



USING WEB 2.0 TO CULTIVATE INFORMATION LITERACY VIA CONSTRUCTION OF PERSONAL LEARNING ENVIRONMENTS

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The objectives of this project were as follows:

To enable students and library users to engage with information literacy in the widest sense and broaden their use of scholarly resources via the use of web 2.0 tools.

To investigate whether the participation culture of web 2.0 can be utilised to give students more control over how and when they learn, and so that Library staff can focus on and respond more directly to individual needs.

To use the experience gained to develop new skill sets in Library staff and to inform future Library practices in areas of training and interaction with Library users.

In order to achieve this, we proposed to embed web 2.0 tools in the MBChB Medical Law and Medical Ethics modules; to run tutorials for Library users to demonstrate the appeal and power of rapidly evolving contemporary social software/web 2.0 tools; to use the experience gained from this project to develop new skill sets in Library staff which will ensure sustainability of the project.

PROJECT AIMS AND ACHIEVEMENTS

1. MEDICAL ETHICS AND LAW MODULES ETHICS WEEK JUNE 2008

The initial period of the project was experimenting with different technologies and resources to find out what was most appropriate to the one week intensive introduction to medical ethics for all first year medical students. The 207 students spend a week attending seminars / workshops and produced a daily piece of group work on each session. The original intention was to adopt a loosely coupled approach based on integrating technologies externally to the University. We developed AJAX start pages using Netvibes/Pageflakes/iGoogle and considered their use as a basis for the project. It emerged that the course tutor needed to post material that some course contributors would not want to be publically accessible for a variety of reasons. The tutor also wanted all the students to be able to view each others' work. The logistics of implementing this solution for 270 students all requiring authentication would have been unmanageable. After investigating the possibility of using Plone, it was eventually decided to use Blackboard, which at this time was a new departure for the Medical School. Blackboard was used as an authentication hub for the online resources we had developed during the investigation phase. As this was a one week course we focused on search features rather than RSS (the time span was too short to for the accumulation of new resources and students would not have the time to build up a community of practice). Student resources were put into the Blackboard directly into their module (rather than them having to go out find things) to see if they were more likely to use them this way.

The more conventional use of the Blackboard site consisted of:

- Course information, handbook and contacts.
- Case study assignments: assignment materials.
- Reading and Videos (course reading / journal articles / videos)
- Discussion board – threads relating to course topics and help on using the resources.

The more experimental use of the Blackboard site consisted of:

- Workshop presentation and submission: students submitted their work daily to a blog. Here they could view each others' work and make comments.
- Online resources:- direct links to relevant databases and help- guidelines on using legal materials- Google Custom Search Engine (based on over 100 sites recommend by the tutor)- Pageflakes page to journals, databases and RSS feeds (<http://www.pageflakes.com/srw9/>)- meebo chatroom: for immediate use of students if logged into Blackboard simultaneously.
- Help channels: Twitter / Seesmic was promoted to the students and means of contact us there. They were also given our email contacts. We made a daily visit to the student coffee bar where students could drop by and ask if they had any questions. Students were introduced to the resources by us in person at the beginning of the course.

Ethics Week Outcomes

- Feedback (collected by a survey at the end of Ethics Week) on the resources was popular, in particular the Google Custom Search Engine.
- Students did not use any of the communication channels (probably because of the short and focused nature of the course).
- Work submitted to the blog was searchable, but as the structure of a blog is chronological students may have experienced difficulties seeing each others' work, as they covered parallel topics on different days. Students did not comment on each other work. Overall it was felt that the resources may have helped students do their research by putting it directly under their gaze in Blackboard, but that there was no fundamental change of their 'normal' research behaviour and no community of practice was developed. We felt that this was due to the short nature of the course

