

# Web 2.0 and the Curriculum

## What is Web 2.0?

Here's the official version: "Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an architecture of participation, and going beyond the page metaphor of Web 1.0 to deliver rich user experiences." This is according to Tim O'Reilly, ([http://radar.oreilly.com/archives/2005/10/web\\_20\\_compact\\_definition.html](http://radar.oreilly.com/archives/2005/10/web_20_compact_definition.html)), the computer guru who coined the term.

Here's the short version: Web 2.0 is the Read and Write web, an ever-proliferating onslaught of websites that allow users to publish their writings, their podcasts, their graphics, their videos, their thoughts, their every-waking moment. In the old days, people accessed information on the web, and the lucky few who knew HTML and had access to a website could publish information to be shared. But with the advent of new programming languages and the ease with which users can now upload all kinds of information, the web has become an interactive experience and a voice for all to share their thoughts, opinions, and personal lives. The Web is no longer a passive playground, but an active participant-driven network of social communication and interaction. The web is now a participatory culture, and teachers must use the power of Web 2.0 to harness that collective intelligence. With the advent of social media, Delicious, Diigo, Facebook, Voicethread, Twitter, YouTube, and more, the web can become a playground for creative collaboration.



Content on the web is no longer static. Web users can annotate web pages for their own or student use, create social networking sites and digital storytelling projects, maintain on-line calendars and to-do lists, create blogs and wikis, share favorite websites, manage group word processing and spreadsheet projects, upload and edit photos, videos, PowerPoint presentations and more. In fact, each day new innovative tools are appearing on the web.

What are the Web 2.0 buzzwords: RSS, feeds, aggregators, blogs, wikis, podcasts, vlogs, YouTube, tagging, social networking, social bookmarking, and digital storytelling.

What are some popular Web 2.0 Sites: Voicethread, Delicious, Facebook, Diigo, Google Reader, Flickr, YouTube, Digg, Aviaary, Animoto, PBWorks, Dipity, Capzles, Glogster, Tiki-Toki, Twitter, Tumblr, and Edublogs. More about these later.

So, is there a School 2.0? Do any of these apply to educators? Of course. How? Wikis and blogs encourage writing skills, peer editing exercises, collaboration, and practice in expressing and clarifying a point of view; Flickr provides access to marvelous ( and frequently creative commons licensed) photographs for student projects and presentations while other websites allows users to create storyboards, comic strips, animations and flash presentations with Flickr photos; YouTube offers a wealth of videos on current events, music and concerts, scenes from plays and films, archives of historic videos, the ability to create playlists for your students, tutorials for other Web 2.0 sites, and the goofs and gaffes of every politician and celebrity; Google Reader and Twitter give students and teachers access to updates from blogs, news organizations, and a host of websites to expedite research and keep abreast of ever-changing information and news. Web 2.0 will lead to School 2.0 because new opportunities to create content will open up new pedagogy.

## Visual Literacy

The Web has always been a repository for archived videos, but Web 2.0 has witnessed an onslaught of video opportunities. What does this mean for educators? Teaching visual literacy has never been more important. In fact, the Partnership for 21st century skills has identified visual literacy as one of the key skills of the current century. Schools must provide students with the ability to explore, navigate, and evaluate the wealth of materials at their disposal. Students are creating their own media with cell phones and digital camera and creating their own visual environments with Facebook; teachers can harness that energy to address curriculum content.

### **YouTube and You**

YouTube is a prime example of the read/write/publish aspect of Web 2.0. YouTube attracts over 20 million visitors per month, becoming a vast repository for self-published videos, archived clips of movies past and present, videos of famous people both past and present, and student-created projects. YouTube has changed the political world (even presidential candidates refer to its videos), and it has the potential to change the educational world.

