialmediamonthly.com/new-research-provides-insight-into-high-levels-of engagement-for-leading-mobile-gaming-apps/*, (2014).

[13] Paul, A.K. Aryn, C.K., "Facebook and Academic Performance," *Computers in Human Behavior*, **26**(6), pp. 1237 – 1245, (2010).

[14] Harleena, S., Family Problems Due To Social Networking, [online], 4 May. Available from:

http://www.aha-now.com/family-problems-due-to-social-networking/, (2011).

[15] Oliver, C., 10 Reasons People Use Social Media, [online], 5 July. Available from : *http://www.onepoll.com/10-reasons-people-use-social-media/*, (2013).

[16] Jeff, S., 8 Advantages Of Standardized Usability Questionnaires, [online], 4 May. Available from: *https://www.measuringusability.com/blog/standardized-usability.php*, (2012).

[17] Richard, G. Robert, C., How Anonymity In Surveys Impacts Validity, [online], Available from: *http://www.resecon.com/news/insights/how-anonymity-in-surveys-impacts-validity/*, (2012).

[18] Gert, V.D., How To Estimate Your Population And Survey Sample Size? , [online], 13 Feb. Available from: < *https://www.checkmarket.com/2013/02/how-to-estimate-your-population and-survey-sample-size/>*, (2013).

[19] Saiful, B., Sample Size, [online] Available from: *<http://saifulbahri.com/Medical_education/Medical_Education_Notes_Sem_2/SAMPLE_SIZE.pdf>*.

[20] Uniteforsight.org, The Importance Of Quality Sample Size, [online], Available from: *http://www.uniteforsight.org/global-health-university/importance-of-quality-sample-size*, (2011).

[21] Ipathia Inc., Knowledge Base, [online], 18 March. Available from: *http://knowledge-base.supersurvey.com/survey-goals.htm*, (2011).

[22] Michaela, M., Quantitative Vs. Qualitative Research, [online], 16 March. Available from: *http://www.surveygizmo.com/survey-blog/quantitative-qualitative-research/*, (2010).

[23] Nicole, L., The Likert Scale: Advantages And Disadvantages, [online], Available From: *https://psyc450.wordpress.com/2011/12/05/the-likert-scale-advantages-and disadvantages/*, (2011).

[24] Allen, I.E. Christopher, A.S., *Likert Scales and Data Analyses*, pp.64-65, (2007).

[25] Alvin, R., Basic Marketing Research, [online], Available from: *https://en.wikipedia.org/wiki/Likert_scale*, (2008).

[26] Stephen, A. John, A.H., "*Data Collection in Context*," Longman, pp. 1- 155, (1981).

[27] Kate, K. Belinda, C. Vivienne, B. John, S., "Good Practice in The Conduct and Reporting of Survey Research," *International Journal of Quality in Healthcare*, **15**(3), pp. 261 – 266, (2003).

[28] Research Connections, "Advantages and Disadvantages of Survey Research," [online], n.d. Available from: *http://www.researchconnections.org/childcare/datamethods/survey.jsp*, (2013)

[29] Francis, J. Eccles, M.P. Johnston, M. Walker, A.E. Grimshaw, J.M. Foy, R. Kaner, E.F.S., Smith, L. Bonetti, D., "Constructing Questionnaires Based on the Theory of Planned Behaviour," A *Manual for Health Services Researchers*," pp. 7-30, (2004).

[30] Parahoo, K., "Nursing Research – Principles, Process And Issues," [online], Available From: *http://www.cin.ufpe.br/~in1002/leituras/2008-undertaking-a-literature-review-a-step by-step-approach.pdf*, (2006).

[31] Edwin, R. Vanora, H., "The Importance of Pilot Studies," Available from: *http://sru.soc.surrey.ac.uk/SRU35.html*, (2001).

[32] Jaclyn, C., "Is Generation Y Addicted to Social Media," Available from: *http://www.elon.edu/docs/e-web/academics/communications/research/vol2no1/01cabral.pdf*, (2008).