and that the resources were not built into the structure of the course but were 'add-ons'. Phase II SSM on Medical Ethics, Law and Human RightsThe Phase II SSM on Medical Ethics, Law and Human Rights is a 12 week course for third year students who have elected to take this subject. Over the 12 weeks the students attend a weekly seminar/ workshop and produce weekly group assignments on different aspects of medical ethics, law and human rights. There were nine students on this module. Although student numbers were significantly reduced we continued to use Blackboard partly for continuity and again as the tutor was concerned that course materials was not publically available. We had originally thought that the SSM would be structured so that students would be completing a large piece of work over a sustained period of time, so that we could develop the resources accordingly. Many web 2.0 technologies become beneficial and meaningful over a period of time by accumulating information and building social relationships. As the SSM featured short time spans and weekly assignments many of our original ideas were not applicable.

We used the same basic structure of the Blackboard site as for Ethics week, with a few key differences:

- Use of a wiki rather than a blog for assignments: students can find material by topic rather than date.
- Tip of the day: a concise information literacy topic updated weekly. Topics were: google tips, working online collaboratively, using journals, using databases, mental health resources, google custom search, evaluating websites, targeting your search, Intute, National library for health.

The structure of the course constrained how we could develop resources to help the students. As well as the lack of time to develop personalised resources, realistically the students were not going to start using training materials in information literacy topics when their research was going to be short term and focused on an overview of topics. Phase II SSM OutcomesStatistics of from the Blackboard site and from the Google Custom Search Engine for the SSM can be viewed in the appendix.

The following observations can be made:

- The discussion boards were not much used, however the small numbers of students on the course made it unlikely that they would need to use them as they would tend to communicate via text or face to face. Often a critical mass of people is needed for these tools to be effective.
- The site was mostly used on Friday, Saturday and Monday – the course ran on Mondays which was also the date of coursework deadlines.
- The email responses to our evaluation questions showed that the students liked the resources (see appendix).

The course tutor spoke to the students informally, who confirmed that the students have existing work patterns they would be unlikely to change during this course, however that in future they would consider accessing the resources via Facebook. The students said they had found the Google custom search engine and the Journals Pageflakes page useful, and that they had shared these resources with students outside the Ethics SSM. The course tutor also believed that the custom search engine resulted in the students using a wider range of resources in their work, and this had improved the quality of their work. He also believed that the students' knowledge of where to find materials had noticeably improved as a result of the resources, in particular legal materials and databases. The students also expressed a preference for using YouTube. This may be useful for the future either as a place for students to access video clips from lectures and also as a resource to find course material produced by other sources.

CONCLUSIONS

This was an invaluable learning experience and the following points emerged:

- The technologies and the goals of information literacy need to be built into the course to be used and meaningful to the students.
- The custom search engine was again very popular. Google is a "trusted brand" and selecting sites to search allows quality control.
- Putting tailored resources right into the student blackboard space makes them more likely to be used (rather than having to visit a library web site and then work out which resource to use). This doesn't teach them any ongoing information literacy skills per se however, just makes resources easier to access.
- The wiki worked better than the blog as a place for students to upload their assignments as it doesn't focus on chronology but on the organisation of contents.
- Students won't change their culture of working to forming networks or commenting / debating unless this is somehow written into the course and resources. This may begin to change however as students may merge the social and academic more. They stated they would access course material via Facebook, which could generate discussion.

2. LIBRARY USER TRAINING

Two sessions on RSS feeds and Social Bookmarking were run at the David Wilson Library 17 & 31 October 2008 both for two hours. The sessions were run as workshops so that attendees could experiment with the technologies as appropriate to their needs. We used the training wiki (see section 3 below, slightly amended) as used for the library staff sessions. Attendees ranged from PhD students, to administrative staff and academic staff. Feedback was positive. In sixth months time we intend to contact them and find out if they have continued to use RSS feeds or social bookmarking, if so how and any benefits they think they have gained. How this informs future implementation of Web 2.0 training is discussed in conclusions.

