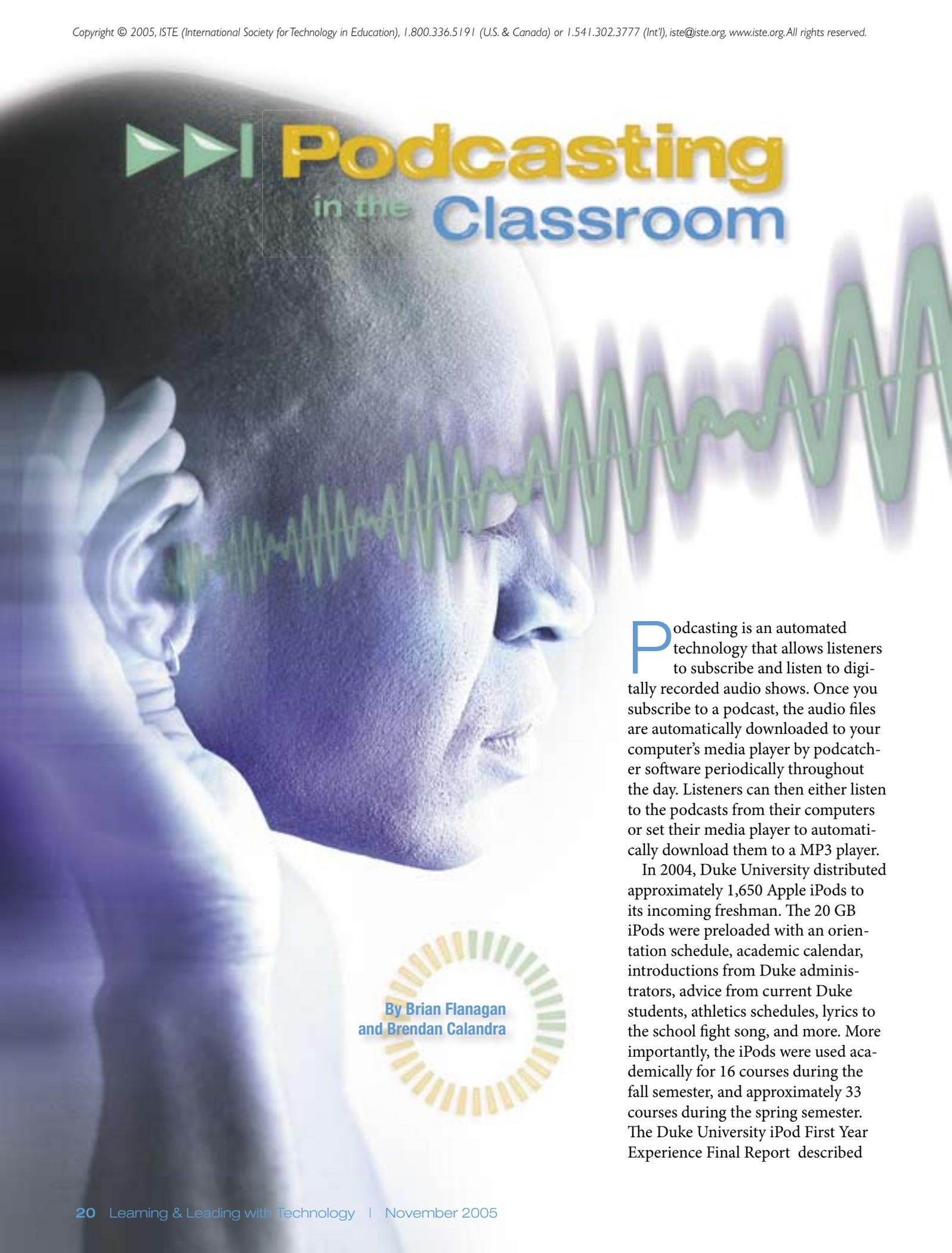




Podcasting

in the Classroom



Podcasting is an automated technology that allows listeners to subscribe and listen to digitally recorded audio shows. Once you subscribe to a podcast, the audio files are automatically downloaded to your computer's media player by podcatcher software periodically throughout the day. Listeners can then either listen to the podcasts from their computers or set their media player to automatically download them to a MP3 player.

