Chapter 3
Pedagogy 2.0:
Critical Challenges and Responses to Web 2.0 and Social Software in Tertiary Teaching

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ABSTRACT
Worldwide, tertiary educators and institutions are discovering that new models of teaching and learning are required to meet the needs of today’s students, and their demands for autonomy, connectivity, and socio-experiential learning. The educational applications of the new wave of Web 2.0-based social software tools compel us to consider how the affordances and potential for generativity and connectivity offered by these tools, as well as the broader societal changes that the Web 2.0 movement forms part of, impact on pedagogy and teaching, and open up the debate on how we conceptualize the dynamics of student learning. This chapter explores the ways in which scholarship and pedagogy are being challenged and redefined in the Web 2.0 era, and the accompanying need for students to develop new skills and competencies to prepare them for work and lifelong learning in a dynamic, networked society and knowledge economy. In response to these challenges the authors propose a pedagogical framework, “Pedagogy 2.0,” which addresses the themes of participation in networked communities of learning, personalization of the learning experience, and learner productivity in the form of active knowledge creation and innovation, and discuss how emerging social practices, ethos, and modes of communication influence the roles of teachers and learners.

INTRODUCTION
In contrast to earlier e-learning efforts that simply replicated traditional models of learning and teaching in online environments, social software, together with other components of the Web 2.0 movement, offers rich opportunities to move away from the highly centralized industrial model of learning of the past decade, toward achieving individual empowerment of learners through designs...
that focus on collaborative, networked communication and interaction (cf. Rogers, Liddle, Chan, Doxey, & Isom, 2007; Sims, 2006). Hilton (2006) discusses how a number of “disruptive forces” are shaping the future of higher education. These include the unbundling of content, the shift from “provider push” to “demand pull,” the arrival of ubiquitous access to information and services, and the rise of the “pure property” view of ideas that is not consistent with the Web 2.0 philosophy and spirit of collaboration and sharing.

For the purposes of the current discussion, the focus is on social software that enables participation, collaboration, self-direction, creativity, and generativity, as these are arguably the cornerstones of what it means to be educated in a networked age (Bryant, 2006; Oblinger, 2008). Social software tools are a defining characteristic of Web 2.0, and many are already being widely used to support learning. For example, one of the most basic social software tools, the web log (blog), has been used for diverse purposes, including teaching composition, as a reflective writing tool, as a platform for housing e-portfolios, and to facilitate shared and guided exploration; it has proven a resounding success in many schools and universities (Ganley, 2004; Richardson, 2006a). With the rich and varied functionality of social computing in mind, together with its “always-on” culture and participatory attributes, it is useful to consider the potential value adding of these emerging tools and technologies for learners in the new millennium.

HOW WEB 2.0 AND SOCIAL SOFTWARE TOOLS IMPACT ON EDUCATION, LEARNING, AND WAYS OF KNOWING

The Affordances of Web 2.0-Based Social Software Tools

Web 2.0 does not involve radical changes in the technical specifications of the Web, but most proponents of the concept describe it in terms of new possibilities and applications. O’Reilly (2005), who first coined the term, believes that these new applications have emerged due to a morphing sociocultural context, giving rise to the perception of revolutionary new uses for the same technologies. What, then, are the implications of Web 2.0 for education? Social software tools such as blogs, wikis, social networking sites, media sharing applications, and social bookmarking utilities are also pedagogical tools that stem from their affordances of sharing, communication, and information discovery. An affordance is an action that an individual can potentially perform in his or her environment by using a particular tool (Gibson, 1977, 1979; Norman, 1988). In other words, an affordance is a “can do” statement that does not have to be predefined by a particular functionality, and refers to any application that enables a user to undertake tasks, whether these capabilities are known or unknown to him or her. For example, blogging entails typing and editing posts, which are not affordances, but which make possible the affordances of idea sharing and interaction. Kirschner (2002) states that educational affordances can be defined as the relationships between the properties of an educational intervention and the characteristics of the learner that enable certain kinds of learning to take place. In considering the educational applications of information and communication technologies (ICTs), it is imperative to acknowledge the technologies are related to many other elements of the learning context (e.g., task design) that can shape the possibilities they offer to learners, how learners perceive those possibilities, and the extent to which learning outcomes can be attained.

According to Anderson (2004), “The greatest affordance of the Web for educational use is the profound and multifaceted increase in communication and interaction capability” (p. 42), which is even more evident in Web 2.0 when compared to the set of hyperlinked but largely static information sources that characterized “Web 1.0.” The affordances of Web 2.0 are now making learner-