Chapter 10
Comparing Traditional Teaching with Andragogical Teaching via Web 2.0 Technologies

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ABSTRACT
The social networking and knowledge development features of Web 2.0 have offered new opportunities and challenges for teaching. This chapter will explore how these have impacted instructional methods utilized in both traditional and andragogical teaching in both face-to-face and virtual classrooms. It will include case studies as well as student comments.

INTRODUCTION
The introduction of new technology has always caused instructors to revisit their teaching methods with an eye to integrating the newest ideas. Both pedagogy and andragogy have been influenced by technology. Since the advent of the internet, new capabilities in presentation, communication, and collaboration have grown at an increasing rate. The recent introduction of Web 2.0’s features has extended the voice and face of online connections. This chapter will explore the impact of those features on teaching in both an instructor focused (traditional) and student focused (andragogical) learning environment. Brunner (2009) sets the tone for this dichotomy by describing “two strikingly divergent conceptions about how mind works. The first of these was the hypothesis that mind could be conceived as a computational device. The other was the proposal that mind is both constituted by and realized in the use of human culture” (p. 159). He explains that “The first or computational view is concerned with information processing: how finite, coded, unambiguous information about the world is inscribed, sorted,
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stored, collated, retrieved, and generally managed by the computational device. The process of knowing is often messier and more fraught with ambiguity than such a view allows” (pp. 159-160). He further clarifies that “The second is “culturalism” which suggests that “mind could not exist save for culture. Culture in this sense is superorganic. But it shapes the minds of individu-
als as well. Its individual expression inheres in meaning making, assigning meanings to things in different settings on particular occasions” (p. 160). His view of the mind as a computational device is consistent with the practice of instructor focused traditional teaching. His second view is a more holistic picture of the student shaped by culture and not just absorbing facts but making meaning of them within the student’s reality consistent with the practice of andragogy.

Web 2.0 Technologies

Rhoades, Friedel, and Morgan define Web 2.0 as that second generation of the World Wide Web that “aims to enhance creativity, information sharing, collaboration and functionality of the web” (p. 25). Farmer (2009) describes Web 2.0 technology as a place where “knowledge is collaboratively built and shared” (p. 272). Farmer (2010) also notes that “rather than one-way communication, Web 2.0 applications enable people to participate in two-way active communication to create information” (p. 178).

Chmielewski and Guynn report in the March 10, 2010 Los Angeles Times that 111.8 million people signed on to Facebook and 66.7 million signed on to MySpace in the U.S. alone in February, 2010. While these numbers represent a 5% decrease for MySpace, they represent a 95% increase for Facebook over the past year. They also note that Facebook users average 267 minutes per month on the site which MySpace users average 130 minutes. These statistics are clear evidence that online social networking is an integral part of many people’s lives.

However, Web 2.0 has become yet another of those numbered terms in the technology vocabulary. There are Windows 7 and 3G and 4G networks. The Blackboard Learning Management System versions seem to move forward by a whole number or at least by a decimal each academic year. The numbering schemes seem an indication of the fast paced changing landscape of technology. It is a constant reminder that something preceded the current version but also cautions not to become too comfortable with it because the next upgrade is lurking around the corner. So before Web 3.0 becomes a reality, it might be useful to examine how Web 2.0 developed.

Belfiore (2009) reports that the roots of Web 2.0 can be found in the Eisenhower administration’s establishment of the National Aeronautics and Space Administration (NASA) and the Advanced Research Projects Agency (ARPA) in 1957 in response to the Soviet Union’s launch of Sputnik, the world’s first artificial satellite. According to Shea-Schultz and Fogarty (2002), for over two decades, this network was the “province of academic institutions, scientists, and government employees engaged in research and communications” (p. 7) allowing them to share data between their remote computers. In 1989, the development of World Wide Web standards” (p. 8) led to the widespread utilization of this web based communication.

Shea-Schultz and Fogarty (2002) report that the next major advancement for the web occurred in 1992 as a result of two events. The Mosaic browser allowed graphics to be embedded in text and the U.S. government made the web available for commercial use. In addition, the “rise of increasingly powerful, yet reasonably priced, personal computers fueled by silicon microchip processors” (p. 9) made the hardware increasingly available. This was the beginning of a trend of increased access and processing power and decreased hardware size that has continued until today. Only a few decades ago computers filled large rooms and communication between them and humans was cumbersome