# Conquering Technophobia

## Web 2.0 Explained
Learn how the technology your students use every day can enhance classroom learning.

## Understanding Generation Text
Discover how educators can close the “digital gap” with today’s students.

## Web 2.0 Glossary
Finally learn the difference between a wiki and a widget!

## Getting the Word Out
See how school districts are benefitting from the use of Web 2.0 technology tools.

## Whoa 2.0
Various Web 2.0 tools and the amazing things that teachers and students can create with them.

## Twitter Time
A classroom exercise that employs Twitter’s 140-character limit to hone simple yet effective messages.

## Putting IT All Together
Have your students team up and create effective Web 2.0 presentations.

## Web 2.0 Dos & Don’ts
A reproducible handout that offers tips, hints and advice about Web 2.0 — inside the classroom and in students’ daily lives.

## Websites & Resources
Additional online resources to further understand, enhance and develop understanding of Web 2.0 in the classroom.

## ISTE Standards
ISTE National Educational Technology Standards (NETS).
Just what is Web 2.0 anyway?

Even if you don’t understand the difference between a widget and a weblog, **Web 2.0 is here to stay.** Loosely defined as “a second generation of Internet-based services that emphasize online collaboration and sharing among users,” Web 2.0 is helping students and teachers connect like never before.

**Every day, your students become more and more involved with such Web 2.0 technology, such as wikis, blogs, social networking and other applications, devices and programs.**

The challenge facing teachers and administrators is utilizing the astounding technology found in Web 2.0 to create Classroom 2.0.

For countless American classrooms, Web 2.0 technology and tools enhance creativity, information sharing and collaboration for students as well as teachers. In fact, research shows teachers like you are driving the adoption of Web 2.0 in K-12 education.*

Teacher-generated online content (*for example, multimedia lessons, wiki-based resources*) is likely to be the next area of growth in the use of Web 2.0 technologies. A recent study shows that almost half of all districts have plans for adopting or promoting the creation and sharing of this type of content.*

Such teacher-oriented sites as Chalksite, Engrade, Groupvine, Nuvvo, Teacher!, Flickr and Eyespot have engaged students in ways not dreamed about just a decade ago. Students — whether through social networking (MySpace; Facebook), podcasting; user-generated content sites (YouTube), news feeders, widgets or mobile applications — are ready to **enhance learning inside the classroom** with the tools they use every day outside of school.

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*Source: http://www.cblohm.com/news/Lightspeed/LS_090406/index.html*
Students aren’t just leading busier lives than ever — they stay busy by morphing into highly efficient “multimedia machines.” They multitask by texting friends while watching television; finish their homework while listening to their iPod; talk on the phone while spending time with friends. They simply know no other way.

It’s time to close the digital gap. Students have changed, so the way teachers teach must change to keep students engaged in the classroom.

Of course, the right classroom tools are key to implementing some — but not all — Web 2.0-based learning. Digital cameras and video cameras, whiteboards, classroom-response systems, projectors and more are just some of the tools that power Web 2.0 in the classroom. When school districts embrace the future of learning and support user-generated content, immediate syndication and other staples of Web 2.0 in a secure environment, students bloom.

This Teachers Guide is designed to explain all the wonders of Web 2.0, as well as detail the many new ways teachers can implement Web 2.0 in the classroom. Through exercises and activities and other facts, we hope to bring this subject to life.

“Teachers must become comfortable as co-learners with their students and with colleagues around the world. Today it is less about staying ahead and more about moving ahead as members of dynamic learning communities. The digital-age teaching professional must demonstrate a vision of technology infusion and develop the technology skills of others. These are the hallmarks of the new education leader.”

— Don Knezek, ISTE CEO, 2008
Filled with engaging, grade-appropriate lessons, activities, discussions and information that align with National Standards (found on page 15), *All About Computers: Conquering Technophobia — Web 2.0 Explained* will help you and your school district do more with new technology.

