PLEs in Higher Education: Exploring the Transference of Web 2.0 Social Affordances

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ABSTRACT

Knowing whether Personal Learning Environments (PLEs) could transfer Web 2.0 affordances, which have been focused on the non-educational or recreational sphere, to the institutional sphere is important to move the research agenda beyond “cool uses” and to understand how the learning process is affected when students use this new type of environment in formal settings. This study analyzes the use of institutionally-powered PLEs (iPLEs) as a means to enable the participatory and community-centered model of Web 2.0 in higher education. Students from two undergraduate, inter-university, online courses were divided into two groups: a control group using a Virtual Learning Environment (VLE) based on Moodle, and an experimental group using an iPLE based on iGoogle, FriendFeed and Google Groups. The assumption that the iPLE is a suitable tool to create a cohesive and participative learning network that excels that generated by means of the VLE was explored. The results obtained through social network analysis performed to each environment’s forum data confirm this hypothesis.

Keywords: Higher Education, Institutionally-Powered PLE (iPLE), Learning Network, Personal Learning Environments (PLEs), Social Affordances, Virtual Learning Environment (VLE)

INTRODUCTION

The Bologna Process (Council of Europe, 1999) is resulting in deep change for universities in Europe in order to constitute the European Higher Education Area. Educators are challenged to provide new learner-centered and networked strategies that can be used to introduce innovative educational practices in higher education. The proper use of technology plays an important role to succeed in that aim.

Virtual Learning Environments (VLEs) have become the cornerstone for deploying eLearning platforms in higher education.
(Browne, Jenkins, & Walker, 2006). Although some VLE implementations have been used to deploy meaning-making and way-finding social activities, traditional content-driven approaches have been dominant (Conole, Oliver, Falconer, Littlejohn, & Harvey, 2007; Palloff & Pratt, 2007). This was to be expected if we agree that when a new technology is introduced it is usually used to support the old modes of work people are familiar with (Weller, 2009). But the subjugation of technology to traditional teaching and learning practices (Heppell, 2001) is not the only limitation VLEs must overcome. Learning management performed through a VLE makes it difficult to link the personal and institutional spheres of a learner, does not cover all the curricular, productive and communicative needs that different learners require in distributed and complex learning contexts, and lacks a gateway to access learning evidence and social graph (Casquero, Portillo, Ovelar, Benito, & Romo, in press).

Web 2.0 technologies and patterns are thought to be beneficial in challenging traditional learning approaches and in addressing the aforementioned limitations of current VLE implementations (Alexander, 2006; Casquero et al., in press; Lim, So & Tan, 2010; Greenhow, Robelia, & Hughes, 2009; Klamma et al., 2007; McGloughlin & Lee, 2010; Ravenscroft, 2009). As a result, there is a growing body of research in educational literature that expresses positive perceptions about their impact in formal educational settings (Hemmi, Bayne, & Land, 2009; Meyer, 2010; Hrastinski & Dennen, 2012). However, there is a need for educators and institutions to be wary of importing Web 2.0 technologies and patterns into classrooms on the presumption of transforming education (Selwyn, 2007). Learner acceptance of Web 2.0 technologies and patterns generally used for non-educational or recreational purposes might not necessarily imply acceptance for learning purposes (Cole, 2008). From an institutional perspective, Moore (2007) argues that when Web 2.0 tools are “added” instead of being “integrated” into the current implementation of distance learning, they will yield minimal benefits. In addition, Lim et al. (2010) state that Web 2.0 technologies and patterns represent a complex challenge in terms of culture and structure and conclude that more deep-rooted systemic intervention beyond simply making Web 2.0 technologies available is needed. From an individual perspective, the community-centred model and user-centred model, which constitute two of the added value patterns of eLearning 2.0 (Casquero et al., in press; Downes, 2005), should not be taken for granted. With regards to the the community-centred model, research by Karasavvidis (2010) replicates previous literature findings, indicating that learners prefer more cooperative approaches than collaborative approaches in order to complete group work (Elgort, Smith & Toland, 2008; Paulus, 2005), and that learners tend to participate infrequently (Cole, 2008). Regarding the user-centred model, Wheeler, Yeomans and Wheeler (2008) found that when open collaborative spaces like wikis are used for learning, learners seem to be lost and want more structure in the learning process. Therefore, there is a need to critically examine whether the benefits of Web 2.0 technologies and patterns can effectively be transferred to formal educational settings. Personal Learning Environments (PLEs), a mainstream technological and pedagogical concept, are supposed to enable this transference.

The PLE concept emphasizes the learner control over content, tools, services, conversations and people involved in a learning process at a given time (Fiedler & Pata, 2009; Casquero, Portillo, Ovelar, Benito, & Romo, 2010), and it is supposed to surpass the VLE in two aspects: (1) digital resource creation, distribution and consumption, and (2) communication, aggregation of individuals and creation of online communities (Adell & Castañeda, 2010; Casquero et al., in press). As a result, PLEs are considered powerful tools to address the limitations of current eLearning implementations in higher education as they provide new affordances that can be used to support new learning practices. But, to what extent does using a PLE dynamize or improve the learning process compared to traditional VLE implementations?
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