Chapter 77

Using a Design Research Approach to Investigate the Knowledge–Building Implications of Online Social Networking and Other Web 2.0 Technologies in Higher Education Contexts

Cameron Richards
Universiti Teknologi, Malaysia

ABSTRACT

Online social networking and related Web 2.0 technologies have taken the world of Internet users by storm in recent years. However beyond the use of blogs for reflective learning journals and University alumni pages on Facebook, there has generally been little integrated use of social networking tools in higher education. This chapter will explore how a design research approach may assist in not only recognizing but also developing the knowledge-building implications of a convergence between such tools and technologies on one hand, and also on the other constructivist approaches to related domains of learning, research and professional reflective practice in academic communities and contexts. The process of designing and developing an applied research problem and related central question or inquiry focus is approached in terms of two 'design research' proposals. One, it considers the idea that if a critical mass of both basic skills and actual usage could only be achieved by teachers, administrators and researchers then social networking has the potential to significantly and productively transform higher education. Two, it considers the idea that the key to achieving such a 'critical mass' in education contexts perhaps lies in designing meaningful contexts or purposes of interaction – that is, in linking the function of social networking to an appropriate design paradigm for using associated Web 2.0 tools. In this way the chapter will explore the requirements for a more effective harnessing of the exemplary possibilities of online social networking in higher education contexts.

INTRODUCTION

Web 2.0 will affect how universities go about the business of education, from learning, teaching and assessment, through contact with school communities, widening participation, interfacing with industry, and maintaining contact with alumni … −Franklin & van Harmelan (2007), Commissioned report for the UK Joint Information Systems Committee.

The overall view of research in the empirical tradition is to develop long-lasting principles and unambiguous principles which can be handed off to practitioners for implementation… The overall goal of development research [and a related design research paradigm] is to solve real problems whilst at the same time constructing design principles that can inform future decisions. In Kuhn's terms [i.e. general knowledge 'paradigm shifts'], these are different worlds – Reeves (2000)

Universities have long been interested in harnessing the educational possibilities of new Information and Communication Technologies (ICTs) (e.g. Daniel, 1996; Corford & Pollock, 2003; Laurillard, 2004, 2006). However, university students around the world have generally been uninspired by the typical model of university e-learning using online *learning management systems* as mainly a repository of learning content posted by lecturers (Paloff & Pratt, 1999; O'Neill, Singh & O'Dooghue, 2004; Herrington & Herrington, 2005). On the other hand, many of these same students now regularly use at home online communications and profiling which extend from messaging programs like *Skype* and *Twitter* through to social networking programs like *Facebook*. Some workplaces outside education have started to use some related Web 2.0 functions for such purposes as business communication and project development (Tapscott & Williams, 2006; Shirky, 2008; Zittrain, 2008; Li & Bernoff, 2008). However, apart from the use of blogs as a kind of reflective journal and some educational wikis (e.g. Anderson, 2007; Churchill, 2007), there is presently little applied use of a wider Web 2.0 concept of 'online social networking' in education. In other words, a new generation of young learners are increasingly embracing a Web 2.0 paradigm of interaction which has yet to find wide or general currency inside schools and universities. In light of the prediction above made by Franklin & Harmelan (2007), this chapter will explore the possibilities and requirements of a more effective harnessing of social networking tools and other Web 2.0 technologies across a range of purposes in higher education including e-learning (Cf. also Rheingold, 2002; O'Hear, 2007; Simoes & Gouveia, 2008).

The chapter also reports on the design and development of a project to especially investigate the promise of social networking tools for supporting online research and learning communities or environments (Jonassen & Land, 2000; Miller, 2000). The exemplary focus of this case study project was a large cohort of postgraduate researchers–the particular group in higher education who are well-known to commonly experience feelings of both academic and social isolation (Tapscott, & Williams, 2006). The study focused on the design requirements for not only encouraging widespread use of this program, but an effective harnessing of its related functions linked to a range of useful purposes. Ongoing further project development will extend this study to include more directed and integrated use by academic and also non-academic staff in terms of using the same social networking program to be fully integrated into the teaching, research and administrative activities of an academic faculty. In this way, the two stages of the project will particularly focus on the exemplary possibilities of using a social networking platform to develop more effective academic research cultures, to encourage collaboration, and to increase the quality as well as quantity of publication outputs.

Related Content

Standards for ICT: A Green Strategy in a Grey Sector

Tineke M. Egyediand Sachiko Muto (2012). *International Journal of IT Standards and Standardization Research (pp. 34-47).*

www.irma-international.org/article/standards-ict-green-strategy-grey/64321

A Diffusion Model for Communication Standards in Supply Networks

Tim Stockheim, Michael Schwindand Kilian Weiss (2006). *International Journal of IT Standards and Standardization Research (pp. 24-42).*

www.irma-international.org/article/diffusion-model-communication-standards-supply/2576

Effective Management of Standardizing in E-Government

Dian Balta (2019). *Corporate Standardization Management and Innovation (pp. 149-175).*

www.irma-international.org/chapter/effective-management-of-standardizing-in-e-government/229302

Analysis of Standards, Certifications and Labels for Bio-based Products in the Context of Sustainable Bioeconomy

Stefania Bracco, Özgül Calicioglu, Alessandro Flammini, Marta Gomez San Juanand Anne Bogdanski (2019). *International Journal of Standardization Research (pp. 1-22).*

www.irma-international.org/article/analysis-of-standards-certifications-and-labels-for-bio-based-products-in-the-context-of-sustainable-bioeconomy/249239

An Electronic Contract Signing Protocol Using Fingerprint Biometrics

Harkeerat Bedi, Li Yangand Joseph M. Kizza (2013). *IT Policy and Ethics: Concepts, Methodologies, Tools, and Applications (pp. 635-661).*

www.irma-international.org/chapter/electronic-contract-signing-protocol-using/75050