

TECH TOOLS FOR LEARNING

Innovative, interactive technologies provide new potential for learning—in and out of classrooms.



JUPITERIMAGES

by Will Richardson

Over the last few years, our relationship with the Web has been changing dramatically. Simple new technologies like weblogs and podcasts are allowing us to not only create content like text, audio, and video more easily, they are also allowing us to publish and share that content on the Web with very little effort. Instead of a “read only” Web, we’re entering the age of the Read/Write Web, where contributing knowledge is as easy as consuming it. Being able to publish worldwide this easily does raise legal and ethical issues for educators to be aware of, but it also facilitates a whole range of new learning potentials for students and teachers in the classroom. Here is a quick look at some of the technologies that are changing the way educators think about and deliver instruction. *Note: All content should be previewed before classroom use.*

WEBLOGS

WHAT THEY ARE/HOW THEY’RE USED

Weblogs (blogs) are the most popular tool of the new Internet. Simply put, a weblog makes sharing ideas online as easy as sending an e-mail, and that’s why today there is a new blog created every second. Bloggers don’t need to know HTML or how to get their files online; they only need an Internet connection and something to say.

TIPS FOR CLASSROOM USE

Blogs are blooming in classrooms all over the world as more and more teachers discover their potential as learning tools with students of every age. While many refer to weblogs as simple online journals, in practice they are much more. They can be tools for peer collaboration, public or private conversation, reflective online portfolios,

and lifelong-learning spaces.

Teachers and learners of every discipline are using blogs—to deliver their curricula, interact with experts and peers, and much more. There are history teachers whose students have hooked up with students half a world away to share ideas about the Holocaust; literature students who, with the author’s participation, have created online reader’s guides for the books they are reading; and math teachers who use blogs to post pictures of geometric shapes so students can identify and discuss their structures. In addition, some schools are building their websites on blogs, encouraging communication and collaboration among teachers, students, parents, and community. To get started, try Blogger, a free service that will have you up and blogging in a matter of minutes.

Blog Resources

Blogger

www.blogger.com

Learn what a blog is and how to create your own in three easy steps.

C-SPAN: Blogs Page

www.c-span.org/resources/blogs.asp

Extensive listing of links to political, public-affairs, news, and court blogs, including several video blogs.

Discovery Educator Network: The DEN Blog

discoveryeducation.typepad.com

Learn and share how educators are using

unitedstreaming and other digital media in the classroom.

Kathy Schrock’s Kaffeeklatsch

kathyschrock.blogspot.com

Discovery’s educator expert, Kathy Schrock, shares her thoughts and tips about educational technology and invites teachers to do the same. Site also offers information about podcasts and RSS.

MSNBC: Blogs Etc.

msnbc.msn.com/id/3032105

Roundup of general-interest news blogs

focused on MSNBC and NBC news, *Newsweek*, and on-air programming.

Project Greenlight: The Backstory: Blogs from the Inside

www.bravotv.com/Project_Greenlight/Blogs

Blogs by the show’s creators for episodes of this series about the filmmaking process.

The Weather Channel Blog

www.weather.com/blog/weather

Experts and meteorologists report the latest U.S. weather news from the studio and the field. (Also available in RSS.)

RSS

WHAT THEY ARE/HOW THEY'RE USED

Without getting too technical, RSS (Real Simple Syndication) feeds allow authors of any age or ability to syndicate their content by making it easy for readers to subscribe to receive it, instead of having to actively search for it. So, for instance, if you find 10 (or in my case 110) bloggers that you like to read on a regular basis, you can use RSS to collect all of that content in one space rather than having to visit each of those sites one by one. And the best part is that it's not just blogs; RSS feeds deliver newspapers, magazines, and even searches.

TIPS FOR CLASSROOM USE

One of the easiest ways to get started with RSS is to start a teacher blog and have students subscribe to the daily updates using Bloglines, a web-based aggregator that collects and displays all of the feeds you're subscribed to in one place. From there, they can add feeds of current-events searches at Yahoo! News or some of the standard feeds offered at sites like MSNBC or CNN. Similarly, parents are beginning to access homework assignments and class updates via RSS feeds. For more information, try the RSS Quick Start Guide for Educators on my weblogg-ed website.

