Identifying the use of online social networking in higher education

Suraya Hamid, Shanton Chang and Sherah Kurnia
Department of Information Systems
The University of Melbourne

Online social networking (OSN) is a range of activities enabled by social technologies and operationalised by a group of people. More recently, web 2.0 social technologies have been widely used to facilitate OSN. OSN is currently popular mostly for non-educational purposes among young generations categorised as Digital Natives. It can be appropriated and repurposed to support teaching and learning delivery. Despite the availability of implementation cases, studies on the effectiveness of the deployment are still lacking. Therefore, based on a critical literature review, this study investigates which OSN activities are relevant in the education context and what social technologies can support these activities. Specifically, four OSN activities that have been identified and relevant in the education context are content generating, sharing, interacting and collaboratively socialising. The study finding provides a general guide for academics who want to use OSN in improving their teaching and learning.

Keywords: Online social networking, OSN, social technologies, Web 2.0 tools, educational activities, higher education

Introduction

The widespread use of social technologies (software and/or applications that are used for social purposes), in particular Web 2.0 tools is relatively a new phenomenon (Shaohua & Peilin, 2008). Web 1.0, the precursor of Web 2.0 is static, centralised, content-based, readable, rigid and individual. On the other hand, Web 2.0 is dynamic, distributed, service-based, writeable, loosely couple and social (Silva, Rahman, & El Saddik, 2008) . Web 2.0 popularity can be credited to highly utilised services like blogging, video sharing and social networking sites. To some extent, online discussion board stemmed from Web 1.0 is also frequently included in Web 2.0 discussion (Shin & Lowes, 2008). Although Web 2.0 technologies have only been around for about five years, yet they are already having a noticeable impact on higher education (Armstrong & Franklin, 2008; Sendall, Ceccuci, & Peslak, 2008).

Demographically, the majority of Web 2.0 users are youngsters (Boyd, 2007) and this group of individuals are categorised as the 'Digital Natives' (Prensky, 2001). Kennedy et al (2007) and Grosseck (2009) suggested that careful planning must be made prior to adoption of social technologies in classroom as not all digital natives are keen to have such technologies for various reasons: diversity of experiences, familiarity, attitudes and expectations of the students towards online technologies. Murray (2008) indicated that the Digital Natives use OSN mostly outside of classroom context and for non-educational purposes. Ensuing to these arguments, scholars have proposed that educators need to adjust their pedagogical models if they were to use Web 2.0 for teaching and learning in order to suit this kind of new generation learners.

As the higher education deals with digital natives who are perceived to be familiar with OSN and Web 2.0, the literature has shown evidence of some efforts made to appropriate and repurpose these technologies to support educational activities. However, at this stage, the effectiveness of appropriation and repurposing of the technologies is not well understood. To address the gap, this research investigates not only the phenomenon of Web 2.0 use in higher education but also how higher education can deploy OSN appropriately with consideration being given to pedagogical aspects. Therefore, the research

questions for this study are: (1) What online social networking activities are relevant in the education context? and (2) What social technologies can support these activities?

By understanding which social technologies are more suitable for supporting a specific activities in teaching and learning, educators will be in a better position to make informed decision (to deploy or otherwise), plan and invest resources into OSN.

Learning 2.0 and OSN adoption in higher education

The concept of delivering educational activities using Web 2.0 tools is termed Learning 2.0. It is basically an innovative online learning space used to deliver teaching and learning (Murray, 2008). Learning 2.0 is creating a new kind of a participatory medium that is ideal for encouraging multiple types of learning, in particular social learning (Brown, 2008). In line with the popularity of OSN, reports on its appropriation and repurposing for educational purposes in universities are aplenty. However, the implementations are typically not university-wide as all of them are done in a small-scale and confined to a certain level of studies only (i.e first year students, postgraduate students, subject-focused, or discipline-oriented). Therefore, exploring pedagogical aspects for successful OSN implementation for Learning 2.0 via Web 2.0 is a fertile research ground.

