

# Chapter 13

## Learning Management Systems and Learning 2.0

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### ABSTRACT

*The unprecedented growth of Web 2.0 has affected learning and has made the growth of learning networks possible. Learning networks are shaped by communities to help their members acquire knowledge in specific areas and are the most notable feature of Learning 2.0, the new learning era that focuses on individual learning needs. The evolution of learning forces traditional Learning Management Systems (LMS) to incorporate more Web 2.0 features and slowly transform to Personal Learning Environments (PLEs). A Personal Learning Environment is a loosely structured collection of tools with strong social networking characteristics, which gives users the ability to create, maintain, and redistribute their own learning content. This paper is a field study of the most well-known and established LMSs and their support for specific features within several categories of tools of Web 2.0. The incorporation of Web 2.0 features within those LMSs differentiates them regarding their ability and potential to be used as PLEs.*

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## INTRODUCTION

One of the most popular web sites in the globe is Wikipedia, ranked in the top 10 globally according to Alexa (<http://www.alexa.com/topsites>), an online encyclopedia with more than 3,7 millions of articles contributed by its users. On the other hand one of the most famous and well known encyclopedias, The Encyclopedia Britannica, is ranked below 7000 globally (<http://www.alexa.com/siteinfo/britannica.com>). Also regarding credibility Wikipedia has been evaluated in several studies which suggested that “the actual differences in accuracy may not be particularly great” (Flanagin & Metzger, 2011, p. 358). This is an indicative comparison and pinpoints the potential held by Web 2.0 in terms of giving user active roles regarding the use of Web 2.0. And in Web 2.0 the term “use” includes not only passive consumption of information but also active participation and content generation (Lindmark, 2009). The generation of content by the user himself is key factor for the value of Web 2.0 applications and also drives the exponential growth of online social networks; Only on Facebook (2011) there were more than 800 million users. The enhanced role of users, being the leading actors for the available content online, also altered their attitude by encouraging them to connect, collaborate and share information, experiences, values and interests (O’Reilly & Battele, 2009; Grosseck, 2009). Yet Berners-Lee argues that Web 2.0 is not something new but rather, it is a marketing buzzword used by Internet enterprises to mock the vast majority of users about something innovative while it is just the implementation of Web 1.0 in its full potential, thus instead of Web 2.0 suggested the term Read/Write Web (Laningham, 2006).

Moreover and along with the rapid growth of Web 2.0 researchers began to study its effect to traditional distant learning systems and to the learning process in general (Downes, 2005; Anderson, 2007; Brown & Adler, 2008). Distance learning is “education imparted at a distance

through communication media such as radio, TV, telephone, correspondence, computer or video” (Tissot, 2004, pp. 60). In accordance to the Web 2.0 paradigm, the term e-Learning 2.0 was introduced (Downes 2005; Wallis, 2006) to describe a bottom-up approach to the learning process, decentralized and towards user generated learning content (Thalheimer, 2008). In the same context, the use of Web 2.0 features for participatory communities of learners and learning ecosystems has been described as Learning 2.0 (Brown & Adler, 2008).

While Learning 2.0 and the building of learning ecosystems are emerging, the traditional learning model regarding education is the typical classroom where the teacher provides learning material and guidance to the students. The increasing growth of ICT technologies and networks over the last 20 years has made distance learning more attractive and feasible and led to the buzzword e-Learning during the “New Economy” era (Ebner, 2007). The growth of e-Learning and its wide acceptance from educational organizations due to its positive effects (Weiss et al., 2002; Holzinger, 1997) encouraged the development of numerous Learning Management Systems (LMS) to support the e-Learning process.

This study describes the evolution of Web 2.0 and focus on its core features that relate strongly to Learning Management Systems and support the learning process. Moreover these features are checked against a selection of several LMS, methodologically chosen among others. This comparison chart then allows the loose classification of these LMSs regarding their ability to adapt to the Web 2.0 needs and the creation of Personal Learning Enviroments, which are the successors of LMSs in the Learning 2.0 context. The first section of this study is an introduction to Web 2.0 and how it influenced e-Learning and traditional Learning Management Systems. Next there is an extensive presentation of the most well-known and established Learning Management Systems and the rationale behind the choice

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