

A modified excerpt from Patricia Delich's dissertation

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Pedagogical and Interface Modifications: What Instructors Change After Teaching Online

As the Internet evolves in its capacity to do more, what can be accomplished in online teaching and learning also evolves and expands. The increasing number of new technology tools and expanding bandwidth change how the Internet can be used in all facets of online activity, including e-learning. As technologies become more sophisticated and as they begin to converge (for example, cell phones becoming multimedia-capable and Internet-connected), educators will have more options for creating innovative practices in education.

The shift occurring in the Web from a static content environment where end users are the recipients of information—defined as Web 1.0—to one where they are active content creators—defined as Web 2.0—can be described as a transition to a more distributed, participatory, and collaborative environment (Wikipedia, 2005). Web 2.0 is considered to be a platform where “knowledge-working is no longer thought of as the gathering and accumulation of facts, but rather, the riding of waves in a dynamic environment” (Downes, 2005, ¶ 14). Web 2.0 is defined not only by technologies (blogs, wikis, podcasts, vodcasts, RSS feeds, and Google Maps are a few examples), but also by the social networking that it enables. As these communication-enabling technologies conjoin text, voice, and video using CoIP (Communications over Internet Protocol), they will provide a seamless integration with cell phones, PDAs, and computers (Yarlagadda, 2005). Web 2.0 technologies have the capacity to bring people together in ways Web 1.0 did not.

At the beginning of any paradigm shift, several definitions often encompass a new concept—this is also true with Web 2.0. In an interview with Ryan Singel (2005), Ross Mayfield, CEO of a company that creates wiki software, offered this simple definition: “Web 1.0 was commerce. Web 2.0 is people” (Singel, 2005, ¶ 6). Tim O’Reilly, who wrote one of the seminal articles on Web 2.0, saw it as an “architecture of participation” (O’Reilly, 2005, ¶ 26) and “not something new, but rather a fuller realization of the true potential of the web platform” (¶ 88). Web 2.0 is centered on communication—the ability to interconnect with content, ideas, and with those who create them. Social networking is a keyword for Web 2.0. The Web 2.0 framework sets the stage for a student-centered collaborative learning environment. Using existing communication tools in a way that encourages collaboration can be a step in the direction of incorporating the spirit of Web 2.0 philosophies in online learning environments.

A parallel can be drawn between the shift from Web 1.0 to Web 2.0 and the shift many instructors are making in online learning from an instructor-centered approach to a student-centered approach where students have more control over their learning. In online learning, Web 1.0 could be defined as the instructor-centered approach and Web 2.0 as the student-centered approach. Thus, the effects of Web 2.0 may influence how online

courses are conceptualized, developed, and taught. The use of Web 2.0 technologies and philosophies in education and training are sometimes referred to as “e-learning 2.0” (Cross, 2005; Downes, 2005; Wilson, 2005).

At the time of this writing, Web 2.0 technologies are just beginning to affect online teaching and learning. Specifically, as the Web becomes more interactive, instructors will want to know the most effective ways to incorporate these technologies in online learning. It is likely that Web 2.0 technologies will impact student-to-student communications in project-based learning and how instructors conceptualize, develop, and teach their courses. Incorporating Web 2.0 technologies and philosophies have the capacity to make courses more student-centered.

Viewed from a slightly different angle, Web 2.0 technology tools emphasize social networking. As indicated above, online learning environments can be used for enhanced communication among students as well as between students and the instructor. Creating learning opportunities that harness the power of Web 2.0 technologies for collaborative learning, distributed knowledge sharing, and the creation of media-rich learning objects can further the scope of what students can learn by “placing . . . the control of learning itself into the hands of the learner” (Downes, 2005, ¶ 12). These tools provide an avenue for students to spend more time on task whether they are in a traditional or an online classroom: from sharing ideas and their understanding of the course content to collaborating in the creation of artifacts that represent their learning.

Incorporating blogs for journaling assignments, wikis for creating content in collaborative group projects, podcasts for audio-based assignments, vodcasts for video-based assignments, and RSS feeds for syndication makes use of a few Web 2.0 technologies that can support project-based learning. The creativity and remixing of how the technologies can be used is an exciting new direction for both instructors and students.

Creating online courses that center on students constructing their own meaning with hands-on activities may radically change how teaching and learning is designed. Solely delivering an online course with content created by either a publisher or an instructor within the structure of course management software is no longer considered an effective strategy. Students working in learning environments that shift learning to knowledge construction rather than learning by assimilating what the instructor delivers will create courses that “resemble a language or conversation rather than a book or manual” (Downes, 2005, ¶ 32).

While each of these separate technologies can influence online course development, and teaching and learning, collectively they may effect dramatic change in the process.

Web 2.0 technologies and their use in teaching and learning are in a nascent state at the time of this writing. Research on the adoption and use of Web 2.0 technologies and their effects on teacher philosophies with respect to teaching and learning could assist in a deeper understanding of how these technologies can facilitate the design of courses that engage and retain students.

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