



The design of Cloudworks: Applying social networking practice to foster the exchange of learning and teaching ideas and designs

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ABSTRACT

This paper describes a new social networking site, Cloudworks, which aims to provide a dynamic environment for finding, sharing and discussing learning and teaching ideas and designs. The paper begins by discussing the mismatch between the potential application of technologies in education and their actual use in practice. It considers some of the reasons for this and suggests ways in which this gap might be addressed. It goes on to outline the vision behind the development of Cloudworks, the phases of development and findings to date. It then contextualises this work theoretically drawing in particular on the notion of 'social objects' and a framework for sociality. The paper concludes with a discussion of the implications of this work and future research plans.

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1. Introduction

New technologies offer a multitude of opportunities for the creation of innovative, engaging and pedagogically effective learning opportunities, however the use of technologies within education to date has been limited and has to a large extent replicated face-to-face practice in an online context (see [Andrews and Haythornthwaite \(2007\)](#) and [Conole and Oliver \(2007\)](#) for recent edited collections on e-learning research, also [Friesen \(2009\)](#) and [Swan \(2003\)](#) on the 'no significant difference' debate). There is little evidence of truly innovative approaches, which utilise the unique affordances these technologies offer.

The problem is twofold. Firstly, the majority of teachers are unaware of what these new technologies can do and lack the skills needed to design learning activities that use these technologies effectively. They want illustrative examples of what the technologies can do in different educational contexts, but do not know how to find these examples or even when they do find them they are unable to deconstruct the examples and apply to their own context. Secondly, effective use of new technologies requires a radical rethink of the core learning and teaching design process; a shift from design as an internalised, implicit and individually crafted process to one that is externalised, explicit and shareable with others. This requires a clearer articulation of the design process, better representations to communicate it and a more critically reflective approach as to how effective the resultant design is.

This mismatch ([Conole, 2008](#)) between the potential application of technologies in an educational context and actual use in practice has a long history and is well documented in the literature (see for example [Romiszowski \(2004\)](#), [Swan \(2003\)](#) and the series of articles at the WWWrong conference, [Davis, Duval, Muramatsu, White, and Van Assche \(2007\)](#)). A review of educational technology research over the last 30 years or so reveals a striking pattern of cyclical technology interventions and associated practice (and failure) (see for example [Conole and Oliver \(2007\)](#) for an edited collection on e-learning research and developments and more generally the other books in Open and Distance Learning series by Fred Lockwood).

Although there are a number of ways in which these technological interventions can be classified, a simplistic one appropriate for the arguments being made here is to divide the technologies into the following types/phases: Computer Assisted Learning (CAL) and multimedia developments from the 1980s onwards, the emergence of the Internet and associated tools in the nineties, and the increasing uptake of gaming technologies and virtual worlds over the last decade or so.

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Each type has an associated set of affordances (Conole and Dyke, 2004; Gaver, 2006; Gibson, 1979) (different forms of communication, different types of immersive environments, access to real-time and authentic experiences, multiple forms of representation), nonetheless a similar pattern of use is evident for each phase (see Andrews and Haythornthwaite and Conole and Oliver for a summary in terms of e-learning, Redecker (2008) for a review of the use of Web 2.0 tools in education and Lankshear and Knobel (2008) for a recent edited collection on digital literacies). Firstly, across each type of technology intervention there are pockets of good practice and innovation, however predominately these are produced by enthusiasts; very few are adopted more broadly by the main majority. Secondly, there is little evidence of learning from past innovation, and hence there is a lot of repetition of mistakes and claims of 'innovation' that do not bear witness to close scrutiny. Thirdly, there are few examples of true innovation and new pedagogy, little transfer between pockets of good practice or evidence of scaling up more broadly. Depressingly the overall picture that emerges is a technologically deterministic one – with each new technology beguiling a new generation of researchers and developers.

