

7 things you should know about...

Podcasting

Scenario

John had to leave class a bit early last Monday, but he knew he could catch up on all of the missed material by subscribing to his professor's podcast and downloading the recording to his MP3 player. As he headed for the bus that Wednesday morning, he was confident that he would be as prepared as his friend Joanne. She had stayed through the whole class and reported that there had been an interesting issue during the end-of-class demonstration. Walker, the class clown, had tried to match wits with the instructor's (again) and had almost won. "Check it out, John!" she said.

As John rode the bus, he searched for the "incident" and listened intently. The atmosphere in the lecture hall was electric—and the laughter and banter in the class could be clearly heard through his headphones.

By the time he got off the bus, John felt he hadn't missed too much—the podcast had been nearly as good as being there in person. He also knew that he would now have enough questions for the interview he was conducting later in the day of a visiting wildlife conservationist. Part of the reason she had agreed was John's promise to share the session with his colleagues—via a podcast.

What is it?

"Podcasting" is a term inspired by the Apple Computer Corporation's iPod—a portable digital audio player that allows users to download music from their computer directly to the device for later listening. The term is no longer specifically related to the iPod but refers to any software and hardware combination that permits automatic downloading of audio files (most commonly in MP3 format) for listening at the user's convenience. Unlike traditional radio or other Web-based streaming media, podcasts give listeners control over when they hear the recording. Podcasting makes use of the Internet's Real Simple Syndication (RSS) standard. It differs from broadcasting and Webcasting in the way that content is published and transmitted via the Web. Instead of a central audio stream, podcasting sends audio content directly to an iPod or other MP3 player.

Who is doing it?

Podcasting can involve practically anyone with an Internet connection. With its roots in the blogging world, part of the appeal of podcasting is the ease with which audio content can be created, distributed, and downloaded from the Web. Professional broadcasters and syndicated radio shows are starting to make their content available as podcasts. Amateurs are flocking to podcasting, sharing their content and opinions. Campuses are starting to make content available as podcasts as well.

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How does it work?

Podcasting is a unique innovation in content publishing based in large part on its inherent simplicity and ease of use. Users simply connect their portable audio devices to their computer, log on to a podcasting subscription service, and subscribe to that site's feeds. Audio content is then "pushed" from the original source directly and automatically to the user's iPod or MP3 player. All of the tools needed to create, modify, and distribute podcasts are within reach of anyone with a reasonably well-configured laptop. The desire to improve the quality of podcasts has resulted in rich Web-based resources outlining principles of sound, equipment recommendations, and shared experiences. Podcasting demonstrates the power of audio over text (listening as opposed to reading), allowing podcast users to listen and learn while they walk, jog, ride the bus, or are otherwise away from their computer screen. Perhaps most significantly, podcast technology empowers users to publish audio content directly and seamlessly onto the Web.

Why is it significant?

Podcasting allows education to become more portable than ever before. Podcasting cannot replace the classroom, but it provides educators one more way to meet today's students where they "live"—on the Internet and on audio players. Barriers to adoption and costs are minimal. The tools to implement podcasts are simple and affordable. Podcasting is predicted to soon become a mainstream application, much like video-on-demand recorders (such as TiVo).

What are the downsides of podcasting?

Users must have sufficient bandwidth to download the podcast. Beyond access, there are potential issues with the format. Podcasting is primarily an audio delivery technology and, as such, has limited usefulness for the hearing impaired. Podcasting is not designed for two-way interaction or audience participation. Podcasters are essentially "sound amateurs" producing and publishing audio feeds. The quality of speakers' voices, speech patterns, intonations, and other sound effects may not be the same as those of a professional broadcast. Faculty who wish to record their lectures or other instruction for podcasts may need some training, both in handling an audio-only medium and using the technology.

Where is it going?

Podcast enthusiasts see no limit to the potential uses of this technology, particularly in education, and the number of podcast aggregators (sites that collect, categorize, and then make available podcasts for subscribers) is growing. It is possible that specialized higher education-based aggregators will emerge, offering students access to missed lectures, instructions for laboratory experiments, and so forth. Interlacing podcasts with video applications—listening to a podcast while viewing related material on the Web—is another area of experimentation in education.

Podcasting is evolving at a rapid rate. New features—categorizing, navigating, and indexing—are being demanded by users. Consequently, designers and producers of podcasts are seeking new ways to add layers of richness to simple audio files—creating audio experiences that are both entertaining and instructive.

What are the implications for teaching and learning?

Podcasting allows students to use their technology-based entertainment systems (iPods, MP3 players) for educational experiences. Because students are already familiar with the underlying technology, podcasting broadens educational options in a nonthreatening and easily accessible manner. For example, podcasting allows lectures or other course content to be made available to students if they miss class. Beyond missed lectures, podcasting can provide access to experts through interviews. Podcasting is not limited to content delivered to the student, however; students can create their own podcasts—as a record of activities, a way to collect notes, or a reflection on what they have learned.