



LEARNING TO TEACH ONLINE

CASE STUDY



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Teaching with web 2.0 technologies: Twitter, wikis & blogs

Featuring: Lubna Alam, University of Canberra

- Context** - Composite class comprising 25-30 postgraduate and 3rd year undergraduate students in a [social informatics](#) class within the [Faculty of Information Sciences and Engineering](#)
- Description** - Blended delivery: face-to-face classes supported by online components during and outside of class time
- Technology** - [Moodle](#) Learning Management System (LMS) with integrated web 2.0 technologies [Twitter](#), [Wordpress](#) (blog) and [Confluence](#) (wiki)

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Aims and overview

Web 2.0 tools can be useful for any situation where discussion and content sharing is desired, and where accessing current information in certain topic areas can be advantageous for learning. This case study examines how and why Lubna Alam from the University of Canberra used the [Moodle](#) Learning Management System (LMS) as a central hub that both provided her students with easy access to the class [blogs](#), [wiki](#) and [Twitter](#), and a place where information from the different technologies was amalgamated. The integration of [web 2.0](#) technologies into the learning process is examined, highlighting how this can improve student engagement, communication and collaboration.

What is web 2.0?

Web 2.0 is a term that encompasses the way [social media tools](#) are enabling users to collaborate, communicate, and generate dynamic content in online networks. Rather than one person creating and controlling a static web page, web 2.0 tools allow content to be created and edited by many different users. [RSS](#) (really simple syndication) technology enables content to be easily shared via a 'feed', between a myriad of web 2.0 tools. This enabling users to access, filter and categorise information from many different sources, and even to populate their own websites with this content.

This case study examines how the following three tools were integrated with Moodle as part of the students' online learning process:

Blogs

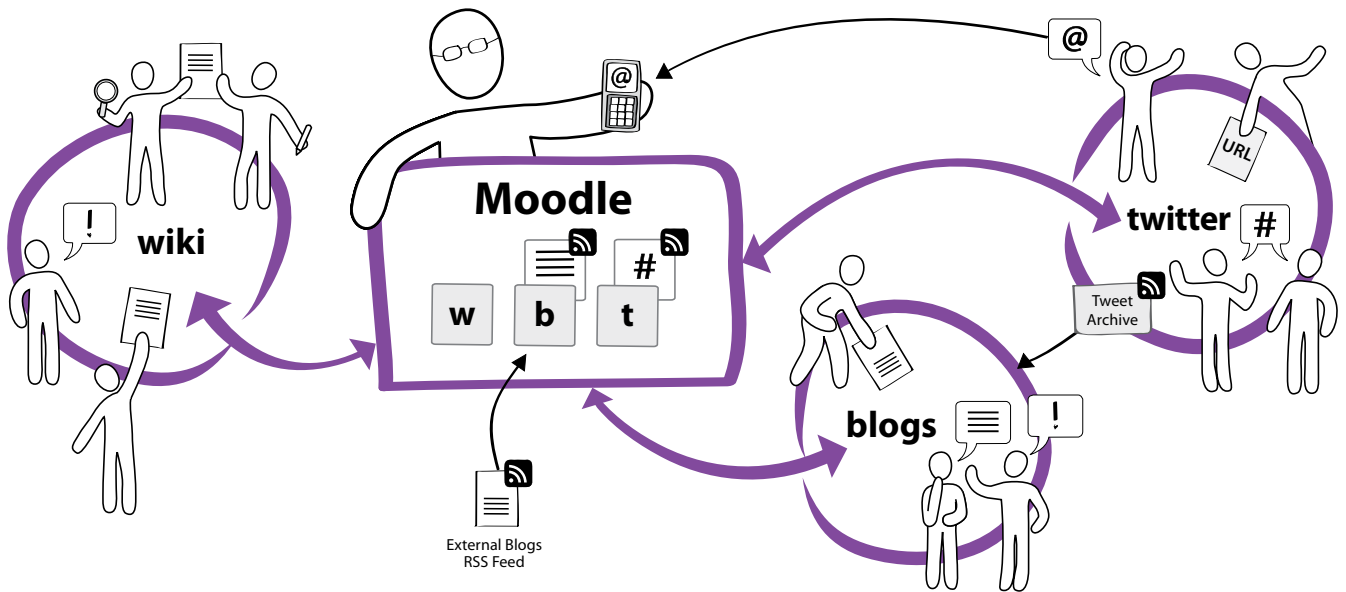
A blog (short for web log) enables a user to make a series of 'diary-like' posts online, that can include text, images, audio and video, along with a variety of information from RSS feeds. Blogs also allow those who read the posts to leave comments (refer to the episode '[Using blogs for peer feedback and discussion - case study](#)' for more information). [Wordpress.org](#) blogging software was chosen as it was able to be installed on university servers rather than being hosted on the open web, offering greater levels of security and privacy for students.

