Social Networking as a Tool for Extending Academic Learning and Communication

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Abstract

Purpose: *Despite assumption that the lecture is cohesive and consistent to all attendance, exchanging ideas, sharing knowledge, and expanding understanding is very required outside the classroom boundaries. Here, the part of sharing and cooperating activities among students and between students and the lecturers appear to be very urgent. From this point, social networking sites appear very helpful in building academic groups to achieve better academic learning and communication. It is then, the purpose of this study to provide a better understanding of how students are investing their skills, time, and willingness in using their Social Networking (SN) sites for better academic achievements and to examine factors affecting their use*

Design and Methodology*: A research questionnaire was designed and electronically e-mailed to students at Sultan Qaboos University through the University e-mail server. A response rate of 3% (20) was avoided for missing data and 97% (650) was obtained from 670 respondents.*

The analyzed data show that students are personally achieving the basic competences required to access SN applications by themselves or through friends while the University highlights the importance of the constantly adapting technologies efforts to improve successful practice and to be engaged with universal knowledge. What students lack is how to think critically about transforming their perspective towards SN sites from merely social purposes to academic and social purposes. Eighty-three percent of the students are willinging to register for moderate, wide-ranging, or completely controlled course by Information Technology (IT). This reflects their willingness to establish systematic training courses regarding the use of SN for better academic communication and learning. Hence, Sultan Qaboos University (SQU) needs to take a more interactive role in creating a collaborative learning environment and constructing "communities of practice" among students, faculty, and other staff, rather than just wasting time on unproductive and fruitless communication. Encouraging academic staff is one recommendation. This will lead directly to encouraging group academic communication in a way that will decrease students' fruitless usage. It will also extend their efforts to learning and problem solving rather than endless youthful social communication and will achieve better utilization of the Internet and other available technologies rather than wasting time and money in unproductive applications, which will eventually affect their commitments to learning.

Key Words: Social networking, Academic communication, collaborative learning, e-communication, Technology and academic achievement.

INTRODUCTION

The Internet has an effect on nearly every aspect of the world's higher education – research and learning- and its impact is considerably assessed as a vital means. Actually, the Internet attracts academic institutions to take into account being the basic source of information, an essential medium for academic communication, learning support systems, and a challenge to promote online learning. New versions of Web 2.0 and Web 3.0 add superfluous enthusiasm and excitement for young people to spend hours with their applications, specifically SN. Such excitement encourages researchers to investigate issues related to students' academic achievement and the correct use of this application, the frequency of use, the skill level, the trust and privacy, the expectations and personality, team communication, and so on.

In Bloomberg's Business Week article of September. 14, 2009, Maney stated that the higher education has been changed by the Internet revolution, and that the current century is no more being of the only "university model dominated. In fact the technological developments "foster new models of higher education … without gathering students and teachers in the same physical space" (Maney, 2009). Basically, many universities devoted their efforts to establishing effective online approaches for gathering students to work interactively in groups.

They join online learning systems, such as WebCT, Moodle, and other web-based systems for the purpose of improving their students' performance and academic communication. Others go further by applying Web 2.0 and SN applications such as wikis, blogs, Twitter, LinkedIn, and other online networking and documenting representations. The goal is to begin collaborative teams and academic social and scientific structure by offering SN courses, namely, Facebook, MySpace, and so forth.

Moreover, many institutions already started to associate both collaborative teams and academic social and scientific structure through offering SN courses. Such initiations led many researchers to think critically about the application of SN to the new trends in teaching and learning. In essence, Berners-Lee confirmed that Web learning in higher education will provide a democratic, personal, and do-it-yourself medium of communication (Berners-Lee, 2001). Furthermore, Hamid, Chang, and Kurnia (2009) studied the related literature to the use of social technology, and then they categorized that literature into four basic groups of activities, including: content generation, sharing, interacting, and collaboratively socializing. The following table represents the related works within these groups:

