



Research Report

An exploration of the potential educational value of Facebook

Bin-Shyan Jong^{a,1}, Chien-Hung Lai^{a,*}, Yen-Teh Hsia^{a,1}, Tsong-Wuu Lin^{b,2}, Yu-Syuan Liao^{a,3}^a Department of Information & Computer Engineering, Chung Yuan Christian University, No. 200, Chung Pei Rd., Chung Li 32023, Taiwan^b Department of Computer Science and Information Management, Soochow University, No. 56, Kueiyang St. Sec. 1, Taipei 100, Taiwan

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ABSTRACT

Current research on Facebook use suggests that students primarily use it to enhance social connectedness, but seldom for educational purposes. The aim of this study is to respond to the three following questions: (1) Is there a potential educational value in using Facebook? (2) If so, how does Facebook's educational value compare with its other known values? (3) How does the educational utility of Facebook compare with that of other social mediums available on the Internet, such as the bulletin board system (BBS)? A total of 387 subjects voluntarily participated in an anonymous online survey. These subjects were questioned about their use of Facebook, BBS platforms, and e-learning platforms. There were three major new findings. Firstly, 81% of subjects had discussed course-related problems with their peers on Facebook. Secondly, in relation to the six known motives for using Facebook, peer discussion of educational matters was considered to be the fourth most important in this survey. Lastly, Facebook does not satisfy users' occasional need to review or browse through past communication records; BBS fares much better in this regard.

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1. Introduction

Barnes (1954) was perhaps the first to use the term “social network” to denote the social relations existing among individuals and groups as well as the social structures originating from such relations, whether simple encounters or intimate relationships. A social network service is a virtual community formed on a computer network by a group of people with a common interest. In the early days of the Internet, social networks were essentially bulletin board systems (BBS) and personal websites (Lin, 2002), with the use of discussion areas and email exchanges being the main forms of communication. Since this only facilitated a kind of asynchronous communication, users of such networks could not immediately learn about others' most recent activities on the network. This then prompted the development of chat rooms and instant message services, and many people started to use network chatting and instant messaging software to meet friends online; this in turn made the concept of online friends a very popular idea. With the arrival of Web 2.0, blogs became popular. Blog owners can easily express their feelings at any time and share it with visitors to the

blog. With Web 2.0, interaction and sharing became the main streams of thoughts in social networks. There is no longer any need for a user to write long and tedious blogs; instead, micro-blogs can be written to inform friends about the user's most recent status and activities.

Established in 2004, Facebook is the most popular social network nowadays. According to Alexa traffic rank statistics (Alexa, 2012), Facebook ranks among the top five websites in the world. This popularity has thus led to Facebook being a significant research topic. A 2012 survey (InsightXplorer Monthly Chinese Report, 2012) indicated that Facebook was the most visited website among Taiwanese young people aged between 12 and 22 years; this suggests that Facebook is thus very popular among university students in Taiwan. In addition, according to the website www.checkfacebook.com (2012), there are 800 million Facebook users worldwide, with more than 10 million living in Taiwan. In addition to its standard services, such as sharing photos, information, and videos, Facebook also offers functionalities such as searching for friends, chatting online, establishing groups, and playing games (Facebook Statistics, 2008). Facebook users are especially satisfied with the “wall” function. A Facebook wall combines a bulletin board with a discussion board; it offers the functionalities of micro-blogs, making it possible for users to conveniently post information and disperse it quickly among friends (Joinson, 2008). In 2006, Facebook started to permit third parties to provide application program interfaces (APIs), which allow applications to run on Facebook and in turn help it to become

* Corresponding author. Tel.: +886 3 265 4717; fax: +886 3 265 4751.

E-mail addresses: bsjong@ice.cycu.edu.tw (B.-S. Jong), soulwind@cycu.org.tw (C.-H. Lai), hsia.yenteh@gmail.com (Y.-T. Hsia), twlin@csim.scu.edu.tw (T.-W. Lin), liao@cg.ice.cycu.edu.tw (Y.-S. Liao).¹ Tel.: +886 3 265 4717; fax: +886 3 265 4751.² Tel.: +886 2 2311 531x3807; fax: +886 2 2375 6878.³ Tel.: +886 3 265 4717; fax: +886 3 265 4751.

the fastest growing website in the world. APIs can be designed to provide basic user data, which allows API developers to know more about their users.

The manner in which Facebook operates can greatly increase the speed by which users obtain new information. This helps them to solve problems in a more efficient way, which may in turn help to improve the learning performance of students. Compared with traditional e-learning platforms, it is also easier to obtain user statistics on Facebook. Therefore, researchers have begun to study why students use Facebook, how its use influences students, and what students think about it (Hew, 2011).

