

Web 2.0: Creating a classroom without walls

By Tim Barlow

This article is about my year-long journey implementing Web 2.0 tools into my teaching practice. The goal throughout my journey has always been to increase my students' intrinsic motivation to learn about science. The Web 2.0 tools I used along my journey were weblogs (blogs) and podcasts.

Introduction

The World Wide Web (WWW) was created in 1989 (Berners-Lee, 1989) and I still consider it to be a relatively new teaching tool. Educators have done well to integrate WWW learning tasks like web quests into their curriculum. However, in the information age I believe that teachers can do so much more with the WWW in their teaching. In particular emerging technologies, commonly referred to as Web 2.0 tools (Web 2.0, 2008), provide a huge, untapped resource for educators because of their potential to enhance learning in virtually any environment. They offer a real opportunity to create a classroom without walls.

My first foray into Blogs

My journey with blogs began in early 2007 with the creation of my first blog (<http://mrbarlow.wordpress.com/senior/>). I envisioned this web site to be a place where my senior science students would visit to discuss their learning with each other and myself. To ask questions about their science course, and expand on issues concerning the course content. The blog was colourless and uninspiring, it lacked anything to stimulate students and actually put the onus on the students to build the site themselves. In summary, the word for my first foray into web 2.0 technologies was ... failure!

Sure it started off well. I told my students about the site, they visited it, and on occasion they even made a post. Wildly creative, thought provoking things such as:

“Hi Mr. Barlow. I was on an excursion today. What was the homework?”

There was no discussion, no learning and no interest. But why would there be? The **W**orld **W**ide **W**eb has got **w**hatever you want, **w**henever you want it, **w**herever you want it (March, 2005). A boring web site set up by a teacher with no content never had any chance of competing with the vast resources of international techno-geeks who had been blogging for several years. An informal survey showed me that the considerable majority of my students are online almost every day – on MySpace, on YouTube, chatting via MSN or iChat, and finding things that interest them. They weren't visiting my site because it wasn't interesting for them. Clearly, students needed to be provoked in to visiting the site.

Life Long Learning

The next step in my journey with blogs was to create an online unit of work. In other words 'encourage' my students to visit a web page by making it a part of their assessment. I created a 'big question' year 9 science unit called 'Life Long Learning'. Students were given a choice about what they wanted to learn and, in conjunction

with practical activities and homework tasks, directed their own learning and presented their work to the class. More detail about the unit can be found at <http://lifelonglearners.wordpress.com/>.

In contrast to my first attempt, the 'Life Long Learning' unit was very successful. By giving students a choice about what they wanted to research they held ownership of their learning and this motivated them to achieve. The 'big question' nature of the projects also enabled all students to extend their learning beyond the standard year 9 curriculum. There was no minimum amount of work. Students made their own learning decisions and extended themselves as a result. While 'big question' units of work are not new, for example the International Baccalaureate Primary Years Program uses them extensively (IB Primary Years, 2008), the implementation of the unit online by using a weblog was innovative as it enabled students to comment on their learning throughout the task. In this regard it was a very positive development.

A Bunch of Interesting Stuff

My 'Life Long Learning' unit was a success. Students extended their learning beyond the base curriculum because they were interested. However, they were still being forced to learn because their work was assessable; they were being extrinsically motivated. Students were also still doing the majority of their learning inside the classroom. Although assessment and reporting are integral components of school life I wanted my students to learn new things because they were interested, because they were intrinsically motivated to learn, not just because I told them to. After all, intrinsic motivation has been long recognised by educational psychologists as being associated with high educational achievement and enjoyment by students (Motivation, 2007).

In the middle of 2007, with intrinsic motivation as my guiding light, I returned to my original weblog, <http://mrbarlow.wordpress.com/>. I set myself the goal of creating a web site that students wanted to visit, so much so that they would visit it outside the confines of a classroom. I didn't want to make it a part of their assessment and I wanted to compete with MySpace, Facebook, YouTube and MSN. A formidable challenge!

From my first foray into blogs I learned that a static website with no content would not attract student interest. I also learned that my site couldn't compete directly with the social networking sites that are so popular with students; they don't want teachers to be a part of their social networking, and probably rightly so. Therefore I had to generate a web site my students visited because they were interested in the content. Furthermore, to keep students coming back and learning more I had to regularly upload new information.

'Mr. Barlow's Weblog: A Bunch of Interesting Stuff' was born. I would regularly find new information about interesting things going on around the world with a scientific focus that would also appeal to students. I sourced the information through visiting science sites like Nature (<http://www.nature.com/>), National Geographic (<http://www.nationalgeographic.com/>), New Scientist (<http://www.newscientist.com/>), Scientific American (<http://www.sciam.com/>), The Age (<http://www.theage.com.au/>) and technology sites like Engadget (<http://www.engadget.com/>) every day. I would then provide a summary of any interesting information on my blog with hyperlinks to

enable students to learn more about the topic if they were interested. The information was never intentionally linked to the curriculum so would not aid students in their assessment tasks. In addition, students were never forced to visit the site; they would need to be self-motivated and they would need to visit the site outside the walls of the classroom.

The results; has blogging worked?

