

Social Networking in E-Learning Environments

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INTRODUCTION

This analysis examines how social networking applications such as Facebook, Twitter, Ning, and other popular so-called “member communities” are utilized in online learning environments. This review is broken into several sections, including the following:

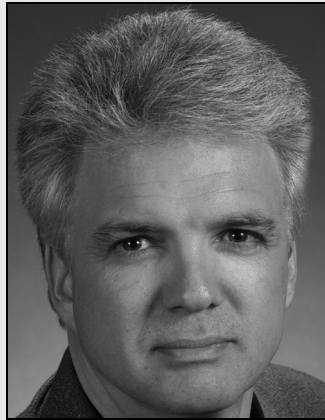
- an analysis of contemporary social network applications, including an evolutionary overview;
- an analysis of current utilization metrics;

- an analysis of how such applications are utilized in online and traditional environments; and
- a literature review of social networks used in various learning environments.

BRIEF HISTORY OF SOCIAL NETWORKING

Interestingly, social networking is still very much in its Internet infancy, yet evolving at a breathtaking pace. Research varies as to the first officially recognized social network member site. Some research suggests that Friendster.com and sixdegrees.com, both launched in 1997, were two of the first social networks (Dwyer, Hiltz, & Widmeyer, 2008). Friendster.com still operates; however, sixdegrees.com ceased operation in 2000. Despite these claims, classmates.com, launched in 1995, may actually be the very first social network (Classmates.com, 2009). Classmates.com still operates and has spawned a host of copycat websites that cater to reuniting students.

Despite this awkward, nearly silent introduction of so-called “social” or “member networks,” this segment of the Internet is now growing three times the rate of overall Internet (Nielsen, 2009). According to Nielsen’s Netratings (2006), social networking sites are growing at the rate of 47% annually, reaching 45% of total web users. Social networking and blogging are now the fourth most popular online activities, according to Nielsen’s *Global Faces and Networked Places* report (2009). More than 67% of the global online population now



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regularly visit a social network site and this sector accounts for 10% of all Internet time (Germany, Switzerland, Great Britain, and Italy are among the fastest growing segments). Social networks and blogs are now the fourth most popular online category—ahead of personal e-mail. Now loosely defined as “member sites,” they collectively account for one in every 11 minutes online. Orkut.com in Brazil (operated by Google) actually has the largest domestic online reach (70%) of any social network anywhere in the world, whereas Facebook has the highest average time per visitor among the 75 most popular brands online worldwide. However, the amount of time spent on Facebook.com increased by more than 566% in one year alone (Nielsen, 2009). The stock value of these companies reflects their stratospheric growth. Recent reports at mashable.com now value Facebook.com at more than 6.5 billion—more than CBS (Ostrow, 2009).

SOCIAL NETWORKING DEFINED

Boyd and Ellison (2007) define social networks as “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” (p. 2). According to the Wharton School of Business ((Knowledge@Wharton, 2008), as of October 2008 social networks impacted more than 230 million people worldwide. Kazeniac (2009) reports that Facebook.com now leads all other social networking sites in terms of number of users and visits per month (see Table 1).

SOCIAL NETWORKING IN EDUCATION

Steve Hargadon (<http://www.stevéhargadon.com/>) sponsors a blog that investigates

the use of social networking entitled *Social Networking in Education* (<http://socialnetworksined.wikispaces.com>). In that blog, Hargadon describes several interesting uses of social networking tools in education. Keep in mind that these descriptions are not necessarily limited to traditional educational delivery methodologies, but can traverse into the strata of elearning.

According the 2007 report from the National School Boards Association entitled *Creating and Connecting: Research and Guidelines on Social and Educational Networking*, some interesting data emerges regarding social networks and online students:

Message posting:

- 59% of online students say they discuss education related topics, including college or college planning; learning outside of school; news; careers or jobs; politics, ideas, religion or morals; and school work;
- 50% of online students say they talk specifically about schoolwork;
- 21% say they post comments on message boards every day (7% in 2002); and
- 41% say they post comments once weekly (17% in 2002).

Music sharing:

- 32% of online students say they download music or audio that other users uploaded at least once a week;
- 29% of online students upload third party music or audio themselves; and
- 12% of online students say they upload music or podcasts of their own creation at least weekly.

