

Twitter Usage in Higher Education

Piti Golf Kanjanapongpaisal
University of South Alabama, United States
golffyz@yahoo.com

Sylvia Elaine Rogers
University of South Alabama, United States
ser804@jaguar1.usouthal.edu

Whitney Lee Bryan
University of South Alabama, United States
wnl502@jaguar1.usouthal.edu

Abstract: Social media tools allow people to connect and share information with others. With limited empirical evidence concerning the impact of social media use in educational settings, this paper provides a review of literature and recommends practical instructional strategies on how to adopt Twitter to enhance the learning process. The strategies include using Twitter to emphasize social interaction among instructors and learners, enhance the collaborative learning environment, and promote and practice metacognitive strategies. This paper also proposes a preliminary study to investigate the use of Twitter at a regional university in the southeast.

Introduction

The use of social media tools in education is relatively new. Many people are skeptical and perceive social media tools, such as Facebook, LinkedIn, and Twitter, as merely for the purposes of communication and entertainment. Even though social networking technologies were developed for purposes unrelated to education, they have been adopted and repurposed by educators and instructional designers to satisfy educational and scholarly pursuits. The purpose of this paper is to discuss the main features and functions of Twitter, provide a review of literature concerning the impact of social media tool usage, address Twitter's limitations, as well as recommend instructional strategies to implement Twitter in higher education. This paper also proposes a study to exploring the adoption of Twitter usage at the University of South Alabama and investigating Twitter's popularity and the attitude of instructors, students, and faculty toward the use of Twitter.

What is Twitter?

Twitter is a micro-blogging service that allows users to answer the question, "What's happening?" Since its launch in March of 2006, it has become an extremely popular social medial tool. Users post "tweets" as an answer to the question, "What is happening?" Twitter is similar to social networking sites like Facebook, which allows users to share updates; however Twitter limits updates to 140 characters. Common features and key terms are listed below:

Following – In Twitter, one can follow other users' tweets.

Followers – *Followers* are those who follow other users' tweets.

Retweet – Twitter allows users to reply or respond to those they are *Following* and their *Followers* by interacting with the message from within the timeline. For instance, *Retweet* is used when the users want to quote someone's tweets.

Timeline – *Timeline* is a Twitter term used to describe a stream of collected tweets listed in real-time order like a series of "micro-blogs." The *Timeline* also displays tweets and *retweets* from other users being followed.

Mention – Users can mention or respond to other users by typing "@" in front of the username followed by a tweet. Multiple users can be mentioned within one tweet.

Direct message – *Direct Message* is a private message feature which allows users to send a short personal message directly to other users. Only the sender and receiver see the *direct message*.

Hashtags – The *hashtag* symbol “#” is placed before relevant keywords to categorize those tweets in Twitter *Search*. To view all tweets using a particular *hashtag*, users can click on a hash-tagged word in any message.

Trending Topic – Popular *hashtags* or commonly repeated topics often become *Trending Topics*. Twitter identifies topics that are popular in real time. This helps users discover the breaking news stories.

Search – Users can use the Twitter *search* to look for tweets that contain particular keywords or *hashtags*.

Favorite – Twitter allows users to save tweets as a *Favorite*. It is represented by a small star icon next to a tweet.

List – Twitter users can organize users into groups, or *lists*. When you choose a *list*, you'll see a stream of tweets from that group. When a user follows a *list*, he or she is not following all users in that *list*, but only the *list* itself.

Activity – *Activity* provides users with a new source of update feed by highlighting the latest *Favorites*, *Retweets*, and other Twitter activities related to the user's account all in one place (Twitter, 2011).

Using Twitter in Academic Settings

Twitter offers more than just answering the question, “What’s happening?” Twitter, appropriately applied with instructional strategies, can become a viable platform for communicating between instructors and learners or among learners, reinforcing learners to work together, and promoting metacognition. Although Twitter was developed for social networking, many researchers in education have been investigating its possible benefits in higher education. Social networking sites, particularly micro-blogging sites such as Twitter, allow for informal learning (i.e., the learning process that is entirely owned by the learner without time constraints and formal learning settings; Hall, 2009). Learners can choose whomever they wish to follow as well as acquire and exchange information or resources on a variety of subjects.