Wiki

Wikis are a collaborative tool that allow many people to create and edit online documents or web pages without specialist programming knowledge. The wiki that was used in this case was called Confluence www.atlassian.com/software/confluence.

Twitter

Twitter www.twitter.com is a form of [microblogging](#) where the entries (called 'tweets') are limited to 140 characters. Users can 'follow' the tweets of people or organisations they are interested in. A user can place a [hashtag](#) # in front of words within their tweet, to enable others who are searching for these keywords in Twitter to see the tweets, even if they are not following the person who sent it. For example, a search in Twitter for the hashtag '#elearning' will retrieve all of the recent tweets that make reference to this hashtag from users you do follow and even those you don't. Using hashtags is a way that a large group of people can all communicate about a certain topic easily. Tweets are not permanent, and disappear after a certain amount of time as more tweets replace them.



In this case study, a Moodle *mashup* (the integration of information from different sources into one website) is used to amalgamate information from RSS feeds from the class and external blogs, wikis and Twitter. In this way, different activities that students conduct in each technology can be summarised and highlighted on one web page, making it easier for students to assimilate information.

Other examples of web 2.0 software

There are many web 2.0 tools available online for many different purposes, with more being developed constantly. Below are some common examples:

- Flickr.com, Photobucket.com (image sharing tools)
- Delicious.com, diigo.com, Digg.com (bookmark, annotation and link sharing tools)
- Facebook.com, Linkedin.com, Academia.edu (social and professional networking tools)
- Wikipedia.org, Wetpaintcentral.com (wikis)
- Blogger.com, Tumblr.com (blogging software).

Motivation for adopting an online teaching strategy

The primary reasons Lubna adopted web 2.0 technologies into her teaching were:

- *The study of social informatics examines the impact of technology upon social behaviour. In order for her students to gain a more comprehensive understanding of the topic, Lubna wanted them to develop the skills and knowledge to question and understand the value of these tools in a social context, by actually using them*
- *With web 2.0 technologies becoming increasingly integrated into the way the world's modern population communicates, Lubna wanted to be able to help her students develop appropriate digital literacy skills to enable them to become fully participatory citizens in our future society.*

Case study outcomes quick summary

Key benefits

- A noticeable increase in communication and collaboration amongst students both in class and online. They become more engaged in debates and discussions, as they have greater opportunities to contribute, and get to know each other via their online exchanges
- Students develop more independent learning skills and confidence, and become co-producers of class knowledge and content
- Students can get help and support outside of normal class hours from each other and the teacher
- Web 2.0 tools support different learning styles and teaching methods by offering a variety of options for how and when students engage with content and each other. This can provide a good balance between formal and informal methods of learning
- Students can easily follow current events and integrate them into their discussions and assignments, and instantly engage online with people involved in the topic area. This enables students to validate their learning in the wider context of what is happening at that very moment in the world outside of the classroom
- References, links and resources can easily be shared
- Students have a chance to express their opinions online without the impediments of limited class time, lack of confidence because of shyness or different levels of verbal proficiency, cultural differences etc

Key issues to consider

- Since learning can continue outside of class time using web 2.0 tools, there can be an expectation that you will be available 24 hours a day 7 days a week. Set clear guidelines as to how often you will engage with students online outside of face-to-face class time
- You will need to factor in technical support and training for students when introducing new technologies
- Test all of the technology thoroughly before using it in a class
- Be careful of using too many tools at once, as they can overwhelm the students
- Different web 2.0 tools require different accounts and passwords. Students may find this difficult to manage for the first few weeks
- Many web 2.0 technologies are hosted outside of your education institution on the open web. Considerations such as student privacy, security of data etc should be considered if using such tools. Some web 2.0 tools can be installed on your institution's servers, and this may be an option if security and privacy are issues
- Web 2.0 technologies can enable students to continue studying outside of the set class time. While offering many advantages, this can also increase student and teacher workload if not carefully balanced and integrated with face-to-face teaching

Planning

Lubna had been using web 2.0 tools personally and professionally for at least 2 years prior to beginning to teach with them. While this amount of experience may not be necessary, it is important to understand the technology well. She also read a range of current literature on the topic as a method of familiarising herself with proven teaching strategies and approaches (a sample of which can be found in the 'Further reading' section of this document). Some key considerations when planning to teach using web 2.0 include:

