Chapter 5
Web 2.0:
A Vehicle for Transforming Education

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ABSTRACT

Web 2.0: A Vehicle for Transforming Education includes practical and accessible overviews of some of the most commonly used and most useful technologies. The article serves as an idea generator, especially for teachers looking for ways to update their courses or to explore new concepts in learning. Technologies once only imagined are now opportunities to be implemented in the classroom. Audio and video conferencing, blogs, podcasts, RSS feeds, social bookmarking, and wikispaces are popular means of communicating in today's society. However, Web technology is developing at such an exponential rate that even the newest of these technologies, like Web 2.0, may one day soon be a footnote in computer history. Once these newer technologies are better understood and appreciated, educators can evolve their teaching strategies to help their students remain competitive in the global society.

INTRODUCTION

It seems that every institution, academic or corporate, is eager to gain access to anything involving Web 2.0. Although this term was coined by Timothy O'Reilly in 2004, it has evolved into a colloquialism that refers to the current state of the ever changing World Wide Web. Formerly, as amazing as the Web was, it was mostly a static entity on which programmers posted information in a specific format which others could simply view. Or, as Baumann (2006) asserts, "Before Web 2.0, programmers posted Internet content, and the exchange of information was only one way" (p. 38). However, society was pleased because it had information at its fingertips that previously required much time and labor to access.

As is generally the case, consumers demanded more. Perhaps this was, in part, due to the advances in the computer-animated graphics used in movie making, the highly interactive nature of the newest video games, or the increased dependence on e-mail and instant messaging that have permeated society. Whatever the case may be, computer us-

ers insisted that the newest technologies be made available to them. Fortunately, Web technology is developing at such an exponential rate that what we now know as Web 2.0 may one day soon be a footnote in computer history. In the meantime, what do *you* know about Web 2.0?

Although definitions abound which attempt to describe this phenomena, a prevailing theme of collaborative interaction arises. Web 2.0 provides ". . . ubiquitous access to data, an architecture of participation, and distributed independent developers 'playing well together.' Most importantly, everything is 'always in beta'—that is, constantly open for improvement by user feedback" (Umbach, 2006, p. 192). Hauser (2007) echoes this assertion of Web 2.0 as being ". . . an environment filled with opportunities to not only create content in new ways but also to share information, communicate differently, collaborate easily with the rest of the world, and self-publish" (p. 27). Coombs (2007) provides yet another interpretation. "It [Web 2.0] is often defined by the technologies that are part of it: social software, Weblogs, linklogs, folksonomies, wikis, podcasts, RSS feeds, and Web services" (p.17). Other applications include tagging, social bookmarking, online learning communities, and online office applications. All of the aforementioned share the characteristics of being user-centered, user-generated, and user-controlled. Or, as Breeding (2007) suggests, it involves

. . . building an environment that's more focused on the user, that embraces the dynamic content over static pages, that not only delivers content to users but also seeks content from users, and that fosters engagement, participation and collaboration. (p. 22)

Many teachers are taking notice of these new technologies because many are inexpensive and easily accessible methods to incorporate technology, to increase critical thinking, and to promote substantive conversation in the classroom. According to Driscoll (2007), teachers are ". . . discovering many cross-curricular projects such as conducting interviews, creating classroom news broadcasts, recording class discussions and explorations, sharing feedback about books, or discussing papers they have written" (p. 12). Podcasts, wikis, and blogs seem to be at the forefront of their efforts; however, audio and video conferencing, RSS feeds, and social bookmarking activities are also increasing in popularity. This is, in part, due to the ease of use and affordability of these tactics; and, as Driscoll contends, "Teachers can now focus on the important question, 'Why do I want to use this technology?' instead of, 'How do I use this technology?'" (p. 10). The following examples are merely a few of the technologies available as part of Web 2.0, but are the most pervasive at this juncture.

Audio and Video Conferencing

With academic standards and 21st century skills emphasizing reasoning, communication, and technology, it is vital that educators are finding more expedient ways of communicating with others outside the classroom. Newer forms of telecommunicating, which were previously available to only wealthy corporations, are now available at little or no cost to everyone.

Using technology to communicate and collaborate across different countries can create a more global learning environment, can allow for cross-cultural studies, and can enhance understanding and appreciation of education in contexts other than your own. (Driscoll, 2007, p. 12)

The easiest and perhaps the most commonplace of such communications are e-mail and instant messaging (IM). Instant messaging allows for online synchronous discussions, however, most schools block access to IM technology for fear of its misuse. E-mailing, although it is still too site regulated, is a form of asynchronous com-