RSS Resources

Bloglines

bloglines.com

Publish your own blog; subscribe to blogs, e-mail groups, and websites; and more.

CNN RSS

www.cnn.com/services/rss

Download stories on any topic, from world news to education. (CNN podcasting feed is also available.)

Discovery News: Really Simple Syndication

dsc.discovery.com/utilities/rss/rss.html

Automatically receive news content from Discovery Channel, Animal Planet, Travel Channel, and TLC.

MSNBC: Newsweek RSS Feeds

www.msnbc.msn.com/id/6283724/site/newsweek

Gather the latest *Newsweek* content, sorted

by topic, columnist, or magazine section. Also available: MSNBC headlines by topic.

VH1RSS

www.vh1.com/rss

Gather the latest music, movie, and pop-culture news, as well as the Best Week Ever Blog and Today in Music updates.

weblogg-ed: RSS Quick Start Guide for Educators

www.weblogg-ed.com/rss_for_ed

Find and add RSS feeds, see how to use them in the classroom, and more.

Yahoo! News

news.yahoo.com

Receive U.S., world, entertainment, politics, business, science, technology, health, and sports news via RSS.

PODCASTS

WHAT THEY ARE/HOW THEY'RE USED

Just over a year old, podcasting offers the ability to not only create audio content easily, but distribute it to wide Internet audiences just as easily. So, if you have interesting things to say, you now have the chance of reaching the masses with your voice, not just your written words.

Basically, the power of podcasting comes from the ability of listeners to subscribe to receive the shows via RSS. The most popular way to do this is to use iTunes, which, once configured, goes out and checks to see if any new shows have been published and automatically downloads them to your MP3 player. It's time-shifted amateur radio at its best.

TIPS FOR CLASSROOM USE

Podcasting works great with students who are narrating field trips, doing interviews with experts, and writing and reading audio editorials during their regular shows, which are then posted to the school website and delivered via RSS. Other schools have used podcasting to create and distribute regular news shows, museum tours, and student-written and -read audio books. Teachers can use the technology to record lessons and then make them available to absent or visually impaired students. See the Education Podcast Network for more ideas on using podcasting in education.

Podcasting Resources

C-SPAN: Podcasts

www.c-span.org/podcast

Subscriptions available for some of C-SPAN's most popular programs.

CNN: Podcasting

www.cnn.com/services/podcasting

In-depth coverage on a variety of current-events topics, the latest news, and special programs for your MP3 player.

Discovery Channel Radio: Podcasts

www.discovery.com/radio/podcasts.html

Weekly podcasts from Discovery's family of networks.

EPN: The Education Podcast Network

epnweb.org

Access student and class podcasts, subject-specific podcasts, and education podcasts.

iTunes

www.apple.com/itunes

Share and stream downloaded podcasts on this digital player.

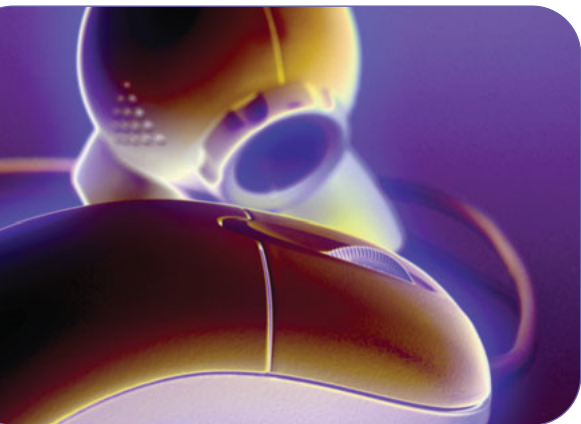
Podcasts on MSNBC.com

www.msnbc.msn.com/id/8132577

Download news headlines, *Meet the Press*, *Hardball* highlights, *Nightly News with Brian Williams*, and more.