Video sharing:

- 30% of online students download and view videos uploaded by other users at least once weekly;
- 9% upload videos of their own creation once weekly; and

Table 1. Social Networking Sites

Rank	Site	Number Users	Monthly Visits	Previous Rank
1	Facebook.com	68,557,534	1,191,373,339	2
2	Myspace.com	58,555,800	810,153,536	1
3	Twitter.com	5,979,052	54,218,731	22
4	Flixster.com	7,645,423	53,389,974	16
5	Linkedin.com	11,274,160	42,744,438	9
6	Tagged.com	4,448,915	39,630,927	10
7	Classmates.com	17,296,524	35,219,210	3
8	Myyearbook.com	3,312,898	33,121,821	4
9	Livejournal.com	4,720,720	25,221,354	6
10	Imeem.com	9,047,491	22,993,608	13
11	Reunion.com	13,704,990	20,278,100	11
12	Ning.com	5,673,549	19,511,682	23
13	Blackplanet.com	1,530,329	10,173,342	7
14	Bebo.com	2,997,929	9,849,137	5
15	Hi5.com	2,398,323	9,416,265	8
16	Yuku.com	1,317,551	9,358,966	21
17	Cafemom.com	1,647,336	8,586,261	19
18	Friendster.com	1,568,439	7,279,050	14
19	Xanga.com	1,831,376	7,009,577	20
20	360.yahoo.com	1,499,057	5,199,702	12
21	Orkut.com	494,464	5,199,702	15
22	Urbanchat.com	329,041	2,961,250	24
23	Fubar.com	452,090	2,170,315	17
24	Asiantown.net	81,245	1,118,245	25
25	Tickle.com	96,155	109,492	18

- 22% have uploaded videos they've created at some point.

- 25% update their personal website weekly (up from 12% in 2002).

Photo sharing:

Blogs:

- 24% of online students post photos of art created by others at least once weekly;
- 22% post photos or art of their own creation; and
- 50% have uploaded photos or artwork at some point.

- 17% of online students add content to blogs at least weekly; and
- 30% have their own blogs (up from nearly 0% in 2002).

Creating content:

Site building:

- 12% of online students have updated a personal website or online profile daily; and

- 16% of online students use online tools to create and share sophisticated compositions;
- 14% create new characters;
- 10% contribute to online collaborative projects weekly or more frequently; and

- 9% submit articles to sites or create polls, quizzes, and online surveys.

Popular social networking activities among online students (K-12):

- 41% post messages;
- 32% download music;
- 30% download videos;
- 29% upload music;
- 25% update personal websites or online profiles;
- 24% post photos;
- 17% blog;
- 16% create and share virtual objects;
- 14% create new characters;
- 10% participate in collaborative projects;
- 10% send suggestions or ideas to websites;
- 9% submit articles to websites; and
- 9% create polls, quizzes or surveys.

The following is an overview of some of the most popular member community applications and how they are being “repurposed” for academic purposes (pp. 1-3).

TWITTER

According to the website *Social Media Defined* (<http://www.socialmediadefined.com>), “Twitter is a microblogging application that is more or less a combination of instant messaging and blogging. Twitter has quickly established itself as a powerful tool for communicating news, market trends, questions and answers, links, and a whole lot more with numerous benefits for business and personal use.” Twitter currently boasts more than 12 million users, and is projected to reach 18 million users in 2010 (Nielsen, 2009).

The concept of Twitter is very simplistic. Users subscribe for a free account at twitter.com. Once a “persona” is created, users then post updates via the Twitter web interface (normally using a computer or

mobile device, such as a cell phone). These updates are intentionally short bursts of information—limited to 140 characters per “post”—the equivalent to one or two sentences. Other individuals subscribe (follow) those updates or “tweets.” They can read the tweets via their cell phone or their computer. Some twitter utilities allow for photos and up to several seconds of video to be included with the tweets.

Many mainstream uses of Twitter include following important breaking news from outlets as CNN and local newspapers; business marketing applications; technology tips; celebrity musings; and, most perhaps most notably, politics. Twitter was recently credited for influencing the 2009 elections in Iran (Reed, 2009).

