Chapter 33
Student and Faculty Use and Perceptions of Web 2.0 Technologies in Higher Education

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ABSTRACT

In this chapter, the authors provide evidence for the potential of Web 2.0 applications in higher education through a review of relevant literature on educational technology and social networking. Additionally, the authors report the results and implications of a study exploring student and faculty awareness of the potential of Web 2.0 technologies to support and supplement classroom instruction in higher education. Also, using the decomposed theory of planned behavior as the theoretical foundation, the authors discuss factors that influence student and faculty decisions to adopt Web 2.0 technologies. The chapter concludes with a list of recommendations for classroom use of Web 2.0 applications, as well as implications for policy changes and future research.

INTRODUCTION

The use of Internet technologies such as websites, newsgroups, and e-mail have had a significant impact on the way courses are delivered and designed in higher education (Barnett, Keating, Harwook, & Saam, 2004). Recently a new wave of Internet technologies, named Web 2.0 technologies (O'Reilly, 2005; Murugesan, 2007**)**, has emerged with the potential to further enhance teaching and learning in many colleges and universities. With the use of Web 2.0 technologies, students are able to access the web for more than just static course information; they are now able to access and create

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collective knowledge though social interactions with their peers and faculty (Maloney, 2007). Web 2.0 technologies also enable students to connect multiple pieces of information and in doing so create new information that is shared with others (Maloney, 2007).

Web 2.0 technologies have many theoretical affordances to improve teaching and learning (Ferdig, 2007). These affordances include the ability to support scaffolding and active learner participation, provide opportunities for student publication, feedback, and reflection, and the potential for development of a community of learners (Ferdig, 2007). Additionally, while students today are embracing emerging technologies such as cell phones, text messaging, YouTube, wikis, social networks, and other Web 2.0 applications, we also know that many faculty still have not made the switch to these emerging technologies; they prefer course websites and e-mail as their predominant means of connecting with their students (Ajjan & Hartshorne, 2008).

In this chapter, the results and implications of a study exploring student and faculty awareness of the potential of Web 2.0 technologies to supplement classroom learning are discussed. Also, using the decomposed theory of planned behavior (DTPB) as the theoretical foundation (Taylor & Todd, 1995), factors that influence student and faculty decisions to adopt such technologies are examined. This chapter extends the existing literature by providing new insights on factors that influence student and faculty adoption of Web 2.0 technologies. Understanding these factors will be useful in formulating effective strategies and recommendations to increase the likelihood of adoption and effective use of Web 2.0 technologies.

*Figure 1. The decomposed theory of planned behavior (**student (or subordinate) influence is only considered in the faculty model)*