This “crash course” helps overwhelmed educators and school district administrators learn more about Web 2.0 and how to use it with effective results. Turning Web 2.0 into Classroom 2.0 isn’t as difficult as you imagine.

Soon, you can join thousands of educators employing blogs, wikis and other tools to enhance classroom learning.

Students are making Web 2.0 grow wild!

- 50% of all blogs on the Internet are authored by teenagers
- 96% of all students engage in social networking
- 57% of teenagers create online content
- 50% of 9-to-17-year-olds visit websites they see on TV — even as they continue to watch
- 76% of teens favor user-generated video clips and content — the most of any online content

Sources:
Grunwald Associates study, March, 2008
Pew Internet & American Life Project, November, 2005
Study from the Cable & Telecommunications Association for Marketing, February, 2008
**Avatar:** A digital representation of an individual shown along with a screen name, typically in a virtual reality environment or on a social networking site.

**Aggregator/Aggregation:** A website that keeps track of blog posts, news feeds or other information. Gathering information from multiple websites, typically via RSS (Really Simple Syndication), an aggregator pulls together the most recently published information from a variety of sources.

**Blog:** Originally short for “weblog”, a blog is a web page that contains entries in reverse chronological order, with the most recent entry on top. Blogging software and services — like Blogger, TypePad and WordPress — make it easy for people to enjoy a constantly updated web presence. In addition to classic text blogs, there are also photo blogs, audio blogs (or “podcasts”) as well as video blogs (sometimes called “vlogs”).

**Blogosphere:** A common term used to describe the large and diverse community of bloggers.

**Creative Commons:** A nonprofit organization that promotes free public licenses to content (http://creativecommons.org). Provides specific conditions through which content can be reused, such as attributions, links or other notification methods to correctly identify the original source.

**Freemium:** Typically a site that offers basic services free, but charges a premium for advanced or special features.

**Instant Messaging (IM):** Instant Messaging or “chatting” is a popular method of exchanging text messages in real time. Popular IM applications include AOL’s Instant Messenger (AIM), Microsoft’s Messenger, Google Talk (GTalk and GChat) and Yahoo’s Messenger. IM (including text messaging) is fast replacing e-mail, especially among students.

**VoIP (Voice over Internet Protocol):** Technology that allows telephone calls (and even “video calls”) to be made over the Internet instead of the traditional systems. Skype is one of the more popular iterations to bypass typical phone lines with VoIP.

**Mashup:** Web application where content, data, or other services are combined from more than one source into an integrated experience. For example, you could arrange a series of news stories about your favorite athlete, politician or performer — or any topic — on a graphical timeline.

**Microblog:** A blog on which one posts brief, frequent updates on one’s activities. A popular example is Twitter.

**Peer to Peer (P2P):** A computer network that takes advantage of the cumulative bandwidth of network participants rather than conventional servers. These networks are popular for sharing content files containing audio, video, data or anything in digital format.
**Posting (or Post):** Information added to a website. For example, if someone adds new information to their blog, that would be their latest posting. Also, “Comments” are opinions, thoughts and links that site visitors add to posts.

**RSS (Really Simple Syndication):** A form of syndication that lets users “subscribe” to receive new or updated content from blogs, news, or other frequently updated online content sources.

**Social Bookmarking:** Social bookmarking services such as Diigo or del.icio.us enable users to store lists of Internet resources they find useful and make them accessible to others with similar interests.

**Social Networking:** Sites that connect individuals in a community, allowing them to communicate with friends, colleagues and even strangers. The most popular examples are MySpace, Facebook and LinkedIn.

**Tags:** An informal approach of using keywords to classify content and a primary method for organizing content stored in Web 2.0 applications and environments.

**Tag Cloud:** A visual depiction of content tags used on a website. Typically, the more commonly used tags are displayed with a larger font or stronger emphasis. Each term in the tag cloud is a link to the collection of items that have that tag.

