ARE STUDENTS REALLY INCORPORATING SOCIAL NETWORKING SITES IN THEIR LEARNING?[1]

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ABSTRACT

The objective of this study was to determine if business administration students at the Autonomous University of Baja California in Mexico are using social networking sites for collaborative learning among students and between teachers and students.

Participants included a random sample of 67 students between the ages 18 and 30. They were volunteers invited on line. A close-ended survey of 40 items was conducted. The survey was based on Khedo and collaborators' survey for measuring collaborative learning through online social networking[2]. For considering demographic information and main uses of the social networking sites, some items from the World Internet Project were adapted. It is worth mentioning that the survey considered the collaborative learning theory in its construction.

The results show that business administration students spend much time using social networking sites, mostly Facebook (75%) followed by YouTube (9.38%). They are using social networking sites for communicating with friends (37.50%) and communicating at school (28.13%). This communication seems to be helpful for creating team work (97%), to discuss class activities (68%) and exams (47%). Students considered that social networking sites provide tools for communicating (75%) and sharing photos, files or links with educational content (75%). Half of the students agreed that social networking sites have allowed be in contact with their teachers. This contact among teachers and students has basically been oriented to manage homework and assignments (45%).

In conclusion this study suggests that business administration students at the Autonomous University of Baja California seem using social networking sites, and social media for a collaborative learning. However, teachers are using these social networking sites only for evaluation purposes and this does not permit academic feedback between students and teachers.

Keywords: Social Networking Sites, Collaborative learning, CSCL.

INTRODUCTION

Computer supported collaborative learning[3] implies the collaborative learning and digital technologies (Leeuwen, Janssen, Erkens, and Brekelmans, 2013). Social networking sites[4] are platforms based on Internet infrastructure with a large number of users worldwide. Extensive use of social networking sites has allowed its introduction in many facets of daily basis. This introduction of the technologies of information and communication should be integrated into new paradigms in the educational context (UNESCO 2012). Technology plays an important role for significant knowledge in a world that is changing every day.

Social networking sites have been developed on Internet platform, they have been used largely for relaxing entertainment (Papacharissi and Mendelson, 2011), but they have a large potential for a better way to communicate, interact, and collaborate in learning environments (Gülbahar and Kalelioğlu, 2010).

Thus, computer supported collaborative learning has been studied widely in educational environments (Balakrishnan, 2014; Karakostas and Demetriadis, 2010) including distance learning (Haake and Pfister, 2010). Particularly, the interest of this research has been a better understanding of the collaboration among students (Pedro, Santos, Aresta and Almeida, 2015; Blum-Kulka and Dvir-Gvirsman, 2010; Yang and Chen, 2008), and collaboration among students and teachers (Zalyaeva and Solodkova, 2011).

Social networking sites provide a wide range of opportunities for peer collaboration and collaboration among teachers and students. Social networking sites have a large potential for shared learning in university students (Kirschner, and Gijsbert, 2013).

The purposes of this study have been: 1) to create a survey for identifying collaborative activities of the use of social networking sites by business administration students at the Autonomous University of Baja California, 2) to measure participant's collaborative action among students, and 3) to measure collaborative action among teachers and students.

For this study, business administration students were statistically assigned and asked through a close-ended survey about their uses of social networking sites. Results described self-perception and perception about how teachers have been using social networking sites as a CSCL.

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[3] CSCL
[4] SNS

FRAMEWORK

SOCIAL NETWORKING SITES IN EDUCATIONAL ENVIRONMENTS

Social Networking sites are defined as "Web-based services that allow individuals to (1) construct a public or semi-public profile within a closed 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" (Boyd and Ellison, 2007, 211).

Research about social networking sites in educational environments has demonstrated that social networking sites are acting as a support in the learning process (Santos & Camacho, 2014; Gülbahar and Kalelioğlu, 2010). Social networking sites allow cooperation between students but also a support for a better communication between students and teachers.

