

Please Cite as:

Ravenscroft, A., Warburton, S. & Hatzipanagos, S.(2010). Design perspectives for learning with social media: Reconciling informal and formal learning through Web 2.0? Symposium Accepted for *International Conference on Educational Media (Ed-Media) 2010*, Toronto, June 29-July 2 2010.

Design Perspectives for Learning with Social Media: Reconciling Informal and Formal Learning through Web 2.0?

Symposium Organisers/Leaders:

Andrew Ravenscroft, Steven Warburton & Stylianos Hatzipanagos

Symposium Presenters:

**Andrew Ravenscroft (1) Steven Warburton (2) Stylianos Hatzipanagos (2),
and Gráinne Conole (3)**

1. Learning Technology Research Institute (LTRI), London Metropolitan University, UK.
2. Kings College London, UK.
3. Institute of Educational Technology, Open University, UK.

Abstract: Although the widespread use of social media reflects how Web 2.0 technologies have become embedded in our lives, there are still significant challenges in harnessing these and their related practices for learning. One expectation is that they will provide the means to reconcile informal and formal learning to allow for a more seamless transition between meaningful activity inside and outside of educational institutions or the workplace. But how do we support such processes or progressions? The approach adopted in this symposium is to see *design*, or *learning design*, as the key paradigm to address this challenge. But designing for this constantly evolving technological landscape creates new problems and complexities. This symposium will present different approaches to design from experts who specialise in the field of social software for learning, and who are concerned with both bridging informal and formal learning and questioning what we consider to be legitimate learning.

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1. Symposium Organisation

This symposium will be organised around four presentations outlining key perspectives on design based approaches to the use of Web 2.0 technologies across formal and informal educational settings. The session will begin with a brief 10 minute introduction followed by two twenty minute presentations and a short (10 min) break for questions (during the first hour). We will then continue with the final two twenty minute talks that will lead into the panel and audience discussion lasting 20 minutes (during the second hour). We will also be using a back channel (Twitter or similar) to allow the audience to pick up on emerging themes. This will be monitored and referred to during the question/discussions break and drawn upon in the final panel session.

2. Introduction: Current Status of Social Media and Learning

Although the adoption of social software, or what are popularly called Web 2.0 technologies, within our everyday lives is relatively recent, many have attempted to embrace these technologies and related digital literacies for learning in educational institutions and the workplace. This state of the art was reflected in two key publications edited by the organisers of this symposium which appeared earlier this year. These were a Special Issue of the Journal of Computer Assisted Learning on *Social Software, Web2.0 and Learning* (Ravenscroft, 2009) and a *Handbook of Research on Social Software & Developing Community Ontologies* (Hatzipanagos & Warburton, 2009). These covered a wide-range of perspectives and projects that collectively conveyed the energy and enthusiasm for embracing more open and participative approaches to learning, but also uncovered some deep misalignments and paradoxes in the context of traditional education:

“There is also the clear tension between the tradition of learning as a highly structured and organized experience, involving clear levels of authority, and, the more collaborative, volatile and anarchic nature of the social web.”
Ravenscroft, 2008, p5

One particular factor in this respect was nicely pointed out by Clarke et al., (2009):

"More needs to be understood about the transferability of Web 2.0 skill sets and ways in which these can be used to support formal learning."
Clark *et al.* 2009, p. 56

This initial and somewhat fractured discourse is what the presenters of this symposium are aiming to develop as we arguably move to the next generation of initiatives that aim to support learning with social media. The approach that is being developed by these researchers and across their networks is to conceive the challenges and possibilities as part of cutting edge thinking in *learning design*. One of the key challenges in this respect is to clarify and distinguish: what we consider to be informal and formal learning; and, what we consider to be important about relationships between the two. To assist us in this approach, some presenters will articulate their perspective on design through ‘drilling down’ on to particular strands of research in more detail. So, along these lines, the first presentation by Ravenscroft will focus on the radical requirements and related methodologies for design that are being adopted to support *informal learning and knowledge maturing* in the ‘Web 2.0 workplace’. These types of challenges and methodologies are then further developed in the second talk by Warburton, that is deliberately more general and focussed on the design process itself, and how progress can be made based around the idea of *design patterns*. The third presentation by Conole will highlight the literacy-gap between partial and full participation in the use of social media and present a solution through the use of a site for *sharing design knowledge*. The final presentation by Hatzipanagos applies the above discourse to learning set-ups that encourage and help social media groups to become *communities of practice and explores the implications for learning design*.

3. Reconciling Informal and Formal Learning through Design

One of the key ongoing agendas, across the European educational landscape in particular, is finding ways to capture meaningful informal learning experiences by explicitly linking these to formal structures and providing frameworks within which informal learning can then be validated and accredited (Cedefop Report, 2007). The idea is to harness individually motivated and interest driven informal learning within wider and more standardised educational practices and organisations. This is recognised as especially pertinent given the prominence of the lifelong learning agenda and the diverse nature of student profiles, from adult, vocational, part-time, distance, digital natives and so on. Social software technologies offer great potential in that they can support informal and formal practices within the same digital space through the sharing of common digital literacies. Similarly, specially designed social software (Ravenscroft et al., 2009) can focus on semi-formal learning practices that deliberately bridge informal and formal dimensions of the learning process.

