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Podcasting: Co-opting MP3 Players for Education and Training Purposes

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Abstract

Podcasting and podcatching provide trainers and teachers with powerful, personal tools for delivering exactly the right content to learners at teachable moments anytime, anywhere. The strength of podcasting lies in the potency of voice communication, which cuts through the dense text of the Internet and offers a human connection during distance training. In addition, podcasting offers the ability for learners to multitask and to time-shift content. Trainers, professors and librarians have already begun using podcasting for myriad training and learning situations, and new tools are making podcast production possible for novices. Copyright, security, searchability, archival, and diversity are some of the current concerns podcasters must address as they develop this new instructional avenue.

Podcasting: Co-opting MP3 Players for Education and Training Purposes

Podcasting is the term for creating a Web-based broadcast series that is delivered to subscribers automatically through the use of RSS (Really Simple Syndication) software. The term is a combination of two words: iPod (one brand of MP3 player) and broadcasting (Podcasting, 2006). Podcasts are used to record and disseminate audio content. Podcatching refers to selecting and then receiving audio file subscriptions automatically. Both podcasting and podcatching are somewhat misleading terms because iPods are not essential to either process. Podcasts are received and managed by the subscriber's PC. The subscriber has the option of listening to the file at the PC or downloading the podcasts to any MP3 player, CD, or other mobile device. Many users configure their software to download podcasts automatically. The point of podcatching is to "capture audio content that appeals to one's interests" (Gordon-Murnane, 2005, p. 47). Although podcasts originated for entertainment purposes, podcasting and podcatching provide trainers and teachers with powerful, personal tools for delivering exactly the right content to learners at teachable moments anytime, anywhere.

Training and development (T&D) experts forecast that podcasting will be a solution to many training problems. Weinstein (2006b) presented predictions from six training and development experts about training in 2006, and three of the six experts specifically mentioned podcasting as an emerging technology. In addition, the experts expressed consensus that in 2006, more learning will be chunked for delivery in snippets to be received by learners who are multi-tasking. They agreed that learners will

want customized learning options to maximize the benefits from each moment invested in training. Podcasting is a natural fit for these expectations because of its unique attributes.

Four Unique Attributes of Podcasting

Podcasters take advantage of the power of voice communication. Today's Internet is flooded with text sites and email messages; however, Smith (2005) said that people respond to voice differently than to text. He said, "Voices poke through and relieve us of an oppressive environment of text and images" (p. 32). Voice is personal, and it can bring information to life. The addition of tone to a message creates a greater personal connection. Smith also argued that storytelling is the main reason that podcasting is rocketing to popularity (p. 32). What is more personal than hearing a story precisely as the storyteller intended with the words enhanced by tempo, rhythm, pitch, accents and style? For example, one can read Isabel Allende's (2005) essay "In Giving I Connect with Others" on the NPR *This I Believe* website, but listening to her read it through the linked audio file is an utterly different experience. A powerful text message becomes super-charged through the addition of Allende's distinctive voice. To link this to T&D, Hewlett Packard (HP) has found that podcasts by executive Nora Denzel have proven highly effective for communicating broad strategic messages as well as inspirational stories about the company and its employees (Smith, 2005). Joel Postman, HP's director of internal and executive communications said that podcasts rise "above the din of regular communication" (Smith, 2005, p. 32.) Podcasting gives instructors and learners a relatively easy way to harness the power of voice communication and to deliver it on-demand at the moment when it is needed.

Podcasting provides a new avenue for learners to take control of their learning. For example, Wilson (2006), a professor at the College of Southern Maryland, created podcasts for each major course unit. His students are given the options of reading the textbook, listening to the podcast or both. Also along those lines, an English teacher could create a podcast series about common grammatical errors. When students receive graded papers to rewrite, they could choose to listen to just the podcasts for their own problem areas. In both situations, students have a choice of resources. In both cases, students can take advantage of classroom instruction as well as reading, listening, and practicing. By activating additional learning modes—in this case both written and auditory—podcasts increase the likelihood that students will master the material. However, Lister (2006) cautioned that podcasts used in isolation are a disservice to all except auditory learners.

Another reason podcasting is a powerful tool is its adaptability for multitasking. First, podcasts provide the capability for users to listen to instruction while actually doing the task being addressed. For example, Wilson (2006) provided podcasts for his travel study course, including tips for preparing for the trip, audio tours of important sites, and his own personal stories about previous visits to each site. Because Wilson could not be with every small tour group all day, he used podcasts to approximate the personal instruction that is often an effective part of training, while maintaining the advantages of on-demand deliverability. Second, since MP3 players are small and portable, users can listen to instruction on their own terms during whatever free time is available. Learners can maximize commute time, exercise time, or housework time by grabbing their MP3 players.