YouTube is a gold mine of historical nuggets: videos of the Civil Rights Movement, the funeral of JFK, the Cuban Miss, the Holocaust, presidential debates. History teachers can easily add

short videos to daily lesson plans, bringing history right into the the classroom. English teachers can find videos of Shakespeare plays, student projects, clips of movies based on novels, and poets reading their won poems. Foreign language teachers can find video clips of foreign language films (I helped one teacher find the first French movie, a 1910 Science Fiction film) or commercials from France and Spain. With a few tricks (discussed later), students can download these videos and edit them in iMovie or MovieMaker to provide French or Spanish dialogue. Lower school students can explore weather, astronomy, and current events. Students can create mashups to explore the issues of Copyright and Fair Use. The possibilities are endless and painless to include in a classroom environment.

Another example: a group of sixth grade teachers were reading *The Diary of Anne Frank* with their classes, and the students were unaware of the historical events. Additionally, the teachers wanted the students to realize that Anne was an actual person, not a fictional character. The teachers started each class with a short video from YouTube: a collage of photos, the only known video clip of Anne, scenes from *Triumph of the Will*, etc. The teachers marveled at the quality of class discussions and the students' interest in reading the *Diary*.

Another example: students researched presidential candidates in the YouChoose section and then created 3 minute campaign spots for the candidate of their choice with the use of downloaded video clips (using zamzar.com) and video editing software and websites.

YouTube videos are easily embedded in blogs, Moodle, Google Presentations and Sites, and wikis, but they can also be downloaded to be included in a PowerPoint presentation or saved for later use. YouTube does not allow for easy downloading, so several websites give users the option to download a YouTube video and convert it to a useable format. Zamzar.com converts a YouTube URL into a .mov file and then sends an e-mail with a link to download that file. (Zamzar.com, by the way, has a multiplicity of uses for converting files to many different formats.) YouTube Downloader ([video.qooqle.jp/dl/](http://video.qooqle.jp/dl/)) downloads video in four easy steps: Enter the YouTube Video URL; click "Get Download URL"; Right click on the PC or Control-click on a Mac "Download URL; and then "Save target as "nameofvideo.flv" You will need a Flash Video Player for these files, so download a free FLV player. [www.vixy.net](http://www.vixy.net) is an online FLV converter that will convert a YouTube video to one that can then be viewed on an iPod.

Use the Favorites Feature in YouTube to create playlists for your classes and your students; instead of having to bookmark each video, you create a playlist of your favorite videos and your students can view the playlist (You will need a YouTube account.)

YouTube has a privacy control perfect for schools. Originally, videos uploaded to YouTube could be either public and searchable by YouTube or private to be shared by only 25 people. A third option is "public, but not searchable;" so the video can be embedded or linked to, but it cannot be found by searching for it.

Also try TeacherTube.com, a video site dedicated to videos that are strictly educationally focused. There you will find teacher and student-created video projects and tutorials on math, science, literature and more. These videos can be used for your own learning or for sharing with

your students. Plus, you and your students can easily upload your own videos. A recent visit revealed a tutorial on making posters with Excel, a rap song about Perimeter and one about fractions, Trigonometry at the Basketball Hall of Fame, and Teaching Physics. TeacherTube allows the creation of channels. Hulu.com has current and older television shows, and Vimeo archives user-uploaded videos. Videosurf.com searches for videos throughout the web.

Try Blinkx ([www.blinkxtv.com/](http://www.blinkxtv.com/)) which bills itself as a video search engine. There you can find videos from YouTube and over 200 media companies, including CNN, BBC, New York Times, Fox, NBC, HBO, and more. You can search by keyword topic, by content provider, and by a safe search. You can create channels here, embed videos in your blogs, and create a video wall.

### **Adding YouTube Videos to Moodle pages**

1. Locate the video, click Share ( appears beneath the video window), then click Embed (you can customize the video size) and then copy the code
2. Return to Moodle and create a new web page or edit a current topic box
3. Click on < > on the toolbar in Moodle 1.9 or the HTML button in Moodle 2.0
4. Paste and save.