Social networking sites can be regarded as a platform allowing teachers and students to communicate and collaborate on school subjects and projects outside the classroom. "the majority of the students are using OSNs to communicate about schoolwork in an informal manner. (Khedo, Sheik, Elaheebocus, Mocktoolah and Suntoo, 2012, 911). This informal communication should be differenced between friendship and learning proposes (Othman, Suhaimi, Yusuf, Yusof and Mohamad, 2012).

Meanwhile, Loving and Ochoa (2010) observed that social networking sites such as Facebook improved the level of communication between instructors and students. Thus, Facebook may be useful in participative courses.

COLLABORATIVE LEARNING THEORY

Collaborative learning theory includes the early vision of Dewey about the role of education in the social interaction. Dewey considered that education sharing has an important impact in social reconstruction (1934), and "social interaction is particularly important for reaching shared understanding and construction of knowledge through social negotiation of views and meanings" (Kreijns, Kirschner and Vermeulen, 2013, 229).

When collaborative learning is supported by computer network it is widely called computer supported collaborative learning[5]. The CSCL environments "permit them to implement current insights in teaching and learning that rely on working, thinking and creating knowledge together" (Kirschner and Gijsbert, 2013, 3). Nonetheless, supported collaborative learning requires a big effort for allowing a real cooperation between students, and between teachers and students. The role of teacher becomes very important for this purpose.

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[5] CSCL

Computer Supported Collaborative Learning occurs when "learners learning together with the support of computers connected to each other via a computer network" (Kirschner and Gijsbert, 2013, 5). This collaborative learning depends on the technological possibilities of the software or digital application. Thus, "pedagogical and social support by means of tools, scripts, and scaffolding is dependent on the functionalities and restrictions of the technological possibilities of the CSCL environment".

Kirschner and Gijsbert (2013, 9) proposed a theoretical model for CSCL named 3 x 3 x 3 cube. This model includes three dimensions for conceptualizing and understanding CSCL applied to learning environments: Level of Learning: a) cognitive (task execution and regulation), b) social (group/team forming and coordination), and c) motivational (coping and regulation); Unit of Learning: a) individual, b) group/team, c) community; Pedagogical measures: a) interactive (argumentation, negotiation, communication, explication), b) representational (organization, structuring, awareness), c) guiding (scripting, scaffolding, instruction).

METHODOLOGY

This study used a quantitative method. The data for this study came from 67 business administration students who have answered an online survey. A statistical formula for a 1721 population was necessary for determining the sample. Graph 1 shows the sample formula considering 10% of sampling error, and 1.65 of confidence level, p and q = 0.5.

$$n= \frac{k^2 * p * q * N}{(e^2 * (N-1)) + k^2 * p * q}$$

Fig. 1 – Sample formula.

Using a formula when the population is known, this study made it possible to determine the number of students to solve the survey. The survey was sent to 180 students using an online platform.

Seventy students participated voluntarily in this study; however, three surveys were dismissed because they were unfinished. From the total of sixty-seven surveys considered for this study 44.78% of the participants were male ($n = 30$), and 55.22% were female ($n = 37$). The age average was 20.89 years old, 59.70% of the participants were between the ages 18-21; 32.84% were between the ages 22–25; 4.48% were between the ages 26-26, and 2.99% of the participants were between the ages of 30 and 31.

For creating the instrument it was necessary to follow three steps. First, questions were adapted from the Khedo et al, (2012) survey for collaborative learning using online social networking. Second, questions were adapted based on collaborative learning theory, and third, some questions were developed based on the World Internet Project (Cole, 2012) for considering demographic information and main social networking sites uses in the students.

The survey included forty close-ended questions. The questions developed in the survey included: a) demographic questions, b) main social networking sites used, c) frequency of use, d) educational uses of social networking sites, and, e) use for collaborative proposes with peers and teachers.

RESULTS

A descriptive analysis of data shows frequencies for each item. This analysis allowed a better understanding of social networking sites uses as a collaborative tool in educational environments.