There was plenty of anecdotal evidence to suggest that my web site was intrinsically motivating students to learn more about science. Individuals would often come and talk to me about an interesting thing they had learned on my blog. These conversations were really encouraging and demonstrated that my students were learning about science outside the classroom and without being forced. A more tangible and perhaps more realistic measure of my success was site hits (see figure 1). The more hits my blog received the more I was likely to be helping students learn. In June 2007 after informing one senior class about my site it generated 75 hits; not too shabby in a class of 16. In July after distributing the web address to three more classes there were 285 hits. August saw 430 hits and September 487. In October after writing the web address on the back of my lab coat the hits skyrocketed to 774. November's hits increased further to 1375 and even after summer holidays begun December's total hits reached 1502.

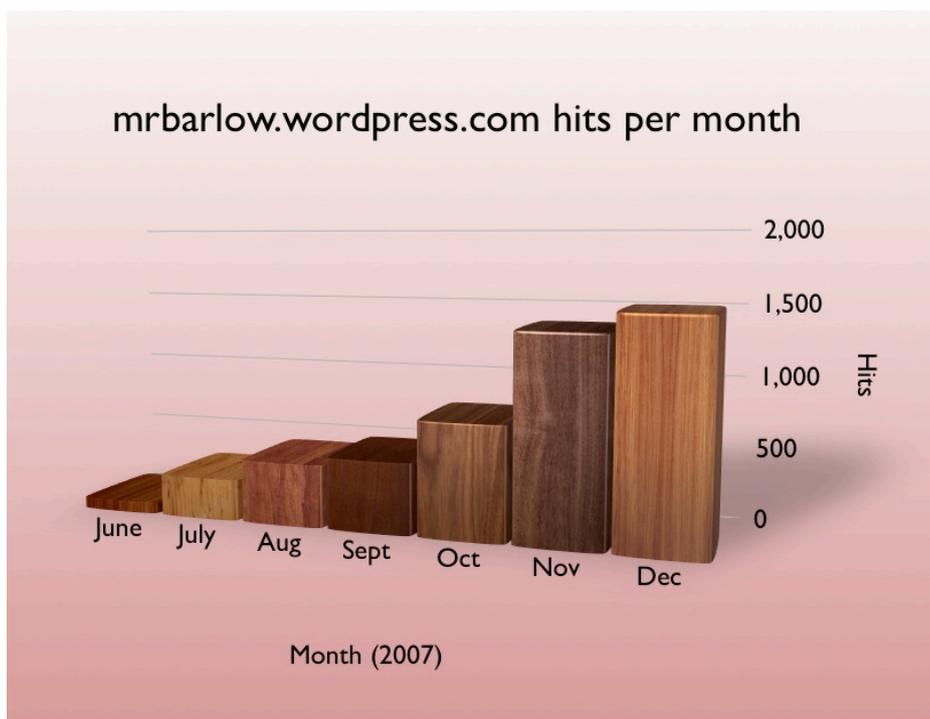


Figure 1. Monthly total site hits for Mr. Barlow's Weblog (<http://mrbarlow.wordpress.com/>).

It was working. Students were visiting the site at home, at friend's houses, on their mobile phones, on their iPod Touches, in fact I don't know when or where they were visiting because they were doing so outside the confines of the classroom. Students were visiting my blog because they were intrinsically motivated to learn.

How to blog

The great thing about blogging is that it is cheap and easy to start. At least two companies offer free blogging services. For my web sites I have used Wordpress (<http://wordpress.com/>) although a similar service is run by Blogger (<http://www.blogger.com/>). All you need is an email address, an idea and you are ready to go.

Podcasting

After my success with mrbarlow.wordpress.com I began to consider other ways to intrinsically motivate students to learn using web 2.0 technologies. Another way to engage my students struck me as I watched a group of students arrive at school. They all listen to iPods – I should make an audio podcast.

To make a podcast I needed something to talk about. Fortunately I already had ‘a bunch of interesting stuff’ on my blog so the content was there and waiting. The only thing required was to record the podcast and upload it to the iTunes music store so my students could download it for free.

The results; has podcasting worked?

Like blogging, I gathered a lot of anecdotal evidence from my students about the effectiveness of podcasting as a learning tool. Like blogging the evidence was always positive. Students would discuss things they had learned with me and on occasion I would overhear a conversation between students about something interesting they had learned by listening to the podcast. Once again, giving students the opportunity to learn by using technology that they were already comfortable with was successful.

How to podcast

Like blogging, podcasting can be done by anyone. The first thing you need to do is record the podcast. If you are using a Windows based computer, ‘Audacity’ (<http://audacity.sourceforge.net/>) is a free multi-platform application for recording podcasts. If you are using a Mac OS X based computer, ‘Garageband’ (<http://www.apple.com/ilife/garageband/>) is simple to use and bundled free with all Mac computers. Once you have recorded your podcast, upload it to the web and you are done. Like most things there are a host of ‘how to’s’ online which I found particularly useful.

Conclusion

Implementation of Web 2.0 technologies into teaching has been a stimulating and creative experience for both the student and teacher. By creating a web site loaded with interesting content that is regularly updated I have been able to motivate students to learn intrinsically. Students are engaged in the content because it is relevant, current and real world. By embracing technological tools, such as weblogs and podcasts, that are used by my digital native (Digital native, 2007) students I have been able to reach them beyond the usual confines of a classroom. My students are now learning about science, not because they have to, but because they want to. Teaching in a Web 2.0 environment is a classroom without walls that works!

References

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