### **Customizing YouTube Videos**

The related video links at the end of YouTube Videos is an issue for educators who don't want their students checking out the other videos. YouTube now allows you to customize your player which means you can choose not to show the related videos.

1. Locate video you want to embed from YouTube
2. Click on Share
3. Change to Don't include related videos and then scroll down to choose one of the pre-set videos sizes or enter a pixel width and height for a desired specific size.

Yet one more interesting site is Overstream.com which allows students and teachers to add subtitles to YouTube videos. Students can provide the foreign language text for a French or Spanish video, or they can mute the sound of a commercial, music video clip, or coming attraction of a movie to provide foreign language subtitles. Easy and very cool!

A great site, sponsored by TED talks, is TED-Ed ([ed.ted.com](http://ed.ted.com)), designed for the flipped classroom. Current TED talks are tagged to curriculum for lower through upper schools students and accompanied with multiple-choice questions, open-answer questions, and links to more information on the topic. The best part is that the ability to add questions, links and resources is available for any YouTube video, so teachers can customize these videos for lesson plans and flipping the classroom.

Several sites ([quietube.com](http://quietube.com) and [safeshare.tv](http://safeshare.tv)) allow you to show YouTube video to students on a plain background, eliminating the distractions, comments, and related videos. Choptube.com allows you to "chop" out a part of a YouTube video to share with others.

### **Flickr and You ([www.flickr.com](http://www.flickr.com))**

Flickr, one of the most popular sites on the Web, archives over 10 million photos and adds one million photos per day. But why is this site so useful? First of all, Flickr offers the ability to “tag” photos, tagging being the Web 2.0 way of categorizing photos by keyword(s). Viewers of photos can arrange them, add comments, notes, and tags. Pictures can also be “geo-tagged” on a map to provide a virtual tour of different countries. Flickr is a terrific resource for student projects because they can search by place name or by a thematic keyword like “love” or “serenity.” Many of the images are copyright-friendly, because uploaders use Creative Commons licensing.

Flickr can be used for many other educational projects promoting visual literacy: using a photograph as writing prompts for a story or a poem; using multiple image sets for digital storytelling projects; exploring a region with the Flickr map feature, creating an iMovie or Photo Story project of a poem. Students can enter keywords from the news to find topical images for the creation of current events presentations. Teachers can post a flickr photo on a blog to elicit student comments. Math teachers can search for architecture to explore geometry concepts. Create a tag scavenger hunt for your students. Geography teachers can prepare slideshows about different climes and ecosystems.

Teachers can also create groups, which can be public, public (invite only) or completely private. Every group has a pool for photos and a discussion board for commenting. Students can view the photo groups and participate in a discussion board. Add a photo to a group by going to the photo's page and click the "Send to Group" button between the photo title and the photo. Then choose the group you want to send it to. Students can then view the group pool of photos to see the steps of a lab experiment, views of Ancient Rome, or animals from the Bronx Zoo.

Many sites capitalize on Flickr's popularity by providing add-ons to edit the available photos. flickrslidr.com embeds Flickr slideshows into your blog or wiki. Befuddlr.com creates puzzles out of Flickr photos.

## **Web 2.0 does videos, audio and graphics**

### **Podcasting**

People always posted audio files on the web, so what's with all this podcasting stuff? Isn't a podcast just an mp3 file that anyone can download? Well, yes and no. In the simplest sense, a podcast is a sound file saved in a audio format known as mp3 and then posted on the web to be listened to from the website itself or to be downloaded and played in iTunes. It is the brilliant marketing of apple corporation that they are named after iPods because that particular brand of mp3 player is the most popular one, by far. If Microsoft had marketed its Zune more successfully, the same exact files might have been called Zunecasts.