[33] MarketingCharts staff, Social Networking Eats Up 3+ Hours Per Day For The Average American User, [online], 9 January. Available from:

http://www.marketingcharts.com/online/social-networking-eats-up-3-hours-per-day-for-the-average-american-user-26049/, (2013).

[34] Emily, A., "Social Media Engagement: The Surprising Facts About How Much Time People Spend on the Major Social Networks," 16 December. Available from: *http://www.businessinsider.my/social-media-engagement-statistics-2013-12/#hFogisLwSaEwXTgP.97*, (2013).

[35] Zoe, F., "65% of Time Spent on Social Networks Happens on Mobile," Available from: *http://firstmonday.org/ojs/index.php/fm/article/view/2889/2685*, (2013).

[36] Jeff, H., "Top Three Reasons We Join Social Networking Sites," [online], 5 January. Available from: *http://velvetchainsaw.com/2011/01/05/why-people-join-social-networking-sites/*, (2011).

[37] Suzanne, D., "Social Sharing Habits: New Research Reveals What People Like to Share," [online], 24 March. Available from: *http://www.socialmediaexaminer.com/social-sharing-habits-new-research/*, (2015).

[38] Lewis, S., "Where Young Adults Intend to Get News in Five Years," [online], Available from:*https://www.academia.edu/170825/Where_Young_Adults_Intend_to_Get_News_in_Five_Years* , (2008).

[39] Megan, S. Priscilla, G., "Use of Social Media By College Students: Relationship To Communication And Self-Concept," [online], 13 July. Available from: *http://www.aabri.com/manuscripts/121214.pdf*, (2013).

[40] KISSmetrics.com, "The Science Behind What People Love to Share on Social Media," [online], Available From: *https://blog.kissmetrics.com/share-on-social-media/*, (2015).

[41] Steve, A., "Negative Effects of Social Networking Sites for Students," [online], 24 October. Available from: *http://www.business2community.com/social-media/negative-effects-of-social-networking-sites-for-students-0311887#!bA7kXe* , (2012).

[42] Ken, M., "11 Reason Why People Love and Use Social Media," [online], 17 March. Available from: *http://inklingmedia.net/2014/03/17/11-reasons-people-love-social-media-2/#.VVCKOpOFHxk*, (2014).

[43] Doug, R., "How's Today Colleges and Universities are Using Social Media," [online], 21 June. Available from: *https://vtldesign.com/inbound-marketing/social-media/how-todays-colleges-and-universities-are-using-social-media/*, (2012).

[44] Enriquez, J., "Facebook and other Online Social Networking Sites Can Lower Grades, Study Says," [online], 16 September. Available from: *http://seerpress.com/facebook-and-other-online-social-networking-sites-can-lower-grades-study-says/6935/*, (2010).

[45] Alison, K., "Internet Social Sites Encourage Wrong Spelling," Available *http://www.independent.co.uk/news/education/education-news/internet-social-sitesencourage-wrong-spelling-2140887.html*, (2010).

[46] Denny, C., "Research: Social Media Has Negative Impact On Academic Performance," [online], 17 April. Available from: *http://www.ecampusnews.com/uncategorized/research-social-media-has-negative-impact-on-academic-performance/*, (2013).

[47] Moss, S.C. Prosser, H. Costello, H., "Reliability and Validity of The PAS-ADD Checklist For Detecting Psychiatric Disorder in Adults with Intellectual Disability," *Journal of Intellectual Disability Research*, **42**(2), pp.173 – 183, (1998).

[48] Joseph, F.H. William, C.B. Barry, J.B. Rolph, E.A., *"Multivariate Data Analysis,"* 7th Ed. Pearson/Prentice Hall, Inc., (2014).

[49] Gliem, J.A. Gliem, R.R., "Calculating, Interpreting and Reporting Cronbach's Alpha Reliability Coefficient for Likert-Type Scales," *2003 Midwest Research to Practice Conference in Adult, Continuing, and Community Education*, pp. 82 – 88, (2003).

[50] Ebizmba.com, "Top 15 Most Popular Social Networking Sites," [online], 1 May, Available from: *http://www.ebizmba.com/articles/social-networking-websites*, (2015).

