

Web 2.0 and You: Starting the Conversation

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Have you watched a YouTube video? Seen pictures on Flickr? Or downloaded a podcast on a topic that interests you? If so, then you have joined the Web 2.0 evolution. If you have uploaded photos or videos or posted your own blog, you're a full-fledged member. And you probably know that your students are already there. In fact, they are experts in the Web 2.0 world. This article is designed to introduce you to some of the ways in which our students connect, communicate, and create, and why these new tools (many of which you will enjoy using) can make a big difference for your students' learning.

It's not exactly us versus them, but our students have been called "Digital Natives" while we adults are the digital immigrants learning the digital language of the new web, video and new ways of working (Prensky, 2001).

What does this facility with all things digital mean for student learning? To begin with, they are no longer the learners for whom our educational system was designed. They are recognized as the first students who have grown up with digital tools at their fingertips. The non-linear nature of digital media – getting what you want when you want it, following a thread or idea in the ways that your mind seeks, and jumping from one topic to another as inspiration drives you – those are the ways that our students have come to interact with the world.

In addition, the world is growing (in Thomas Friedman's terms) flat, which means that nothing exists in isolation anymore. Whether it's the environment, education, commerce, or almost anything else, a global component is part of what we do. Students will have to live and work in this global environment, which means that they have to learn how to learn new things, adapt to multiple jobs, acquire new skills on an ongoing basis, and live in a connected world. Schools today offer scant preparation. Yet they must adapt and change and use the new tools available to reach students to make a difference in their learning. To do that, we all have to reinvent our own literacies.

Why do we care?

In reality, researchers now believe that digital literacy is a 21st century skill (Gee, 2003) and that we educators may need to rethink the ways that we conceptualize learning and literacy. He suggests that we employ technology to make difficult and challenging things so enticing and engaging that students will be hooked and believe the tasks are worthy of effort. More to the point, digital technology is part of the culture and thus, it is important to take advantage of the educational potential of these tools. And NCREL (2003) suggests that literacy is actually comprised of four elements: Digital-Age Literacy, Inventive Thinking, Effective Communication, and High Productivity.

There is evidence that employing problem-based learning, using a constructivist approach to curriculum, and using technology in the curriculum may enhance learning. This is important given education's need to demonstrate improved student outcomes and academic achievement. Beyond constructivism and problem-based learning, we also now follow the concept of connectivism (Siemens, 2004) which conceptualizes how learning theories relate to the digital age and the ways in which technology and connections might support learning activities.

What is Web 2.0?

With the "old" Web, students could find and use information in a variety of ways. With Web 2.0, however, we have online tools so students can interact, enhance, morph, and create information and then communicate the results to a real audience. Within this growing collection of emerging web-based tools, exist free applications that are very similar in function to common desktop software. These are used through our browsers rather than installed on our computer desktops. In addition, there are tools considered important to the social networking aspect of our students' lives that include more interactive components. These include blogs, wikis, photo and video sharing sites, and more. These tools are

starting to be used in K-12. Let's look at the most popular of the Web 2.0 tools and a few ways in which students use them for learning, as well as how educators use them for professional development.

Tools and Students

Blogs

These personal commentaries on a wide variety of issues that can entertain, convince and influence readers are popular. What has captured bloggers' imagination is the ability to comment on events and get their point across to readers. But blogs are not just for individual self-expression; they offer excellent opportunities for sharing and focusing on a particular subject.

So what could be more natural than to have students write about their world or specific academic topics? Blogs are a natural fit for writing and seamlessly support peer editing and sharing. Students are suddenly posting original poems, stories, illustrated books, and their opinions on current events, personal experiences, and school activities.

Teachers use blogs to encourage students to think deeply about issues. When they write, they have to organize their thoughts, determine what matters, and communicate effectively. Eighth grade teacher Theresa Spenser has students conduct a research project on a subject related to the Holocaust. Students submit a blog entry on their subject matter. After they have posted their entry, they view other student's blogs and make at least three comments to other students about the research that they have done. Student entries are graded on content as well as grammatical correctness.

Podcasts

One of the most commonly used and accepted tools of Web 2.0 is the podcast. It allows anyone to distribute multimedia files such as music or speech over the Internet for playback on mobile devices and personal computers. They are distinguished by their ability to be downloaded automatically using software capable of reading RSS (Really Simple Syndication) feeds which basically tag a podcast with keywords and then are identified by the keywords you have selected to listen to.