Nevertheless, given the pace of change in the possible social media configurations that can be deployed in support of informal and formal learning, it is clear that we need to focus on a more future-proof

concept than the technologies themselves, one that will assist us in both better understanding and realising learning, or, new forms of learning. So in this symposium we argue, that 'design' is a suitably rich, flexible and yet formal enough concept to help us to engineer, or at least favour, better learning whilst also supporting better understanding of the processes at play. This stance is partly a reaction to research in the Technology Enhanced Learning field that has been overly predicated on technologies, as this reliance is no longer feasible given the continued speed of technology development.

4. Papers and Presenters

Talk 1: Designing Complex TEL for Informal Learning and Knowledge Maturing in the 'Web 2.0 Workplace'

Andrew Ravenscroft, Andreas Schmidt & John Cook

This talk presents an original approach to designing complex TEL to realise informal learning and knowledge maturing that is being conducted as part of a large-scale EC project called MATURE. In addressing the challenge of designing work integrated TEL systems within the 'web 2.0 workplace', we have developed and tested an agile and 'federated' approach to the design of complex social and semantic technologies. This follows an approach of Deep Learning Design that incorporates: early technical and conceptual *Design Studies*; *Use Cases* of envisaged scenarios; *Demonstrators* which synthesise the technical and user requirements; and, a flexible *Evaluation Framework* that coordinates the related activities. After presenting this approach and how it is realised in an ongoing project, we offer some conclusions about designing complex socio-technical systems for the work-place of the future.

Talk 2: Design Patterns for Sharing Expert Knowledge in the use of Web 2.0 Technologies

Steven Warburton

Capturing expert domain knowledge in a form that allows transfer and creative rather than derivative use is not straightforward. To address this problem in the field of architecture, Alexander (1977) originated the design pattern and pattern language approach. His response was to create a set of 253 linked patterns that captured architectural design knowledge in a form that would allow non-experts to build their own habitation spaces. These reusable 'solutions to a problem in a context' have inspired the adoption of a design pattern approach to knowledge sharing in diverse fields such as software programming, pedagogy, HCI and assessment (Gamma et al. 1993; Goodyear et al. 2004; Dearden and Finlay 2006; Wei 2008). This paper will outline the participatory pattern workshop methodology developed during the Learning Patterns (Mor and Winters, 2008) and Pattern Language Network projects. It will demonstrate how this can be used as a powerful tool to bring together practitioners, share successful practice and develop design patterns in the area of Web 2.0 technologies. We show how design patterns provide timeless representations of practice that are relevant to the user, present the essential elements, and provide the necessary level of abstraction for solving novel problems in a particular domain.

Talk 3: Redefining Designing for Learning: Dialogic and Explicit Learning Design

Gráinne Conole,

The affordances of new technologies appear to offer much to support learning, however there is a gap between this potential and their actual use in practice. Jenkins argues that there are twelve skills needed for full engagement in today's participatory culture: Play, Performance, Simulation, Multitasking, Distributed Cognition, Collective Intelligence, Judgment, Transmedia Navigation, Networking, Negotiation, Visualization (Jenkins 2009). To make full use of the potential of new technologies both teachers and learners need to reskill to embrace these new literacies. This paper contends that learning design can be used as a methodology to help teachers and learners to develop these new skills. It will outline some of the research in this area being undertaken by the (UK) OU Learning Design Initiative (<http://ouldi.open.ac.uk>), and specifically through the development and evaluation of a new social networking site (Cloudworks) for sharing learning and teaching ideas and designs. I will argue that cloudworks represents a new direction for designing *for* learning; by providing a space for both learners and teachers to make learning designs more explicit and sharable, and as a web 2.0-based dialogic space for critiquing learning and teaching ideas.

Talk 4: Do Social Media Engender Communities of Practice? Exploring the Implications for Learning Design.

Stylianos Hatzipanagos

Educational communities frequently adopt effective approaches from other domains, such as the concept of Communities of Practice (Wenger, 1998) or CoP. This concept is particularly influential for online learning environments where it has been adopted enthusiastically (Lea, 2005). This also applies to social media where often engagement in activities is interpreted somewhat uncritically as a set of behaviours and tendencies exhibited by virtual communities that morph into CoP. There is an inherent conflict between formal and informal learning practices/spaces because the nature of social media is not content-centred but people-centred, open and participative. On the other hand if embedding social media within learning set-ups encourages and helps groups to become communities of practice that support learning, we need to explore how and when this happens. The paper will report on the results of a meta-analysis of related studies and will discuss the learning design of social media platforms by exploring the following questions:

1. Is there an agreement in what attributes of social media allow interpretations/claims for the formation of CoP?
2. At what stage do virtual communities appear and evolve as something recognisable as CoP?
3. What are the basic learning design prerequisites for the community to morph?