MEDIA BAKERY



MEDIA BAKERY

WEBCAMS

WHAT THEY ARE/HOW THEY'RE USED

Webcams allow teachers and students to get an up-to-the-minute look at various places and events around the world. Basically, they are tiny cameras that people have installed to give live shots of whatever they are pointed at. There are shark cams from aquariums, reef cams from the Caribbean, even a number of African Wildcams that have been set up by National Geographic. As more and more of these sites come online, teachers are finding it easier and easier to find relevant links to what they are teaching. In addition, some teachers are using webcams in their own classrooms to connect visually with classrooms in other parts of the world (see sidebar).

TIPS FOR CLASSROOM USE

In many cases, collaborations have been created through the use of webcams. Students have focused their lenses on science experiments, natural disasters, and special events, all as a way of sharing experiences and learning. Using a webcam in your classroom can require only an old video camera or inexpensive eyeball camera and webcam software. Start by exploring the Cable in the Classroom: Project Cam website, where you'll find tips and basic information about starting your own webcam project.

Finding interesting webcams to view with students is as easy as doing an online search, or you can start at OnlineCamera.com, a webcam directory. (Be sure to always preview what you share with students, as some webcams are less than educational.) To view these webcams, all you need is a current browser, free viewing software such as Windows Media, and a broadband connection.

Webcam Resources

Animal Planet: Panda Video Cam

animal.discovery.com/cams/pandavidr.html

Watch giant panda Mei Xiang and her cub at the Smithsonian National Zoo in Washington, D.C.

Cable in the Classroom: Project Cam

www.ciconline.com/projectcam

Site offers tips for getting started and an online environment to connect students, educators, and experts via webcams.

Discovery Channel Cams: Sun Cam

dsc.discovery.com/cams/sun.html

View the sun at any time. Image refreshes every 6 to 12 minutes.

Discovery Channel Cams: Volcano Cam

dsc.discovery.com/cams/pvolcano.html

Live images of Popocatepetl, one of the world's most active volcanoes.

National Geographic: WildCam Africa

www.nationalgeographic.com/ngm/wildcamafrika/wildcam.html

An up-close look at wildlife gathering at Pete's Pond in Botswana.

OnlineCamera.com: The Ultimate Webcam Directory

www.onlinecamera.com

Directory of a wide range of webcams by category or location.

The World via Webcam

New and exciting opportunities to learn with technology can motivate students to explore foreign countries and cultures, challenge their personal educational goals, and push the boundaries of their own creativity. Case in point: While a seventh-grade class in Columbus, Ohio, studies Asian versions of the Cinderella story, another class in Weifang City, China, is studying western versions of the same tale. They will meet—and discuss their findings—via webcam and videoconferencing technologies.

"The students are starting to become motivated because they know they're going to see these people," says Nancy Clendenen, middle-school coordinator with the Columbus Public Schools Gifted and Talented Program. Clendenen uses Project Cam—Cable in the Classroom's online environment with video, chat, and file-sharing capabilities, introduced to her by Jean Arthur, manager of community relations at Time Warner Cable Mid-Ohio Division—to coordinate with Chinese teachers overseas in preparation for a video conference between the two classes. "With Project Cam,



"I'm able to share information, materials, experiences," she explains.

The success of this collaboration is the result of dedication, planning, and high-tech overseas coordination. Time Warner Cable also set up RoadRunner high-speed Internet access at Columbus Public Schools, donated a webcam and speakers, and agreed to sponsor a Chinese banquet for students and parents on the night of the videoconference. In addition, Clendenen and Arthur hope this project will push other schools in the district to try more of the same. "People at Columbus Public Schools said, 'You mean, we can duplicate this at other schools?'" Arthur says. "And we said, 'Yes!'"