Using them for communication is a natural outgrowth of their popularity. In fact, teachers create them to improve student learning, developing podcasts of study and lecture notes, complete with anecdotes about historical events and leaders. They encourage students to create podcasts for presentations, news programs, and to develop presentation skills.

In May 2006, southern Maine experienced the worst flooding since the 1930s. How would anyone know this? Quite simply, one can listen to students in Bob Sprankle's 3rd and 4th grade classroom podcast about the disaster in Wells, Maine. Students told stories about their own personal experiences during the flood. Beyond headlines, if you wanted to hear what happened to real children and their families, this was the way. One teacher related her story of using a wet vac to pump water from the garage and posed a potential math problem about how many gallons of water she and her husband had pumped out over nine hours. Students questioned one another about practical concerns and doing without things that you take for granted. How better to experience an event than by listening to the narratives of those who lived through it, especially the voices of children.

Wikis

A wiki is a web page that is accessible to anyone with a Web browser and an Internet connection. It allows readers to collaborate with others in writing it and add, edit, and change the web page's content, making it a tool for collaboration. Districts can set up a wiki on their own servers or use commercial wiki services. Students can collaborate on a document for problem solving, peer editing during the writing process, and electronic portfolios. Students can work from anywhere, which means they are able to contribute 24/7 rather than being limited to the school day or class period. Wikis keep track of changes, so teachers can look at successive versions of documents for electronic portfolios or what contributions

each student has made. When the work is complete, students can invite parents and others to read their work and comment.

Illinois English teacher Jon Orech's students work on a long-term, independent literature circle project using wiki software. They begin with reading a book, answering discussion worksheets and leading a discussion about it online. Each student must post at least twice a week as groups create book notes that include a comprehensive summary, biography of the author, passages from the book with explanations, and an analysis of important themes, symbols, or recurring motifs.

Photo Sharing

Flickr is perhaps the best known of free online photo management and sharing applications. Rather than sending photos from desktops and cell phones to friends and family via email, people can post them online at Flickr and invite friends to view them in online albums or slideshows. They can add notes and tags to each photo, and their viewers can leave comments, notes, and tags as well. Tags are searchable so it's easier to find related photos later. Photos are secure and private.

Students can post digital photos and use them to illustrate their writing and for digital storytelling. Digital storytelling is a powerful idea for student writing, thinking, and expression that merges writing, photographs, music, and voice to create a personal multimedia story. Some teachers let students find images that have been stored on Flickr or other site and select them as story starters. Because many images on Flickr have Creative Commons licenses, students know what use they may make of the pictures.

Ted Glazier, a physical and health education teacher in an Illinois high school, has students use Flickr in digital storytelling projects. He has had students create public service announcements on addiction. He also wanted students to learn to use statistics so he asked them to take two relevant statistics and make them come alive in a digital story. The images resided behind the district's firewall in a shared folder on the network with Flickr usernames built into the file name so the students would be able to attribute.

Tools and Teachers

Web 2.0 tools are useful for educators – not just to learn what to do for their students. They offer new ways of learning and communicating for educators too. For example teachers can create or access excellent professional development podcasts on almost any subject. One example is Dan Mcdowell's "A History Teacher," a discussion of strategies for teaching about the crisis in Darfur. (<http://www.ahistoryteacher.com/wordpress/>). The Educational Podcast Network (<http://www.epnweb.org/>) lists many.

Most important is that these tools afford educators the ability to connect and learn from and with each other as they choose the tools and information that matters to them and in the process, create a personal learning environment.

This idea of building your own professional development network – where you find the people from whom you can learn, ask questions of them, comment on their thoughts and links, and have them do the same for you – is one of the major benefits of blogging and podcasting. It is the art of conversation captured in digital format (Guhlin, 2006, n. p.)

This is an evolving time for Web 2.0 tools and the most exciting aspect is that you can jump in with whatever tool matches your curriculum goals and the one you feel comfortable using. Give it a try and then be sure to share your ideas and your students' productions.

Publisher's Note:

Gwen Solomon and Lynne Schrum's new book, *Web 2.0: New Tools, New Schools* is available from ISTE. They are soliciting your stories, examples, projects, blogs, podcasts, and other items for their

second book in the series, which will be on best practices in a Web 2.0 world. Send information to [gwen and lynne book2@yahoo.com](mailto:gwen_and_lynne_book2@yahoo.com).

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