So, what then is a podcast? It is an audio recording, which could be anything from a short recounting of the day in the life of a first grader to an hour long anatomy lecture by a professor at Harvard Medical School. There are thousands of podcasts available on the web on every conceivable topic; check the iTunesU section in iTunes for podcasts produced by many universities, museums, and schools, [www.podcast.net](http://www.podcast.net), [www.oculture.com](http://www.oculture.com), or the iTunes U app

on the iPad. Most newspapers and news sites now have podcasts of their top news stories and editorials. Look and ye shall find.

### **So how do I download a podcast?**

#### **Option 1: Use the iTunes Store**

- Open iTunes,
- Click on "iTunes store" on the left side of the screen,
- Next click on "Podcasts" within the area called "iTunes Store,"
- Enter a keyword to search
- Then either click "Get Episode" to get an individual podcast or "Subscribe" to automatically receive each new installment of that podcast channel.

#### **Option 2: Finding a podcast and then using iTunes**

- Find a podcast
- Locate the podcast's rss feed
- On the Advanced menu, choose Subscribe to podcast
- Paste the feed link into the box and click "Ok."

#### **Option 3: Subscribing directly from the website**

- Some websites provide the option to subscribe directly to the podcast on iTunes from the web page.
- Click on the link to launch iTunes and follow the directions above.

### **Spreaker: Creating your own Podcast the Easy Way**

Many web 2.0 sites offer the ability to create your own podcasts with very little fuss or bother. Spreaker.com is a popular Web 2.0 site that creates podcasts or live radio broadcasts. Students can record their narration and then add music and other special effects. (Registration is required.)

### **iTunes University**

iTunes provides access to podcasts, videos and lesson plans from 100's of colleges, universities, and museums--including the United States Holocaust Museum. Although provided by Apple, the podcasts and videos are accessible to both PC and Mac users who have installed iTunes. Podcasts can be downloaded to iPods or iPhones, so students can learn as they go. iTunes U provides a plethora of wonderful resources for a multitude of subjects. The iTunes U app for the iPad is terrific.

### **Online Video Editing**

Many web 2.0 sites offer the ability to edit and manipulate graphics and videos; their ease of use allows for homework assignments and classroom use without the expense of purchasing software or worrying about Macs vs. PC use of iMovie and iPhoto.

### **WeVideo and Google Docs Movies**

After adding WeVideo to Google Drive accounts, students and teachers can upload videos to Google Drive and then edit them within their account.. Students can also create new projects within WeVideo, thus avoiding any particular piece of software. Students can also collaborate on a video project. There is also a WeVideo website and a WeVideo app.

### **Vozme and Foreign Language**

Then there is Vozme, an amazing website for Spanish teachers. Teachers or students can copy and paste or type Spanish text into the website and then hear it read back to them. I am told by many Spanish teachers that the reader's voice is terrific, absolutely perfect Spanish. Students can copy in segments of papers they are writing to hear them spoken aloud, or teachers can copy and paste an article from a Spanish newspaper, or a poem, or a section of a novel for students to read and listen to simultaneously. The sound files can be saved as mp3 to be downloaded into an iPod or e-mailed to others.

### **SnackTools and More**

After registering for a free account on [www.snacktools.com](http://www.snacktools.com), students and teachers can create slideshows with transitions, cute effects, and audio. They can create banners for websites, embeddable presentations and flip books, build YouTube and video playlists, share online polls and surveys.

One of the best things about Web 2.0 sites is the ease with which they fit into the curriculum, ranging from Foreign Language to Lower School Reading. There always seems to be a way to incorporate these sites into a digital storytelling project, an exploration of verb tenses, or a strategy for summarizing skills learned in class each week. One site is [blabberize.com](http://blabberize.com). This is not the best site ever, but it can be used for many purposes. Simply upload a picture, draw a circle around the mouth, record a sentence or two and there you have it--a talking picture. Think of its uses: talking animals telling about their habitat, students describing a recent event, a political candidate voicing an issue. Try it. Or try [voki.com](http://voki.com) to create talking avatars.