**User-Generated Content (UGC):** Refers to media content produced or primarily influenced by end users (vs. traditional content publishers). Much of the content on YouTube.com is UGC. This is a broad term that describes online tools that allow users to share and express content, such as blogs, wikis and podcasts.

**Widget:** A “mini-application” embedded within a web page that provides specific information (weather, sports scores, movie times, etc.).

**Wiki:** Hawaiian for “quick,” a wiki is a website that allows users to create, edit and collaborate content. Wikis are a powerful collaborative authoring tool for non-technical users, with the best-known example being Wikipedia.org, the online encyclopedia that leverages the knowledge of thousands of people worldwide.
Hearing the Call

Schools turn to mass notification systems — not only during emergencies but for daily operations, too.

Melissa Tamberg

The situation easily could have become a major time-waster: A semitrailer attempting to make a delivery to a Gulliver Schools’ campus found its normal access route blocked by several unattended parked cars.

But thanks to the deployment of InformaCast, a mass notification system (from CDW•G), a school administrator was quickly able to broadcast the vehicles’ license numbers to IP phones across the entire campus and ask the owners to move their cars.

“With this system, we can now get information out in a matter of seconds,” says Michelle Nieto, Gulliver Schools’ IT manager. “It’s real time, and it gets to everyone on campus within reach of an IP phone.”

With five schools and an administration office located within a short distance of one another in Miami and Coral Gables, Fla., Gulliver Schools relies on the mass notification tool to swiftly and reliably communicate information — ranging from general campus announcements and fire drills to vital procedures during a hurricane or other emergency — to its 2,100 students and 500 staff members.

Gulliver is but one of a number of K-12 organizations discovering the many benefits afforded by mass notification systems. Unlocking enormous possibilities, the systems address the need for speed, breadth, standardization, consistency and, in many cases, two-way communication, says Roberta Witty, research vice president for Gartner of Stamford, Conn.

Mass communications systems first became popular after the Sept. 11 terrorist attacks, Witty says. Subsequent emergencies, such as Hurricane Katrina and the shootings at Virginia Tech, further thrust the products into the spotlight. “The use of these tools has skyrocketed,” Witty says. “There’s not an industry that isn’t looking at them.”

Connecting Campuses

For Gulliver Schools, the ability to provide communications across campuses has been a primary benefit. InformaCast lets users push an audio stream or a text message to multiple IP phones, IP speakers and overhead paging systems simultaneously. An administrator can select a prerecorded message or customize a live broadcast through either a password-protected web page or the IP phone services menu.

“Because we’re located on multiple campuses, we need to have transparency, agility and, at the same time, standardization across the board,” Nieto says, noting that the schools’ previous analog system failed to meet those requirements. “We needed it to be seamless.”
Get the Word Out

At Martin Luther King Jr. Middle School in Oceanside, Calif., mass notification systems not only have proved invaluable during emergencies but also have been instrumental in helping kids succeed. The school relies on a district-wide system that makes outbound calls to parents, informing them of upcoming holidays, special events and general news.

“It reaches 1,500 students in about 20 minutes,” says Principal Bob Rowe.

The system earned high marks for its emergency capabilities last year, when a suspected car thief took refuge on campus while attempting to evade police. Although the school was locked down and the suspect apprehended, news of the episode spread quickly throughout the community, prompting Rowe to customize and distribute a message to all parents that the incident had been resolved safely.

“We were able to calm everyone down within 30 minutes, rather than having chaos all day long with parents calling or coming to campus,” he says.

At Martin Luther King, Rowe uses the mass notification system to create a daily report of students who don’t turn in required assignments, all of whom must attend study hall at lunch. At the beginning of the last school year, 244 students on average did not turn in work or turned in incomplete assignments each day. That number plummeted to 30 by the end of the year, which Rowe attributes directly to the mass notification system.

“It’s how we hold kids accountable,” he says. “We need these types of tools to help them succeed.”