Social Technologies	Online social networking			
	Content Generating	Sharing	Interacting	Collaboratively Socialising
Blogs	(Sandars & Schroter, 2007) (Hargadon, 2008) (Churchill, 2009) (Murray, 2008)		(Churchill, 2009)	
Wikis	(Ras & Rech, 2009) (Sandars & Schroter, 2007) (Hargadon, 2008) (Kane & Fichman, 2009) (Murray, 2008)	(Kane & Fichman, 2009) (Ras & Rech, 2009)		(Kane & Fichman, 2009) (Sandars & Schroter, 2007) (Ras & Rech, 2009) (Rhoades, Friedel, & Morgan, 2009)
Photo sharing	(Sandars & Schroter, 2007) (Hargadon, 2008)			
Video sharing	(Sandars & Schroter, 2007) (Hargadon, 2008)		(Mason & Rennie, 2008)	
Podcasting	(Sandars & Schroter, 2007) (Minocha & Thomas, 2007) (Hargadon, 2008)	(Sandars & Schroter, 2007)		
Social bookmarking	(Sandars & Schroter, 2007)	(Eysenbach, 2008) (Churchill, 2009)		
Online discussion board	(Hemmi, Bayne, & Landt, 2009)			(Wuensch, Aziz, Ozan, Kishore, & Tabrizi, 2009)
Instant messaging	(Sandars & Schroter, 2007)			(Sandars & Schroter, 2007) (Mason & Rennie, 2008)
Social networking sites	(Murray, 2008) (Virkus, 2008) (Sandars & Schroter, 2007) (Hargadon, 2008)	(Murray, 2008) (Oradini & Saunders, 2008)	(Murray, 2008) (Minocha, 2009)	(Murray, 2008) (Supe, 2008) (Oradini & Saunders, 2008)

The data presented in the above table ensure that the applications of wikis and social networking have captured the attention of the researchers in the four previously mentioned groups of activities, which are mostly linked to both learning and communicating.

By definition, SN software is considered as ‘‘online spaces that allow individuals to present themselves, articulate their social networks, and establish or maintain connections with others [all within an online environment]" (Ellison, Steinfeld, and Lampe, 2006). On the other hand, SN sites have been described as "relationship facilitators" (Educause, 2007) allowing individuals to construct relationships with other individuals with similar attentiveness and interests. In effect, SN technologies create an active sense of community. This reality was concluded from the increased number of those sharing in SN sites such as Facebook that principally was “viewed as a networking site limited to college students” (Kornblum, 2006).

Related Literature and Assumptions

When it comes to communication in the sciences, authors have always emphasized that "communication is the essence of science" (Garvey, 1979) and that "without communication there would be no science" (1980, quoted in Lacy & Bush, 1983, p. 193). Such assumption is applied to humanities and social sciences, as well. Moreover, social learning theorists believe that the link between communication and human behavior is, in a way, that human behavior itself. "Is learned through interaction with and observation of others in a social context" (Bandura, 1977). Today, social communication affected by the merge of new technologies and new mediums, is collectively called social networking software. With such developments, the concept of "invisible colleges" is shifted to be "invisible communities" of the current era. Here, people, whether in science or humanities, are generally interacting to exchange information, brainstorm ideas, search for new friends, and share everyday news. In the academic environment, more investments have been introduced to link those new online developments (namely Web 2.0 applications) to learning, teaching and researching. Scholars communicate to share knowledge, deploy new theories and learning models, formulate new research initiations, disseminate their final results, solve experimental or theoretical problems, and get critiques and feedback." There is a growing number of studies mostly highlighting that students are influenced by social networking in their social communication. Uysman and Eulf analyzed the related literature and derived that SN is "a pervasive phenomenon among today's university students and that such networks can result in the creation of social capital" (Uysman and Eulf, 2006). Other studies indicate that students' current social structure is habitually linked to the era's communication tools. Our era now highly depends on the Internet, and online communication and group knowledge sharing leading to "instrumental outcomes. These kinds of outcomes confirm that:

- online communication constitutes a power and innovation in organizations (Ibarra, 1993),
- the Internet becomes a part of students' daily routine (Jones,2002),
- trust and privacy are joined with the willingness to share identifying information (Dwyer, Hiltz, and Passerini 2007), and
- job satisfaction is connected to better communication (Sparrowe, Liden, and Kraimer, 2001, and Chung, K. S. K.Hossain, L, and Davis, J., 2007)

For Kimberly and others, social networking sites and web-based services will allow "individuals to: (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system" (Kimberly et al., 2009). As with other striving universities around the world, Sultan Qaboos University has continuously invested in information technology and its applications to support research and the learning process. For better investment, the Center for Educational Technology (CET) was established "to enhance teaching and learning at SQU through supporting faculty members and departments with the latest technologies in teaching and encouraging the adoption of best instructional practices." To do so, the Center aims to: (CET, 2010)

- Conduct instructional development activities,
- Produce instructional/learning materials and provide media services.
- Venture into the e-learning domain and at the stage of developing comprehensive training and consultancy packages to enable faculty to develop high quality instruction.

