# Chapter 1 Back to the Future: Tracing the Roots and Learning Affordances of Social Software

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### ABSTRACT

This chapter provides a developmental perspective on Web 2.0 and social software by tracing the historical, theoretical, and technological events of the last century that led to the emergence—or reemergence, rather—of these powerful and transformative tools in a big way. The specific goals of the chapter are firstly, to describe the evolution of social software and related pedagogical constructs from pre- and early Internet networked learning environments to current Web 2.0 applications, and secondly, to discuss the theoretical underpinnings of social learning environments and the pedagogical implications and affordances of social software in e-learning contexts. The chapter ends with a social software use framework that can be used to facilitate the application of customized and personalized e-learning experiences in higher education.

## INTRODUCTION

Is social software merely a continuation of a broad class of older computer-mediated communication (CMC) and collaboration tools, or does it represent a significant transformation of social interaction capabilities? In this chapter, we trace the evolution of social software tools, beginning

DOI: 10.4018/978-1-60566-294-7.ch001

with their use to augment computational and communication capabilities and foster collaboration and social interaction, and progressing to their Web 2.0-enabled information aggregation capabilities. Throughout this chronological depiction, we emphasize the socio-pedagogic affordances and implications of social software. We conclude the chapter with a social software use continuum to guide the design of e-learning experiences in academic contexts.

### **BACKGROUND**

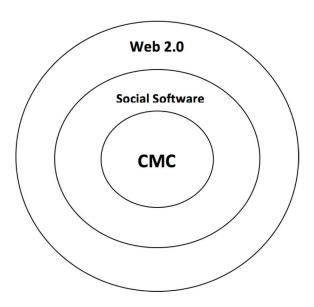
Before the name or construct of Web 2.0 became popular, the terms "social software" and "social computing" were being used interchangeably to describe the advent of a new wave of tools that support social interaction and collaboration in education. Therefore, we perceive social software as a subset of Web 2.0 and a continuation of older CMC and collaboration tools such as instant messaging (IM), newsgroups, groupware, and virtual communities (Kesim & Agaoglu, 2007; Alexander, 2006; Rheingold, 2003). Subsequently, we consider Web 2.0 as a more current and encompassing term that includes a broad range of web technologies, services, and tools, and refers to a renewed pattern of web technology adoption and innovation in the business sector (O'Reilly, 2007). Despite the chronological delineation between Web 2.0 and social software, the latter term has become more commonplace in academia and is the one preferred by EDUCAUSE (http:// www.educause.edu/). Figure 1 illustrates our view of the relationship between Web 2.0, social software, and CMC.

The proliferation of the Web 2.0 "pattern" of technology-enabled social collaboration involves both new tools and new social behaviors and practices (Alexander, 2006; Cormier, 2008; Carroll, 2008). However, the roles of technology and sociology in the development of these online tools are often confused, and the actual novelty of Web 2.0 may be less than some proclaim. It is helpful, therefore, to distinguish between the social and technical sides of Web 2.0.

### Social Side of Web 2.0

Web 2.0 was defined in an April 20, 2007 Burton Group report as "an ambiguous concept—a conglomeration of folksonomies and syndication, wikis and mashups, social networks and reputation, ubiquitous content, and perhaps even kitchen sinks" (Lindstrom, 2007, p. 6). The Burton Group

Figure 1. Web 2.0, social software, and CMC



report also suggests that "The value of Web 2.0 can be summarized in 2 words—participative and collaborative—served with a supersized helping of ubiquitous content" (p. 6). In a more recent (February 2008) Project 10X report, Davis (2008) characterizes Web 2.0 as the "Social Web" and describes it as the second stage of Internet growth that is all about "connecting people" and "putting the 'i' in user interface, and the 'we' into Webs of social participation" (p. 3). These definitions and attributes emphasize the social side of Web 2.0, as does O'Reilly's (2005) depiction of the four key attributes of Web 2.0 applications: collective intelligence, data on an epic scale, architecture of participation, and user-generated content.

The social side of Web 2.0 was also emphasized in the 2007 *Horizon report* (New Media Consortium, 2007), which highlighted the concepts of *user-created content* and *social networking* as new trends that will have a significant impact on college and university campus learning environments. Educational researchers and practitioners have further delineated some of the social affordances of Web 2.0 applications as: establishing group identity and personal reputations, building social

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