Briefing paper on Web 2.0 technologies for content sharing: Institutional good practice

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Web 2.0 can be defined as a set of technologies that allow easy content sharing on the web and that enable social software, ie. Software that supports group processes. Social software includes blogs, wikis, content sharing systems (such as Flickr and YouTube), social bookmarking systems (such as del.icio.us), and content syndication systems. While the first systems that can be classed as Web 2.0 or social software appeared more than a decade ago, during the last three years there has been a strong growth in the number of available social software systems, and in their use. With the rise in use, there are a number of concerns relating to creation, ownership and preservation of the content. Some of these are discussed below.

Background

Web 2.0 has created new ways of working, including opening up new opportunities in teaching and learning, that have not been possible on a large scale before. This is similar to the way in which virtual learning environments (VLE) created new opportunities during the 1990s. Before VLEs, learning technology was only suited to the enthusiasts and experts due the difficulties involved in setting it up, developing and loading material, and registering students. Web 2.0, and some of the associated developments such as the creative commons licenses, now raise issues which universities are just beginning to grapple with.

While many people are beginning to make use of Web 2.0 technologies in learning and teaching, much of this is still experimental work carried out by enthusiastic lecturers who are willing to devote the time to make the technologies work for their teaching and learning. This paper will draw from that pool of examples and discuss a small number of examples of the planning and implementation of Web 2.0 services.

This paper is best read in conjunction with the other briefing papers:

- Web 2.0 - An introduction
- Content creation
- Teaching and Learning
- Strategy and policy.

University of Warwick[1]

The University of Warwick was one of the earliest to offer Web 2.0 services at the institutional level, and has been offering all its students personal blogs since October 2004. This was undertaken partly in order to see what happen, and partly to foster a community, with education seen as secondary function. The university decided to develop its own blogging system as there were no commercial systems that met their needs. In particular, they wanted to be able to take advantage of single sign-on and have the ability to integrate the system with other university systems.

The blogging system has changed social context for students, but uptake for teaching has not followed through, in part because teaching staff do not look at what students have been doing before incorporating that practice into their teaching.

While there are some inappropriate and offensive posts on the system, experience shows that these lead to comments from other bloggers which render the posting more positive. In theory students (and staff) are bound by the University acceptable usage policy (AUP), but staff do not monitor and only deal with

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[1] Thanks to Graham Lewis for discussing Warwick's work with blogging with me. Also
http://technology.guardian.co.uk/online/story/0,3605,1476175,00.html

cases that are reported to them. A greater challenge may be copyright, and there is considerable evidence that students are very relaxed about re-using material from other sources[2].

When students leave they can have the blog deleted, frozen or they can export the data to take with them.

The blog is widely used, and current statistics give an indication of the take up[3]:

- 4,540 blogs
- 88,619 entries
- 13,255 tags
- 190,859 comments
- 111,803 images

The University also has a podcasting service, and the Centre for Academic and Professional Development will lend out recording equipment to staff. The German Department is using podcasts to support vocabulary development and to record plays. There is the intention to develop a wiki to accompany the blogging service.

University of Leeds[4]

The University of Leeds was one of the earliest to introduce a virtual learning environment (VLE), building their own open source system called Bodington. About two years ago it was decided that Bodington no longer met the needs of the University and that a new VLE should be selected. A long and thorough consultation was undertaken on what system to replace it with. During this period academic staff were asked which tools they would find useful for learning and teaching and some requested blogs and wikis. In October 2005 the University selected and installed MediaWiki as a wiki and Elgg for blogging as stand alone systems for staff to experiment with.

This initiative is in line with the University of Leeds Learning and Teaching Strategy which emphasises the use of technology to enhance learning and teaching- ('increasing the innovative ways in which technology is used' and 'championing the use of technology through innovative pilot projects') and it furthers the University's capacity for high quality blended learning. Additionally it provides tools which can be used by staff and students as part of campus life to communicate information, work as groups, share research findings and take part in communities of practice in line with the University's stated values of community and academic excellence.

