

EDUCATIONAL PODCASTING

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What is Podcasting?

Podcasting stands for Portable On Demand Broadcasting. Podcasts were originally audio-only, but may now contain still images, video, and chapters identifying major sections or ideas. An iPod is *not* needed to listen to a podcast. You can listen to a podcast using any computer connected to the Internet that also has the capability of playing standard MP3 audio files. Once a podcast is downloaded, it can be listened to at any time on the computer or copied to a portable device (PDA, iPod, cell phone, or any device that plays MP3 files) for playback on the go.

A podcast is audio or visual content that is *automatically* delivered over a network via free subscription. Once subscribed to, podcasts can be regularly distributed over the Internet or within your school's network and accessed with a portable MP3 player, laptop, or desktop computer (both Macs and PCs).

The major difference between a podcast and any other audio file stored on the Internet is that podcasts can be subscribed to. Podcasts are published as RSS** feeds.



Listeners subscribe to these feeds and are notified of new programs by their RSS*** aggregators. The aggregators can be set to download the programs automatically, or users can download the podcasts manually. (Don't worry, we explain the RSS stuff below and give you some examples!)

This article will describe educational uses of podcasts, and inexpensive, easy-to-use hardware and software that can be used to create your own podcasts. To go along with this article, we have developed a web site that will include tutorials and other hardware and software information (<http://www.mtsu.edu/podcast>).

Before you attempt to design and implement your own podcast, you may find it valuable to subscribe to some created by others.

You can find several at these sites:

Podcast Alley

(<http://podcastalley.com/>),

Podcast.net

(<http://www.podcast.net/>),

and iTunes

(www.apple.com/itunes/podcasts/).

Educational Uses for Podcasting

Educational podcasting can be used to extend class time, provide review activities, record student work, and much more. You are only limited by your imagination and your ability to provide pedagogical basis for its use. In this section, we will give you several examples of usage.

Lectures

Podcasting lectures provide:

- *The ability to listen to a lecture multiple times:* Students can also stop the lecture, "rewind" to a previous part, and start again. Controls also allow the student to skip forward to a specific point in the lecture. (Note: Chapters that allow students to easily locate the area of the lecture they want to review can be added to podcasts.)

- *Flexibility in class schedule:* Students can listen to the podcast before class and do another activity during class that builds on the material from the lecture. A short

**RSS is a family of web feed formats, specified in XML and used for web syndication. RSS is used by news websites, weblogs, and podcasting. The abbreviation is used to refer to the following standards:

- Rich Site Summary (RSS 0.91)
- RDF Site Summary (RSS 0.9 and 1.0)
- Really Simple Syndication (RSS 2.0)

Web feeds provide web content or summaries of web content, together with links to the full versions of the content. In addition to facilitating syndication, web feeds allow a website's frequent readers to track updates on the site using an aggregator.

***An RSS aggregator (or news aggregator) is a type of software that allows the user to subscribe to a podcast. It retrieves syndicated web content that is supplied in the form of a web feed (RSS, Atom, and other XML formats) and published by weblogs, podcasts, vlogs, and mainstream mass media websites. Some podcast compatible RSS aggregators are iTunes (www.apple.com/itunes) and Sharp Reader (www.sharpreader.net/). Lists of news aggregators can be found at Wikipedia (http://en.wikipedia.org/wiki/List_of_news_aggregators) and on the Harvard Law website (<http://blogs.law.harvard.edu/tech/directory/5/aggregators>).

quiz on the lecture material during the first minutes of the class can be given to ensure students have indeed listened to the pre-class lecture.

- *Increased interaction with the instructor:* Instead of focusing on note taking during class, students would have taken notes during the pre-class podcast and will be ready to participate in the in-class activity.

- *Supplement to traditional class notes:* When instructors post in-class lectures shortly after class time, students can go back over the lecture at home and fill in points that they missed in their written notes.

- *Audio resources for students with disabilities:* Students with various disabilities will find podcasts beneficial to their learning.

- *Portability/Multitasking:* When they download a podcast to their personal media player, students are able to listen to a lecture at any time or place, including while exercising, driving, or walking between classes.

- *Beneficial to auditory learners:* Online (distance education) students who learn best by hearing may learn course content more quickly when they listen to a podcast, instead of reading lecture content.

Student Podcasts

Students can work on their own or in groups to create podcasts that could serve as the culminating activity for projects. The posted projects can then be used in class.

- Post student compositions (performance of music compositions, recitation, or performance of written works).

- Critique student work. Student podcasts can be evaluated by peers using online forms for gathering the postings and displaying them, either privately to the creator of the work, or publicly to the entire class.