In 2004, Duke University distributed approximately 1,650 Apple iPods to its incoming freshman. The 20 GB iPods were preloaded with an orientation schedule, academic calendar, introductions from Duke administrators, advice from current Duke students, athletics schedules, lyrics to the school fight song, and more. More importantly, the iPods were used academically for 16 courses during the fall semester, and approximately 33 courses during the spring semester. The Duke University iPod First Year Experience Final Report described

By Brian Flanagan
and Brendan Calandra



academic uses for the iPod as falling into five categories:

1. course content dissemination
2. classroom recording
3. field recording
4. study support
5. file storage and transfer

Furthermore, students have been allowed to keep their iPods and will be expected to use them throughout their collegiate career. As we read this report, the potential uses for this technology in a PK–12 environment became quite clear. (*Editor's note:* Find links to this and other resources on p. 22.)

Podcasting Benefits

Podcasting has been used primarily for disseminating recorded lectures and discussions. In the report, one Duke University student remarked,

I loved being able to listen to the lectures at my convenience, to be able to listen to difficult portions several times, and just hear the material again—while working out, or running other errands—and I think the value of listening to the lectures showed through with a high score on the first exam.

Research comparing auditory instruction technology to in-class instruction has often found no significant differences. Podcasting, therefore, may be a cost-effective way to deliver instruction without compromising learning effectiveness. It may also be a great way to augment current class instruction. Fortunately, this medium has the ability to do more than record potentially drab lectures.

Podcasting integrates naturally with audio-dependent courses such as music and foreign languages. For example, music students have used podcasting to listen to, memorize, and critique classical music and eventually to share original musical works. Foreign language teachers have shared native music, literature, and plays through podcasting. Students have even created foreign language audio projects to share with fellow students and eventually with their teacher for a grade. This flexibility can give foreign language students exposure to native speakers without having to be tied to a school language lab or stationary computer. Using podcasting technology, students even have an easy, inexpensive, and quick way to communicate with peers across the globe. Pen pals who have become e-mail key pals could eventually become pod pals.

History and English literature classes have used podcasting to share time-period music, historical speeches, radio plays, interviews with experts, and audio books. Audio books, newspapers, and magazines can be easily disseminated to students through podcasting. Perhaps the future holds an audio version of Project Gutenberg, allowing teachers to download free and legal classics for their students.

Students can conduct field research by taking an MP3 player with a microphone to interview, take verbal notes, and record foreign environments. Many podcasters are now creating soundseeing tours. Some authors of soundseeing tours post pictures on the Flickr Web site for people to look at after they've listened to the podcasts.

Enhanced Podcasts and Vodcasts

Apple has introduced *enhanced* podcasts that allow listeners to see pictures on their photo iPods. Apple displayed this new technology with its enhanced podcast, *Soundseeing: Old Town Philadelphia*, that showed Philadelphia landmarks as a professional tour guide took the listener through Philadelphia. The NECC 2005 Premier Podcast Event by Barnaby Wasson was also an enhanced podcast that allowed listeners to view PowerPoint slides as they listened to the conference presentation.

Vodcasting, video podcasting, is in its infancy. It is essentially the same as podcasting, but video clips are distributed through RSS 2.0 enclosures instead of audio clips. This technology can allow teachers, administrators, and students to share video clips. Of course, vodcasting requires a more powerful computer to edit video, and the file sizes can be five times as large as podcasts, depending on the quality of the content. Users will also need a video-capable player. These technologies would be excellent tools for students' collaborative projects as well as a rich and attention-getting media to enhance teacher-centered instruction.

Getting a Podcast

Even the initial setup for retrieving podcasts is relatively simple. You'll need a computer with Internet access.

1. Install podcatcher, or podcast aggregator, software. This enables you to subscribe to podcasts. Most podcatcher software is free, and versions are available for Mac, Windows, Pocket PC, and Linux platforms. A current list of podcatcher software is available at Podcast Alley.
2. Find and subscribe to podcasts by browsing podcast directories such as Podcast Alley, Indie Podder, and Podcast Bunker. Once you find a podcast, cut and paste its URL into the add feed section of your podcatcher software.
3. Use the retrieve or download now function of your podcatcher to get the podcast. You can also configure your podcatcher to have it automatically download podcasts periodically.

Apple's iTunes 5.0 has built-in support for podcasting, which has converted it into an all-in-one podcatcher, podcast directory, and media player.

Creating a Podcast

Creating a podcast is essentially a four-step process. You'll need a computer that is connected to the Internet and a microphone.