Support for staff in using these tools has been offered since the start of the project by the Staff Departmental Development Unit. Training sessions and workshops identifying good practice in using web 2.0 tools in learning and teaching have been very popular with staff. The result has been that by promoting these tools directly to staff first their use on campus has been focussed on delivering new ways of teaching and new ways of disseminating information within the institution. In contrast to the Warwick model, the blogging tools were not promoted directly to students in general. The students who are active on the Leeds blogs are doing so as part of a module or programme of study and have found the blogs via recommendation from their teachers. At April 2007 there are 2,000 student accounts on the system. Student and staff use of the systems are governed by the acceptable use policy. There have not, so far, been any misbehaviour problems.

In addition to use in learning and teaching there are many examples of University of Leeds staff making use of the blogging tools to support staff groups, to share information across campus and to reflect or record progress in their own work. Promoting blogs, wikis and other RSS enabled applications such as podcasting and news feeds has been part of the Staff and Departmental Development Unit's support for the ongoing development of staff information literacy skills.

There were several reasons for creating locally managed systems:

- The web master preferred that institutional content be hosted locally rather than externally.

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[2] http://www.bloggerme.co.uk/the_uk_web_log_forum/2005/03/john_dale_.html
[3] http://blogs.warwick.ac.uk/ (data from 11 April 2007)
[4] Thanks to Melissa Highton for discussing the work at Leeds

- The Informal learning opportunities are seen as important as formal ones, and therefore infrastructure to support such opportunities was needed.

- It would be possible to attach the University of Leeds branding to locally hosted solutions.

- Staff who want to use the systems in their teaching can enrol their students into the wiki or blog (or both).

- The roll out has been manageable: hosting and technical support has been provided by the central web team including the Webmaster.

Reasons for not incorporating these tools into the institutional VLE.

- The institution is in a period of transition between VLEs and integration work will likely begin when a new VLE is in place.

- Blogs and wikis are promoted to staff as flexible tools for openness, creativity and community to be used as and when appropriate beyond application in learning and teaching.

Future plans include making the current system a fully supported service run by information systems and services and supported by their help desk.

University of Brighton[5]

The University of Brighton recently implemented Elgg[6] across the University, integrating it with their existing systems. As Stanier wrote "We have Elgg running campus-wide with 36,000 users registered. The flexibility of the Elgg model made it easy to integrate with our institutional VLE and MIS systems so we can use the same automated procedures to register students and course communities for all our systems. Our students took to using Elgg immediately and within two weeks we had a thriving and interesting blogging community. What's more rewarding is the manner of use rather than simply the scale of use – students and staff are using it both as an online social community and for shared academic interest. Elgg is now being used formally within course and modules and less formally to bring together people with similar interests – enabling people to share information, reflections and comment across course boundaries and develop something very different to anything we've had before. I firmly believe we're taking the first steps from a Virtual Learning Environment to a Shared Learning Environment."[7]

Stanier describes it as "a glorious experiment" with the evolution of the system being driven by its users. The University sees it as particularly helpful at fostering a sense of community across the split campus. As suggested above take up has been good, and some courses are being moved from Blackboard, their current VLE, to Elgg as Blackboard does not allow student participation to the same degree. Students are also beginning to use the system for their personal development planning (PDP) and the creation of e-portfolios. Students are also able to incorporate material from elsewhere, such as MySpace (about 25% of students have MySpace accounts).

There is some take up of the system in learning, and all course cohorts are automatically added to Elgg as communities, though students and staff are free to create their own communities too. Many of the student societies have done so.

Examples of use in learning include media students who are using the system in their learning where they upload videos that they have created and then critiquing each others work. It is also providing new forms of student support. There have been cases of students who have been on the verge of quitting their courses blogging their problems – these have been picked up, either by other students or by student services who have then provided support.

While all staff and students have accounts only a small proportion are active; around 0.2% of all accounts by the end of November 2006 (though this compares with around 0.1% on other Web 2.0 systems).

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[5] Thanks to Stan Stanier for discussing the work at Brighton
[6] See http://elgg.org/
[7] http://elgg.org/features.php

There are still some problems that need to be addressed. One disappointing aspect has been the slow take-up of using the system for providing access to external experts / professionals who could contribute to learning and teaching programmes. Initially there was some inappropriate use, but such postings usually disappear within minutes due to peer pressure. The system has also been used for inappropriate sales activity on one occasion.