- *Think of relevant pedagogical strategies for using the technology effectively. Be familiar with what each technology does well, and analyse your curriculum to see where the technology could benefit or enhance student learning. Examining case studies such as this one, speaking to experienced colleagues and reading literature on the topic can be a good place to start*
- *Understand how the technology works. Use it yourself and become familiar with its functions and limitations, and understand what can potentially go wrong. This will help you develop strategies to support students in their adoption of the technology*
- *Don't simply use the technology as an 'add-on' to the class. There must be a logical reason and purpose for the inclusion of any web 2.0 tools. Integrating the technology appropriately into class activities and assessments to help students achieve the learning outcomes is very important. Make it clear to students how the technology should be used to complete tasks.*

Teaching

This section will examine some general observations that arose from Lubna's experience teaching using web 2.0, and also will explain how blogs, wikis and Twitter were used in the class:

General considerations

- *Using web 2.0 technologies allows the role of the teacher to shift towards becoming a facilitator, motivator and guide for the students' collaborative learning, rather than a central figure the students are dependent upon. Activities and assessments should be carefully scaffolded to encourage the construction of knowledge in this way*
- *How you spend time teaching may change when using web 2.0 technology. Lubna planned to make time available at regular intervals through the week to look at questions coming from the Twitter feed, comments in blogs etc. This was to ensure that the benefits of immediacy the technology afforded were not lost because students were waiting a long time for a response*
- *Expect students to use the technology to varying degrees. Some will only use it to satisfy the minimum requirements of the class, while others will embrace the technology and begin to use it effectively in many aspects of their study. This is not necessarily a bad thing, as much can be learnt by those students silently watching the online interaction taking place (an activity referred to as [lurking](#))*
- *It is important for students to understand any risks associated with using online social media networks. The very first lecture of the class was dedicated to explaining to students [how to make themselves secure online](#). This was reinforced each time a new tool was introduced.*

As previously discussed, Moodle was used to enable the students to easily access each of the following technologies, and to quickly see new information or updates coming from their RSS feeds (much like scanning the headlines of a newspaper). From this central point, each of the web 2.0 tools described below was used for specific purposes linked to different activities and assessments.

The use of blogs

Many blogs are hosted on the open web, which can carry security risks. Because Lubna wanted to ensure security and privacy for her students, she chose to install Wordpress.org (a version of wordpress.com that is designed to be installed locally) on the University of Canberra servers. This required an understanding of the installation process, so the support of her IT department was required. Blogs were used as part of the social informatics class:

- *For tutorial exercises, peer review and students commenting on each other's work*
- *To blog about (or write interpretations and responses to) subject matter from lectures*
- *To archive #socinfo tweets (the hashtag the class used to make sure everyone could follow the Twitter conversation) so there was a permanent record, given that tweets eventually disappear from Twitter*
- *Blogs in the public domain dedicated to relevant topics were also followed via their RSS feeds in Moodle.*

The use of the class wiki

Confluence www.atlassian.com/software/confluence was chosen as the class wiki because it was already securely hosted on the university servers. The wiki was used in the class as:

- *A delivery mechanism for all of the class lectures. Students were also asked to add extra content and references to the existing lectures for the class, building upon the starting point offered by Lubna.*
- *Support for face-to-face tutorials. Students were able to build upon, edit and dispute the information provided by the teacher, summarise readings and provide extra resources*
- *A resource for the class exam. Students were allowed to use the information in the wiki in their final exams. This created a high level of motivation for the class to work together ensuring that the information that was developed was analysed correctly, accurate and succinct.*

The use of Twitter

Twitter was the only technology Lubna used that required students to set up accounts hosted in the open web. Students were also asked to follow, and post to the [#socinfo](https://twitter.com/#socinfo) hashtag so that everyone in the class could see and contribute to the conversation. One of the advantages of using Twitter was the ability to access a broad range of opinions from people outside of the university system. Students could even use Twitter on their mobile devices to keep in touch with each other between classes. Twitter was used:

- *To facilitate debates, comment on discussions taking place in the face-to-face tutorial (by projecting tweets onto the wall using third party Twitter utilities like tweetchat.com or visibletweets.com), asking questions of each other and the teacher, and giving feedback during presentations*
- *To enable students to quickly and informally share information amongst themselves*
- *To efficiently contribute outside links and internet resources to the class*

- As a quick way to communicate directly with Lubna outside of class time (if a tweet contains the @ symbol before someone's username, that person is notified of the tweet they are mentioned in. For example typing [@COFA Online](#) in a tweet will enable COFA Online to see your tweet even if we do not follow you)
- To follow hashtags such as #socinfo, #gov2au and #election2010. This allowed students to apply what they learned in class by contributing to conversations about current issues in the larger social context.

