Review on Social Network Sites for Teaching and Learning

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Abstract—The emergence of social network sites has revolutionized communication tools for facilitating teaching and learning activities. There is little research regarding the adoption of SNSs in teaching and learning activities. In this paper the wide range definitions of social network that can be categorized as informal and formal social network sites in educational system and different models of social networks sites in higher education is reviewed. Also a comprehensive review of social network sites in which has been used in higher education based on their major goals is discussed. In addition some models that mostly are used for adoption of social network are review accordingly. Many studies have done on the effectiveness of social network sites as instruments of teaching and learning for perceived learning and its impact on ease of use of blended learning for instructors and students to figure out the SNS benefit in educational perspective. The main contribution of this paper is to find the gap of knowledge in adoption of social network sites in teaching and learning process in formal sites that can efficiency applied in educational system and provides direction for subsequences researches and as a guideline for future research in social network sites in education.

Keywords- Social Network Sites; Social Network Sites Formal; Informal; Adoption; blended learning

1. INTRODUCTION

In recent years, social networking has become one of the most significant communication tools among people; in which exist through the Internet that provides accessibility for tremendous amount of people. Applying SNSs in teaching and learning offer a positive impact on the adoption of SNSs and open the door to the new days of learning and teaching. Social network mainly is focused on identity, network infrastructure, privacy concern, technological issues, and necessitation of its use as a tool for teaching and learning [19]; [21]. Research on SNS is still rather limited generally [23], and in academia in particular. However, the growing need of research on social networks and their utilization may assist account holders in using them more effectively. However, the growing need for research on social networks and their utilization may assist account holders in using them more effectively. However, the growing need for research on social networks and their utilization may assist account holders in using them more effectively. However, the growing need for research on social networks and their utilization may assist account holders in using them more effectively. This essay goal is to review contribution of social network in blended learning and advantages for students and lecturers. In this essence, the classification and review is based on before and after adoption of social network among students and lecturers. The main achievement of this research is provide comprehensive review about social network site in education and figure out more opportunities for future improvement in this process.

2. LITERATURE REVIEW

Generally, social network sites can be categorized into formal and informal category. Formal mostly is used education activity but Informal can be used for both educational and social.

A. Social Network Sites definition

Social network are applications that sustain eagerness in spaces to share interest via common resources for sharing, communications, collaborations and having interactions. Providing aforementioned characteristics for educational social networks unquestionably can appropriately build learning environments in the academic world [30]. Defined Social networking sites as, “a web-based services that 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. The nature and nomenclature of these connections may vary from site to site” [9].

The first Social Network Site (SNS) was launched in 1997. Beginning in 1998 used SixDegrees.com allows create a profile, list of friends and surfing the friends lists. Many of communities, from 1997 to 2001, SNSs began to support different range of profiles and publicly of friends. Using AsianAvenue, BlackPlanet, and MiGente permitted users to create a professional, personal, and dating profile. Users could recognize their friend’s personal profile without looking for approval...
from those connections (O. Wasow, personal communication, August 16, 2007). LiveJournal was listed in 1999 from one directional connection on the user page. LunarStorm the Swedish web community refashioned itself as a social networking in 2000. Likewise contained friend lists, diary pages, and guest books (D. Skog, personal communication, September 24, 2007). In 2001, Ryze.com was launched next appearance of SNSs to help people leverage their business networks.

The Friendster was launched in 2002 and it is tightly entwined personally and professionally. They can support each other without competing [11]. A number of new SNSs were launched in from 2003 which is lead to social software analyst ClayShirky (2003) on the other hand, the term YASNS: “Yet Another Social Networking Service.” Replacing the early success of Friendster, centric profile, and target specific demographics were the achievements of the sites such as LinkedIn, Visible Path, and Xing (formerly openBC), which was focus on business people.

In 2004, teenagers began to join MySpace, but unlikely older users, most teens, were never used Friendster. Teens encourage their friends to signing up. People noticed that the site grew popularity; therefore, three distinct populations began to join such as musicians/artists, teenagers, and the post-college urban social crowd. Facebook expanded among high school students; professionals inside corporate networks, and, eventually, everyone in began of September 2005. The Facebook user unable to make the profile that is public to all users, but the other SNSs have had this facility. Last but not list, the wishes for those who wants to create a niche social network site become true on Ning, a platform and hosting service that encourages users to create their own SNSs.

B. Formal Social Network Sites

Recent attention of students to social networks brings a privacy and safety concern in educational environment [4]. The appearance of social networks that are focused on teaching and learning like Ning, Elgg and Edmodo give an opportunity to students and lecturers to minimize the privacy and safety concerns [19]. The following section considered the current study the formal SNSs in higher education.