University of Edinburgh[8]

The University of Edinburgh is, as far as we are aware, the only university in the UK to have a Web 2.0 strategy[9], supported by an action plan. The report recommends the establishment of appropriate infrastructure to facilitate greater use of Web 2.0 tools, and fostering their take-up by "leading by example". The report looks at the University's strategic plan and maps its proposed actions against parts of this to demonstrate how it is fulfilling the needs of the University.

Section 4.4 of the report considers how the university can take advantage of Web 2.0, including the following:

- Use blogs and RSS feeds instead of newsletters – e.g. the internal Information Services staff newsletter, the MLRP project updates, the EUCLID newsletter, the proposed University Web Development Project newsletter.

- Make use of Web 2.0 mapping technologies such as Google Maps to supplement or replace the online versions of the University campus maps. This would enable directions to be generated automatically.

- Use social bookmarking technologies such as del.icio.us to manage course reading lists, perhaps in a collaborative way so that students can benefit from others' discoveries of relevant material. Link the service with Library resources and WebCT.

- Social bookmarking can support development projects and research projects, allowing an information resource base to be constructed in a collaborative way.

- Provide podcasts of public lectures (honorary graduates, inaugural lectures, high-profile special events), which can be downloaded after the event from the relevant part of the University's website. (Webcasts are also possible and do take place, but require considerable staff effort, and cannot be downloaded to a portable player.)

- Provide podcasts as part of support materials – e.g. a podcast tour of major University services or buildings (such as the Main Library).

- Use services such as Frappr to help build a sense of community amongst international postgraduate students prior to arrival (this is already under consideration in Moray House School of Education).

This results in recommendations that the University should host wiki and blog services supported by the University's single sign-on system. Edinburgh uses WebCT as its VLE, and while recognising that this will have blog and wiki services these will not be appropriate to all the needs of the University (including research and management). However, the services will need to be available through WebCT. Edinburgh only intend to support a single system, and comment that it does not matter too much which one as, no matter the choice, some users will believe it is the wrong choice. They note issues around security including "blog spam[10]" and accessibility issues associated with the "heavy use of Javascript".

Besides supporting the technology they have also created an adoption strategy which includes:

- Identifying key individuals (evangelists), especially amongst senior administrators and senior academics.

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[8] Thanks to Chris Adie and Jean Ritchie for this information.
[9] http://www.is.ed.ac.uk/projects/Web_2.0_Initiative
[10] Blog spam is the posting of articles or comments on blogs to gain exposure through people visiting the blog or receiving rss feeds from it.

- Provision of training to show how the tools and approaches they foster can be integrated into their daily practices.

- Support of the above with promotional activity

- Gather examples of good practice and foster a community.

- Provide the ability to surface the systems through the University web site and MyEd portal.

- Develop recommendations, jointly with other relevant parties in the University, on the management of externally-facing Web 2.0 services.

- Lead by example such as:

  o Use of blogging for major projects (e.g. the Main Library Redevelopment Project) and to replace the IS staff newsletter.

  o Use a Wiki to develop IS plans.

  o Use a Wiki to facilitate meetings – to prepare the agenda and deliver the minutes.

  o Use instant messaging to facilitate IT support to students.

Conclusions

The above examples show differing rationales and differing approaches to implementing Web 2.0 at universities. All the examples cited here have implemented the tools outside the VLE, in part because they see their role as being wider than teaching and learning; encompassing research, management and social (personal) use. In part this may also be because of the lag in VLE suppliers incorporating Web 2.0 tools within their VLEs, and we can expect to see many universities offering tools via their VLE.

Universities have had to address a wide variety of issues in implementing their systems . These issues include:

- Whether to host systems themselves, or rely on externally (commercially) hosted systems.

- What types of tools to implement (Wikis, blogs, e-portfolios, social bookmarking etc).

- Whether to put the tools within the VLE or make them more generally available.

- The level of visibility to the outside world, and in particular how to allow / enable people from outside the university to contribute.

- How to monitor the systems for inappropriate and offensive use, and deal with such use.

- How to encourage uptake and use.

- Whether to automatically enrol all members of the University or do it by request.

- Whether to make activities student or staff led.

- How the use of Web 2.0 tools will affect learning and teaching.