

## Chapter 7

# Wired for Learning—Web 2.0 for Teaching and Learning: Trends, Challenges, and Opportunities for Education

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### ABSTRACT

*This is an introductory discussion into Web 2.0 technologies for teaching and learning. It is based on a review of the current literature and thinking around Web 2.0 and its potential in education. There has been a surge in internet services that attract the label “Web 2.0”. Wide acceptance of this term implies that together these services identify a change in the nature of the World Wide Web. This report seeks to define Web 2.0 and how it can be used. Consideration is also given to how these new technologies create opportunities for educational practice. Because these opportunities are not yet being widely taken up, the present discussion focuses on identifying challenges that may be impeding adoption of Web 2.0 ideas in teaching and learning.*

### INTRODUCTION

Time magazine picked the public as “Person of the Year” for 2006, because the editors were convinced that the public was “seizing the reins of the global media”, creating “an explosion of productivity and innovation”, and helping to frame a new digital democracy. The editors who made the choice wrote, “Web 2.0 is a story about community and collaboration on a scale never seen before. Web 2.0 is about

the cosmic compendium of knowledge Wikipedia and the million channel people’s network YouTube and online metropolis MySpace. Web 2.0 is about the many wresting power from the few and helping one another for nothing and how that will not only change the world, but also change the way the world changes” (Grossman, 2006). The fascinating story described by the editors at Time magazine was made possible by the brand new Web 2.0 tools.

As of July 2008, the term “Web 2.0” coined by O’Reilly Media in 2003 has more than 72.2 million

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citations in Google. Web 2.0 refers to the recent expansion of the Web which can be thought of as a new layer on top of the Web and refers to the ways the platform, the Web, is used. Previously, WWW sites were relatively static sites and provided the user information. This second generation of Web tools includes communication tools, interaction with media and humans, and collaboration and sharing. Many readers of this chapter probably have learned the differences of Web 1.0 and Web 2.0 by watching Jeff Utecht's Web 2.0 video and Mike Wesch's "The Machine is Us/ing Us" on YouTube. However, much is still needed to be learned of Web 2.0.

For education to not step up and maximize the Web 2.0 resources for teaching and learning is to risk becoming marginalized as a viable influence in helping to shape the 21st century (McLester, 2007). But there is still a huge amount of disagreement about what Web 2.0 means to education. This chapter is an attempt to present a broad overview the potential applications of Web 2.0 for teaching and learning.

## **BACKGROUND**

Web 2.0 is a set of web services and practices that give a voice to individual users. Such services thereby encourage internet users to participate in various communities of knowledge building and knowledge sharing. This has been made possible by the ever-extending reach of the (world wide) 'web'. Meanwhile, navigating and exploring this web of knowledge has been greatly facilitated by the increased functionality of the web 'browser'. The browser has thereby become the network reading/display tool that offers a universal point of engagement with the Web. More than that, the web browser has become a platform for the use of digital tools in community interactions. Further, Web 2.0 refers to the recent expansion of the Web. This expansion can be thought of as a new layer on top of the Web and refers to the ways

the platform, the Web, is used. Previously, WWW sites were relatively static sites and provided the user information. This second generation of Web tools includes communication tools, interaction with media and humans, and collaboration and sharing. Web 2.0 tools allow users to create online content--they are writing to the Web. Many of these tools require less technical skill to use the various features thereby allowing users to focus more on the information exchange between collaborators (Parker & Chao, 2007). These tools allow users to be more engaged which hopefully means that learners are more engaged in learning.

With a number of technological developments comes the creation of new ways of using the Web. Moreover, changes in access and speed have been accompanied by developments in software and data management. They also afford new patterns of internet use. In particular, the familiar web browser has become more versatile and easy to use. It has allowed a wider range of user interactions, collaboration, problem solving, and virtual teaming.

These changes and to some degree technological innovations have led to a more participatory experience of internet use (Cook, 2008). Thus, Web 2.0 has provided a version of internet experience that encourages individual users to upload: that is, to offer up their own contributions to a vast and interleaving exchange. This is implicitly contrasted with the former (Web 1.0) experience of the internet, which was more a matter of downloading: that is, accessing the contributions of a much smaller set of information providers. In sum, the barriers to production and distribution have been loosened: an invitation for widespread participation is in place.

These changes have led to a more participatory experience of internet use by all walks of life. Thus, Web 2.0 has provided a version of internet experience that encourages individual users to interact and create: that is, to offer up their own contributions to a vast and interleaving exchange. This is implicitly contrasted with the former (Web

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