There are endless possibilities for manipulating and sharing graphics including the following: [www.slideshare.net](http://www.slideshare.net) is a public space for sharing and embedding PowerPoint presentations to use in Moodle; [Glogster.com/edu](http://Glogster.com/edu) creates posters with graphics, embedded videos, sound and video recording; [www.prezi.com](http://www.prezi.com) allows the creation of on-line presentations, an alternative to PowerPoint. The list goes on and on. [Wordle.net](http://Wordle.net) and [tagxedo.com](http://tagxedo.com) create beautiful word clouds. See [delicious.com/summercore/web2.0](http://delicious.com/summercore/web2.0) for more.

## Delicious and Social Bookmarking

Delicious is a social bookmarking website, designed to store and share bookmarks on the web, instead of locally in a browser. Using this site liberates you from your computer--you can access your bookmarks anywhere, anytime and from any computer. But the key Web 2.0 component of Delicious is social bookmarking, the ability to share your bookmarks with friends, colleagues, and students, and to gain access to the bookmarks of others. Bookmarks can be either public or private.

The other Web 2.0 aspect of social bookmarking is the concept of “tags,” tags being a fancy way of saying categorize. You can assign multiple tags to each bookmark, making for ease of sorting and searching. You can create as many tags as you need to fully describe your bookmarks. Because other people also create tags, you can easily search for the bookmark tags created by other users; you can even search for the most popular items. Students can access your links for a research project or create their own as they conduct research. You can also add an RSS feed to your list so that others can subscribe to receive your updated links.

Creating your Delicious bookmarks is easy. First you will register; your user name will become the URL for your Delicious bookmarks. In other words, if you registered with a user name of Summercore, the URL for your bookmarks is delicious/summercore. During the registration process, you will add new buttons to your browser. Follow the instructions according to your particular browser--Firefox, Safari, or Chrome. One of the buttons will allow you to add bookmarks to your Delicious list as you surf the web, the other provides direct access to your delicious bookmarks. Instead of using the bookmarks or favorites function of your browser, you will use the Delicious button to save your favorite website and add tags to define it.

To upload the bookmarks from all your browsers, click on Settings and then the upload link. There are different steps depending on your browser, but the basic procedure is to export your bookmarks as a file (usually a choice under your File menu or under the File menu choice of Organize Bookmarks.) Then you will upload your file to Delicious and begin the tagging process. Delicious will create tags from any folders you have created in your browser. Some tips: before you export your bookmarks, delete the the bookmarks that are unnecessary--like the ones that come with the browser, and delete the tag called “imported” from the choices given you when you upload your file.

Now begin the tagging process. Next to each bookmark exist choices to edit/delete/share each one. Click edit to begin adding tags. Use as many tags for each one as will be useful for your later searching. Tag by grade levels, specific subject contents, multimedia content, Smartboard usefulness, activity or game, etc. One tip: Delicious will separate a two word tag into two separate tags, so Internet Safety will create two tags: Internet and Safety. This is not what you want, so instead create a tag named Internetsafety or Internet\_safety to create a meaningful tag. When you have many tags, you can go the the Settings choice to create Bundles (like categories) to group your tags. Tags can be be bundled into different headings. The whole tagging process can be both annoying and time-consuming, but be patient because you will find the the effort will be amply rewarded. Be careful to be consistent in your terms and merge multiple tags into one: i.e. combine blogs, blog, blogging, and blogosphere into one term, Blogs.