The purpose is to enable faculty to develop high quality education and to make the Internet as an effective and valuable educational tool. Practically, the University invests in supporting the academic community with the valuable e-sources of information (e-Journals, e-databases, and e-books) and offers them the possibility of in-campus wireless services. The in-campus wireless service, however, increases the opportunity for students to improve their personal communication behavior, work together in virtual teams, share in whiteboard and online class discussions and forums, receive announcements and invitations to attend the everyday University social and scientific activities, and to be updated with academic instructions, guidelines, and procedures. With the accelerating development of the free social networking applications, students were found to spend large amounts of their daily time using the available technology and their personnel laptops in various applications, from e-mail to class assignments, including research, and mostly communicating through their social networking sites.

Statement of the Problem

As with schools, academic environment follows a similar model of educating or instructing through a model of a class (a body of students who are taught together) and a lecture (an oral presentation, supported by practical activities, intended to present information or teach students about pre-scheduled subjects) to manage the instructional delivery and to achieve justice in knowledge provision.

On the other side, the body of students consists of individuals attending classes with different levels of self, social and intellectual preparation, which directly affects their knowledge acquisition and responses. Despite the lecturer's assumption that the lecture is cohesive and consistent to all in attendance, exchanging ideas, sharing knowledge, and expanding understanding is required outside the classroom boundaries. Here, the part of sharing g activities among students and between students and lecturers appears to be very urgent. Hence, from this point, the social networking sites appear helpful in building academic groups to achieve better academic learning and communication. This, consequently, improves as information technologies have transformed academic education in many ways. They have affected the academic communication as part of the learning process, as well. It is then the purpose of this study to provide a better understanding of how students are investing their skills, time, and willingness in using their SN sites for better academic achievements and to examine factors affecting their use. To explore such understanding, several research questions were stated, including:

- What IT requirements are available for students to apply to SN sites properly and acceptably?
- What benefits may students achieve from using the SN sites as part of their academic communication?
- How does SQU respond to enthusiastic transformation of the new generation of communication towards a better academic environment?

Research Methodology

Research sample

A research questionnaire designed and electronically e-mailed to all students at Sultan Qaboos University (graduate and undergraduate) through the University e-mail server. A response rate of 3% (20) was avoided for missing data and 97% (650) was obtained from 670 questionnaires, which were completed and returned. Female students accounted for 68% (440) of the respondents. Fourth year students constituted the largest group (21%) and graduate students constituted the smallest group (5%) of the respondents. See Figure 1 for more details. The College of Arts and College of Engineering respondents accounted for 43% (150 respondent each), followed by the College of Engineering with 20%. The Colleges of Medicine and Nursing provided the least, with 2% and 3%, respectively, because of the limited number of students. Table -1- explores the number and percentage of respondents within each college.

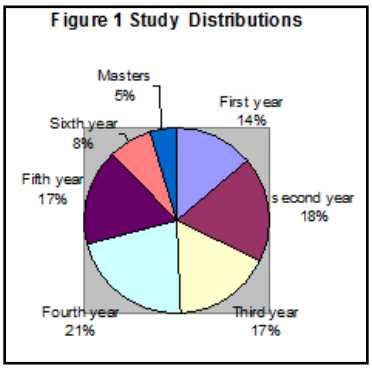


Table 1: Distribution of respondents among colleges

	Frequency	Percent	Valid Percent	Cumulative Percent
Science	150	23	23.1	23
Arts	150	23	23.1	46
Engineering	130	20	20.0	66
Education	80	12	12.3	78
Economic	70	11	10.8	89
Agriculture	40	6	6.2	95
Nursing	20	3	3.1	98
Medicine	10	2	1.5	100
Total	650	100.0	100.0	

Data Analysis

IT requirements availability

Table 2 investigates the main requirements available to using IT by students at SQU.