Although originally intended for use by the general population and for social purposes, it nonetheless has found its way into academia—if not by accident. The educational community has begun to embrace Twitter and find creative uses for the application. Some examples of Twitter in education include:

- *Back-channel chat* where participants at conferences provide bursts of feedback regarding conference proceedings to other conference attendees and to people who cannot attend the conference themselves (Hargadon, 2009); or preceding a conference via keywords (Parry, 2008) Incidentally, I recently followed the tweets of several participants at the Blackboard World 2009 annual conference. Several users also uploaded links to keynote addresses via Twitter;
- *Follow webinars*. A person recently used Twitter during a webinar to post specific keywords denoted by a hash (#facebook), and then participants searched on those keywords to see what other people in the webinar (at other locations) were saying about the topic (Mullings, 2009);

- *Class chatter* allows students to continue discussion topics outside the classroom (Parry, 2008);
- *Follow professionals who are actively engaged in particular topics or events.* For example, students can follow any number of correspondents at MSNBC, CNN, and other news outlets;
- *Writing assignments* in which students build on each other's tweets to generate a story, poem, or haiku (Parry, 2008);
- Collaboration with students in other countries regarding specific topics;
- *"Track" a word.* This will subscribe you to any post that contains said word. So, for example, a student may be interested in how a particular word is used. They can track the word and see the varied phrases in which people use it. Or, they can track an event, a proper name, or a movie title. (Send the message "track _____" to Twitter) (Parry, 2008);
- *Storytelling.* George Mayo, an eighth-grade English teacher, recently used Twitter as a tool to collaboratively write a story with his students (Ash, 2008). Mayo invited his students and students around the world via his Many Voices Twitter account to add to an ongoing story with individual "tweets." After 6 weeks and the help of more than 100 students and six different countries, the story was finished (Parry, 2008).

Some popular Twitter applications for academia include:

- *Twitterfall.com* Type in a keyword, such as "Iranian elections" and watch the results in real time;
- *Twitvision.com* and *Freshlogic Atlas.com* allow users to see where certain tweets are originating based on topics. These applications utilize "Geotagging" that is able to locate a user anywhere in the world;
- *Historicaltweets.com* allows students to pose as historical and significant societal

figures, posting tweets as those individuals; and

- *Twiddeo.com* allows users to upload short videos to Twitter.

Some of the problems involved with using Twitter:

- Marketers and pornographers are beginning to consume Twitter, leading to many unwanted "followers" who post egregious and unwanted messages. Short of "unfollowing" these individuals, it is difficult to filter them before they attempt to follow a student or faculty;
- So called "trending topics" can contain offensive material;
- Student or faculty tweets can easily be lost in the torrent of tweets that are sent daily. To manage and filter tweets so that they are organized, third-party applications such as Tweetdeck (tweetdeck.com) must be used to generate tweet "groups" based on the user;
- Since tweets are intentionally short, users must remember to utilize sites such as bit.ly or snipr to truncate long URLs; and
- "Retweets" or messages sent to a specific user often lose context because the full thread is often lost. The original message text counts against the 140 total characters.

FACEBOOK

Facebook is a social networking website that was originally designed for college students, but is now open to anyone 13 years of age or older. Facebook users can create and customize their own profiles with photos, videos, and information about themselves. Friends can browse the profiles of other friends and write messages on their pages (TechTerms.com).

However, the use of Facebook.com for academic purposes is a bit challenging and controversial. Recent articles in the *Chroni-*

cle of Higher Education highlight many of the potential pitfalls that can arise, including one professor who posted comments on her profile regarding the proceedings in an academic meeting. She apparently did not realize or understand these comments were disseminated to a broad range of individuals within her social network (Young, 2009). Blogsolar.com (2007) warns that information posted on Facebook is never private. Furthermore, any information, photos, videos, and so on, becomes the intellectual property of Facebook. Data can even be retained by Facebook after the member deletes his or her account.

Negative stories also abound about professors “friending” their students. For example, some students may not know exactly how to respond to “friend” requests from their instructors—perhaps perceiving this as an edict that may impact their grade if they decline. Other students may use this “friendship” as leverage to request favors from the professor, including class quota overrides (Lipka, 2007). Some faculty have suggested that Facebook creates “relationships in which friendship and professionalism are not clear and brightly bounded, but are tied to real political economic stakes” (Golub, 2009).