Finding these study showed that students were quite satisfied by using Elgg in their respective courses. 60% of people reported being satisfied or strongly satisfied using Elgg in their course, while only 10% reported having a negative experience. This research use questionnaire included a number of additional questions constructed to measure social networking, learning, and technology acceptance [14]. Another study focus on both instructors and student in order to identify the advantage of using Ning for educational purposes. They purpose that education- based Social Network Sites can effectively use for distance education in order to improving online communication for student and lecturers who physically remote [4]. According to [26] make use of Edmodo as a kind of platform for social network intervention as a support of learning management system for the enhancement of social presence in relation to perceived learning and satisfaction with the instructor in blended learning. The study of using another social network educational site such as Edmodo for discussion between students emerged that the influence of instructor characteristics on student characteristics is not counted into account [16]. After that [31] claimed that Edmodo provides a secure learning environment for both student and instructors for teaching and learning.

C. Informal Social Network Sites in Higher Education

Before outlining the finding of the present study, some context will be provided in the form of a brief review of the major academic literature on this topic. There is potential applications social network (SN) for teaching and learning such as Facebook, twitter, microblogging, and blogging. [10] Described a project that involved a cohort of business education students who used a Facebook group page as a support tool during their teaching practicum placements. Investigate the role of social networks in computer science education. This paper demonstrates the social dimensions of a collaborative learning network, its formation, its presence and its influence on different social networks in education. It also mentioned are the effects of a new generation of web-based software development, known as Web 2.0, in learning and social networks [24]. Lockyer & Patterson provide a case study in 2008 that explore the potential of web 2.0 social networking technologies to enhance formal learning context such as Flickr. Flickr as social network is used for communication and collaboration in education.

In 2009, John & Jason explored the potential perceptions of social networking systems in university courses through distribute questionnaire among students. With regard to use of the Facebook social networking site, a large majority (95.5%) of respondents indicated that they used Facebook either daily, or multiple times each day. Only one participant reported not using Facebook at all. [3] This study showed the potential positive benefits of using Facebook in teaching and learning. And also were conducted qualitative interviews among 50 undergraduate students and five lecturers currently engaging with their students via Facebook. Indicate that SNS are seen as potentially beneficial for universities and colleges in Israel. It identifies activity patterns, content patterns, and interactivity in these institutes' Facebook and Twitter accounts. [20] With survey carried out among students in Mauritius reported that Mauritian students who are spending much of their time on such sites are currently massively using OSN sites. Moreover, the majority of the students are using OSNs to communicate in school work in an informal manner [13]. [1] This study investigated the influence on college students in using smartphones to access social networking sites. One of the more significant findings that emerged from this study was that the majority of students are members of some sort of social networking site. Most of them are using social networks for research, entertainment, and
obtaining other explanatory materials related to their courses. In addition, this study utilized surveys taken among university students. A questionnaire was distributed among 179 students at different universities and higher education institutes in the Sultanate of Oman in order to explore the influence of social networking on college students by using their smartphones.

Determine the possible factors that effect social network usage in the educational context by the students’ adoption of these technologies [27]. Social networks affect interaction positively between students-teacher and students-students by creating more cordial environments. This study mentioned some social network for interaction such as podcasting, Skype), photo (Flickr) and video (vodcasting, YouTube, Stickam) capabilities and provide engaging two-way experiences for users. [5]; [34] both study driving factors, which encourage or discourage student from using Social Network like Facebook for educational purposes. [29] This paper proposes to investigate factors for successful use of social networking sites in higher educational institutions. These success factors need to be adopted by users in order to develop the positive aspects of social networking, while at the same time mitigating the negative characteristics. The factors enable users to overcome the negative characteristics associated with social networking sites. This research explored the use of Facebook in educational institutions culminating in the production of a set of factors for successful use of SNSs in such educational institutions. The obtained findings revealed that a course supported with Facebook provided students with a number of benefits such as increasing sharing and cooperation, strengthening communication between student-student and between student-faculty member, visualizing the content, drawing the attention and increasing the students’ interest in the course and that were with negative thoughts about these subjects. A total of 30 participants took part in the study. The participants frequency of Facebook use was ‘often everyday’ with a rate of 40% (12 participants), ‘sometimes everyday’ with a rate of 27% (8 participants), ‘a few times a week’ with a rate of 20% (6 participants) and ‘a few times a month’ with a rate of 13% (4 participants) [35].