Now Hear This!  
K-12 schools use mass notifications for a wide array of communications:

• An early release in the event of a snowstorm, hurricane or other weather condition
• A special message from the superintendent or principal
• Notes about students’ absences
• Emergency procedures
• Reminders when time-sensitive actions are required
• Event cancellations
• Missed homework assignments
• Test reminders

Benefits of Mass Notification

Ease of use, protection for students and staff, instant message delivery, reliable performance, reduced tasks, affordable price, and easy deployment.

Here are some Web 2.0 technology tools and some amazing things you and your students can achieve with them.

**uStream**
[www.ustream.tv](http://www.ustream.tv)
Use this live interactive video broadcast platform that enables anyone with a camera and an Internet connection to quickly and easily broadcast a classroom discussion, musical performance, interview or any school-related video. Viewers can personally interact directly with whoever is broadcasting, whether it’s a teacher, student or administrator.

**Flickr**
[www.flickr.com](http://www.flickr.com)
Hosting, more than 3 billion images, Flickr offers students and teachers a way to share their photos — from a recent field trip, class project or creative presentation. Many Flickr users offer their work under a Creative Commons license (see glossary for definition).

**Blabberize**
[www.blabberize.com](http://www.blabberize.com)
Add a mouth and audio and turn any photo into a customized “talking picture” (you have to see it to believe it). Have students give speeches as their favorite president; make a dog read newspaper headlines; have the Statue of Liberty recount facts about Ellis Island; or have students “blabber” a short homework assignment.

**Class Blogmeister**
[http://classblogmeister.com](http://classblogmeister.com)
Classroom blogging offers an avenue for communications and is also a tool for lending a voice to what students are learning and how they are learning. Developed specifically for classroom use, Class Blogmeister lets you add the writings of teachers and students alike.

**Edublogs**
[http://edublogs.org](http://edublogs.org)
Similar to Class Blogmeister, Edublogs lets you effortlessly create and manage student blogs, but also offers customizable features to create podcasts, videos, photos and more. You can also find blogs for teachers, researchers, professors, librarians, administrators and anyone and everyone else involved in education.

**PBWorks**
[http://pbworks.com](http://pbworks.com)
Used by educators across the USA, PBWorks is the world’s largest provider of hosted business and educational workspaces. Create a simple, secure workspace that acts as a live, evolving document — but gives you user tracking and access controls to monitor your workspace at all times. Add multimedia plugins, tags, RSS feeds and embed video or audio.
EtherPad
http://etherpad.com
Let students collaborate on an essay, poem, news story or a specific classroom project with easy-to-use collaboration tools that allow real-time editing.

Ning
www.ning.com
Ning helps students and teachers build a social networking site that is customizable, attractive and easily created.

JayCut
www.jaycut.com
Free online video editing software, JayCut allows students or teachers to upload videos or photos and create a video or slideshow to share, export or embed on a school’s website.

Writeboard
www.writeboard.com
Write, share, revise, compare. Writeboards are sharable, web-based text docs that let you save every edit, roll back to any version and easily compare changes. Write solo or collaborate with others.

Netvibes
www.netvibes.com
Netvibes is a free web service that brings together hand-selected media sources and online services. Blogs, news, weather, education sites, videos, photos, social networks and much more are automatically updated every time you visit.

Twitter
http://twitter.com
A free social networking and microblogging service that enables its users to send and read other users’ updates known as “Tweets.” Create a school-only account and this instant-update site allows teachers to post links of interest for homework or project research, set up polls and quizzes, or convey other timely information.

ePals
www.epals.com
Imagine connecting your history class with another one in Normandy, or a Spanish class learning language with a school in Madrid. The Web’s largest and fastest-growing community of connecting school classrooms delivers supervised and protected e-mail, blogs and collaborative forums help schools connect with each other to learn about another culture, share curriculum projects, practice literacy and foreign language, work on science experiments or discuss world events.
Twitter Time

Turn the hottest Web 2.0 site into a short-and-sweet classroom writing exercise.