—Nicole Flynn

STREAMING VIDEO

WHAT IT IS/HOW IT'S USED

As bandwidth increases, more and more educators are starting to look at streaming video as a resource in the classroom. While the most prevalent sources of this type of content are subscription services, such as unitedstreaming, there are more and more free video resources coming online as well, especially in the area of current events. For example, many news organizations

Will Richardson is the supervisor of instructional technology and communications at Hunterdon Central Regional High School in Flemington, N.J. A classroom teacher for more than 20 years, Richardson is also an author and a speaker.

offer much of their daily coverage via streaming video on their sites, and it's now becoming easier to search for such content on sites such as CNN, C-SPAN, and others.

TIPS FOR CLASSROOM USE

Teachers are beginning to use streaming video to supplement the curriculum in various ways, depending on their Internet connection. Usually, streamed videos are five to 10 minutes long and serve to add context to a particular lesson or reinforce what has already been discussed. In most instances, educators are downloading video to their computers and then playing it locally or embedding clips in PowerPoint presentations.

Many teachers are also creating their own videos using tools such as iMovie or Movie Maker.

These teacher- or student-produced movies can then be hosted for free and streamed from sites like Ourmedia.org, allowing the final products to reach audiences far beyond the classroom. ■■

Related Resources

An Educator's Guide to Blogs, Wikis, Podcasts and Other Dynamic Web Tools That Are Transforming Classrooms.

Will Richardson (Corwin Press, 2006)

weblogg-ed: the read/write web in the classroom

www.weblogg-ed.com

Streaming Media Resources

Apple Learning Interchange

ali.apple.com

Videography for educators, a Student Gallery, and more features showcasing the use of iMovie and other Apple tools for learning.

C-SPAN Classroom

www.c-spanclassroom.org

Video clips covering social-studies topics, including the principles of government, the branches of government, the U.S. Constitution, and political participation.

C-SPAN Live

www.c-span.org/watch

Streaming video and audio of C-SPAN's live public-affairs programming.

CNN.com: Education with Student News

www.cnn.com/education

Today's 10-minute, student-g geared newscast and this week's Newsquiz.

CNN.com: Video

www.cnn.com/video

Video on a wide range of news topics, including education.

Court TV's Choices and Consequences: Video and Curriculum Supplements

www.court tv.com/choices/teachers/videos

Clips from shows such as the *Al Roker Investigates* series, *Chasing Freedom*, and *Activate Your Mind: Protect Your Ideas*.

Discovery.com

www.discovery.com

Link to Discovery Channel, TLC, Animal Planet, Discovery Health, Travel, Discovery Kids, and the Science Channel networks. Click on Watch Video to view clips from selected shows, or link to Discovery Broadband for more video features.

Discovery School: Video Clip Screening Room

school.discovery.com/ontv/videoclips.html

Brief video clips listed by subject area, including ancient history, health, forensics, literature, and many more.

ESPN SportsFigures: Film Room

sportsfigures.espn.com/sportsfigures/filmroom.htm

Video clips of sports stars demonstrating and discussing math and physics concepts.

HBO Family: Watch Videos

www.hbofamily.com/watch_videos

Streaming video from series such as *A Little Curious* and *Crashbox*.

iMovie

www.apple.com/imovie

Video-creating tool.

Inside the Actors Studio: Videos

www.bravotv.com/Inside_the_Actors_Studio/Videos

Streaming video of interviews with performing artists of stage and screen.

Michigan Teacher Network

mtn.merit.edu/vtf

Free lesson plans to help teachers utilize streaming video in the classroom.

MSNBC: News Video

www.msnbc.msn.com/id/8004316

Webcasts of this week's top stories, MSNBC programming, and more.

MTV.com: Onair

www.mtv.com/onair

Video segments of MTV programs include *Trippin*, an environmental-education show.

Ourmedia: The Global Home for Grassroots Media

www.ourmedia.org

Storage and bandwidth for videos, audio files, photos, text, and software.

unitedstreaming

unitedstreaming.com

Discovery Education's video on-demand subscription service.

The Weather Channel: Multimedia

www.weather.com/multimedia

Streaming video forecasts and other videos by region or topic.

Windows Movie Maker

www.microsoft.com/moviemaker

Video-creating tool.