[51] Socialbakers, "The 20 Most Interesting Social Networks," [online], 29 August. Available from: < *http://www.socialbakers.com/blog/808-article-the-20-most-interesting-social-networks>*, (2012).

[52] OnlineColleges.net, "How Are Colleges Using Social Media To Attract Students," [online], 18 December. Available from: *http://socialmediaweek.org/blog/2012/12/how-are-colleges-using-social-media-to-attract-students/*, (2012).

[53] Mark, S., "5 Surprising Social Media Statistics For 2013," [online], 12 October. Available from: *http://www.socialmediatoday.com/content/5-surprising-social-media-statistics-2013*, (2013).

[54] Ellison, N. Steinfeld, C. Lampe, C., "The Benefits Of Facebook Friends. Social Capital And College Students Use Of Online Social Network Sites," *The Journal of Computer Mediated Communication*, **12**(4), pp. 1143-1168, (2007).

[55] Lenhart, A., "Text Messaging Explodes As Teens Embrace It As The Centerpiece Of Their Communication Strategies With Friends," [online], 20 April. Available from: *http://www.pewinternet.org/files/old-media/Files/Reports/2010/PIP-Teens-and-Mobile-2010-with-topline.pdf* , (2010).

[56] Jerome, J.A. "Peer Evaluation Model for Enhancing Writing Performance of Students with Learning Disabilities," *Reading and Writing Quarterly*, **14**(3), pp. 263 – 282, (2006).

[57] Michele, M., "Homework Help On Youtube," [online], 18 March. Available: *http://www.tampabay.com/news/education/k12/homework-help-on-youtube/2145291>,* (2013).

[58] Reynol, J. Shelia, R.C., "No A 4 U: The Relationship Between Multitasking And Academic Performance," *Computers and Education*, **59**(2), pp. 505 – 514, (2012).

[59] Travis, B., "Multitasking Damages Your Brain and Career, New Studies Suggest," [online], 10 August. Available from: *http://www.forbes.com/sites/travisbradberry/2014/10/08/multitasking-damages-your-brain-and-career-new-studies-suggest/,* (2014).

[60] Kelsie, C., "Social Media Could Spell Disaster For Student GPA," [online], 2 December. Available from: < *http://www.dailyhelmsman.com/news/view.php/857531/Social-media-could-spell-disaster-for-st >*, (2014).

[61] Fabrizio, R. Davis, T., "Facebook: The World's Favourites Classmate," Available from: *http://loyalistnews.org/facebook-the-worlds-favorite-classmate/*, (2014).

[62] Linda, G., "How Students Can Avoid Social Media Distractions," Available from: *http://studymagazine.com/2013/06/20/how-college-students-can-beat-the-lure-of-social-media-distractions/* , (2013).

[63] Rubinstein, J.S. Meyer, D.E. Evans, J.E., "Executive Control Of Cognitive Processes In Task Switching," Available: < *http://www.mindtools.com/pages/article/newHTE_75.htm>*, (2001).

[64] Lily, S., "Social Media Has Your Addiction Gone Too Far?" Available from: *http://www.huffingtonpost.com/lily-sperry/social-media-has-your-add_b_4661253.html* , (2014).

[65] Christopher, R., "An Introduction To The Mobile Social Gaming Market," Available from: *http://www.mobyaffiliates.com/blog/mobile-social-gaming-market-statistics-and-trends/*, (2012).

[66] Janitha, K. Devinder, K. Anusuiya, S., "Influence of Social Intelligence on Knowledge Sharing Behaviour, Competency & Teaching and Learning Performance: Evidence from Malaysian Private Universities," *Science International (Lahore),* **30**(5), pp. 717-727, (2018).

[67] Katherine, L.D. "Social Media: Multiple Channels to Capture Multiple Audiences," *Proceedings of SIGUCCS'13*, pp. 159-162, Chicage, USA, (2013).

[68] Derrik, E.A. Justine, P.C. Alexis, R.N., "Effects of Social Media Involvement, Context, and Data-Type on Opinion Formation," Proceedings of 2018 International Workshop on Social Sensing, IEEE, pp. 32-37, (2018).