In case you don’t know already, Twitter is a social networking site that, essentially, updates your “followers” about your “status” (what you’re doing at the time). Twitter ranks as the web’s third most-used social network (trailing only Facebook and MySpace), and is increasingly popular in classrooms and school districts.

Most likely, your students are familiar with Twitter. They may even “follow” Tweets (that’s what Twitter users call their messages) posted by noted athletes and actors. Musician John Mayer offers his frequently comical thoughts, including, “My laptop is so hot, a window appeared on screen saying ‘Please insert panini and click OK’.”

Basketball superstar Shaquille O’Neal posts frequently on his Twitter account (including the pithy, “Life is too short to be in a hurry”) and routinely offers his location — even asking people to dine with him in a Phoenix restaurant! Lance Armstrong posted this: “Shooting a Nike spot, doing a piece with one of my heroes, Michael J. Fox, then grabbing the kids at school.”

Now, it’s your students’ turn to “Tweet.” This exercise asks them to convey as many important details in the article below in a single Twitter message.

• Choose a news topic or story. You can choose either a school-specific story; national news event; or anything that fits into your current curriculum.

• Share the story with your students. You can print out a news story from a web-based news site or photocopy a story from a newspaper or news magazine.

• Twitter’s text-based messages only allow 140 total characters (including spaces). This means writers must write economically yet without blunting their impact.

• Hold an unofficial contest to see who can convey the most accurate and compelling information about your chose topic or story in their solitary “tweet.”

• Students can use abbreviations, but remind them to go easy on the “LOLs” (i.e., text-messaging shorthand) — this message is aimed at students, parents, teachers and school administrators.
Putting IT all together

It’s time to put Web 2.0 to work in your classroom.

Divide your class into several teams and assign them a subject. You can choose one directly aligned with your current curriculum or a general topic that will inspire students (global warming; technology; athletics; education; etc.)

Another optional idea may also work. Solicit topics from your students and have them all vote to cover a single topic and work on them in teams to produce projects in various media.

Teams should select (or you can assign) various Web 2.0 formats that can include wikis, video presentations, podcasts, interactive slideshow and blog entries.

Remind students of the keys to a solid presentation: accuracy, authority, specificity, and, perhaps, entertainment value. Encourage them to experiment and use their “Web 2.0 skills” wherever possible.

Another option: have students create a chapter of a “digital textbook” based on the last unit they studied. If other students were going to use it, what would they need to know and how would you organize the material to best convey each major point? Would a wiki, podcast or video be the most appropriate?

For ideas about how to get started, access the sites, tools, online software and other resources covered in this resource guide.
Web 2.0 applications are increasingly ubiquitous and easy to use. But they’re also just as easy to misuse, so it’s imperative that teachers, students and parents alike understand and practice good behavior when using these applications. Here are some DOs and DON’Ts:

**DO**
Create slideshows or videos from your pictures for class projects, and share them online on sites like Flickr and YouTube.

**DON’T**
Plagiarize the work of other people. When you use a photo, video clip or anything you’ve found online for a project, make sure you give credit where it’s due.

**DO**
Turn an oral presentation into a podcast. Enhance your own speaking voice with illustrative sounds and effects. *(Look on page 13 for some ideas.)*

**DON’T**
Post offensive, hurtful or inaccurate content. You want to inform, not insult. As a current TV ad campaign asks, “If you wouldn’t say it out loud, why would you say it online?”

**DO**
Take pictures on your cell phone of highlights from sporting events, class trips or other school-sponsored activities, and share them on blogs or school sites. Before you go snapping pictures, check your policy about phones on school property.

**DON’T**
Distribute risqué, inappropriate or irrelevant content. Share only the photos that will be of interest to the widest audience.