Table 2: Available IT requirements at SQU from Students, Point of View

Requirements	#	Percentage from total of =650	Notes
Laptop Ownership	560	86%	90 students using the University labs
IT Literacy:			
- Expert	20	3%	
- Very skilled	100	15%	
- Fairly skilled	360	55%	
- Somehow	150	23%	
- Not Skilled	20	3%	
Participation in SN sites	430	66%	The others: 190 not participating and 30 not responding
Willingness to initiate Online courses	400	61%	190 (29%) strongly agree and 210 (32%) agree with the University initiation to start online courses
Time spent with SN	12.05 hours weekly		

Perspectives toward Using IT

Two hundred (31%) participants verified that they are addicted to using the Internet and strongly agreed to use IT as much as they can. They expressed their anticipation to compete between each other in applying new technologies in addition to using them as part of the classes' requirements. Only 7% of them were unconvinced of new technologies and they only utilized them when they had to.

To find out whether there are significant differences among respondents (650) from different colleges they joined and their gender towards their self-assessment (perspectives) to using IT, ANOVA was applied, and the results show that:

1- The significance values (sig. =.416 and .624 respectively for college and gender) for Levene's test are greater than .05, then the assumption of homogeneity variance is not valid here.
2- The significance values between groups (sig. =.972 and .547 respectively for college and gender) for ANOVA test are greater that .05 which improve that there are no significant differences somewhere among the mean scores of self-assessment regarding respondents' perceptions toward the use of IT and their college affiliation and gender.

Based on the above results, the study intended to explore the respondents' preference of the level of IT applications as related to their course work. The results showed that 52% of them preferred courses with moderate application of IT and only 1% of them would rather have the traditional course without IT. Table -3- summarizes other preferences.

Table 3: Preference of the type of courses

Type of course	Frequency	Percent
Prefer courses with moderate application of IT	370	52%
Prefer courses with wide-ranging applications of IT	140	20%
Prefer courses with little IT (messaging, sending attachments)	110	16%
Prefer courses restricted and completely controlled by IT	80	11%
Prefer traditional courses without IT	10	1%
Total (respondents tickle more than one option)	710	100%

Those who preferred moderate or wide-ranging applications of IT (510 or 72%) emphasized that IT will:

- Improve their learning (59%)
- Get them to become more active and energetic regarding the course content (55%)
- Make course work and related activities and knowledge more convenient (49%)

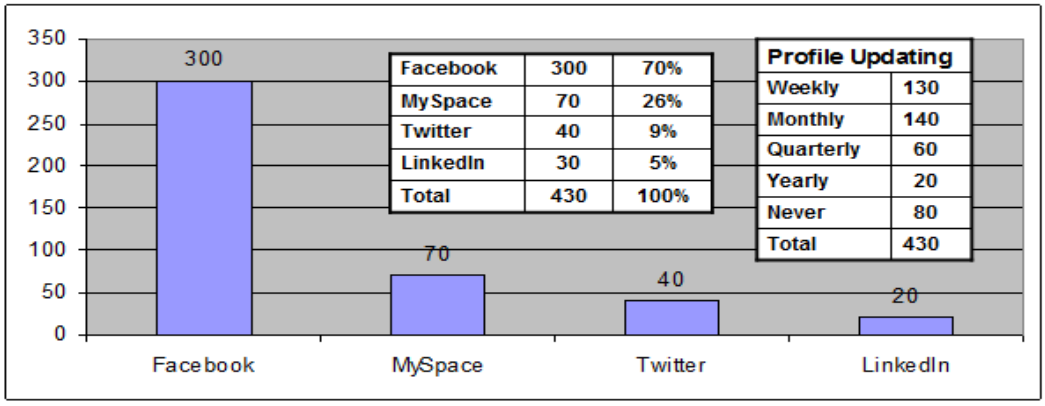
General Activities Related to Using the Internet

In general, the 650 participants were asked to tackle the most important activities related to using the Internet. Their preferences were summarized as follows:

- 100% (650) of them check and send e-mails,
- 82% (530) use the university website,
- 69% (450) follow online courses through Moodle and WebCT,
- 66% (430) connect to SN sites,
- 63% (410) download audios and videos,
- 48% (310) access online applications of the spreadsheet, documents, presentations, and forms,
- 34% (220) use the main library website,
- 31% (200) download pictures, and
- Only 6% (40) of them contribute to wikis.

Social Networking Participation

Among the 430 respondents who confirmed their participation in social networking sites, only 30 students have more than 5 groups to communicate with while 240 have only one group and the rest range between 2-3 groups of friends. Besides the limitation in a group's number, participants were also limited in the number of friends sharing their information and with whom they communicated. 47% (200) of them limit their connection to (1-5) friends, 21% (90) to (21-40) friends, 30% (130) to 41 or more. Regarding their preference, Facebook constitutes the first priority to social networking sites, followed by MySpace, Twitter, and LinkedIn, respectively. Only (270) of them updated their social networking site profile weekly or monthly and those are among the most active group, who have more than 20 friends.