Findings suggested that social networking sites have become an important media for students, how is shown in graph 1, 65 business administration students at the Autonomous University of Baja California spend much time daily using SNS. Only two students referred the use of SNS once a week.

Graph 1 – Frequency of use.
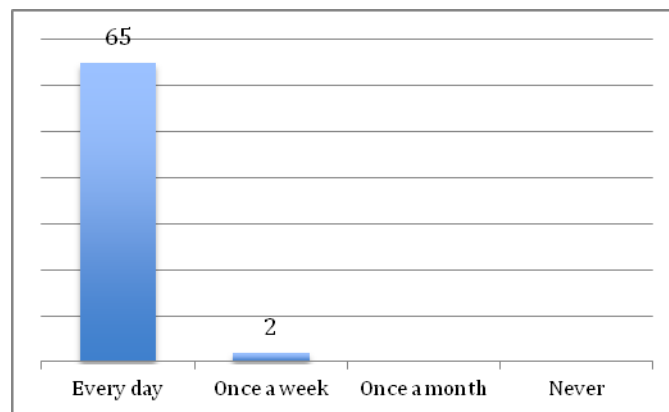
Source: Prepared by the author.

Meanwhile, business administration students follow the global tendency about the most preferred social networking site. Graph 2 shows Facebook as the favorite social networking site for students followed by Google+. Nevertheless, YouTube seems to be an important social media for students. These results are

consistent to the Competitive Intelligence Unit (2014). This report considered Facebook as the most important SNS for young people in Mexico, followed by Twitter and Google+.

Graph 2 – SNS Preferred.
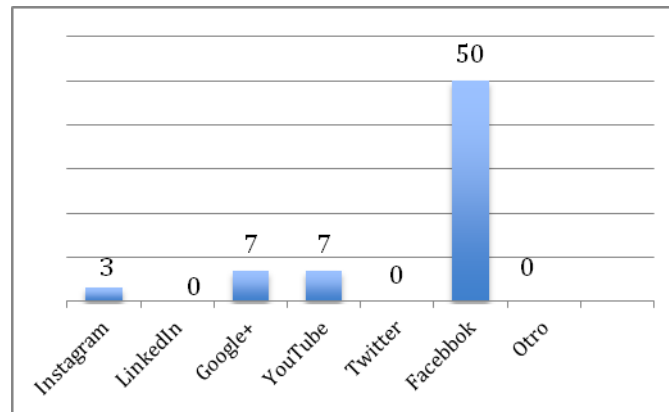
Source: Prepared by the author.

When asked the principal objectives of social networking sites for students, they answered that social networking sites are useful for communication with their friends, communication at school, and communication with their family. These results may indicate that communication through SNS helps interaction among students, as is shown in graph 3.
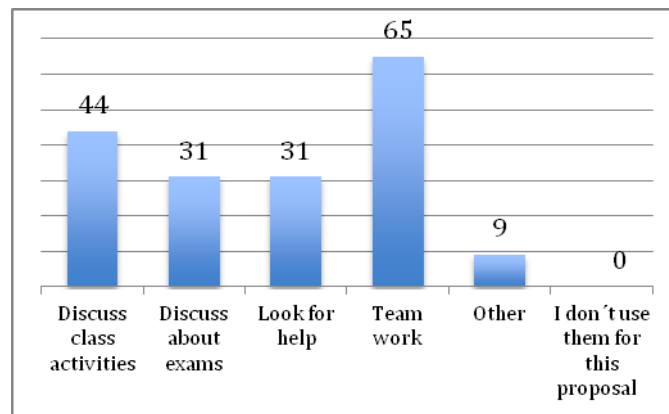
Graph 3 – Objective of use.
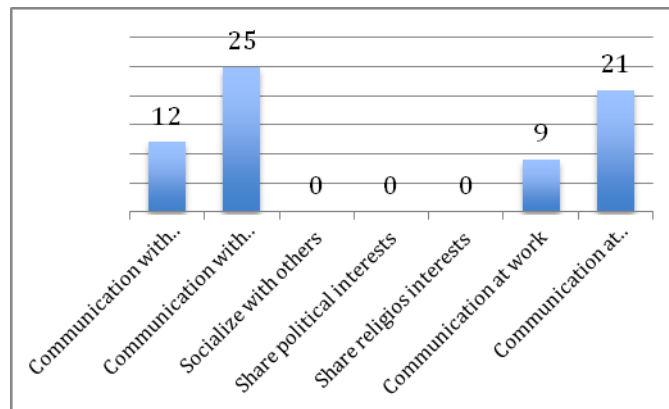
Source: Prepared by the author.