**DO**
Utilize the speed and simplicity of sites like Wikipedia. Not only can you get access to a seemingly endless wealth of information and links, you can even contribute your expertise to existing entries.

**DON’T**
Believe everything you read online. Because sites like Wikipedia can be edited by anyone, they can also be corrupted with false information and biased opinion. Only trust verified sources and quotes; the best entries will back up their info with facts.

**DO**
Express your individuality with your MySpace or Facebook page.

**DON’T**
Post anything about yourself you’d be ashamed of in a few years. If you can find a hilarious picture of yourself via Google, MySpace or Facebook, a potential employer or college recruiter will be able to find it too, and might not find it so hilarious.

**DO**
Collaborate with classmates on online projects. You might even be able to take advantage of opportunities to interact with students in other schools, states or countries.

**DON’T**
Disrespect others’ contributions or comments. Be civil in your online conversations. Even if you don’t agree, try to be honest without being cruel.

**DO**
Increase awareness about a social issue that matters to you, whether you’re passionate about school politics or world hunger. Share your opinions with an interactive website or message board that gets your message out.

**DON’T**
Use the Internet as a platform for personal vendettas against classmates, teachers or family members. And don’t resort to insults in your comments, even if someone insults you first.

**DO**
Protect your work — and your life — with privacy filters, encryption and other security measures to keep anyone else from accessing your personal information or altering your content.

**DON’T**
Let anyone have your password, not even your closest friends. If you want people to contribute, let them use a comments section. And if someone posts something you think is inappropriate on your own website, delete it. It’s that simple.

**DO**
Give voice to your thoughts and dreams. Sites like Blogger and LiveJournal are great for posting your own poetry, short stories or deep thoughts.

Sources and sites:
“The Web 2.0 Classroom”, Victoria A. Davis, Westwood Schools
http://k12online.wm.edu/Web20classroom.pdf

50 ways to use wikis for a more collaborative and interactive classroom

Web 2.0 for the Classroom Teacher
http://www.kn.pacbell.com/wired/fil/pages/listweb20s.html

www.classroom20.com
A social network for educators who are interested in learning about Web 2.0.

Social Networks in Education
http://socialnetworksined.wikispaces.com

Chalksite
Offers teachers, students and parents a central point to access grading, assignments, discussions and messaging. (www.parishdata.com/chalksite)

www.spreelearninggames.net
A comprehensive collection of K-12 student learning games all on one site. Games are designed for curriculum use and sorted and searchable by subject, as well as grade/age.

Media Use Statistics
An exhaustive listing of media habits of children, youth and adults. (www.frankwbaker.com/mediause.htm)

http://web20intheclassroom.blogspot.com/
This blog offers links and information about new technology, case studies and more.

www.edtechmag.com
The online portal for administrators, teachers, technology instructors, technology coordinators and technology managers at individual schools and school districts across the United States.

Web 2.0 for the Classroom Teacher
An Internet Hotlist on Web 2.0, this compendium of categorized links helps K-12 teachers find myriad Web 2.0 tools.
http://www.kn.att.com/wired/fil/pages/listweb20s.html

ISTE National Educational Technology Standards (NETS • T) and Performance Indicators for Teachers

1. Facilitate and Inspire Student Learning and Creativity
   a. Promote, support, and model creative and innovative thinking and inventiveness
   b. Engage students in exploring real-world issues and solving authentic problems using digital tools and resources
   c. Promote student reflection using collaborative tools to reveal and clarify students’ conceptual understanding and thinking, planning and creative processes
   d. Model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments

2. Design and Develop Digital-Age Learning Experiences and Assessments
   a. Design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity
   b. Develop technology-enriched learning environments that enable all students to pursue their individual curiosities
   c. Customize and personalize learning activities to address students’ diverse learning styles, working strategies, and abilities using digital tools and resources
   d. Provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching

3. Model Digital-Age Work and Learning
   a. Demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations
   b. Collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation
   c. Communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats
   d. Model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning