The interest in new media for teaching and learning has highlighted the potential of innovative software and hardware for education. This has included laptops, handhelds, wireless systems and Web-based learning environments. Most recently, however, this interest has focused on blogs and blogging.

Weblogs, or blogs, are Web pages often likened to online personal journals. They are noted for being the "unedited, published voice of the people" (Winer 2003). Winer provides a more technical definition, suggesting that a Weblog is "a hierarchy of text, images, media objects and data, arranged chronologically, that can be viewed in an HTML browser." Blogging is writing your thoughts into your blog, and the "blogosphere," a term coined by William Quick (2001), is the "intellectual cyberspace" that bloggers (i.e., those who blog) occupy.

While a few educators have already started using blogs in the classroom, more have focused on the potential of blogging in teaching and learning (Shachtman 2002; Embrey 2002). For instance, some claim that blogs may further democratize the Internet, addressing some of the concerns undergirding the digital divide (Carroll 2003). In this article, we will describe the pedagogy behind blogs. We will address the reasons why blogs should be used as one of many teaching and learning tools, as well as describe the potential benefits of blogs for educators. Drawing on our own research and teaching, we will conclude with specific strategies for using blogs in the classroom.

The Pedagogy Behind Blogs

Current educational research and theory have demonstrated the importance of social interaction in teaching and learning. Drawing on Vygotsky's educational theory (1978), educators highlight the "knowledge construction" processes of the learner and suggest that "meaning making" develops through the social process
of language use over time. As such, knowledge construction is discursive, relational and conversational in nature. Therefore, as students appropriate and transform knowledge, they must have authentic opportunities for publication of knowledge.

Through publication, teachers "can infer the process by which students transform meanings and strategies appropriated within the social domain, making those strategies their own" (Gavelek and Raphael 1996). It makes material accessible for subsequent reflection and analysis, allowing students to revisit and revise their artifacts; thus, enriching the learning experience (Krajcik et al. 1994; Olson 1994). Publication also offers the opportunity for feedback, which, in turn, scaffolds a learner in his or her quest for knowledge construction.

Blogs are useful teaching and learning tools because they provide a space for students to reflect and publish their thoughts and understandings. And because blogs can be commented on, they provide opportunities for feedback and potential scaffolding of new ideas. Blogs also feature hyperlinks, which help students begin to understand the relational and contextual basis of knowledge, knowledge construction and meaning making.

Research suggests that many of these advantages can also be afforded by asynchronous discussion forums. At one level we would agree, because both tools are very similar. As such, many of the same research-based findings about discussion forums would hypothetically apply to blogs. Blogs, therefore, represent the potential to promote interactivity, provide opportunities for active learning, increase student and teacher relationships, increase higher-order thinking skills, and improve flexibility in teaching and learning (Ferdig and Roehler, Unpublished).

On the other hand, blogs provide an environment that is more advanced than simple discussion forums. According to O'Shea (1999), technology can offer ways for students to establish personal and intellectual ownership of new concepts while they visualize and interact with abstract ideas. A blog essentially becomes a student's personal online soapbox. Unlike a discussion forum that is shared by many, a blog gives students full control and ownership over their online content. It becomes a virtual space to try out new concepts that do not have to fit within a hierarchical or topic-based discussion forum.

Blood (2002) further explicates how blogs are different, citing the hyperlink and the frequency of content updates. The hyperlink plays a more important role in a blog because the hyperlinks are designed to stretch outward into the Web to bring news stories, comments, pictures and other items outside of the host's server to the audience. In addition, the hyperlink is used as supporting information for any claim or commentary that the blogger makes on his or her page. Through the hyperlink to the source material, the reader can decide whether or not what the blogger wrote is in line with his or her own beliefs. Blood also suggests that a blog is designed to be visited frequently. This concept is represented by the reverse chronological order of the posts that allow readers to easily identify the most recent posts made to the page since the last visit.

This themed issue of *T.H.E. Journal* is focused on "using technology to deliver content." One normally thinks of content delivery systems when discussing this topic. In this day and age of constructivist pedagogy - focusing on the students' meaning making - using technology to deliver content should also be seen as using technology to help students create content. Blogs allow students to take ownership of their learning and publish authentic artifacts containing their thoughts and understandings. Blogs also provide a way for students to individualize their content; thus, help us rethink using technology to deliver content.

**Practical Suggestions for Implementing Blogs**

Blogs can be incorporated into any type of class for all reading- and writing-aged students. They can be used as a knowledge-management tool where teachers and students communicate with each other through the course of the semester, or as a tool to bring reflections or outside material into the class for everyone's benefit. Following are a number of practical suggestions that provide a good environment for successful blog integration.

