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.

Keywords: Education, Learning 2.0, Learning Management Systems, Personal Learning Environment, Web 2.0

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

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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; Groseck, 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 Environments, 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 of them among other according to the described methodology. Also there is a brief description of some important core features and tools of Web 2.0 that can be existent and required within a distant learning environment. The following section presents a detailed chart where each LMS is checked against the chosen Web 2.0 tools in terms of existence and support for each tools in order to proceed to the discussion session where there are comments of the charts and propositions for the future roadmap of LMSs.

**TOWARDS E-LEARNING 2.0**

**The Bloom of Web 2.0**

In the beginning of the 1990’s Tim Berners-Lee introduced the World Wide Web (WWW), an Internet service for people to collaborate and share their knowledge through the use of hypertext documents (Berners-Lee, 1991). Since then, the WWW has been a key element of the Internet and followed the same exponential growth as the Internet. According to ITU (2011) 70% of people in developed countries are Internet users
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