1. Use an audio editing program to record your podcast. We use Audacity because it is free and can be used on Mac, Windows, or Linux machines.
2. Upload your podcast in MP3 format to a Web server using an FTP program. Be sure to take note of the URL of where your MP3 file is stored.
3. Create a Weblog. WordPress, LiveJournal, and Blogger are all free blog services. Once you have created your blog, paste the URL of your MP3 as an entry in your blog. Take note of the URL of your blog.
4. Convert your blog URL into an RSS 2.0 feed with enclosures. This is easy with the help of Feedburner. Once you get to the Web site, enter your blog URL and click "next". Click the "smartcast" option and then click "next". Feedburner will take you through the process of creating an account and deliver your completed podcasting feed. This is the URL you give to friends and register with podcasting directories.

Issues to Consider

Many issues need to be considered for educational podcasters. Although it is a new medium, it shares many of the same challenges as other casting methods. You must have permission to use content before you mix it into your podcast. As with the rest of the Internet, podcasting is not regulated, and the content of some podcasts can be unsuitable for your students. It is important to review the podcasts before you let your students listen to

them. Of course, when publishing information in any form, you and your students are legally responsible for what you say in your podcasts. If someone slanders or says something false about people or products, they may end up in court. Additionally, student privacy concerns must be addressed. Administrators may become worried when they hear about students' work being posted online.

Technical support is another issue. Podcasting requires considerable file server hard drive space for storage of MP3s, and it requires considerable bandwidth every time a student downloads a podcast. This, in addition to the training required to teach teachers how to podcast, requires an educational institution to have an available and dedicated technical staff willing to help facilitate podcasting in the classroom as well as equipment available that can handle the technology. For example, an aggressive firewall can prevent students from visiting podcasting sites or downloading MP3s. Additionally, creating podcasts can be technically challenging for the average student, unless the teacher or educational institution is willing to pay for commercial podcasting programs and services such as Liberated Syndication and BlogMatrix Sparks! 2.0.

Podcasting is a new and rapidly developing technology. Its potential in the classroom is only limited by the resourcefulness and creativity of faculty, students, and administrators.

Resources

General Podcasting/Audio

Apple iTunes: <http://www.itunes.com/>
Audacity: <http://audacity.sourceforge.net>
Audible: <http://www.audible.com/>
Feedburner: <http://www.feedburner.com/>
Flickr: <http://www.flickr.com/>
Pod Safe Audio: <http://www.podsafesafeaudio.com/>

PodCatchers and Podcast Directories

Indie Podder: <http://ipodder.org>
Podcast Alley: <http://www.podcastalley.com>
Podcast Bunker: <http://www.podcastbunker.com>

Podcasting continued on p. 25

 Podcasting, therefore, may be a cost-effective way to deliver instruction without compromising learning effectiveness.

Podcasting continued from p. 22

Podcast.net: <http://www.podcast.net>

Podcatcher directory: <http://www.podcastalley.com/forum/links.php>

Educational Podcasting Sites

2cents worth: <http://davidwarlick.com/2cents/>

D'Arcy Norman dot net: <http://www.darcynorman.net/>

The Educational Mac: <http://theeducationalmac.blogspot.com/>

The Education Podcast Network: <http://www.epnweb.org/>

Edupodder: <http://www.edupodder.com/>

Podcasting from NECC: <http://necc.dmit.asu.edu/>

Teach42: <http://www.teach42.com/>

Yahoo groups: <http://groups.yahoo.com/group/Podcasting-Education/>

Podcasts

Art a GoGo Podcast 6—Soundseeing Tour of the Seattle Art Museum: <http://www.artagogo.com/>

Colonial Williamsburg Podcasts: <http://www.history.org/media/podcasts.cfm>

EarthCore: A Podcast Novel: <http://www.scottsigler.net/>

The Girl on Tech: <http://girlontech.blogspot.com/>

Soundseeing: Old Town Philadelphia: <http://necc.dmit.asu.edu/>

Soundseeing: San Francisco Cable Car Ride: <http://www.podcast.net/show/510>

Miscellaneous

Duke University iPod First Year Experience Final Report: http://cit.duke.edu/pdf/ipod_initiative_04_05.pdf

Project Gutenberg: <http://promo.net/pg>



Brian Flanagan works full time as a Cisco academy instructor at Redan High School in Stone Mountain, Georgia. Flanagan was awarded the Redan High School Teacher of the Year in 2004 and S.T.A.R.

Teacher Award by the professional association of Georgia educators in 2005. Currently he is pursuing his PhD in instructional technology at Georgia State University.



Brendan Calandra is an assistant professor of instructional design and technology at Georgia State University. His research, teaching, and consulting are focused primarily on the purposeful

use of digital media for learning and performance improvement.