"These kinds of sessions make us excel in the field of web 2.0, arising the concept of collaborative working where everything is shared and can become useable if handled properly." PhD student

"A good and useful session, taught in a very good way." Member of academic staff

3. LIBRARY STAFF TRAINING

One library staff session has been run. One morning 19 July was dedicated to an 'Opportunity to learn more about Web 2.0'. A group of 'expert users' were identified to run short presentations on a diverse range of web 2 technologies showing how they have been used in libraries and to promote debate: Facebook, Blogs & Twitter, RSS feed readers, Social Bookmarking, and Online office suites. An open wiki (<http://web2anduollibraries.wetpaint.com/>) was set up so that participants could record their thoughts, and could refer back to the materials from the session. Feedback was positive. The session was a resounding success and has brought together a community of practice of librarians, who have been Twittering on a daily basis (there have been examples of positive benefit to a few library users that Twitter) and also the development of a library blog. The UoL library blog (<http://uollibraryblog.wordpress.com/>) is specifically aimed at library staff (or other interested parties) to discuss library matters and is not intended as a public facing corporate blog. This has resulted in a high volume of participation from the (small and committed) group and a high volume

of comments on postings. The future development of the blog (how to integrate more library staff and whether it should go 'public') is under review.

4. LIBRARY WEB PAGES

Investigation into making the library webpages more dynamic was undertaken. Data that tracked library webpage usage was collected using CrazyEgg¹. This gave us a clear picture of which parts of the website were most used. After some discussion it has been decided that rather than just add in a few token Web 2.0 gestures, the library needs to have a clear strategy and direction for its website before making changes. This is beyond the remit of this project, but forms part of the proposed ongoing activity proposed below.

DISSEMINATION

We have applied to present papers at three conferences:

Medical Library Association 2009 (US)²

European Association for Health and Information Libraries 2009³

Librarians Information Literacy Annual Conference 2009⁴

We have been accepted at the EAHIL conference, and at the time of writing have not yet heard from the others. We will also run a [TAN session](#) (14 January 2009) which we intend to run as a workshop to discuss the future development of information literacy training throughout the University. In addition, the East Midlands Academic Libraries in Co-operation group has asked us to run a workshop on Web 2.0 in March 2009.

CONCLUSIONS

The PLE project has been a valuable learning process for us which has informed us of the approach we need to take to integrating Web 2.0 with information literacy.

elearning resources must be integrated into the fabric of the course, not as last minute add-ons. Improving information literacy is a long term goal as it requires developing a mindset as much as a set of skills. We should be aiming for it to become integral to the way that students and staff work. Library resources need to be tailored to each course rather than generic.

Success in developing a community of practice may depend on circumstances: library staff developed a community of practice during this project, however the students did not significantly change their existing work habits. Perhaps people need to be convinced there are tangible benefits before they change their working patterns.

¹ <http://crazyegg.com>

² <http://www.mlanet.org/am/am2009/>

³ <http://www.eahil2009.ie/>

⁴ <http://www.lilconference.com/dw/index.html>

CONTINUATION OF THE PROJECT

The Medical Ethics and Law courses will continue to develop online and web 2.0 resources.

The TAN session in January should be a useful platform to discuss issues surrounding the future of information literacy training throughout the University. The aim is to explore information literacy that incorporates Wikipedia, YouTube and 'Beyond Google' for all undergraduate students. We hope to be able to gauge opinions and expectations from other staff.

Library staff should continue to develop their understanding of web 2.0 tools and how they can utilize them to promote information literacy across the University.