Issues to consider and suggestions for dealing with them

Implementing many different types of software in one class was not without its challenges:

- Issue

Not all students found it easy to use the technology right away

Suggested strategy

It is crucial to provide technical support for students in the form of a workshop or training session at the beginning of semester, and to also provide on-going access to help resources, and answering questions when they arise. Scaffold the students' use of the technology such that they begin by undertaking simple tasks, increasing in complexity (if required) as they build confidence. It is wise to only introduce one web 2.0 tool when starting out, evaluating its impact thoroughly before moving onto new technologies.

- Issue

Workload can increase for both teachers and students when web 2.0 tools are used outside of class time

Suggested strategy

Given that this technology provides the ability to communicate at any time, there is likely to be some increase in workload for teachers and students. However, the added benefits it can bring can counterbalance this, if the tasks assigned to the technology are carefully considered such that they do not require the constant attention of the teacher. Maximise the potential of collaborative learning by encouraging students to help each other, understand how to access help information online and not always be reliant on the teacher. Lubna set a 24 hour rule, so that her students understood that any question posted using Twitter would be answered by her within 24 hours (for further advice about managing your teaching time, refer to the episode '[Managing your time when teaching online](#)').

- Issue

In some instances, students were confused about which tool to use for different tasks

Suggested strategy

Students may not immediately understand the benefits of using web 2.0 tools. Care needs to be taken at the outset in explaining to students why each tool is used, how it works, why it is relevant to their learning, and how it can benefit them. As part of the class, teach strategies on how to use the tools effectively, and explain what you are expecting students to achieve with them. One way this can be managed is to have different assessment tasks directly related to the use of one technology. Clearly state in the instructions for the task how the tool is to be used to achieve the learning outcomes. In Lubna's class for example, some assignments required the use of Twitter, some the blogs, and others the wiki.

Conclusion

The rewards for successfully integrating web 2.0 technologies into student learning are evident in this case study, but care needs to be taken to ensure that students are not overwhelmed by unnecessary or ill-considered use of the technology. There is such a wide variety of web 2.0 tools in existence, that one case study cannot hope to encompass the entirety of their complexity or potential. However, it is hoped that by examining the different applications of such technology here, that you may be inspired to try adopting web 2.0 into your own teaching practice to evaluate the benefits for yourself.

Additional reading*

Abu Ziden, A., & Fong, S. F. (2010). [Lurking as Learning in Online Discussions: A Case Study](#). Paper presented at the Global Learn Asia Pacific 2010.

Alam, L. S. (2008). [To Wiki or to Blog: Piloting Social Software Technologies for Assessment in a Large First Year Information Systems Class](#). Paper presented at the 19th Australasian Conference on Information Systems, Christchurch.

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Junco, R., Heiberger, G., & Loken, E. (2010). [The effect of Twitter on college student engagement and grades](#). *Journal of Computer Assisted Learning*, no. doi: 10.1111/j.1365-2729.2010.00387.x.

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Schroeder, A., Minocha, S., & Schneider, C. (2010). [The strengths, weaknesses, opportunities and threats of using social software in higher and further education teaching and learning](#). *Journal of Computer Assisted Learning*, 26(3), 159-174.

**Note: Some readings are held in subscription only databases. In most cases accessing the link from your institution's network will enable access*

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To find out more about the Learning to Teach Online project, or to view the video component of this episode, please visit the COFA Online Gateway.

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About the project

The [Learning to Teach Online](#) project is a free professional development resource designed to help teachers from any discipline, whether experienced in online teaching or not, to gain a working understanding of successful online teaching pedagogies that they can apply in their own unique teaching situations. It hopes to encourage dialogue, discussion and the sharing of ideas about online learning and teaching across disciplines and between institutions around the world.

About COFA Online

COFA Online is an academic unit at the College of Fine Arts (COFA), The University of New South Wales (UNSW), Sydney, Australia. It has been innovating online pedagogy, academic professional development and effective online learning strategies since 2003.

About The University of New South Wales

UNSW has an enrolment of approximately 40,000 students, and is the leading international university in Australia with over 10,000 international enrolments from over 130 nations. UNSW was also ranked as the top university in 2009 in the Australian Government Learning and Teaching Performance Fund for the quality of its teaching.

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