Computer-mediated Communication

While Twitter is not designed as a chat tool, people still engage with each other through updates or tweets. According to December (1996), computer-mediated communication is a transaction that can be used via computer, such as e-mail, instant messages, and video conferencing. Twitter, thus, could be considered computer-mediated communication. Communication on Twitter goes beyond sharing and updating status messages.

In some qualitative studies that investigate how Twitter is used by scholars, findings indicated that most scholars used Twitter to share information, resources, and media relating to their professional practice. They also requested assistance from and offered suggestions to others, as well as made connections with each other (Forkus-Baruch & Hershkovitz, 2012; Veletsianos, 2011).

In the study of Twitter usage for language learning conducted by Borau, Ullrich, Feng, and Shen (2009), findings indicated most tweets used *mention* to address specific friends in the class. Moreover, Twitter was used successfully as a learning tool to promote active learning in the classroom and suitable to train communicative and culture competence “anytime anywhere” without face-to-face interaction.

Learning to use technology to effectively mediate the communications process is a critical skill (Gunawardena, 1992, p. 59). With the popularity of smart phones and mobile devices, instructors and learners can now access twitter easily. Twitter can be a useful communication tool for traditional classrooms, online, or hybrid classes. There are two kinds of interaction with regard to learning. Learners need to interact not only with content, but also with other learners about the content (Moore, 1989). Instructors can use Twitter as an alternative to communicate directly with students and increase social interaction of instructor-learners and learners-learners. Developing social interaction by fostering the use of Twitter will engage learners and promote active learning. Using Twitter as a communication tool also allows learners to interact and follow other users who share the same interests or are in the same professional fields.

A study conducted by Lowe and Laffey (2011) provided strong evidence that Twitter, as a learning tool, enhanced a variety of learning outcomes in marketing courses. The application of Twitter expanded the learning context by engaging and encouraging the students to interact with the real word and access online learning resources.

For example, instructors and learners can use *mention* to tweet public message and *direct message* for private messages. *Hashtags* “#” can be created to setup a virtual chat room to allow all learners to see all tweets containing that particular hashtags. Learners can address specific questions regarding class materials. Likewise, instructors can answer questions by using *mention* “@” followed by the learners’ username, or tweet a class announcement using *hashtags*.

Collaborative Learning

Learners gain skills and knowledge from their experiences in collaborative learning through team-based work environments (Swan, Shen, & Hiltz 2006). They receive the most benefits from activities that incorporate support from subject matter experts and interaction among their peers (Ormrod, 2004). Collaborative learning is important because it focuses on learner interaction. Learners are able to perform at deeper and higher intellectual levels when they have opportunities to work in collaborative environments. It provides opportunities for learners to share, and exchange their thoughts and reflections with classmates. These methods help learners not only increase their interests, but also promote skills in critical thinking (Gokhale, 1995). Collaborative learning styles can promote competitiveness in order for learners to perform better than their classmates (Diaz & Cartnal, 1999). Furthermore, learners who work in collaborative learning environments acquire and develop more skills than when they study alone (Zhu, 2011). Similarly, Rinaldo, Tapp, and Laverie (2011) investigated the benefits of Twitter usage as a pedagogical tool and found Twitter increased learners’ satisfaction with the course, class involvement, and communication between instructors and students. Twitter also provided an effective way to engage students in experiential learning by applying course materials in a social media setting.

A social networking tool like Twitter is suitable for developing and integrating collaborative learning activities into classes. For example, multiple *lists* can be created to organize learners into groups which allow learners to follow and see other team members’ *timelines* without interrupting their own *timelines*. A meaningful and specific *hashtag* allows everyone to follow all the tweets and communication within a class.

Free twitter applications like *Hootsuite* and *TweetDeck* provide users a way to organize their tweets and view multiple *hashtags* and *lists* at the same time. Both applications organize timelines into columns. These Twitter applications also allow learners to create a virtual chat room by including a *hashtag* when they tweet. Learners will see the on-going and archived tweets from other classmates and instructors, allowing them to interact and work collaboratively as a group.

Metacognition

Many researchers have found that using blogs as a learning tool could enhance critical reflection and metacognition (Andersen & Matkins, 2011; Chou, 2011; Halic, Lee, Paulus, & Spence, 2010; Sun, 2010; Tan, Ladyshevsky, & Gardner, 2010; Yang, 2009). Metacognition is the practice of thinking and reflection on learners’ learning which has been shown to enhance retention and comprehension. In promoting metacognitive strategies, instructors would guide students to become more strategic thinkers by helping them understand the way information is processed. Metacognitive strategies include questioning, acquiring, visualizing, and synthesizing information, so the learners can reflect on their thinking process. It is essential that instructors allow learners to practice and apply metacognitive skills and become strategic thinkers (Ormrod, 2008).