Educational activities facilitated by online social networking

Berners-Lee (2001) argued that the Web is a democratic, personal and DIY (Do-It-Yourself) medium of communication. With that premise and drawing from the literature, we summarise the use of online social networking activities in higher education in Table 1. In this table, we show that much of the literature has focused on content generation, and less is understood about how social technologies may be used in sharing, interacting and collaboratively socialising.

Table 1: Matrix of OSN and Social technology

Social Technologies	Online social networking			
	Content Generating	Sharing	Interacting	Collaboratively Socialising
Blogs	(Sandars & Schroter, 2007) (Hargadon, 2008) (Churchill, 2009) (Murray, 2008)		(Churchill, 2009)	
Wikis	(Ras & Rech, 2009) (Sandars & Schroter, 2007) (Hargadon, 2008) (Kane & Fichman, 2009) (Murray, 2008)	(Kane & Fichman, 2009) (Ras & Rech, 2009)		(Kane & Fichman, 2009) (Sandars & Schroter, 2007) (Ras & Rech, 2009) (Rhoades, Friedel, & Morgan, 2009)
Photo sharing	(Sandars & Schroter, 2007) (Hargadon, 2008)			
Video sharing	(Sandars & Schroter, 2007) (Hargadon, 2008)		(Mason & Rennie, 2008)	
Podcasting	(Sandars & Schroter, 2007) (Minocha & Thomas, 2007) (Hargadon, 2008)	(Sandars & Schroter, 2007)		
Social bookmarking	(Sandars & Schroter, 2007)	(Eysenbach, 2008) (Churchill, 2009)		
Online discussion board	(Hemmi, Bayne, & Landt, 2009)			(Wuensch, Aziz, Ozan, Kishore, & Tabrizi, 2009)
Instant messaging	(Sandars & Schroter, 2007)			(Sandars & Schroter, 2007) (Mason & Rennie, 2008)
Social networking sites	(Murray, 2008) (Virkus, 2008) (Sandars & Schroter, 2007) (Hargadon, 2008)	(Murray, 2008) (Oradini & Saunders, 2008)	(Murray, 2008) (Minocha, 2009)	(Murray, 2008) (Supe, 2008) (Oradini & Saunders, 2008)

Conclusion

This paper discussed the opportunities for using and harnessing OSN in higher education. The main challenge however lies in pedagogically appropriating and repurposing social technology for OSN use by the digital natives. In the next stage of this research, empirical data would be gathered to understand the real implications of OSN use and its effectiveness in the teaching and learning in higher education. The

empirical data would also provide the basis for researchers and academics to make informed decision as to what, when and how to use OSN in their education delivery.

References

Armstrong, J., & Franklin, T. (2008). *A Review of Current and Developing International Practice in the use of Social Networking (Web 2.0) in Higher Education*

Berners-Lee, T. (2001). *Weaving the Web: Origins and Future of the World Wide Web*. Mason, OHIO: Texere Publishing.

Boyd, D. (2007). Social Network Sites: public, private or what? *The Knowledge Tree, An e-Journal of Innovation*(13).

Brown, J. S. (2008). How to Connect Technology And Content In The Service Of Learning *The Chronicle of Higher Education, 55*(8).

Churchill, D. (2009). Educational applications of Web 2.0: Using blogs to support teaching and learning. *British Journal of Educational Technology, 40*(1), 179-183.

Eysenbach, G. (2008). Medicine 2.0: Social Networking, Collaboration, Participation, Apomediation, and Openness. *Journal of Medical Internet Research, 10*(3), 1-9.

Grosseck, G. (2009). *To Use or Not to Use Web 2.0 in Higher Education?* Paper presented at the Procedia Social and Behavioral Sciences, World Conference on Educational Science 2009.

Hargadon, S. (2008, 4 March 2008). Web 2.0 is the future of education. 4 March 2008. Retrieved 12 August, 2009, from http://www.stevehargadon.com/2008/03/web-20-is-future-of-education.html

Hemmi, A., Bayne, S., & Landt, R. (2009). The Appropriation and Repurposing of Social Technologies in Higher Education. *Journal of Assisted Learning, 25*(2009 Special Issue), 19-30.

