# Chapter 78 **Higher Education and Web 2.0**: Theory and Practice

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## **ABSTRACT**

The inclusion of Web 2.0 in education has been a polemic process comprised both with enthusiasm and scepticism. There is empirical evidence of Web 2.0's effective employment in educational contexts and it seems that the background of hesitation that has always accompanied Web 2.0's didactic progress is now more concentrated on questioning how to use it rather than whether or not it should be used. In light of this predicament, this chapter aims to analyse how some Web 2.0 tools are being used in higher education as well as to uncover what best practices should guide their successful deployment. This chapter begins by providing an overview of the advantages and disadvantages of using Web 2.0 pedagogically, and it then focuses on particular cases where educators have experimented with YouTube, wiki technology, and Twitter in their teaching settings. The lessons learned and the outcomes of their experiences are combined with current theory on Web 2.0 in education to serve as guidelines.

# INTRODUCTION

Web 2.0 represents one of the main trends in Education (Repman, Zinskie & Clark, 2008). Despite accusations of containing many pedagogical frailties, Web 2.0 continues to be considered by many as a valuable teaching/learning resource, leaving the education sector to face the difficult balance

between innovation and the integrity of curricula. Web 2.0, is now at the centre of this conundrum. Posing the challenge of being a potential distraction and of promoting amateurism, Web 2.0 represents, nonetheless, the opportunity to enhance students' engagement with content and to increase interaction and collaboration that transposes the walls of auditoriums and the limits of online classrooms'

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systems. With the minimum requirement of internet access, Web 2.0 holds the potential of extending this cooperation and interaction to other institutions and students in any part of the world. Applying Web 2.0 technologies to education isn't exclusively restricted to the employment of new technology. In fact, the most important change it introduces isn't technology-related. The real revolution of this alliance concerns a shift in the way learning is perceived and approached. Web 2.0 endows the internet with fluidity and a continuous knowledge exchange. People started dynamically initiating and having dialogues that go beyond the use of words or text, they now have the ability to communicate with video, images and audio (Bennett et al., 2012).

While the weighing of all pros and cons is central, it appears that this discussion is becoming obsolete. The 2009 edition of Gartner Hype Cycle (MacManus, 2009) placed Web 2.0 in the slope of enlightenment, meaning that it was earning recognition and it was less of a hype. Web 2.0's implementation in higher education followed that same evolution and because of that, now enthusiasm alone will not suffice. It becomes imperative to support the theoretical foundations of the deployment of Web 2.0 in higher education with real cases where educators have actually proven their effective application. Firstly this chapter provides a synopsis of the benefits and challenges that Web 2.0 present as didactic instruments and it then places its emphasis on practical applications. In order to illustrate the deployment of Web 2.0, the cases used in this chapter aim to build upon much needed jurisprudence in the field. They aim to demonstrate real experiments with Web 2.0 in higher education, to provide formal evidence of implementation, to consolidate and substantiate the period of initial enthusiasm, and to make a contribution towards the improvement of the existing panoply of guidelines and best practices. These cases include both traditional classroom and online higher education.

#### WEB 2.0 IN EDUCATION

The growing belief, that enhanced communication and interaction are key values, in learning, positions Web 2.0 at the centre of the new didactic technologies (Walker, 2008). Web 2.0's application in higher education is beneficial both for students and teachers. The implications of having the Social Web as an instrument for teaching are manifold.

In practice, teachers benefit from the access to an array of information that allows them to vary their teaching methodology as well as to enhance their knowledge and thus improve their performance as educators. Also, since this technology is interactive and focused on user generated content and the exchange of data between users, teachers are endowed with a multiplicity of tools that not only provides them with the means to create their educational materials, but additionally grants them the opportunity to share these materials and access others, created by other professionals. In light of Web 2.0 accessibility and availability worldwide, this exchange can happen with a colleague in the next office or with a peer from a different institution and/or country (Conole & Alevizou, 2010). In terms of perquisites for the students, social technology empowers the learners in a series of academic areas, assisting transversely the development of a panoply of skills. YouTube, for example, is an important tool for the interaction with media content. Communication and debate are fomented by the existence of forums and boards specially created to host varied discussions. Furthermore, social networks are proving to be valuable stages for bonding and generating online communities and internet based games; and virtual settings are aiding students to benefit from a symbiosis of entertainment and education. The multiplicity of formats in which content can be created, such as video, photography or audio have not eradicated the traditional text based communication. Blogs and wikis are applications that can assist in the 18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

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