Learning 2.0 -- The use of social networking in teaching

James Kalmakoff and Russell Butson

University of Otago
Dunedin, New Zealand

For best use of this slideshare --> download the ppt and read the Notes.
The report is in three parts -- (i) an introduction to the concepts behind the project, (ii) a tour of the features of the site and (iii) finally some evaluations and observations.
One of the big problems in education is that students are mainly in a passive, compliant mode. However, they use Instagram and Facebook, etc. The challenge is: can we get a similar engagement in an educational context?

The aim of this project was to engage the ‘digital age students’ in a course using the social networking of Web 2.0. The overall objective was to provide an environment which promoted and enhanced students to become autonomous and self-motivated learners.
Web 2.0 is something of a buzzword …
Emerging Technologies – Web 2.0

What the emerging technologies offer is not simply new software but a new perspective, a new way of thinking about the way we use Information Communication Technology.

Tim O’Reilly argues that while Web 1.0 was about connecting *computers* and making technology more efficient for *computers*.

Web 2.0 is about connecting *people*, and making technology more efficient for *people*.

This distinction has relevance for teaching & learning, for collaboration in research and for the use of ICT in administration.

What do we mean by the term Web 2.0? -- connecting people.
Two educational paradigms -- the traditional passive -- ‘fill the empty vessel’ on the left and the more student-centred (supporting collaboration social networking, and engagement) approach on the right.

---

### The Educational Paradigms

<table>
<thead>
<tr>
<th></th>
<th>Instructional Paradigm Traditional</th>
<th>Self-Directed Paradigm Emerging</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge</strong></td>
<td>Transfer from faculty to students</td>
<td>Jointly constructed by students and faculty</td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td>Passive vessel to be filled by faculty’s knowledge</td>
<td>Active constructor, discoverer, transformer of own knowledge</td>
</tr>
<tr>
<td><strong>Faculty Purpose</strong></td>
<td>Classify and sort students</td>
<td>Develop students competencies and talents</td>
</tr>
<tr>
<td><strong>Relationships</strong></td>
<td>Impersonal relationships among students and between faculty and students</td>
<td>Personal transactions among students and between faculty and students</td>
</tr>
<tr>
<td><strong>Context</strong></td>
<td>Competitive and individualistic</td>
<td>Collaborative learning involving teams and faculty</td>
</tr>
<tr>
<td><strong>Assumptions</strong></td>
<td>Any expert can teach</td>
<td>Teaching is complex and requires considerable training</td>
</tr>
</tbody>
</table>

At Otago University there is an Enterprise version of BlackBoard which is primarily used as a depository for lecture notes, pdf’s and ppt’s. Although it is possible to form discussion groups in BlackBoard, it is rarely used and it is course-specific.
The networks are built based on collaborative and shared interests and happen by ‘viral’ growth.
The network of students in the virology site.
The software used for the social networking was Neighbors, an implementation of Webcrossing -- a well established discussion board software package. (http://www.webcrossing.com)
Overview

- Internet infrastructure and collaborations tools
- Server-side tools and productive development environment
- Robust, scalable solutions
- World-class architecture and technology

For more information, visit their website -- http://www.webcrossing.com
The terms ‘Neighbors’ and ‘Friends’ are not what would be used in an educational context, but they were used in the meantime. There is plenty of scope for customisation of the software.
The key point about social networking -- is that the individual is the center of everything and can control the subsequent interactions and relationships and has private space that belongs exclusively to them -- the first stop on the Internet.
What follows is a ‘mock up’ of going to visit the actual virology site.

http://virology.otago.ac.nz/
Upon entering the site, the student is his blog area with access to his stuff on the left-hand panel, new activity featured in the center panel and links to his Friends and Groups on the right-hand panel.
The recent new activities of his Friends and Groups are in the center panel with a brief description of the content.
In the ‘Files’ section -- there are ‘personal’ files for his eyes only, there are files to be shared by his Friends and files that are shared with all the participants of the site -- ‘Public’.
The members of the main Group for the course in ‘MICR337’.
The MICR337 Group contains all the teaching resource files for the course and also the discussions that the students have created. Each lecture has a ‘Discussions’ folder.
An example of the content of a ‘Discussions’ folder
The 48 students in the course were assigned in groups of 4 to one of the 12 questions above. As a group they had to make a Powerpoint presentation to the class and individually write a 1000 word essay. The ppt file was posted as a resource for the other students.
The final written exam (2 hr) consisted of three questions from a list of nine given at the beginning of the course. The lectures were presented in the traditional manner and dealt with each virus group regarding their replication, gene expression and associated diseases with the individual viruses (RNA and DNA) in a ‘vertical’ manner. The exam questions were designed to run across the different viruses in a horizontal manner. The questions were broad and could be answered in a number of different ways -- there was no ‘one correct answer’. Given the broad range of the questions -- preparation of an answer would be required to obtain a good mark. This teaching approach had other features, one of which is that the lecturer was never asked: “Do I have to know this for the exam?” The students were encouraged to form groups to prepare their answers to the questions.
The site allowed the posting of a wide variety of Internet teaching resources -- here was an interesting Flash movie of herpesvirus replication.
The practical component of the course consisted of a 4-week research project which involved the isolation, purification and characterisation of a bacteriophage from waste water (sewage) -- information concerning this part of the course was the ‘Practical Group’. Each student worked individually with their own phage isolate, but there was plenty of sharing of experiences.
Russell Butson formed the ‘Evaluation Group’ as a way of obtaining feedback from the students.
Seth’s study group
After the course was completed and the exam results were known, a comparison of the results were made of the students who studied within a group with students who did not participate in study group. The average mark from the previous years’ results (year 2006 - blue dots) indicated that there was no significant academic difference: 68.7 and 68.0 respectively between the groups. A comparison was made of the individual students 2006 average with the mark received in MICR337 in 2007 (red dot). (Each vertical bar represents a student.) 72% of the students within the group improved their grades from last year compared to 50% improvement outside the group. The average for MICR337 for inside group study was 75 compared to 69 outside the group.
What did the students experience?

Comments from Students

- This site is much more user friendly than Blackboard and is actually enjoyable to use. I only use Blackboard because I have to. This site I use because I enjoy it.

- I think this site has been very successful. The best part is that we can post information and set up study groups very easily. It has been an excellent way to communicate and has enabled the class to get to know each other well.
Hey Russell

1. Yes this site has fostered a great community!!! With all other courses I have had little to do with the others in the class outside of Labs and Lectures. This site has created a quick and easy way to communicate with others and has very big appeal to it.

2. The fact that you are free to adapt the site to your own ends, eg create groups have friends use blogs etc. I have loved everything about this site.

All the courses at this uni should have a site like this!!!

Down with Blackboard!!!!!!!!!
This site is Kick Arse, its great because:

1. Its made Microbiology less boring and even kinda exciting (dare i say it) cause we have a mechanism to meet and find out about the people in our class. And they are really cool and share the same goals and want to work together.

2. We can organise things like the study posse for collaboration on exam prep

3. It can largely replace group meetings cause we are all busy and organising a time to meet is a nightmare. Also everything is recorded in the discussions so info/ideas/opinions can be looked up and referred back to super easily.

4. definite sense of community

5. My flatmates and friends are jealous and want a site like this for their course.

6. It beats blackboard any day.