## Reasons to use Delicious

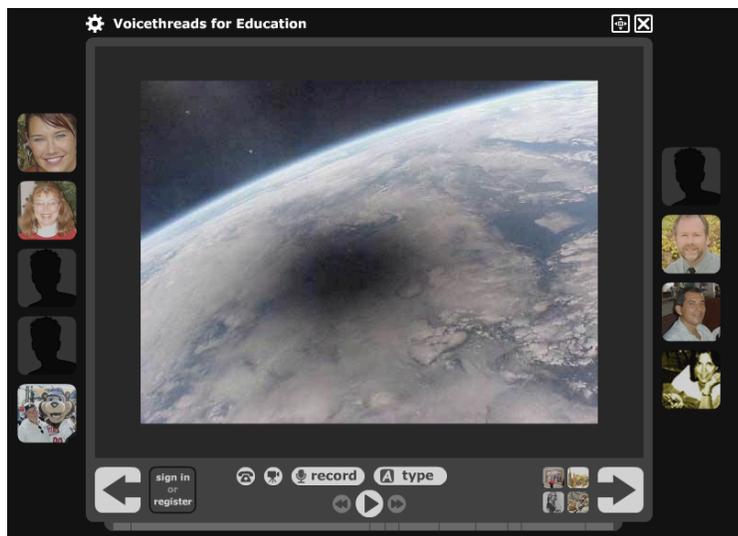
1. Save all your bookmarks to centralize them into one location and to access them from any computer
2. Create a Delicious account for your department or grade level so everyone can share their most useful websites
3. Create a classroom account for your students to have easy access to the websites they can use for school activities and research
4. Create student account and assign students the task to find and then share websites useful for current class topics
5. Require students doing research projects to create Delicious accounts so you can easily keep track of their progress
6. Have students subscribe to the RSS feed of your list- the feed URL is <http://delicious/RSS/yourusername> or subscribe to a specific tag in your list
7. Search for good websites using the search feature in Delicious
8. Typing <http://delicious/popular/tag> will find the resources about your topic saved by the most users
9. Work with your students to create meaningful tags-- good for simplifying and for teaching about categorizing and content management
10. Use the popular feature to teach website evaluation
11. Join networks of other computer-using educators or of others who share your academic interests or subject content

## Voicethread and Digital Storytelling

Voicethread combines uploaded graphics with text, voice and video recordings. You can upload PowerPoint presentations, PDFs, MS Word files, and even Excel spreadsheets. According to the site, “A VoiceThread is an online media album that can hold essentially any type of media (images, documents and videos) and allows people to make comments in 5 different ways - using voice (with a microphone or telephone), text, audio file, or video (with a webcam) - and share them with anyone they wish. They can even be exported to an Archival Movie for offline use on a DVD or video-enabled MP3 player. A VoiceThread allows group conversations to be collected and shared in one place, from anywhere in the world.” Voicethreads can be embedded into blogs or wikis to be used for your classroom.

VoiceThread offers free accounts for all K-12 classroom educators. After you are signed in and on the Browse, Create, or Myvoice pages, click the button up top that says “Go Pro” and then click the link in the next window that says K-12 classroom educators.

Here is a typical Voicethread:



Each thumbnail represents a video, text, or voice comment upon the central image. Rather than uploading pictures of each student, you can create avatars for students. You can have 100's of comments per thread.

### **Reasons to use Voicethread**

1. Teachers can create content for differentiated learning styles: enrichment activities for some, remedial content for others
2. Students create a collaborate digital storytelling project for their foreign language class
3. Students are assigned a “That was a week that was” project on a rotating basis to create recaps of the topics covered in class each week
4. Students can narrate a tour of the world: Ancient Greece, China, Ancient Rome, etc.
5. Students can collaborate on an project with students in any state or any country
6. Math students can use the doodle tool to explain the steps for solving a math problem or upload graph paper to graph an equation
7. Students can share a favorite book or poem and receive feedback
8. Students can respond to a series of paintings to discuss Renaissance art
9. Students can evaluate political cartoons to discuss media and the election
10. Create technology tutorials for teachers and/or students
11. Use as an assessment tool for a class topic
12. Foreign Language teachers can read a poem, text, or lines of dialogue and students can either respond or repeat for a skills assessment
13. Upload images from a field trip and students can narrate the day or discuss each image's relevance to the class material
14. In History or Humanities classes, create Oral Histories
15. In Science, create a lab report