3. DIFFERENT MODELS USING SOCIAL NETWORK SITES IN HIGHER EDUCATION

A. Technology Acceptance Model in Adoption Social Network Site

When using Social Network Sites (SNSs) such as Facebook, users experience enjoyment, which positively influences on their Behavioral Intention to Use them. Carried out a study on why a few social networking sites (SNSs) succeed, while many others fail. Using TAM only might not describe what happens in consumer communities. They find a positive effect on Facebook; in line with previous studies, we reveal the importance of this factor for bringing users together and activating inactive users [17]. After them Peter.,et al (2013) surveyed students from a German university attending an Introduction to computer science course, resulting in a sample size of 415 complete questionnaires and proposed that Perceived Enjoyment and Perceived Usefulness significantly influence factors of behavioral intention to use SNS based on TAM theory exhibited in figure 1.

![FIGURE 1: Technology-Acceptance-Model](image-url)
B. Adoption of Facebook using TAM and TRA Theory

Since social networking sites (SNSs) such as Facebook have attracted millions of users, many of whom have integrated these sites into their daily practices. [27] Find that attitude and social norm has the most significant influence on behavioral intention to use Facebook by Tunisian students’ based on investigation both theory of TRA (Theory of Reasoned Action) and TAM (Technology acceptance model) figure 2 shows the proposed research model for adoption of Facebook.

![Figure 2: The proposed research model for Adoption of Facebook](image)

C. Social Network Application Successful by IS (Information System) Model

Empirically examine how individual characteristics affect actual user acceptance of social network services. The results imply that administrators or operators of social network services should provide more realistic content so that the users may feel adequate levels of telepresence [22]. In contrast to other researchers [28] went one step further and proposed fourth dimension networking, quality contribution to SNA success. They proposed a causal model to assess the success of SNA for example information System (IS) success Model. The results show that Twitter provides a quality social networking platform on the use and user satisfaction in figure 3 the research model of social network services can be seen.

![Figure 3: The research model of social network service acceptance.](image)
D. Use of Social Network by Task-Technology Fit and Social technical gap

Develop a theoretical model of Task-Technology fit and Social Technical that contains three independent variables—internet privacy concern, trust in the social networking sites, and trust in other members of the social networking sites. They relate these independent variables to two outcomes—information sharing and the development of new relationships. It is widely held that when college students find an online site that cares about the privacy of their information, they will trust this site and will interact with other members comfortably. Under these circumstances, students will share their information with others, which will encourage the development of new relationships. As a result, trusting a particular source of information will result in facilitating the ‘choice’ issues. Thus, students will search for a trustworthy site so that they can decide with confidence which information they would be selected [7] figure 4 shows this concept graphically.

FIGURE 4: Research Model for analysis of social requirements and social networking sites

4. SUMMARY OF LITRUTURE REVIEW AND MODELS

There are numerous researcher regards of social network however mostly concentrates on Informal social network site for educational purposes and its applications in applying and perceive its advantages in educational perspectives. In this research the benefits of social network for process of teaching and learning reviewed and find the lack of use of formal social network site in this case. The findings from this study confirm the results of previous studies [14]; [4] that establish the educational benefits of adopting educational social networks. The use of SNS in teaching and learning has been supported by previous researchers who have highlighted the advantages of participatory technologies in higher education settings [6]; [33]. Base on this review there are a few study is done on advantages of formal social network platform such as Edmodo for educational purposes. Also there is still some formal social network which is not completely investigated for improvement of educational purposes. Most of the studies considered attitude and behaviour as the main factors for adoption of social network [2]; [12]; [32]. Through our best of knowledge there is no any publication regards of task and technology which is vitally significant for adoption of SNS. In addition there are not any research is done for adoption of social network that use theory Of TTF for adoption of social network which van cover widespread factors and students and lecturers requirement in educational activates. “TTF theory focuses on a technology provides features and support that fit the requirement of a task.”
[15] stated the importance of both task and technology to be fitted in order for success of information system and mentioned that appropriately fit task and technology causes good level of performance via good level of intention to use of technology.

5. CONCLUSION

Social networks are applications that support enthusiasm in a common space around sharing interests, collaborations, resource sharing, communications and interactions. The evidence is growing that the use of SNSs in education can be useful in blended learning. The aims of this study are to review previous studies on educational social networks. Social network sites can be categorized into two main categories, which is formal and informal. It is important to redefine the precinct of informal and formal education. Informal learning is different from formal learning because it is unplanned and involuntary where information happens in an implicit way. Most of the researches have been done on informal sites. Based on our best of knowledge there is few studies related to formal education sites. Moreover, in this study the most popular model for adoption of social network education is reviewed and discussed. Meanwhile, based on literature the most of cited model TAM for adoption of social network is TAM; even though a few researches is done through the TTF for adoption of social network for education.

ACKNOWLEDGMENT

I would like to express my deepest appreciation to all those who provided me the possibility to complete this report especially my supervisor Dr. Noorminshah A.Iahad which her enthusiasm and endeavors to motivate me has great contribution to this work.

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