

## Chapter 60

# Utilizing Twitter and #Hashtags Toward Enhancing Student Learning in an Online Course Environment

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### **ABSTRACT**

*The authors offer an answer to the research question, To what extent and in what ways is Twitter helpful to student learning when group hashtags are created and used in collaborative educational environments? Sixty-two students in a spring 2012 graduate online Research Methodology course worked individually and in groups to create discussions on topics of interest through Twitter posts and student-created hashtags. Student participants answered nine qualitative and quantitative questions concerning the Twitter/hashtag exercise and used collaborative blog pages to reflect on their experiences. A grounded theory approach was applied to classify data generated from the nine questions and blog postings. An analysis of the study's data resulted in the discovery of the following four themes: access to information, communication, class engagement, and general feedback. Based on these themes, nine recommendations are offered for maximizing the use of Twitter in an online environment for increased student engagement and learning.*

DOI: 10.4018/978-1-5225-2584-4.ch060

## INTRODUCTION

Educators endeavor to incorporate up-to-date technology into their teaching practices. Such applications can create avenues for growth in the areas of student engagement and learning (Gebre, Saroyan & Bracewell, 2012; Laird & Kuh, 2005; Lindquist & Long, 2011; Poon, 2012). One program that has shown promise as a pedagogical tool is the social network phenomenon and microblogging service called Twitter. With its emphasis on communication in real time across an unlimited range of topics, Twitter has potential in promoting educational advancement and sustaining student engagement and learning in both face-to-face and online modalities (Clarke & Nelson, 2012; Junco, Heiberger & Loken, 2010). The current study focuses on a three-part program evaluation of Twitter in which students of an online graduate psychology course worked in small groups to create unique hashtags (clickable keyword or topical links immediately preceded by the pound sign “#”) and to collaborate on topics of interest within the Twitter environment.

Since its inception in 2006, Twitter has registered more than 500 million customers (Dugan, 2012). Users communicate by sending text-based posts of up to 140 characters to any number of online subscribers. Twitter messages or “tweets” are composed of: 1) hashtags, 2) reply symbols (signified by the @ sign when sending direct messages) and 3) text used to transmit ideas via computer, mobile phone or other devices with microblogging capability. Companies utilize Twitter to promote products and invite customer feedback while news organizations allow subscribers to share their thoughts about relevant news topics. Educators, therefore, have before them a compelling case to make this new method of technological communication both meaningful and relevant to the learning outcomes of their students.

The practice of experimenting with Twitter and hashtags in face-to-face classroom instruction has been documented as early as fall 2009 (Corbeil & Corbeil, 2011; Ebner, 2009; Wankel, 2009). In addition, online education has gradually become a natural modality to capitalize on the Twitter experience. Mitchell and Powell (2011) describe the educational benefits of Twitter technology in terms of *personal learning networks*: systems through which a person learns from others who are like-minded on topics of common interest (Dunlap & Lowenthal, 2009; McElvaney & Berge, 2009; Trinkle, 2009; Warlick, 2009). Furthermore, Twitter has been shown to nurture process-oriented learning as well as informal learning (Ebner, et al., 2010; Zhao & Rosson, 2009). In one theoretical assessment of Twitter for educational purposes, Grosseck and Holotescu (2008) suggested no less than 35 uses of Twitter for face-to-face and online instruction. Ideas relevant to the current study include enhancement of in-class/ out-of-class learning, a focus on editing and literacy skills in ways that promote student engagement, encouragement of both formal and informal learning, and simultaneous collaboration on multiple topics.

In their landmark analysis of 21 qualitative and quantitative studies published between 2008 and 2011 on the educational applications of microblogs (e.g., Twitter), Gao, Luo, and Zhang (2012) concluded that, “...microblogging has a potential to encourage participation, engagement, reflective thinking as well as collaborative learning under different learning settings” and “...provides immense opportunities to extend learning beyond the classrooms and blur the line between formal and informal learning” (p. 783, 794). With its emphasis on real-time interaction in a collaborative environment, Twitter has even been found to be “particularly suitable for designing social learning experience grounded in social constructivism” and other learning theories (Gao, Luo, and Zhang, 2012, p. 790).

As previously summarized, a number of studies have demonstrated successful outcomes of Twitter in online and face-to-face classroom settings. However, research that focuses specifically on hashtags has been scarce and when mentioned has limited empirical precedent beyond its utility in organizing user

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