Because Twitter is a micro-blogging service, it shares similar benefits of blog use. Twitter, however, has the limit of 140 characters for one tweet. For example, Wright (2010a) conducted a focus group study and revealed that teachers in a practicum course tweeted throughout the day as part of their reflections and observations. As a result, they were able to record important moments. Questions that were used to promote reflection on the educational process through tweets were, “What am I learning now?” “What am I going to do next?” “What am I thinking about right now?” and “What is getting in the way right now?” Consequently, learners developed a chronology of reflections and observations through tweeting, mentioning, and retweeting. Learners can also use the Twitter *search* to acquire information for a given topic or *hashtag*. Tweets contain not only texts but also hyperlinks and other media. Instructors, then, ask learners to synthesize those information and resources for practicing metacognition.

Limitations

Because Twitter and social networking in general is a new concept and constantly evolving, there has not been an enough time to understand how it can be used in education. Currently, there is a gap between the social use

of Twitter and its use in education (Browning, Gerlich, & Westerman, 2011). This gap could be attributed to two factors, a lack of understanding of how Twitter works among faculty and being put off by the social and entertainment nature of Twitter (Anderson, 2001; Chen, 2011; Stephenson, 2011; Wright, 2010a). As a learning tool, educators and instructional designers should take Twitter's limitations into consideration. Common criticism of Twitter is that it enables vacuous and inane postings (Wright, 2010a). People use Twitter for random, arbitrary messages, and this could dilute its use (Stephenson, 2011). Because Twitter's primary purpose is for social interaction, people could perceive Twitter as merely a communication tool and are distracted by irrelevant tweets. Some learners might also find tweeting during the class to be a distraction (Fox & Varadarajan, 2011). Furthermore, although all tweets are archived, there is no guarantee that all tweets used in an asynchronous broadcast or announcement will be read or responded to.

Preliminary Study

Due to the increasing popularity of the usage of Twitter in education, the researchers are interested in investigating how Twitter is currently being used at a regional southeastern university as well as attitudes toward its use for educational purposes. Faculty, staff, and students at the university will be surveyed through an online questionnaire. The questionnaire will consist of questions regarding participants' knowledge and understanding of Twitter, use of Twitter for personal and academic purposes, and attitudes toward the use of Twitter in courses. The use of logical branching allows participants who have multiple roles (e.g., student and staff) to answer questions that pertain to their roles at the university.

Data from this questionnaire will provide specific information about the amount of time participants spend using Twitter, which categories of tweets participants read, whether participants use Twitter for personal or academic reasons, how participants feel about the use of Twitter in courses, as well as how participants think Twitter and other social media tools can be used in an academic setting. Infographics will be used to present the findings of the study along with a narrative report. The infographics will illustrate the descriptive statistics and current status of Twitter usage.

Conclusion

Twitter, a micro-blogging tool, has been recognized as a learning tool, and many researchers and educators have already begun investigating its benefits and limitations. With the popularity of the use of mobile devices and smart phones, Twitter has become a very accessible tool. It is crucial for educators and instructional designers to explore Twitter usage in higher education. This paper proposes ways to adopt Twitter in educational settings and discusses limitations that need to be taken into consideration. Also, researchers propose a preliminary study to investigate how Twitter is being used at the University of South Alabama. Infographics will be used to display the results.

References

- Anderson, S. (2011). The Twitter toolbox for educators. *Teacher Librarian*, 39(1), 27-30.
- Andersen, L., & Matkins, J. J. (2011). Web 2.0 tools and the reflections of preservice secondary science teachers. *Journal of Digital Learning in Teaching Education*, 28(1), 27-38.
- Borau, K., Ullrich, C., Feng, J., & Shen, R. (2009). Microblogging for language learning: Using Twitter to train communicative and cultural competency. In *Advances in Web Based Learning - ICWL 2009*, Springer, Lecture Notes in Computer Science (LNCS), Vol. 5686 (2009), pp. 78-87.
- Browning, L., Gerlich, R. N., & Westermann, L. (2011). The new HD classroom: a "Hyper Diverse" approach to engaging with students. *Journal of Instructional Pedagogies*, 5, 1-10.
- Chen, G. M. (2011). Tweet this: A uses and gratifications perspective on how active Twitter use gratifies a need to connect with others. *Computers in Human Behavior*, 27(2), 755-762. doi:10.1016/j.chb.2010.10.023