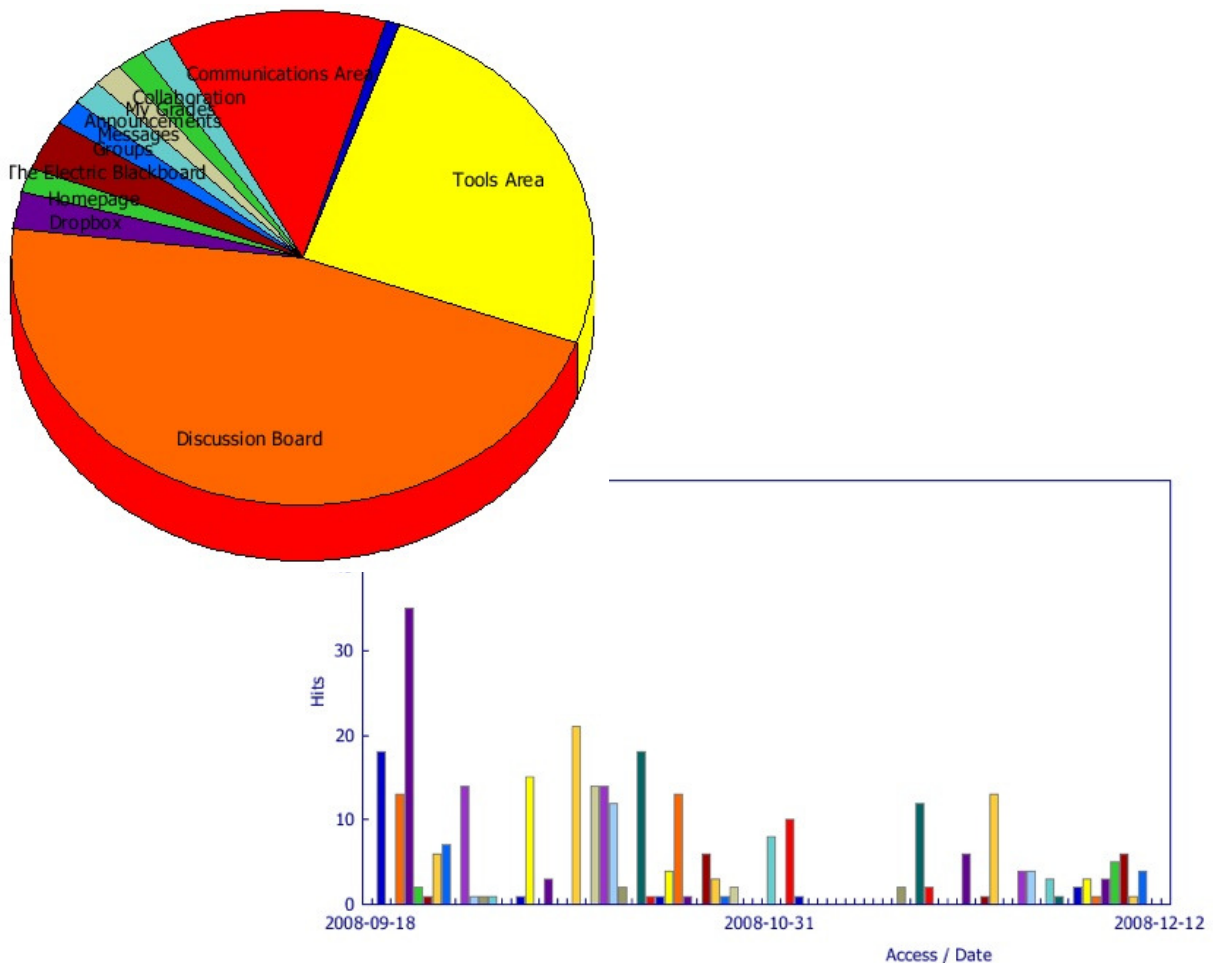
The library will continue to develop librarians' roles as their future depends on the ability to build relationships, and add value to external tools such as Google Scholar. Web 2.0 can facilitate this, but this requires a change of culture for librarians and academics.

Students are generally reluctant to change their habits unless there is a clear tangible benefit to them. If we believe information literacy skills are worth developing, we must make them a requirement not an added extra.