- Create online radio programs.

- Record oral histories: With an iPod and a voice recorder, students interview relatives about their life histories, and then combine the audio interview with family photos in an iMovie project.

Podcasts in Online Learning

Podcasts can be used in a multitude of ways in the online classroom. Instructors can:

- Make available podcast downloads of "just-in-time" learning modules;

- Tutor a student via podcast;

- Make podcast downloads of practice exams, such as music dictation practice tests;

- Introduce vocabulary words/terms, including musical terms and their correct pronunciation;

- Give bonus points to the first student to get the right answer to a podcast question;

- Develop a library tour podcast;

- Create a small set of audio podcasts that can be used for enrichment;

- Assist special needs students with targeted materials;

- Reinforce English as a second language concepts;

- Podcast short lectures;

- Allow students to create their own podcasts for class;

- Setup a text messaging or RSS to inform the class of new podcasts;

- Develop and reward innovative podcasting uses with an awards ceremony for the most creative, educational use of a podcast;

- Use podcasts to deliver exciting historical content. Writer Bill Carey once stated, "The worst thing about history is teaching kids about dead men and dates. Kids want something flashy."

Professional Development Podcasts

Podcasts can also be used for professional development. Several web sites

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General Tutorials

- <http://learninginhand.com/podcasting/create.html>

- QuickTimePro - <http://www.apple.com/quicktime/tutorials/>

- iTunes - <http://www.apple.com/itunes/podcasts/techspecs.html>

- Publishing Your PodCast - <http://www.feedburner.com/fb/a/popup-quickstart-podcast>

- Educational Podcasting by Gary S. Stager - <http://www.stager.org/podcasting.html>

- Creating an Audio Podcast using Audacity (PC) - http://www.windowsdevcenter.com/pub/a/windows/2005/04/05/create_podcasts_with_pc.html

- Creating an Audio Podcast in Garageband (Mac) - <http://www.apple.com/support/garageband/podcasts/recording/>

- Creating a Video Podcast in iMovie 6 (Mac) - <http://docs.info.apple.com/article.html?path=imovie/6.0/en/imv1212.html>

- Creating an RSS Feed -

- RSS Primer from PC Magazine - <http://www.pcmag.com/article2/0,1895,1863291,00.asp>

- Recommended Feed tools

- Feeder (OS-X) - <http://reinventedsoftware.com/feeder/index.html>

- FeedForAll (PC and Mac versions) - <http://www.feedforall.com/download.htm>

- Online RSS Feed Generator - <http://www.feedburner.com/>

- RSS feed generator - http://www.tdscripits.com/webmaster_utilities/podcast-generator.php

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are dedicated to educational issues and topics. Some are listed below.

Edutopia: Weekly talk show hosted by Milton Chen concerning educational issues and technology. (<http://www.edutopia.org/products/voiceamer.php>)

TILT—Teachers Improving Learning with Technology: Actually a video weblog, this site has some great information and examples of movies to use with students. (<http://tilttv.blogspot.com/>) The site now uses Google Video to make video available (Upload link: <https://upload.video.google.com/>). You can download the files from Google Video to your iPod or play them on your computer using QuickTime Pro on the Mac or the Google-downloadable player in Windows. (<http://video.google.com/playerdownload.html>)

Educational Weblogs: Technology resources for educators using weblogs, blogware, collaborative tools, RSS and podcasting, web services, and digital tools at home, school, university and community. (<http://educational.blogs.com/>)

EPN—Education Podcast Network: This site brings together, into one place, a wide range of podcast programming that may be helpful to teachers looking for content to teach with and about, and to explore issues of teaching and learning in the 21st century. (<http://epnweb.org/>)

Educational Podcasting Links

<http://www.apple.com/education/solutions/podcasting/>
<http://recap.ltd.uk/podcasting/>
<http://coe.sdsu.edu/eet/articles/podcasting/index.htm>

Creating a Podcast

Hardware

There are many ways to produce a

podcast using a personal computer (Mac or PC), but they generally fall into two categories. You can record 1) directly onto your computer or 2) onto some other digital recording device and then move the resulting file(s) to your computer for compiling into a podcast.

Tip: Make sure that whatever you use for recording has the ability to easily transfer your audio to your computer. Typically the transfer can be accomplished through a USB port, a firewire port, or by using a removable card.

Microphones

You will need a microphone that has the correct connection that allows recording on your computer. Computer microphones will either connect through the computer's line-in port or USB port. The microphone that comes with the computer will be sufficient to do a *basic* podcast. A head set with a microphone can be used to create a podcast, also.

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