Kane, G. C., & Fichman, R. G. (2009). The Shoemaker's Children: Using Wikis For Information Systems Teaching, Researchn and Publication. *MIS Quarterly, 33*(1), 1-17.

Kennedy, G., Dalgarno, B., Gray, K., Judd, T., Waycott, J., Bennet, S., et al. (2007). *The Net Generation Are Not Big Users of Web 2.0 Technologies: Preliminary Findings.* Paper presented at the Proceedings Ascilite Singapore 2007, Singapore.

Mason, R., & Rennie, F. (2008). *E-Learning and Social Network Handbook: Resources for Higher Education*. Madison Ave, New York: Routhlege.

Minocha, S. (2009). *A Study Of The Effective Use of Social Software by Further and Higher Education In The UK To Support Student Learning and Engagement*: The Open University UKo. Document Number)

Minocha, S., & Thomas, P. G. (2007). Collaborative Learning in a Wiki Environment: Experiences from a Software Engineering Course. *New Review of Hypermedia and Multimedia, 13*(2), 187-209.

Murray, C. (2008). Schools and Social Networking: Fear or Education? *Synergy Perspectives: Local, 6*(1), 8-12.

Oradini, F., & Saunders, G. (2008). *The Use of Social Networking By Students and Staff In Higher Education.* Paper presented at the iLearning Forum, 2008, Paris.

Prensky, M. (2001). Digital Natives, Digital Immigrants [Electronic Version]. *On the Horizon*, *9*, 1-6. Retrieved 14 February 2009, from http://www.marcprensky.com/writing/Prensky - Digital Natives, - Digital Immigrants - Part1.pdf

Ras, E., & Rech, J. (2009). Using Wikis To Support The Net Generation In Improving Knowledge Acquisition in Capstone Projects. *The Journal of Systems and Software, 82*(2009), 553-562.

Rhoades, E. B., Friedel, C. R., & Morgan, A. C. (2009). Can Web 2.0 Improve Our Collaboration? (Technology Usage in the Classroom). *Techniques, 84*(1).

Sandars, J., & Schroter, S. (2007). Web 2.0 Technologies for Undergraduate and Postgraduate Medical Education: An Online Survey. *Postgraduate Medical Journal, 83*(2007), 759-762.

Sendall, P., Ceccuci, W., & Peslak, A. (2008). *Web 2.0 Matters: An Analysis of Implementing Web 2.0 In The Classroom.* Paper presented at the Proceedings ISECON 2008.

Shaohua, H., & Peilin, W. (2008, 21-22 Dec). *Web 2.0 And Social Learning in a Digital Economy.* Paper presented at the IEEE International Symposium on Knowledge Acquisition and Modeling Workshop, 2008. KAM Workshop 2008.

Shin, W., & Lowes, S. (2008). *Analyzing Web 2.0 Users in an Online Discussion Forum.* Paper presented at the World Conference on Educational Multimedia, Hypermedia and Telecommunications (EDMEDIA) 2008, Chesapeake, VA.

Silva, J. M., Rahman, A. S., & El Saddik, A. (2008). *Web 3.0: a vision for bridging the gap between real and virtual.* Paper presented at the 1st ACM international workshop on Communicability design and evaluation in cultural and ecological multimedia system, Vancouver British Columbia, Canada.

Supe, A. N. (2008). Networking in Medical Education: Creating and Connecting. *Indian Journal of Medical Sciences, 62*(3), 118-123.

Virkus, S. (2008). Use of Web 2.0 Technologies in LIS Education: Experiences at Tallinn University, Estonia. *Electronic Library and Information Systems, 42* (3), 262-274.

Wuensch, K. L., Aziz, S., Ozan, E., Kishore, M., & Tabrizi, M. H. N. (2009). Technology And Pedagogy: The Association Between Students' Perceptions of the Quality of Online Courses and the Technologies Employed. *MERLOT Journal of Online Learning and Teaching, 5*(2), 253-262.