Chapter 18

First Steps in the Development of a Model for Integrating Formal and Informal Learning in Virtual Environments

Victoria I. Marín
Universitat de les Illes Balears, Spain

Jesús Salinas
Universitat de les Illes Balears, Spain

ABSTRACT

Educational technologists are currently researching how to enhance education through integrating the different aspects of individuals' learning. People learn by different means and contexts, so formal learning is only a part of the whole process of their learning. In this chapter, the authors present current progress in developing a methodological strategy model that aims to integrate formal and informal learning at university. For this purpose, they start with the foundations of this study and a description of its design and initial rollout in an undergraduate course, "Primary Teacher Training," at the University of the Balearic Islands in Spain. Although the study is currently still being carried out, it is worth highlighting some insights and reflections of the on-going implementation and future research directions of the study.

INTRODUCTION

It has been a long time, in our ever fast-changing society, since Web 1.0 evolved to Web 2.0, and all that this implies for education. In this change, blended and fully virtual learning have gained dynamism, interactivity and, especially, focus on the learner. However, educational institutions need to adapt themselves to the social, cultural and technological changes (Salinas, 2004a). Most people have experienced online learning through formal Virtual Learning Environments (VLE), usually managed by Learning Management Systems (LMS). These tools were, indeed, a revolution in educational institutions when they came to managing courses but, nowadays, some limitations and restrictions have been identified concerning setting the focus on the learner (Conole, 2013).

Universities are currently looking for the best way to efficiently manage learning. The virtual environments used in universities have been rated as insufficient to successfully accomplish this task: learners employ other systems to learn in a broad sense, such as Personal Learning Environments (PLEs) and social environments (Brown, 2010). LMS are good tools for more traditional teaching methodologies, focused on the role of the teacher rather than the student. However, LMS do not need to disappear; they can and should coexist and integrate with other learning systems, in order to give support to the idea of lifelong learning (Salinas, 2012).

The study we will introduce in this chapter follows up some previous works (Marín, 2013; Marín & de Benito, 2011; Marín, Salinas, & de Benito, 2012, 2013; Salinas, Marín, & Escandell, in press) and is part of the research project EDU2011-25499. This project is entitled "Methodological strategies for integrating institutional virtual environments, personal and social learning," which at the same time, follows up the work conducted in another research project - EDU2008-05345 "Design of methodological strategies for the use of shared spaces for knowledge using software tools and knowledge management systems in virtual training environments." In these projects, the research focus is on emerging models for VLEs (Salinas, 2009a) together with the configuration of learning scenarios (where we contextualize our current work) and professional development aimed at training teaching competencies to deal with different teaching-learning modalities (Gelabert, Moreno and Salinas, 2010; Salinas, 2009b), among others.

The aim of this chapter is to describe the design and initial rollout of a model of methodological strategies for integrating formal and informal learning in virtual environments. In this first phase of the study, the initial proposed model is described, as well as the procedure conducted in order to adapt this model to a specific university

course. Afterwards, some reflections on the implementation process and some future research lines regarding this process are included.

The broader aims of the research where this work is framed are:

- To design and develop didactical methodologies appropriate to the environments that promote open learning through formal, informal and non-formal learning integration. This is expected to be achieved by two actions: a) validating integrative methodology prototypes in open learning environments, and b) identifying pedagogical principles directed to adaptive and open learning environments.
- To analyze the effects of integrating different types of learning in the teaching-learning processes.

Therefore, this study is related to the proper utilization of virtual environments in teaching-learning processes. In this framework for improvement and future projection of virtual environments, validation of new teaching strategies and models to integrate input from the social Web and PLEs in institutional settings means moving forward on a new configuration of eLearning (Watson, 2010). Our study aims to analyze and work on methodological strategies to integrate open environments within institutional virtual environments, so that they can carry out effective learning management in the virtual environments – in the broadest sense - of educational institutions.

BACKGROUND

This study is founded on the principles of lifelong learning; findings regarding the use of VLEs in higher education; some learning theories and frameworks such as constructivism, social learning, andragogy, connectivism, pedagogy of

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