The students were asked about the objective of using SNS. This was a multiple-choice question. The students were allowed to choose more than one option. As is shown in graph 4, there exist activities that are permitting engagement in business administration students strongly related to educational topics. The most important activity for students surveyed was the creation of teamwork (65 students). This was followed by activities related to discuss class activities (44 students).
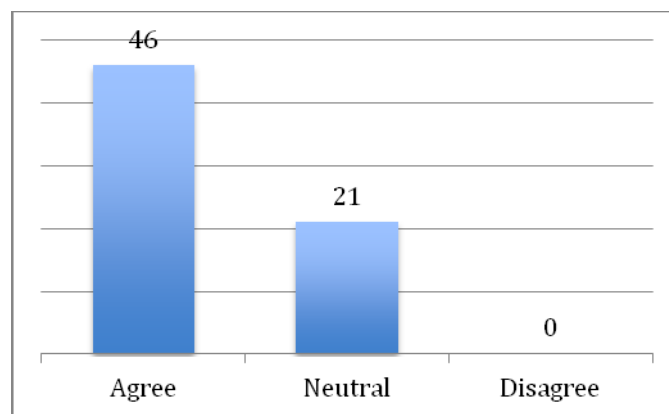
Graph 4 – Objective of use.

Source: Prepared by the author.

Students were asked to rate if they agreed or disagreed with the fact that social networking sites are contribuiting for developing their studies. How is shown in graph 5, most students agreed to a positive impact (46 students) while 21 students disagreed to this.

Graph 5 – SNS educational support.

Source: Prepared by the author.

Meanwhile, students were asked about the areas supported by SNS. This was a multiple-choice question. The students were allowed to choose more than one option. Social networking sites appear working as a communication tool among business administration students for uploading homework, followed by sharing photos, files, or links with educational content (50), and it seems being used as a communicational tool (50).
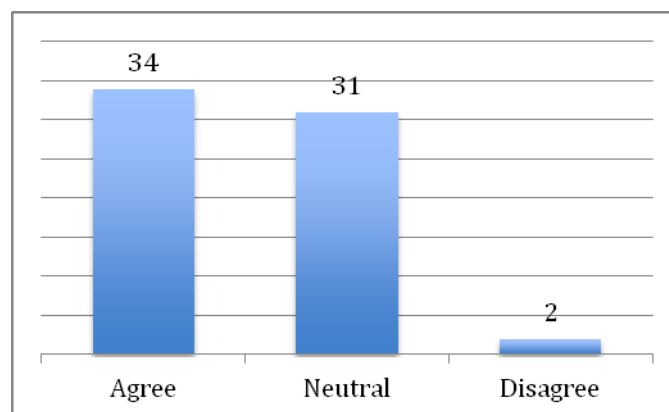
Graph 6 – SNS educational support areas.
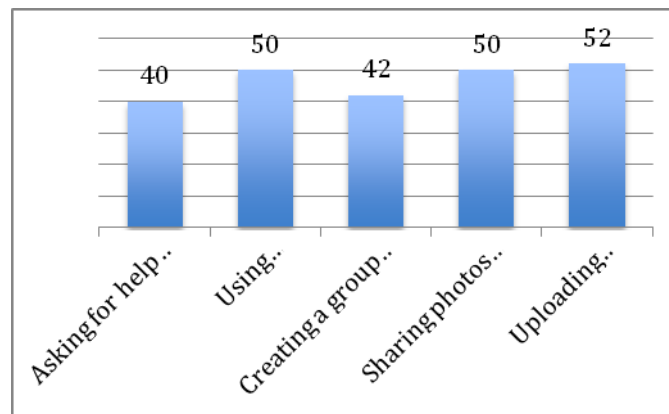
Source: Prepared by the author.