Scheduling of the presentations:

The papers will be presented in the order they are given above, with two talks given in the first hour (preceded by a brief introduction), followed by two talks and an interactive panel discussion during the second hour.

First Hour:

Introduction to the Symposium

Talk 1: Designing Complex TEL for Informal Learning and Knowledge Maturing in the 'Web 2.0 Workplace'

Presented by Prof. Andrew Ravenscroft

Talk 2: Design Patterns for Sharing Expert Knowledge in the use of Web 2.0 Technologies

Presented by Dr. Steven Warburton

Interim Summing up

Second Hour:

Talk 3: Redefining Designing for Learning: Dialogic and Explicit Learning Design

Presented by Prof. Gráinne Conole

Talk 4: Do Social Media Engender Communities of Practice? Exploring the Implications for Learning Design.

Presented by Dr. Stylianos Hatzipanagos

Interactive Discussion with the Audience

With all presenters on a panel

5. Towards a synthesis: Designing future learning

The final panel and audience discussion will draw on the major themes emerging from the five presentations and explore the challenges that design approaches present and how far particular design paradigms can be synthesised towards a unified approach to designing for future learning. To what extent can we reconcile formal and informal learning through design-based deployment of Web 2.0 tools? What are major barriers that designers should seek to overcome when working across formal and informal technologies and how can we practically help them achieve this.

6. References

Alexander, C.; Ishikawa, S. & Silverstein, M. (1977), *A Pattern Language: Towns, Buildings, Construction*, Oxford University Press, New York.

Cedefop Report (2007). Validation of non-formal and informal learning in Europe. *Luxembourg: Office for Official Publications of the European Communities*. Available from:

http://www.aic.lv/ace/ace_disk/2007_09/sem07_09/Amsterd_APEL/rpl-vet-update2007.pdf

Clark W., Logan K., Luckin R., Mee A. & Oliver M. (2009) Beyond Web 2.0: mapping the technology landscapes of young learners. *Journal of Computer Assisted Learning* **25**, 56–69. Coffin C., North

Conole, G. & Culver, J., 2009. The design of Cloudworks: Applying social networking practice to foster the exchange of learning and teaching ideas and designs. *Computers & Education*. Available at: <http://www.ascilite.org.au/ajet/ajet25/conole.html> [Accessed November 24, 2009].

Dearden, A. & Finlay, J. (2006), 'Pattern Languages in HCI: A Critical Review', *Human-Computer Interaction* **21**, 49--102.

Hatzipanagos, S. & Warburton, S. (2009), (Eds.), *Handbook of Research on Social Software & Developing Community Ontologies*, London: Information Science Reference, an imprint of IGI Global).

Gamma, E.; Helm, R.; Johnson, R. & Vlissides, J. (1993), 'Design Patterns: Abstraction and Reuse of Object-Oriented Design', *Lecture Notes in Computer Science* **707**, 406--431.

Goodyear, P.; Avgeriou, P.; Baggetun, R.; Bartoluzzi, S.; Retalis, S.; Ronteltap, F. & Rusman, E. (2004), Towards a pattern language for networked learning, in *'Networked learning 2004'*.

Jenkins, H., 2009. *Confronting the challenges of participatory culture: Media education for the 21st century*, Mit Pr.

Lea, M. R. (2005) 'Communities of Practice' in Higher Education: Useful Heuristic or Educational Model in Barton, D. & Tusting, K. (eds) *Beyond Communities of Practice: Language, Power and Social Context*. Cambridge: Cambridge University Press.

Mor, Y. & Winters, N. (2008), 'Participatory design in open education: a workshop model for developing a pattern language', *Journal of Interactive Media*.

Ravenscroft, A. (2009). Social Software, Web 2.0 and Learning: Status and implications of an evolving paradigm, Guest Editorial for Special Issue of *Journal of Computer Assisted Learning (JCAL)*, Vol 21, Issue 1, 2009, pp 1-5.

Ravenscroft, A., Sagar, M., Baur, E & Oriogun. P (2008). Ambient pedagogies, meaningful learning and social software, Chapter 27 in Hatzipanagos, S. & Warburton, S. (2008), (Eds.), *Handbook of Research on Social Software & Developing Community Ontologies*, IGI Global Publishing, pp 432-450.

Ravenscroft, A. & Boyle, T.(2010). [Deep Learning Design for Technology Enhanced Learning](#), Full Paper Accepted for *International Conference on Educational Media (Ed-Media) 2010*, Toronto, June 29-July 2 2010

Wei, H.; Mislevy, R. J. & Kanal, D. (2008),'An Introduction to Design Patterns in Language Assessment'(18), Technical report, SRI International

Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity*. Cambridge: Cambridge University Press.