Academic libraries are another area that seemingly could leverage social networking applications such as Facebook. However, a study at the University of Michigan in the fall of 2007 found that 77% of students did not welcome the idea of libraries using Facebook. The biggest reason cited is that they feel the current methods to contact librarians (in-person, e-mail, instant messaging) are more than sufficient. More than 14% of students felt it was inappropriate because they perceive Facebook and MySpace as social tools, not research tools (Chapman, Creech, Hollar, & Varnum, 2007). This was substantiated in a study conducted by Hendrix, Chiarella, Hasman, Murphy, and Zafron (2009) who found in a

survey of academic librarians regarding Facebook that 54% of those surveyed said there was no academic use, 34% were unsure, and only 12% felt that such promise existed.

Despite these challenges, some faculty and academic librarians are engaging Facebook or Facebook-like applications in academia, if only in a limited capacity. Michael Wesch from Kansas State University indicated that he uses Facebook to bring class discussions to students “in a place where they have already invested significant effort in building up their identity, rather than asking them to login to Blackboard or some other course management system where they feel ‘faceless’ and out of place” (Battelle, 2007). One British university recently began offering a master’s degree in social media (Schroeder, 2009).

The following are few examples of how Facebook might be utilized in certain academic situations:

- Julie Damron at BYU has used Facebook in her Korean courses for 3 years. Students post notes on the whiteboard; post photos; create a profile with personal information. Students learn more about one another and about the professor (Damron, 2009).
- academia.edu is a “Facebook-like” application specifically dedicated to academic social networking. Using academia.edu, faculty can generate peer-relationships with faculty from other institutions.
- William Drummond from Berkley used Facebook “groups” in place of a course management system. However, he employed the highest level of security to ensure that only his students were able to access the group (mms://uocat-davis.wmod.llnwd.net/a2636/e1/TLTC/TLTC_William_Drummond.wmv).
- Social scientists and cultural anthropologists join and use Facebook and other member sites to research how social networks are formed (Rosenbloom, 2007).

- Facebook now offers “schools” with student information system data integration: <http://www.inigral.com/products/schools.htm>.
- Some faculty use Facebook to study multilingualism: <http://www.facebook.com/group.php?gid=18977111129>.
- Specialized Facebook “networks” have spawned, such as Sciencewomen: <http://apps.facebook.com/blognetworks/blog/sciencewomen/>.

Some popular Facebook applications for academia include:

- *Wordbook* allows users to bridge Word-Press and Facebook. Posts to a Word-press blog automatically post to Facebook.
- *Blackboard Sync* allows students to check Blackboard course information directly from Facebook.
- *Booklist* allows users to share their library or favorite books.
- *Worldcat* allows users to search for books through Facebook.

NING

Ning is a social networking application that allows subscribed users to generate their own custom social network. Launched in 2005 by cofounder Marc Andreessen (Netscape), Ning is Chinese for the word “peace” (Wikipedia, 2009). Ning includes some interesting and useful out-of-the-box tools, including a blog, discussion board, groups, and video and photo uploading capabilities.

Unlike Facebook and Twitter, Ning allows for much more granular control over its user community, including the site template. For example, faculty can easily control who has access to their Ning community using address importation or e-mail invites. In addition, faculty can customize the Ning community using a number of built-in templates (individual members can apply custom templates to

their own Ning “space” as well.) This type of customization and control provides faculty access to a social network and social tools that are much more “focused” on the curricular topic.

Like other social networking applications, faculty must be judicious if they elect to use Ning in their classes. For example, uploading private student information, such as grades, should be avoided. While useful as a community resource, it should never be used as a replacement for a campus course management system. A popular Ning application for academia is <http://bioarchaeology.ning.com/>

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“BOYD AND ELLISON (2007) DEFINE SOCIAL NETWORKS AS ‘WEB-BASED SERVICES THAT ALLOW INDIVIDUALS TO 1) CONSTRUCT A PUBLIC OR SEMIPUBLIC 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’ (P. 2.)”