

Chapter 33

Designing Learning in Social Online Learning Environments: A Process–Oriented Approach

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ABSTRACT

The widespread use of social media challenges educators to reflect about their pedagogical potential in promoting both informal and formal learning. A brief review of the literature points to the major pitfalls on a social level of learning management systems and on the strengths of social media in promoting information exchange and interaction. This chapter shows how social networks can be integrated in formal learning through a learning design approach. A connectivist process-oriented pedagogical model, comprising dimensions and levels of interactions, is proposed to guide the design of learning activities in terms of interactions throughout the domain, technology, and community dimensions. Using Edmodo as an example of a Social Online Learning Environment, templates are used to design a domain-oriented instructional experience, a collaborative learning activity and a contributory learning activity. Besides the experiential component, each of these activities includes a metacognitive component to promote a reflective attitude and the necessary personal and collective metacognitive skills when using online learning environments.

INTRODUCTION

The widespread use of Social Networking Sites (SNS) by both young and older generations challenges educators and researchers to look at the pedagogical potential of these environments. Learners' competence and confidence in using SNS is an asset in their personal profile that should be exploited to promote both informal and formal learning. Building on the current research about the characteristics of SNS in mediating communication, informal learning and knowledge sharing, this chapter attempts to apply learning design principles, mostly acquired through experience, with other online tools and environments, to explore how SNS may be used in formal learning contexts. Inspired by a Connectivist

DOI: 10.4018/978-1-5225-5472-1.ch033

epistemology, designing learning experiences in SNS and other Social Online Learning Environments (SOLE – online environments integrating features of SNS with tools to promote learning) adopts a process-oriented design approach that considers interactions throughout three major dimensions: interactions of a learner within a content area (curricular subject), interactions within and across digital tools that extend the online (learning) experience, and interactions with peer learners and experts mediated through the online environment. For pedagogical relevance, the interactions within these dimensions are categorized according to user's level of competence, considering acquisition, participatory and contributory modes of learning.

Thus this chapter is prescriptive in nature, attempting to apply experience in learning design to these popular online environments. The objective is to offer a proposal to educators and practitioners as to how they can integrate SOLE with formal learning. Instead of 'fitting learning experiences to SOLE, an attempt is made to explore how designed learning experiences can be mediated by SOLE to address the needs of school classes and online learning communities.

LEARNING IN INFORMAL AND FORMAL ON-LINE ENVIRONMENTS

In line with past innovations in educational technologies, such as the introduction of the personal computer, the internet, the Interactive white-board in schools and the recent integration of tablets in the classroom, social networking sites are provoking researchers and practitioners to reflect about the educational and pedagogical potential of this modern technology-intensive social phenomenon. As learners get more naturalized to this social communication medium, it becomes a conceptual artifact (Bereiter, 2002) that becomes modified, extended and adapted to the evolving needs of users that differ substantially from the ones targeted by the initial creator. New conceptualizations and applications for SNS may emerge, extending their use beyond the realm of social communication. In fact research about the pedagogical potential of SNS is evolving beyond the focus on informal learning, exploring possibilities as to how these can be integrated within formal learning contexts. This chapter explores how learner-centred design principles developed in other technology-intensive environments can be adopted to promote formal learning in social online environments. It is a prescriptive exercise based on a process-oriented model for technology-enhanced learning developed and used by the author in daily practice. This model has been used to describe, design and assess game-based learning (Bonanno, 2008), Ubiquitous learning (Bonanno, 2011) and Assessment in Technology-Enhanced Learning (Bonanno, *in press*).

Actually, most of current research is descriptive in nature, focusing on demographics, patterns of SNS use and small-scale investigations about their use in informal learning contexts. Researchers study how SNS are used and through comparative analysis identify shortcomings of other web-based tools or environments and consequently propose possible innovative uses of SNS. Veletsianos & Navarrete (2012) quote Brady *et al.* (2010), Lee & McLoughlin (2010), Schroeder *et al.* (2010) and Whitworth & Benson (2010), who complain that learning management systems have generally been used as static repositories of content, failing to provide the robust, socially interactive experience found in SNS or other social media. In the same vein, DeSchryver *et al.* (2009) and Naveh, Tubin, & Pliskin (2010) criticize learning and content management systems for suppressing motivation and enthusiasm and for failing to support personalization.

Consequently innovative educators have been looking for alternative, immersive and highly interactive social media that promote social communication, allow for ease of use, pedagogical freedom,

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