**Consider blogging yourself.** Many institutions encourage their faculty and staff to take an online class before teaching one. The obvious benefit is that the instructor sees what it is like to use the technology prior to being on the other side of the virtual desk. The same rule applies for blogging: Take the time to understand blogging and the different possibilities of blogs before using them in the classroom.
Spend time visiting other classroom blogs. Different instructors have used blogs with different objectives in mind. Find classroom blogs that are related to your teaching level and topic to see how they have set up blogs in the classroom. A great place to find classroom blogs is through SchoolBlogs (www.schoolblogs.com). Also, since Google now owns Blogger.com, a quick search on Google for "blog" and your topic area should provide some interesting results. We encourage you to contact the classroom instructor to find out what challenges and successes they experienced with your content area.

Model blogging for your students. In teaching and learning, we have specific outcomes and uses for blogging. Spend several sessions introducing the concept of blogging, how it is done, why it is done, showing good and bad blogs, etc. Then, provide a set of strict rules for blogging such as frequency, length of posts, number of hyperlinks and staying on topic. This set of rules can be created together with students; however, the students should be made explicitly aware of what is not appropriate on the blog. And remember that because the blog is a Web-based, informal communication, students may be apt to use inappropriate language on their blogs. They might also fail to use references and citations when quoting others' work.

Make the blogs more public. We have already addressed the benefits of the worldwide audience in blogging. Take an active role in publicizing student blogs by sharing links with the outside world, as well as trying to get experts or nonclass people to visit the student blogs and comment on them. This interaction with experts not only increases that which is learned through the exercise, but signals that there are real people reading the published content. This can lead to the student spending more time in preparing blog posts and thinking more critically because of this wide dissemination.

Explain the "reach" of blogs to students. Clearly communicate that the messages posted on a blog are publicly accessible. Therefore, an employer, friend or parent can easily access the blog. As such, students should remember that once something is posted on the Internet, communication is irreversible, even if later edited or removed.

Four Benefits of Student Blogging

1. The use of blogs helps students become subject-matter experts. According to Blood (2002), there is a three-step process involved in blogging: scouring, filtering and posting. The blogger visits multiple Web sites relevant to his or her topic to find information to which they will respond, critique or hyperlink. The blogger must then filter the results to post the "best of" content for readers. Through this process, bloggers are exposed to vast amounts of information on their given topic, even if they do not comment on everything they find. The regularity of doing this at least once a week creates a repetitive process where the blogger builds an ever-growing knowledge base on particular topics.

2. The use of blogs increases student interest and ownership in learning. Technology has been cited as a motivating tool because of its newness. Blogs are novel to students not only because they are a newer technology, but also because students are blogging about topics that are important to them. Students direct their own learning while receiving input and feedback from others. They also take ownership of their learning in the blogging activities by actively searching for information.

3. The use of blogs gives students legitimate chances to participate. One goal of teaching and learning is to enculturate students into a community of practice (Lave and Wenger 1991). While blogging, students quickly learn that posted content can be read by those other than the teacher and their classmates. Blogging opens up assignments beyond the teacher-student relationship, allowing the world to grade students and provide encouragement or feedback on their writings. We have had students in our classrooms actually receive job offers based on postings in their blogs, because their postings provided a legitimate way to interact with an authentic audience in a community of practice.

4. The use of blogs provides opportunities for diverse perspectives, both within and outside of the classroom. Mainly due to time and curriculum constraints, not every student gets to share his or her thoughts in a traditional classroom. Blogs allow all students to participate in a discussion, opening up diverse perspectives. By blogging, the classroom also extends from the physical constraints of those who fit in the room and are registered to a limitless international audience. It is likely that someone outside of a class will
come across student blogs, thereby extending diversity to include perspectives outside of the classroom.

Getting Started With Blogs and Blogging

There are several blogging solutions for the classroom, with some more expensive and involved than others. The least expensive solution is to adopt a free Web-based blogging service. SchoolBlogs (www.schoolblogs.com) or Blogger (www.blogger.com) both offer free blogging software and hosting services via the Internet. Creating a blog on most of these free services takes less than five minutes and many provide a multitude of options such as Web-based editing, public and private blogs, support for plug-ins (e.g., adding comments), and various templates. Most sites also have created FAQ and "Blogger Basics" sections to help with technical setup.

If an institution is willing to host blogging software on a locally maintained server, one might consider implementing products such as Movable Type or Radio UserLand. Both solutions offer more features than the free services such as the ability to add comments. Movable Type (www.movabletype.org) is free for noncommercial use and Radio UserLand (http://radiodiscuss.userland.com) user licenses are inexpensive.

Other online blogging resources include:

- Blogosphere.us (www.blogosphere.us) and Weblogg-ed (www.weblogg-ed.com) offer news on current trends in blogs and educational blogging. In both cases, the bloggers are educators who use blogging in their courses, while one of the online resources even teaches a class about blogging.

- Currently, there are two major annual conferences for blogging enthusiasts. BlogTalk (http://blogtalk.net) held in Vienna, Austria, is an international academic conference where scholars from around the world present research on blogs. And BloggerCon (http://blogs.law.harvard.edu/bloggerCon), held at Harvard University, is a user-orientated conference where bloggers converge to talk about the social implications and uses of the technology.

References


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