Most Facebook users spend between 10 min and 1 h on Facebook each day (Christofides, Muise, & Desmarais, 2009; Muise, Christofides, & Desmarais, 2009; Ross et al., 2009; Valenzuela, Park, & Kee, 2009). They mainly use it to maintain pre-established relationships (Bosch, 2009; Lewis & West, 2009; Pempek, Yermolayeva, & Calvert 2009; Tosun, 2012; Young & Quan-Haase, 2009). When people gradually “move away” from one another in real life, they can use Facebook to stay in touch and maintain their relationship (Ellison, Steinfield, & Lampe, 2007). Most students use Facebook because they find it amusing, as well as livelier and easier to use compared to other social networks (Lewis & West, 2009). In general, there seems to be no negative effects of using Facebook, and its contents seldom involve alcohol or drug use, or pornographic pictures (Kolek & Saunders, 2008). Even though most users use it every day, their personalities are unaffected by the number of their online friends or the time spent on the social network (Ross et al., 2009).

As Facebook usage increases, the issue of privacy comes into focus. While users can quickly and conveniently learn about the most recent activities and status of others, some are concerned about the disclosure of private information. For this reason, more than half of users change the default privacy settings (Gross & Acquisti, 2005) and only allow their Facebook friends to view their private information (Pempek et al., 2009). In addition, female users are more concerned about privacy settings than their male counterparts (Lewis, Kaufman, & Christakis, 2008).

Sheldon (2008) conducted a survey of 172 college students and used principal component analysis to analyze their responses to 26 questionnaire items. Using this methodology, Sheldon identified six motives for using Facebook: relationship maintenance, passing time, virtual community, entertainment, coolness, and companionship. Interestingly, education was not one of these motives. However, this is not in disagreement with the findings obtained in other studies. For example, Pempek et al. (2009) found that only 2.17% of surveyed students (2 out of 92) tried to find help for their schoolwork on Facebook. Madge, Meek, Wellens, and Hooley (2009) found that only 10% of students (31 out of 312) used Facebook to discuss academic work with their peers, while the majority (91%) never communicated with academic staff on Facebook, which is supported by Ophus and Abbitt (2009) who found that 85.5% of 110 students were not in contact with academic staff on the social network. For these and other reasons, Hew (2011) concluded, “Facebook thus far has very little educational use” (p. 668) in his research overview of the use of Facebook by students and teachers. He also conducted a questionnaire survey among 83 Singapore students, finding that “no respondent reported using Facebook for educational purposes” (Hew & Cheung, 2012, p. 181).

Given that Facebook is exceedingly popular for discussing issues among friends, it is only natural to expect that students eventually will use Facebook to discuss course-related materials with their peers, teaching assistants, or even instructors. However, it is also possible that Facebook is not entirely suitable for such purposes. Therefore, as an initial exploration, this research attempts to respond to the following three questions:

- (1) Is there a potential educational value in using Facebook?
- (2) If so, how does Facebook’s educational value compare with the six values (i.e., relationship maintenance, passing time, virtual community, entertainment, coolness, and companionship) as identified by Sheldon (2008)?
- (3) How is the educational utility of Facebook compared with that of other social mediums available on the Internet, such as the BBS?

Researchers have already investigated the issue of how Facebook may be used to help students learn more effectively. For example, DeSchryver, Mishra, Koehleer, and Francis (2009) studied its use in discussing course-related materials. In terms of its use in courses, Larue (2012) not only used Facebook for class discussions, but also tried to employ it for course management; Irwin, Ball, Desbrow, and Leveritt (2012) also developed Facebook pages for four courses and then used them for blended learning. Finally, Mazer, Murphy, and Simmonds (2007) studied how the high, medium, and low self-disclosure of instructors on Facebook might affect their credibility as perceived by the students taking the course. These studies explored the issue of how Facebook may be beneficially incorporated into a course. However, no attempt has been made to compare its educational value with the six values identified by Sheldon (2008) or to contrast its educational utility with that of the BBS.

The remainder of this paper is organized as follows. Section 2 describes the methods used in conducting a questionnaire survey. Section 3 presents the questionnaire items, the survey results, and explanations of the subjects’ responses. Section 4 includes the discussion, while Section 5 presents the conclusions of the study.

2. Method

2.1. Overview

To respond to the three research questions, an anonymous online questionnaire survey was conducted to investigate how Facebook, BBS platforms, and e-learning platforms are used for learning purposes and identify users’ experiences of them. The questionnaire included 28 items, as shown in Table 1. These items related to (1) the convenience of sharing educational resources, (2) timeliness of posting publications, and (3) functionalities for reading or browsing through articles and interacting with virtual community members. To help subjects better understand the meaning of the questionnaire items, explanations of the three platforms were given at the start.

2.2. Participants

The questionnaire was posted on Facebook and the “PTT Workshop of the National Taiwan University,” an exceedingly popular BBS with tens of thousands of registered users. Users of these two sites were invited to fill out the questionnaire. Students enrolled in the department of Information and Computer Engineering (ICE) of Chung Yuan Christian University (CYCU) were particularly encouraged to visit the Facebook page containing the questionnaire. As a result, a total of 387 subjects participated in the survey.

Nowadays, very few academic institutions in Taiwan still use the BBS for course purposes. Therefore, by examining the responses to the question on whether students’ course used a BBS as a learning platform, it was estimated that about half of the subjects were enrolled in the ICE department of CYCU. Several courses offered by the department use a BBS or e-learning platform (LearnBank, 2007) to facilitate learning. Therefore, these students were familiar with the use of both learning platforms. The

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