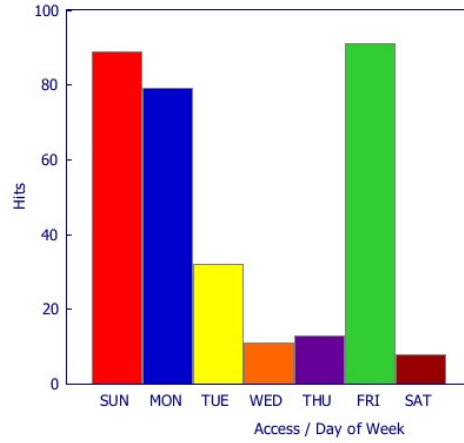
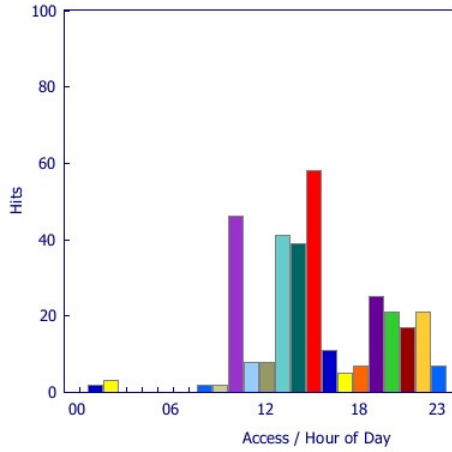
APPENDIX

MEDICAL ETHICS, LAW AND HUMAN RIGHTS SSM 2008 STATISTICS

Blackboard Statistics:

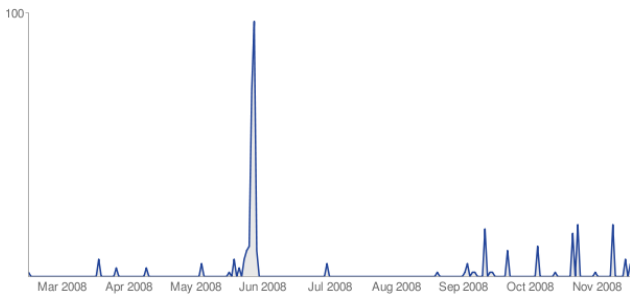


Blackboard statistics (continued)

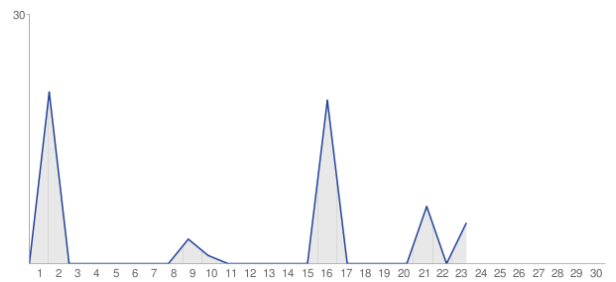


Google Custom Search Engine:

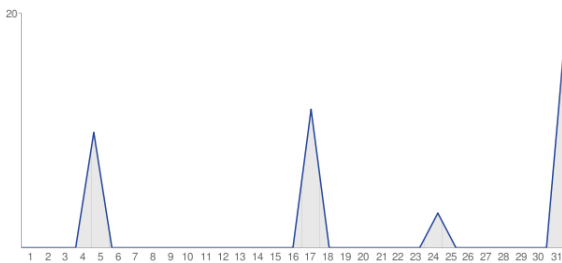
Distinct queries per day:



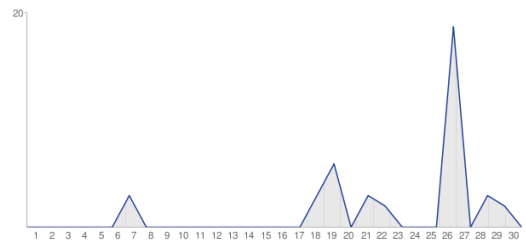
all time (distinct queries: 401, total queries: 472)



November 2008 (distinct queries: 57, total queries: 81)



October 2008 (distinct queries: 43, total queries: 49)



September 2008 (distinct queries: 41, total queries: 53)