The results, however, show that only 11% of the respondents spend over 30 hours per week connecting to their SN sites. Thirty of them were female; 21 of them were from the College of Arts and 9 were from the College of Science. The other 20 males were equally distributed between the College of Commerce and the College of Arts. Table -4- presents other respondents' time spent with their SN sites.

Table 4: Number of hours connecting to SN

Hours limitation		Frequency	Percent	Cumulative Percent
Valid	1-10-	230	54%	54%
	11-20	90	21%	75%
	21-30	30	7%	82%
	31 and over	50	11%	93%
	Total	400	93%	
Missing	30 (7%) out of the 430 respondents mentioned unlimited time depending on their availability at the University, connection to the internet, and their schedule load.			
Total		430	100%	100%

Privacy Factor

The information respondents choose to place in their profile and the restrictions they preferred to add for accessing their sites, constitute the main two factors associated with SN privacy. From the calculated result, 63% of the Omani students were using their real names and 23% of them added their photo; among them 18 were female. Table -5- adds more information preferences included in the respondents' profiles.

Table 5: Information included in SN profiles

Information	#	%
Date of birth	380	88%
Educational information	330	77%
Personal interests	340	79%
Real name	270	63%
E-mail address	260	60%
Another name	180	42%
Personal photo	100	23%
Address	100	23%
Phone	30	7%
For each information, percentage counted from the total of 430 participants		

Selections to employ for restricting access to SN sites vary among students. The results demonstrate that participants distributed between three groups in the matter of limiting or opening their sites to the public. Table -6- displays these selections.

Table 6: Restrictions' Selections on SN's Site

Restrictions	Responses	
	#	%
I don't restrict my profile	90	21%
I always care for limiting my profile to those whom I trust	190	44%
I always put many restrictions to accessing my profile regardless of who will be	150	35%
Total	430	100%

The Purpose and Justifications of SN Use

This factor reflects three broad aspects behind the purpose of using SN sites: social communication, academic sharing, and learning aspects. Social communication covers issues such as connecting with friends and family members, searching for new friends, and readiness to be in touch and talk. Academic sharing explores the willingness toward having open discussion, ideas exchanging, and browsing the University website's daily activities and life. The third aspect looks at critical issues related to learning tools for better achievement in terms of frequently asking questions, subject discussion and arguments, and assignment preparation The results shows that participants interested mostly in limiting social communication to friends and family as being their first priorities. In terms of academic sharing, exchanging ideas and discussions were found to be important to approximately 43% of them. The same group emphasized their interest in asking questions or responding to questions raised by classmates, while only 23% of them using SN for cooperation as teams in preparing their assignments and arguments. For more details, Table -7- illustrates these three aspects.

Table 7: The purposes for using SN

Aspects	Purposes	Yes	
		#	%
Social communication	Keep in touch with friends	390	91%
	Keep in touch with family members and relatives	270	63%
	Searching for more friends sharing my interest	240	56%
	Just connecting to people and talk	130	30%
Academic sharing	General group discussion and ideas exchanging	230	53%
	Connecting with classmate about university life	180	42%
Learning	Asking questions or responding to a question	230	53%
	Assignment preparation and argument	100	23%
Percentages counted from that total of 430 respondents			

Those who are not committed to use SN for academic sharing and learning (200 out of 430) expressed their impression toward the problems they encountered or even believe in with the use of SN, including:

- 30% (60) the Misuse of personal information by others
- 90% (180) attacking by unwelcoming friends
- 20% (40) afraid from losing security (as a result of viruses and hacking
- 65% (130) receiving too many junk or unwanted messages
- 70% (70) have to Respond to others when have no time
- 25% (50) Getting wrong information
- 15% (30) fearful from leaving a history that affect their future work or life

On the other side, the 230 who considered the SN as a better tool for academic communication and learning, justify their perception to several reasons:

- 100% (230) Facebook and other Social Networks are great form of communication
- 100% (230) SN allows them to share words, pictures, links
- 100%(230) Groups can meet and discuss matters
- 74% (170) SN is like a directory for quickly finding people a participant needs to contact with them
- 70% (160) Offering free long-distance on time-net
- 39% (90) SN sites are easy to create, maintain, and use
- 35% (80)Participants love to be members in the cyberspace environment
- 22% (50) To gain popularity and self-esteem among the people I know

In comparison to those who preferred using SN based on their previous justifications, others (the 220 respondents) who confirmed that they are currently not applying the social networking applications also came across as reasons behind their reluctance to connect; their justifications can be seen in Table -8-.

