

## Chapter 13

# Promoting Digital Competences through Social Software: A Case Study at the Rovira i Virgili University

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### ABSTRACT

*In the present landscape of technological change there is increasing awareness of the need to support the acquisition of digital competences. In this chapter, we address how digital competences can be developed through formal learning. We show how to design a web 2.0 learning experience that was undertaken at Universitat Rovira i Virgili<sup>1</sup> and which developed both digital competences and management knowledge. In particular, the case presented focuses on the field of gender equality within the framework of labor relations in a non-real company created for this purpose, “Quadratonics SA”. Through Quadratonics’, web 2.0 tools and social software students improve their digital competences and, at the same time, are exposed to the most up-to-date innovations in ICT. Our final reflection is that higher education academics should continue to expand their awareness of web 2.0 applications and the role they can play in optimizing learning and knowledge creation among students, who will be the digital workers of the future.*

### INTRODUCTION

Information and communication technologies (ICT) are currently playing a key role in the education arena, from primary school to higher education and adult learning. Nowadays, campuses are networked, faculty post their notes on web pages, students access the library from their rooms, and

entire classes can have discussions via chat software (Rice-Lively, 2000). This development was labelled under the now commonly accepted term e-learning, which is evolving to new models such as mobile learning.

The European e-Learning Action Plan 2001 (European Commission, 2001) defines e-learning as the use of new multimedia technologies and the Internet to improve the quality of learning by

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facilitating access to resources and services as well as remote exchanges and collaboration. This requires new e-interaction and e-communication competences and a reorganization of e-learning structures. The components of these structures include content delivery in multiple formats, learning management, and a networked community of learners (Gunasekaran, McNeil, & Shaul, 2002). Internet/World Wide Web have meant that opportunities have been identified for developing distance learning activity into a more advanced online environment known as Virtual Learning Environment (VLE). Higher education institutions devote substantial resources to providing students with access to internet-based information, VLEs and other forms of e-learning. These efforts are predicated upon the assumption that “university students are inherently inclined towards using the internet as a source of information within their day-to-day lives and, it follows, disposed towards academic use of the internet” (Selwyn, 2008, p. 12).

In a fast moving technological environment, the traditional approach to e-learning is currently changing from the use of VLE to learning 2.0, an approach that combines complementary tools and web services—such as blogs, wikis, podcasting, videoblogs, and social networking tools—to support the creation of ad-hoc learning communities. In this context most of the current research tends to be concerned with the potential of the worldwide web and other internet applications to accelerate university students’ learning and knowledge-building, and support interactivity, interaction and collaboration (Selwyn, 2008).

This chapter aims to provide an introduction to the application of web 2.0 tools and social software on the learning process. Social software has emerged as a major component of the web 2.0 technology movement. But, how can social software play a role in higher education? To answer this question, this proposal focuses on the role of web 2.0 technologies in promoting learning and the development of digital competences among

students. A pedagogical application at the Rovira i Virgili University (URV) which stems from the provision of collaborative knowledge discovery, is discussed in depth. At the same time, the chapter explores the concept of digital competence from the perspective of the competence needs of the labour market and, the role that social software plays in the learning process. Finally, some suggestions are made for future research in this field.

## **BACKGROUND**

### **Social Software, ICT and Learning 2.0**

The term social software includes a large number of web 2.0 tools used for online communication: for example, instant messaging, text chat, internet forum, weblogs (or blogs for short), wikis, social network services, social guides, social bookmarking, social citations, social libraries and virtual worlds. O’Reilly (2003) describes web 2.0 as an “architecture of participation” in which collective intelligence generates a “network effect” leading to websites that become more valuable as more people participate. For McGee and Begg (2008), web 2.0 “represents a group of web technologies with a user-centric focus that actively change and evolve with user participation.” (p. 164). According to De Pablos (2007), social software refers to the “use of computer-mediated communication for forming communities: a web-based application is made available to a multitude of users contributing and sharing information.” (p. 22). From these definitions, two basic characteristics of social software can be derived:

1. They provide support for communicative interaction, either in real time (e.g. chats) or delayed time (e.g. email).
2. They provide support for social networking, so that knowledge can be shared and constructed collectively.

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