Internet

What's that coming over the hill?

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The recent publication of the fifth 'Horizon Report' by the New Media Consortium (NMC) provides a concise and informative look into the technological future. Each report seeks to identify and describe emerging technologies likely to have a large impact on teaching, learning or creative expression within education-based organisations. The report comes from NMC and the EDUCAUSE Learning Initiative.

The report is 36 pages long and examines six key themes organised along 'time-to-adoption' timescales of one year or less; two to three years; and four to five years. Each theme is introduced by an overview of the concept or technologies involved, followed by a discussion of the relevance of this topic to education. Examples are given of actual or possible applications of the concept. Additionally, there is an annotated list of additional examples and further readings. Del.icio.us tags are given for collections of links for each topic. There is also a WIKI page at http://horizon.nmc.org/wiki/Main_Page .

Here's a very brief summary of the technologies identified in this report.

Time to adoption one year or less. Grassroots video and Collaboration Webs.

- *Grassroots video*, aka YouTube clips, will be very familiar to many people and are already being used within learning situations.
- *Collaboration webs* are using social networking sites like Pageflakes and Facebook as well as webware applications like Zoho Office and Google Docs to enable distributed groups of people to work together on all aspects of a project.

Time to adoption two to three years: Mobile broadband and Data Mashups.

- *Mobile broadband* is one area where the UK might be slightly ahead of the USA. Two of the further readings relate to uses of the iPhone.
- The concept of *data mashups* is probably well known, with online street maps with overlain images of an area being a familiar example. Data mashups have been propelled by the increased use of geotagging.

Time to adoption four to five years: Collective Intelligence and Social Operating Systems.

These two areas are ones that might be new and more thought provoking than those previously mentioned. The examples and further readings for both these technologies are particularly pertinent and interesting.

- *Collective intelligence* is defined as a "term for the knowledge embedded within societies or large groups of individuals". Present-day examples include Google's *PageRank* system and Amazon's "you might also like …" feature. The Report identifies the possibilities of data mining and analysis of patterns within the trillions of key clicks and decisions as people interact with web-based sources. It is predicted that this will enable students to engage with the construction of knowledge, as well as enabling more accurate predictions about peo-

ple's preferences and behaviours.

- *Social operating systems* are the next generation of social networking systems as they place the context and depth of a social relationship at the heart of the social network. These social operating systems will also address the issue of trust in virtual collaborations. However, the prospect of an application linking up one's e-mail address books with attendee lists from conferences attended with tagged *Flickr* photos might feel like an intrusion into individual privacy. An early application identified is *Xobni* (www.xobni.com) which gathers information about who and when you use e-mails within Microsoft *Outlook*.

Critical Challenges

The Report also identifies four critical challenges facing learning organisations over the next five years.

- Firstly, increased levels of leadership and innovation are needed to ensure that all stakeholders in academic institutions are able to embrace the potential of technologies and practices, particularly through experimentation as well as via collaboration and interdisciplinary work.

- Secondly, meeting the challenge of the expectation that services, content and media will be available to mobile and personal devices.

- Thirdly, the growth of collaborative learning raises issues around assessment of academic work, including ownership of collaborative work and certification of authorship.

- Finally, there will be an increasing need to provide formal instruction in information, visual and technological literacy which is a role that information services will need to engage with, as well as developing methods to evaluate these new literacies.

Conclusion

This report is an excellent overview and resource document about technologies that are already impacting or will start to influence learning environments. It is also an excellent starting point for anyone wanting to know about emerging technological influences, since it includes examples and further readings for each of the six topics. One point to be aware of is that the organisations producing this report are both based in, and producing information for, learning environments in the USA, so examples are mostly from this area.

Publication Details

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