Table: Reasons for not connecting to SN

Reasons	Responses	
	#	%
I don't have time to check and response	150	
I don't have access to the Internet outside the University	90	
Not interested in online grouping	80	
Prefer to keep my personal activities for myself	40	
Lack the skills required to create or use them	30	
Total of responses	390	

In addition to that, others added that they lack the required skills for creating or using SN sites. Whether being reluctant or willing to use SN applications, participants asked to focus on the most popular problems encountered with SN functions and their responses were varied (from 30-180 out of the total 430), including:

- 42% (180) Unwelcoming partakers
- 33% (140) Responding to others when have no time
- 30% (130) Too many unwanted messages
- 14% (60) Misusing personal information
- 12% (50) Getting wrong information
- 9% (40) Losing security (as a result of viruses and hacking)
- 7% (30) Leaving a history that affect participant's future work or life

The results show less effect of SN on security compared to the bad feelings they gain from large numbers of unwelcoming partakers and for not responding to immediately.

Conclusion

Students personally achieved the basic competences required to access SN applications by themselves or through friends. They open accounts for themselves, post photos or even video and audio, exchange messages, and build groups of interest. SQU, in turn, highlights the importance of these technological efforts to support students by the introduction of wireless connections, fully supported labs, and continued training programs, formally through classes and informally through student committees and activities.

What students lack is how to think critically regarding transforming their perspectives toward SN sites from merely social purposes to academic and social purposes. This will lead them to investing their time and skills for better academic communication and learning, as well as social communication. Eighty-three percent of the students, who register for moderate, wide-ranging, or completely controlled course by IT, reflects their willingness to establish systematically training courses about the use of SN for better academic communication and learning. On this matter, SQU needs to take more interactive role (through all colleges and departments) for creating a collaborative learning environment and constructing "communities of practice" among students, faculty, and other staff, rather than just wasting time on unproductive and fruitless communication. Communities that offer students the opportunity to gain and share in-class and out-of-class knowledge, to solve intricate studies and research problems, engage in collective learning, and share interests and other academic activities. As Parboosingh (2002) emphasized, it will be in more energetic and evolving academic team-gathering environments--by integrating SN technologies into learning environments, students will learn from each other, explore regulations from experiences where students at advanced levels can help beginners.

We must keep in mind that expressing ideas and thinking is no more limited to face-to-face communication and learning within the class time limits. Currently, the Internet offers students the opportunity to access the universal knowledge as the technology offers them a range of training and communicating implications, as well. Although many faculty members apply online learning through WebCT or Moodle (both are available through the University's server), for many of them, the use of such applications is merely sending e-mail messages or to post course syllabi, lectures, exams appointments, and notes. Students today need the opportunity to be involved in instructional experiences that effortlessly work in both face-to-face and online environments, leading group communication to solve problems or team project sharing, and actively participation in discussing matters or reflecting on matters when without time constraints. In conclusion, students of today need a blended learning environment and not merely a traditional environment restricted to an in-class or out-of-class environment.

According to trust and privacy concern, the results ensure that privacy is not that strong of a factor inhibiting SN applications as compared to other factors. This conclusion is similar to what Catherine Dwyer and Starr Roxanne Hiltz (2007) ended with in their comparison between two popular social networking sites, Facebook and MySpace. They suggested that "in online interaction, trust is not as necessary in the building of new relationships as it is in face to face encounters" (p. ?) They also state that in "an online site, the existence of trust and the willingness to share information do not automatically translate into new social interaction" (p. ?).

Formal education is recommended for students to gain a better understanding of the goals, purposes, and benefits behind such new communicational tools. Encouraging academic staff as well, is another realizable recommendation. This will lead directly to encouraging group academic communication in a way that will decrease students' fruitless computer usage. It will also extend their efforts to learning and problems solving rather than endless youthful social communication and achieve better utilization of the Internet and available technologies rather than wasting time and money in unproductive applications, which will eventually affect even their commitment to learning.

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