Closer scrutiny of the research findings in this area sheds some light on the lack of uptake and impact of technologies. A number of causal factors are evident. Firstly, legacy organisational systems and existing cultural practices (such as rigid curriculum systems and assessment practices) often act as barriers for exploiting new technologies. Secondly, teachers lack the time to explore and experiment with new technologies. Thirdly, teachers do not know enough about how the different technologies can be used and how they can be integrated into their teaching. Therefore in order to have better uptake and use of technologies we need to rethink existing organisational structures and practices, create space for teachers to explore and experiment, and provide them with scaffolds, support and examples of how technologies have been used to good effect in a range of different educational contexts.

This paper describes how we are attempting to address this third issue. We describe a social networking site, Cloudworks, which aims to provide a space for helping teachers to find, share and discuss learning and teaching ideas and designs.

2. New patterns of user behaviour – the Web 2.0 phenomenon

In the last few years so called Web 2.0 tools have emerged and much has been written on how these tools are changing practice (see O'Reilly (2004), O'Reilly (2005) for the original definition, Alexander (2006), Downes (2006), Redecker (2008) for discussions on and examples of learning 2.0 and Lee and McLoughlin, for a recent edited collection on Web 2.0 in education, in press), shifting from the web as a content repository and information mechanism to a web that enables more social mediation and user generation of content. New practices of sharing are emerging (as is evident with sites such as Flickr, YouTube and Slideshare), new mechanisms for content production, communication and collaboration (through blogs, wikis and micro-blogging services such as Twitter), and social networking sites for connecting people and supporting different communities of practice (such as Facebook, Elgg and Ning).

Uptake of these Web 2.0 tools has been significant for general social purposes; but arguably not to the same extent in an educational context. This 'lag' of use of technologies for learning and teaching purposes, versus its use generally mirrors a similar lag in pre-Web 2.0 tools. Therefore, in contrast to the lack of uptake of technologies in education, the impact of technology in general day-to-day practice has been more pervasive. Use of computers, mobile devices and the Internet are now standard aspects of daily practices, organisations are technologically enabled, there is a core set of technologies for finding and using information and for communication: email is now the main communicative channel in working contexts, Google is the first port of call for finding information; Word and Powerpoint are standard tools for production of content.

Our aim with Cloudworks is to try and identify what new patterns of Web 2.0 user behaviour are emerging and map these to what we understand about designing learning activities. In effect to harness the affordances of Web 2.0 technologies in a way that is appropriate to enable better finding, sharing and discussing of learning and teaching ideas and designs.

3. The Open University learning design initiative

The Cloudworks development is part of a broader set of research work – the Open University Learning Design Initiative (OULDI).¹ It aims to bridge the gap between the potential and actual use of technologies outlined in the introduction, through the development of a set of tools, methods and approaches to learning design, which enables teachers to making better use of technologies that are pedagogically informed. The work is underpinned by an ongoing programme of empirical evidence which aims to gain a better understanding of the design process and associated barriers and enablers, as well as an ongoing evaluation of the tools, methods and approaches we are developing and using and in particular to what extent they are effective. There are three main aspects to the work we are doing:

1. *Representing pedagogy* – Identifying and using a range of representations to describe the design process and in particular exploration of how new forms of visualisation can be used.
2. *Guiding and supporting the design process* – Providing different levels and forms of support to guide the decision making process in design, through in situ help and templates within tools, via pedagogical schema and through a range of face-to-face structured events and workshops.
3. *Sharing designs* – Exploitation of the affordances of Web 2.0 technologies to enable new forms of communication and sharing of learning and teaching ideas and designs, blended with a range of face-to-face events and workshops.

Key outcomes (Cross and Conole (2009a)) to date include:

- Advances in the understanding of the learning design process.
- Development of the CompendiumLD software application for visualising learning designs.
- Creation of the Cloudworks website for discussing designs.
- Techniques and material for the support and guidance of learning design.

¹ <http://ouldi.open.ac.uk>.

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