The Read/Write Web: New Tools for a New Generation of Technology

From blogs to wikis, technology is changing the structure of traditional education.

Will Richardson and Rob Mancabelli
Kimberly Moritz, a principal in upstate New York, had never thought much about blogging before last summer. But at a conference on new Web technologies, she became so intrigued by its possibilities that she started writing a blog about her life as an educator.

Just a few weeks into her new online endeavor, Moritz was noticing the effects. “Here’s the amazing thing about blogging for me,” she says. “When I go home to my family or talk to friends, no one really wants to talk about education. But I still have my students, my school, and its challenges swirling around in my head. So now I find that blogging is an instant connection to others who are interested in the same things.”

Moritz is one of a growing number of educators who are starting to make connections with one another using the tools of what is called the Read/Write Web. As the name suggests, these technologies allow users to easily create and publish online content.

Blogs are easily created and updateable Web sites that enable users to instantly publish from any Internet connection and to interact with readers. Thousands of educators have incorporated blogs into their communication practices.

Wikis are collaborative Web sites where anyone can add to or edit content that has already been published. In some schools, teachers and students have begun using password-protected wikis to create their own textbooks and resource sites.

IN BRIEF

A growing number of educators are beginning to connect with one another using the online tools of the Read/Write Web, including blogs, wikis, and podcasts. The authors explain how these new technologies are impacting curriculum, classroom instruction, and professional practice.
Podcasts are essentially amateur radio communication that allow the users to create, distribute, and share audio content online, including interviews and recordings of informative presentations.

Social bookmarking allows users to save and archive entire pages on specific topics to provide a valuable resource that can be shared with others.

Online photo galleries enable users to publish and share digital photos online, adding another dimension to the classroom use of digital images.

RSS (Real Simple Syndication) is a powerful new technology that allows subscribers to directly retrieve specific content from millions of sources without having to search for it.

This new Read/Write Web, with its ability to connect users around online content, is beginning to have a profound impact on curriculum, classroom instruction, and professional practice. Teachers are using the new technologies not just to communicate with students and parents, but to create digital portfolios where students can share ideas.

The new technologies have already demonstrated a powerful impact in other areas. In politics, for instance, presidential candidate Howard Dean raised more than $40 million through his blog two years ago. Now, it’s hard to find a politician who doesn’t have a blog where he or she can interact with constituents. The technologies also have transformed traditional journalism into a world where anyone with a camera phone and blog can be an on-the-spot reporter of events large and small. And in the business world, where consumers can now easily share notes and experiences about products, the most powerful advertisements are their personal experiences.

A “poster child” for the new technologies is Wikipedia (http://en.wikipedia.org), an online encyclopedia with almost 1.5 million entries that can be edited, revised, and tweaked by anyone with a computer and an Internet connection. While there are some skeptics, Wikipedia is generally regarded as a credible, constantly updated resource that far surpasses The New York Times in the number of users.

For educators, the new technologies raise a number of important questions. For example, in a world where the sum of human knowledge soon will be accessible online, how does this impact curriculum? How do we reinvent teaching to acknowledge the ability of teachers and students to easily connect to mentors and subject experts? And how must our ideas of literacy change in a world where much of what we read has not been created or edited in the traditional form we are so used to?

Revolutionizing the Curriculum

The traditional curriculum has been built on the idea that knowledge is a scarce commodity. But in the world of the Read/Write Web, knowledge is abundant and widely shared. As educators, we have been used to holding a pretty secure lock on the content that we deliver to our students. But if they have access to the Web, they now have the potential to access much more...
content than what we can teach them. There are more than 100 billion Web pages on the Internet with more than a trillion links that we can click.

In the spirit of this new open-content world, more and more people are freely sharing their ideas and their work. And these trends are putting more and more content and information online. For example, Google is in the process of digitizing 50 million books that it hopes to make available online for us to search and learn from. The Massachusetts Institute of Technology has put syllabi, notes, exams (and answers), reading lists and, in some cases, even video lectures of more than 1,600 courses free for the taking on its OpenCourseware Web site—everything from Astronautics to Urban Planning (http://ocw.mit.edu/index.html).

This abundance of knowledge has a number of implications for the school curriculum. Traditional textbooks become outdated and unnecessary when content is easy to construct, publish, and update online. For example, although Pluto may no longer be considered a planet, it will be years before the texts in most of our schools reflect that fact. But on Wikipedia, the change occurred within minutes of the formal announcement by the International Astronomical Union. Using wikis, teachers and students can write their own relevant and up-to-date texts, with the ability to revise them as needed.