However, when students were asked if social networking sites have allowed the interaction between teachers and students 34 students agreed that social networking sites enable them to stay in touch with their teachers, even outside school hours.
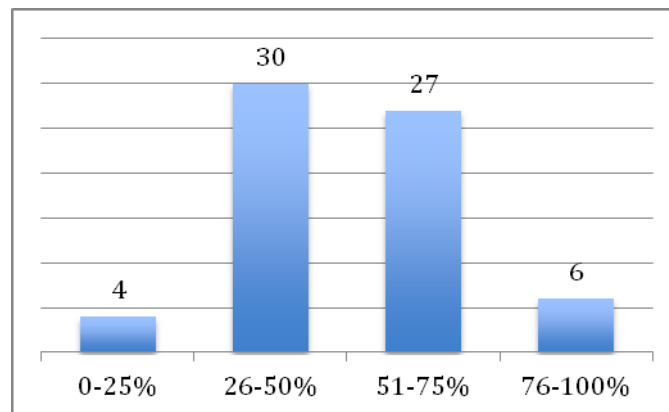
Graph 7 – Contacting teachers.

Source: Prepared by the author.

In respect of the use of SNS by teachers, 30 students referred that only between 26% and 50% of their teachers often use social networking sites for improvement of academic performance.

Graph 8 – SNS Use by teacher.

Source: Prepared by the author.

In a collaborative context the question was a multiple-choice question. Specifically students were asked how social networking sites are contributing for collaborative purposes at school. 54 students referred that communication becomes easier and the homework can be assigned by teachers and uploaded for the students (54).
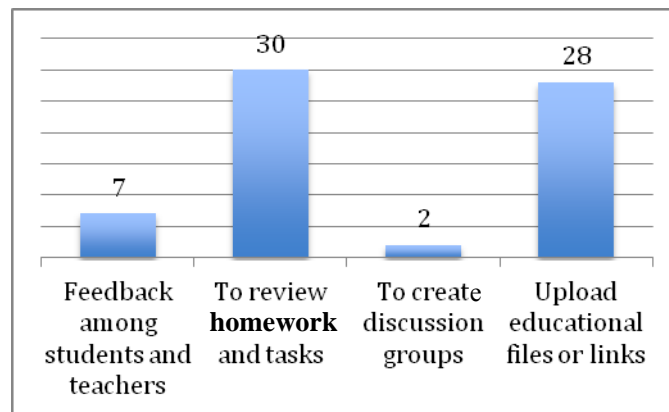
Graph 9 – Collaboration at school.
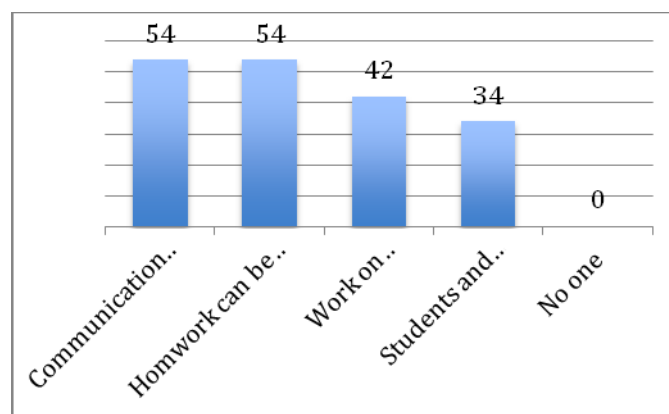
Source: Prepared by the author.

Last, collaboration among teachers and students is considered principally for reviewing homework and assignments followed for uploading educational files or links.