- Chou, C. (2011). Student teachers socialization development by teaching blog: Reflections and socialization strategies. *The Turkish Online Journal of Educational Technology*, 10(2), 190-201.
- December, J. (1996). Units of analysis for Internet communication. *Journal of Computer-Mediated Communication*, 1(4). Retrieved from <http://jcmc.indiana.edu/vol1/issue4/december.html>
- Diaz, D. P., & Carnal, R. B. (1999). Comparing student learning styles in an online distance learning class and equivalent on-campus class. *Journal of Technology Education*, 47(4), 130-135.
- Forkosh-Baruch, A., & Hershkovitz, A. (2012). A case study of Israeli higher-education institutes sharing scholarly information with the community via social networks. *Internet & Higher Education*, 15(1), 58-68. doi:10.1016/j.iheduc.2011.08.003
- Fox, B. I., & Varadarajan, R. (2011). Use of Twitter to encourage interaction in a multi-campus pharmacy management course. *American Journal of Pharmaceutical Education*, 75(5), 1-8.
- Gokhale, A. A. (1995). Collaborative learning enhances critical thinking. *Journal of Technology Education*, 7(1), n.p.
- Gunawardena, C.N. (1992). Changing faculty roles for audiographics and online teaching. *American Journal of Distance Education*, 6(3), 58-71.
- Halic, O., Lee, D., Paulus, T., & Spence, M. (2010). To blog or not to blog: Student perceptions of blog effectiveness for learning in a college-level course. *Internet and Higher Education*, 13, 206-213. doi:10.1016/j.iheduc.2010.04.001
- Hall, R. (2009). Towards a fusion of formal and informal learning environments: The impact of the read/write Web. *Electronic Journal of E-Learning*, 7(1), 29-40.
- Lowe, B., & Laffey, D. (2011). Is twitter for the birds? Using Twitter to enhance student learning in a marketing course. *Journal of Marketing Education*, 33(2), 183-192. doi:10.1177/0273475311410851
- Moore, M. G. (1989). Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-6.
- Ormrod, J. E. (2004). *Human Learning* (pp. 401-424). Upper Saddle River, NJ: Pearson Education.
- Ormrod, J. E. (2008). *Human Learning* (pp. 351-359). Upper Saddle River, NJ: Merrill/Prentice Hall.
- Rinaldo, S. B., Tapp, S., & Laverie, D. A. (2011). Learning by tweeting: Using Twitter as a pedagogical tool. *Journal of Marketing Education*, 33(2), 193-203. doi:10.1177/0273475311410852
- Swan, K., Shen, J., & Hiltz, S. R. (2006). Assessment and collaboration in online learning. *Journal of Asynchronous Learning Networks*, 10(1), 45-62.
- Stephenson, G. (Spring2011). I don't get Twitter. *Our Schools / Our Selves*, 20(3), 197-200.
- Sun, Y. (2010). Extensive writing in foreign-language classrooms: A blogging approach. *Innovations in Education and Teaching International*, 47, 327-339. doi:10.1080/14703297.2010.498184
- Twitter. (2011). Retrieved from <http://twitter.com>
- Tan, S. M., Ladyshevsky, R. K., & Gardner, P. (2010). Using blogging to promote clinical reasoning and metacognition in undergraduate physiotherapy fieldwork programs. *Australasian Journal of Educational Technology*, 26, 355-368.

Wright, N. (2010a). Twittering in teacher education: reflecting on practicum experiences. *Open Learning*, 25(3), 259-265. doi: 10.1080/02680513.2010.512102

Veletsianos, G. (2011). Higher education scholars' participation and practices on Twitter. *Journal of Computer Assisted Learning*, n.p.

Yang, S. (2009). Using blogs to enhance critical reflection and community of practice. *Educational Technology & Society*, 12(2), 11-21.

Zhu, C. (2011). Online collaborative learning: Cultural differences in student satisfaction and performance. *Journal for Educational Research Online*, 3(1), 12-28.