Also, in a world where there is too much for any one person to know, it is becoming more important that we learn how to find information and knowledge when we need it. Today, we need to provide students with strategies for searching the Internet efficiently, building networks of trusted sources, and effectively monitoring the swelling flood of available information. This is where a technology like RSS offers teachers and students an easy and powerful way to bring relevant information to their desktops and laptops by allowing them to subscribe to any number of traditional and more recent sources instead of constantly revisiting sites online.

Finally, when we are ubiquitously connected to information, learning no longer has to stop at the end of the school day or semester. George Siemens, whose theory of “connectivism” attempts to put learning into this context, likes to say that we in effect “fire” our learners every nine or 18 weeks. But in this new world of communication, the study of physics or Shakespearean literature doesn’t have to end when the class does. With an abundance of knowledge within our easy grasp, we must make sure our students have the tools and skills they need to become the continual, lifelong learners we want them to be.

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Making Connections

A second major shift from traditional education is that teachers no longer will be the sole arbiters of knowledge in the classroom, with their role becoming more that of connectors. In the same way that we can connect our students to primary sources from which they might learn more than we could teach them, we also can connect them to many potential teachers “out there.” For example, students can learn about symbolism in a novel the class is studying by hearing directly from the author, or about correct pronunciation of foreign languages by listening to native speakers.

Interactive exchanges like these are possible because the Read/Write Web is a much more social and collaborative place than the traditional classroom. Social networking sites like MySpace (www.myspace.com) have more than 100 million accounts and are adding 250,000 each day, while social bookmarking sites like del.icio.us and Furl allow people to share the relevant and important sites they have found with others. Social news sites like Digg.com allow readers to decide which stories are the most worthwhile, and social photo-sharing sites like Flickr.com can create vast picture albums of almost any thing or any place by connecting user-contributed photos.

The ability to connect to people in this way allows us to form powerful communities of practice where like-minded, passionate people can learn together. Collaboration has great implications for an education system that still constantly reminds students to “do your own work.” By building on each other’s efforts and creating “mash-ups” of audio, video, and text for others to use, our work is perpetually “in progress.” This is a shift in the construction of knowledge that our classrooms must begin to reflect if we are to prepare our students to be active participants in learning instead of passive observers.

Redefining Literacy

A third major shift is in how literacy changes in this new environment. Up until a few years ago, we could assume that the printed content we consumed was edited before publication, and therefore we could trust its veracity. But what our students are consuming online usually has not been edited by anyone other than the author, and that changes the whole nature of reading. Readers need to be able to weigh truth, measure authority, and do all of the things good editors do. They must have a process for assessing what they read instead of simply believing it because it’s been published.

Similarly, our students must be literate in the ways of publishing. Depending on whom you talk to, there are upwards of 100 million bloggers in the world, including a good number of our students who are already publishing text with audio (podcasts) and video (vidcasts), with very little guidance from adults not only in the pub-
lication process, but the ethics that go with it. For our students to leverage these new technologies in a learning context, we must start leading and guiding them, modeling how to use these technologies effectively.

The good news for principals is that these new technologies are not difficult to begin using in your professional practice and your classrooms. Teachers all over the world are beginning to use blogs to communicate with parents, share students’ work, and bring authors and other primary sources into their classrooms. Kids are using podcasts to capture oral histories, share school news, and create all sorts of audio content. And teachers and students are collaborating on wikis to produce rich, substantive archives of work and knowledge that can be used over and over again.

But while the technologies are relatively easy, some of the larger issues created by the Read/Write Web are problematic. We all need to be aware of the potential dangers of young students sharing inappropriate personal information online. We need to think about the meaning of copyright in an environment in which people continuously build on the work of others. And we especially need to deal with inequitable access to technology by disadvantaged students.

There is little doubt as to the vast potential of this new Web as a powerful, continual learning space. What is in doubt is what we choose to make of it.

Will Richardson is the co-author of Blogs, Wikis, Podcasts, and Other Powerful Web Tools for Classrooms (Corwin Press 2006). His e-mail address is weblogged@gmail.com.

Rob Mancabelli is director of information services for the Hunterdon Central School District in New Jersey. His e-mail address is rob@mancabelli.com.

WEB RESOURCES

Will Richardson has been blogging about teaching, learning, and the Read/Write Web for five years.
www.weblogg-ed.com

Georgia principal Tim Tyson has implemented blogs and podcasts across the curriculum in his middle school.
http://mabryonline.org

Tim Lauer, an elementary school principal in Portland, Oregon, uses blogs and wikis for teacher-student communication and collaboration.
http://tim.lauer.name

Georgia educator Anne Davis has assembled a wiki full of resources, “Improving Instruction Through the Use of Weblogs.”
http://adavis.pbwiki.com

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