Graph 10 – Collaboration among teachers and students.

Source: Prepared by the author.

DISCUSSION

Social networking sites have been widely adopted by the business administration students. This information is according to the information provided for the World Internet Project[6] (Cole, 2012). Results from this project suggested the major use of Internet has been between ages 18 and 34. Facebook is the most important social networking site used by the business administration students. This information applies for the entire population in Mexico (AMIPICI, 2014).

On the other hand, not only social networking sites are working as a media for the collaboration in educational environments, social media such as YouTube has become an important platform for sharing information for educational purposes. (Competitive Intelligence Unit, 2013; Burges & Green, 2009). These social network sites have allowed the students to communicate with friends, and family (Cole, 2012), but also these sites seem to be useful for communication with partners at schools according with the research conducted by Blum-Kulka and Dvir-Gvirsman (2010). Social networking sites at school have allowed team work between business administration students through the discussion of activities and discussion about exams, contradicting results suggested by Khedo *et al.* (2012) where they found seeking help as the most important activity related with their studies. Social networking sites seem to be benefiting of a better academic

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[6] WIP

development in the students of business administration at the Autonomous University of Baja California how was proposed for Gülbahar and Kalelioğlu (2010). SNS, functioning as a CSCL, have allowed collaborative activities, which support the construction of knowledge (Kreijns, Kirschner, and Vermeulen, 2013) in the educational environments, including contacting with teachers. Nonetheless, this contact with teachers is not clear to be a collaborative contact, teachers opposite to partners, seem to be using SNS to facilitate traditional activities like management of homework but not to provide feedback with the students (Khedo, Sheik, Elaheebocus, Mocktoolah and Suntoo, 2012).

This research has parallel findings to Kirschner and Gijsbert (2013) model $3 \times 3 \times 3$ cube in the level of learning, oriented to social topics (group/team forming and coordination), and unit of learning (group team). Social networking sites seem important for creating team groups and sharing educational information among students. However, social networking sites are suggested as an important media in pedagogical measures related to representational topics (organization, structuring, awareness)   for uploading and measuring homework and assignments. This argumentation is supported by some researches about the positive impact of using social networking sites in educational environments (Koh, & Kim, 2004; Gülbahar and Kalelioğlu, 2010; Kirschner and Gijsbert, 2013). Collaborative learning through social networking sites has a positive impact in the learning process because as LaContora and Mendonça (2003, p.395) consider "members may continue to participate in a virtual community not solely to search for information about a particular topic area, but also to maintain long-term relationships". Thus, the study of the positive impact of the Computer supported collaborative learning could help to develop new methods where teachers and students effectively built ties for a better learning process in higher education students.

CONCLUSION

The business administration students at the Autonomous University of Baja California commonly use social networking sites to communicate with friends, family and partners. This media has allowed extend to improve learning. In educational environments Facebook and YouTube are important platforms to discuss activities, discuss exams and widely used to create team work among students. This interaction between students is facilitated for the communication tools contained in social networking sites, tools that permit a better sharing of photos, files, links and videos for developing academic learning.

However, this interaction facilitated for social networking sites seems not to be common in the teachers. Even if SNS have been used for 26–75% of the teachers in an educational environment, students referred often they use the SNS exclusively for reviewing homework and assignments. Autonomous University of Baja California's teachers do not use SNS in the same way the students do.

Even though students are starting to use SNS as a collaborative tool in educational environments this does not mean that a deep collaboration between students is occurring yet. Teachers have accepted the social networking sites as a tool for developing learning but it is necessary a better understanding of the potential of SNS and its role in the academic performance. Activities like improving discussion among students and between teachers and students are examples of activities for creating a proof collaboration work oriented to learning development.

For a better understanding about the role of the social networking sites in educational environments, this study recommends to use a larger sample including different undergraduate careers, and identify the main differences among male an females students. Also this study recommends a multicultural comparison of the role of the social networking sites as a collaborative platform.

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