Chapter 13
A Cross-Disciplinary Exploration of Web 2.0 Technologies to Enhance Critical Thinking and Collaboration

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ABSTRACT
Social media offer a means of engaging digital learners in critical thinking and collaborative learning. Interdisciplinary faculty at Otterbein University, a four year comprehensive university in the United States, explored the impact of integrating blogs and wikis into their courses by designing assignments based on Fink's Paradigm of Significant Learning (2003). This chapter presents the collective findings, reflections, and lessons learned from their professional learning community (PLC). First, even though students did improve in organizing and presenting data, their critical thinking skills did not. Second, collaborative learning was enhanced, and Fink's Paradigm of Significant Learning did help faculty integrate blogs and wikis into their courses. Third, student attitudes about using the technology were mostly positive; agreeing that interaction and quality of communication with the professor and other students increased. The authors conclude that even inexperienced faculty should adopt social media tools, as long as there is a clear connection between the courses’ learning objectives and the particular technology being used.

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INTRODUCTION

Because preparing students for the workplace is a critical role for universities, a mandate for higher education is to look for ways to converge technology and pedagogy to improve student learning. Moving the learning outside the dimensions of a classroom to the Internet not only provides faculty with new learning tools, but can also impact the learning process itself. Rather than being overwhelmed by these new technologies, we advise faculty, especially the boomer-aged ones, to harness the power of them.

Thus, the purpose of this chapter is to teach faculty how to effectively use two technologies, blog and wikis, in the classroom based on the research and experiences of a cross-disciplinary team of faculty in a Professional Learning Community at Otterbein University. This chapter shares the collective reflections and lessons of the faculty, as well as feedback from student surveys. The chapter concludes with recommendations for implementation and direction for future research.

BACKGROUND

Since the mid-2000s, Web 2.0 technologies, which are also known as “the read/write Web,” have been used in higher education in an effort to “take advantage of the benefits of technology to engage NetGeners” (Barnes, Marateo, & Ferris, 2007). Just how much NetGeners are embracing Web 2.0 to enhance their learning, however, is still unclear. For example, a longitudinal survey of college students at forty U.S. higher education institutions found that the number of students who used the Internet for coursework had greatly decreased, but the number who used it for entertainment greatly increased from 2002 to 2009 (Jones, Ramanau, Cross, & Healing, 2010). A survey in 2005 found that 12 million adolescents aged 12-17 maintain their own blogs in the U.S. (Lenhart & Madden, 2005). Today blogs are available as part of course management programs such as Blackboard or are hosted by private companies using open-source software (Zawillinski, 2009).

Blogs

Introduced in 1994 by Justin Hall, Swarthmore student (Thompson, 2006), a blog, short for “weblog,” is a website that can be internally or remotely hosted. Many blogs serve as personal diaries or editorials written by a blogger so that they can be read by the public or through private invitation. Blogs have grown in popularity since their introduction. By January 2009, thanks to free blog-creation web host services, 133 million blogs were created (numberof.net, 2010). A survey in 2008 found that many students enjoy blogging and 78% of those surveyed had never contributed to a blog and 88% had not used a wiki. In fact, over a third reported they were not confident in their skills when using virtual learning environments such as Blackboard (38%) and writing and commenting on blogs and wikis (41%). This prompted researchers to conclude that there was not a “generational homogeneity” of users as predicted by NetGen or digital native inspired literature. Rather they found a “complex picture of minorities…who do not show a strong impulse” towards Web 2.0 participation. (Jones et al., 2010)

In our PLC, we researched whether or not the use of blogs and wikis could improve the learning of the NetGen. For purposes of this paper, we describe blogs and wikis as follows.