

Abstract

Hope you enjoy reading my new blog. The blog contains three pages each dealing with a different aspect of Web 2.0 tools in teaching and learning. The first looks at Web 2.0 tools that I currently integrate into Freshwater Ecology lectures. The second investigates Web 2.0 tools in general while the third page discusses how Web 2.0 tools can be integrated into known teaching and learning theory.

Link to Blog: <https://mfrcfreshwaterecology.wordpress.com/>

Web 2.0 Tools currently in use in Freshwater Ecology Teaching

This blog highlights some Web 2.0 tools that I currently incorporate in my Freshwater Ecology teaching. It also investigates Web 2.0 tools in general and investigates their uses in teaching and learning elsewhere. There are many options nowadays and I must admit I currently do not integrate Web 2.0 enough. My key tool of choice is **Moodle**, the [GMIT virtual learning experience](#), where I post PDF's of lecture notes and any video clips used in class. I also set assignments and tasks for students to use at their leisure. In addition to Moodle, I also integrate video sharing via **Youtube** to my freshwater ecology lectures. These are very useful in visually showing and/or explaining complicated scientific terms and processes. I find them particularly useful in ecology practicals where one or two video clips can easily explain what the practical methods are and how to carefully complete practical tasks. I have recently used, for the first time, **Quizzes** as a fun exercise at the end of practical sessions to highlight the key points. I have found this helps to focus the students during the practical especially if they know there are questions to follow. I think it also highlights to students that more revision and effort is required outside the practical sessions if the information is to be retained long term. In addition, I have posted **choice questions** within Moodle to gain immediate feedback on how the practicals went for the students and to help identify any problem areas.

[Web 2.0 – Integrating Learning Theories](#) illustrates other examples of Web 2.0 tools which can also be used and integrated into ecology teaching.



The Internet Messenger by Buky Schwartz (<http://en.wikipedia.org/wiki/Internet> – accessed 9/2/2015)

Web 2.0 Tools

Let's start by first examining what **Web 2.0 tools** are. Web 2.0 tools are defined as any web based internet site (www) offering interactive, collaborative and creative platforms between lecturers and students, removing the traditional static classroom lecture to one available from anywhere at any time. The use of Web 2.0 tools creates a virtual learning experience (VLE) where the lecturer and the students interact outside the classroom and where the learning experience is enhanced using activities, quizzes, blogs etc. There are hundreds of Web 2.0 tools available, with new tools added to the market each year, offering blogging ([WordPress](#)), games and quizzes, video sharing ([YouTube/edu](#) and [TED](#)), social networking ([Facebook](#) and [Twitter](#)), mind mapping ([Mind42](#)), presentation aids ([Prezi](#), Slideshare and [Screenr](#)), surveys and polls ([Survey Monkey](#)) and much more.



Web 2.0 tools (<https://www.flickr.com/photos/circulating/254126209/> – accessed 9/2/2015)

[Scapin \(2014\)](#) provides a list of Web 2.0 tools commonly used in 2014 with [Googledocs](#) number one.

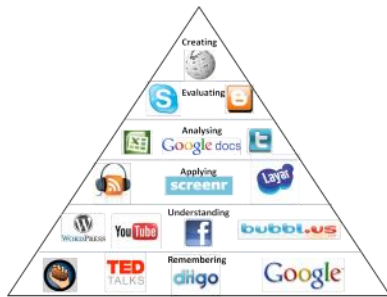
The Web 2.0 tools allow information to be presented in different media formats, challenging twenty first century students to think in a logical and collaborative manner.

[Web 2.0 – Integrating Learning Theories](#) illustrates other examples of Web 2.0 tools which can also be used and integrated into ecology teaching.

Integrating Learning Theories and Web 2.0

When considering the use of any [Web 2.0 application](#) it is important to first consider the [Sloan Consortium](#) which taken into account the needs of the lecturer, students and resources. Firstly, accessibility and usability of the new technology to all users in the class has to be established. In addition, privacy settings, intellectual property issues, workload and time management must also be considered for both the lecturer and students involved. Most importantly there should always be an element of fun and excitement to the task and the new tool chosen. It is important to recognise how the students will engage with the Web 2.0 tools and to ensure that they complement the pedagogical learning outcomes of the module.

Popular Web 2.0 tools, most of which are free to teachers, also correspond to known learning theories including the six levels of [Blooms modified taxonomy and the SAMR Model](#). Examples of Web 2.0 tools are provided for each level: Remember – Social bookmarking using Diigo, Youtube clips, screen casting and quizzes are all help students retain information for longer. Understanding – Social media sites such as Twitter and Facebook, Skype, TED talks and blogs create forums for discussion among students and with the lecturer. Application of information gained can be seen through Jing, Google, screencasts while analysing information gained occurs via Googledocs, Youtube, Twitter, and Excel. Evaluation of information using Googledocs, Wikis, and skype allows students to create their own information via blogs, podcasts, moodle, wikis.



Bloom's Modified Taxonomy (<http://enhancingteaching.com/tag/assessment/> – accessed 9/2/2015)

The following table provides examples of Web 2.0 tools I plan on integrating into my freshwater ecology teaching and learning in the academic year 2015/2016. These are tools not previously used and align with Bloom's Modified Taxonomy.

Table 1. Planned Web 2.0 tools aligned with Bloom's Modified Learning Theory and to be integrated into freshwater ecology teaching in the academic year 2015/2016.

Bloom's Modified Taxonomy	Web 2.0 Tools
Creating	Podcast
Evaluation	Wikis
Analysing	Surveys and polls
Application	Screencasts
Understanding	TED talks and blog
Remember	Diigos

References

Carty, R. and Gordan, D. (?) Oideachas 2.0: Using Web 2.0 in the Irish Educational Context Dublin Institute of Technology, Dublin, Ireland.

Salehe, B.R. (2008). Elimu 2.0 – Investigating the Use of Web 2.0 Tools for Facilitating Collaboration in Higher Education. PhD Dissertation, Dublin Institute of Technology

Websites/Blogs

Rafael Scapin (2014). The Best Web 2.0 Tools to Boost Your Teaching. <http://www.slideshare.net/rscapin/the-best-web-20-tools-to-boost-your-teaching-2013>. (Accessed 9/2/2014).

Web 2.0 teaching tools. <http://edjudo.com/web-2-0-teaching-tools-links> (Accessed 9/2/2014)

Finding the right tool. <http://webtools4u2use.wikispaces.com/Finding+the+Right+Tool> (Accessed 9/2/2015).