Yet another advantage is the ability to time-shift information and training. Several articles praised podcasting for providing the capability to time-shift content ala TiVo (Barefoot, 2005; Gordon-Murnane, 2005; Smith, 2005). This feature is especially helpful for participants who are absent from meetings or classes. Using an iPod or other mobile device, learners can receive all the content they need in spite of scheduling conflicts or emergencies. Weinstein (2006a) described other benefits T&D professionals can reap from the time-shift capability of podcasting. Those benefits include preparing learners for training through pre-course work, following up and reinforcing training through post-course work, as well as reaching new hires before they even start the job. Consider how giving new employees an iPod and asking them to listen to a number of short files outside of a training environment

is far different from confronting them with thick, impersonal manuals to read and digest. Likewise, consider the benefits of delivering content in short bursts, rather than intensive orientation workshops. Some companies are already exploring the possibilities. For instance, Bose Corp. is using podcasts to guide new hires through a tour of the facility in Framingham, Mass., and Capital One Financial Corp. starts new employees on an assignment using an iPod and recorded book the same day they accept a job (Weinstein, 2006a). Finally, Wilson (2006) pointed out a chemistry professor at Drexel University who has shifted his lectures to podcasts so that class time can be used for deeper learning and application. In these ways, podcasting allows trainers to expand the training experience beyond traditional boundaries of class time.

These four factors—the intimacy of the voice communication, the opportunity for increased learner control, and the abilities to multitask and time-shift content—make podcasts ideal for the creative applications described above. In addition, to the instructional benefits, podcasting is not prohibitively expensive. Weinstein (2006a) said that Capital One Financial Corp. has found that if an employee listens to just six hours of content, the company breaks even on the costs of the program (p. 23).

Uses for Podcasts

Beyond the applications already described above, Weinstein (2006a) reported that companies are delivering leadership development programs and facilitating management communication through podcasts. College faculty members are also exploring podcast applications. Wilson (2006) listed five academic uses for podcasting: disseminate course content, capture live classroom material, record field notes, enhance studying, and support file transfer and storage. Finally, libraries are using podcasts for instructional as well as many other applications. Balas (2005) presented an array of uses for iPods and podcasting. Those benefits include loaning audiobooks on iPods, listening to library news podcasts, reviewing professional association info, accessing archived versions of training programs, contributing to recorded book projects like LibriVox, marketing library services, and giving iPods as prizes for reading programs.

Podcatching Basics

With the newest *iTunes* (2006) software (versions 5 and higher), podcatching is easy and free. Plug your iPod or other MP3 player into your computer. Create (or log in to) your *iTunes* account and search the podcasts tab of the music store. Subscribe to whatever you like. If you have *iTunes* set to download automatically, you don't have to do anything more. If you don't, then just drag and drop the newly downloaded podcasts onto your MP3 player icon.

You can be a podcatcher even if you don't have an iPod or other MP3 player. Podcasts can be played on the computer or saved on a CD. For more information about podcatching, visit the Apple Computer *iTunes* Podcast page (*Your favorite*, 2006).

Podcasting Basics

Creating a podcast involves several steps. The first step is to plan your podcast. During this step, a script is written and music and sound effects are selected. Smith (2005) advised podcast creators to plan the not only the content but also the "tone, inflection, emphasis, and pace" of the performance (p. 32). Smith included three key tips for podcasting success: keep the podcast short; make longer messages modular; and pay attention to simple elements of spoken presentations.

The second step is to record the voice file. You can use a microphone with your iPod, PC, or digital voice recorder for this step.

The third step is to mix your voice file with music and sound effects and save it in MP3 format (32 kbps is the lowest quality for MP3 players to work). *Audacity* (2006) is a well-known free audio mixing package; however, many commercial home studio packages also provide this functionality. If you choose to use *Audacity*, make sure to download the Lame MP3 encoder as well as *Audacity* itself.

The fourth step is making your new MP3 file available and creating the RSS feed. To accomplish this, you must post your MP3 file in a web folder on a web server. Then create the feed. *FeedBurner* (2006) is one free tool you can use. Once the RSS feed is created, you must test your RSS feed. *Feed Validator* (2006) is one option. Step by step instructions are available via the *Podcasting News* website (*Making a Podcast*, 2006).

Once this work is done, you are ready to announce your podcast to the world by submitting your feed to several podcast directories, like *Podscope* for example. Each time you update your podcast with a new episode, you must use a ping service, such as *Fresh Podcasts* to export your new update to subscribers. Basic information about these steps is available on *wikiHow* (*How to Start*, 2006).

Words of Caution for Podcasters

As with any emerging technology, concerns abound. From uncertainties, like copyright infringement issues, to certainties, like security problems, podcasters and podcatchers need to use this tool wisely.

First, copyright continues to be a murky area. Wilson (2006) expressed concern about who actually owns the content of his podcasts. Because his lectures follow his textbook, his podcasts do as well. Thus it is unclear whether Wilson or the book publisher owns his podcasts. Wilson has opted to make his files available through his course management site only. Because the site is password protected, Wilson considered that site a classroom, so he felt comfortable citing extensively from the book as he would in a face-to-face class. Unfortunately, this solution is not compatible with an RSS feed, so Wilson has not been able to take full advantage of podcasting capabilities. As with any content, getting permission is the only 100% reliable way to avoid violating copyright law.

Music is another area rife with copyright conflict. Gordon-Murnane (2005) explained the confusion over whether podcast creators need one license or two to play copyrighted music along with a podcast. She explained that BMI and ASCAP licenses cover the composer rights, but some podcasters believe that a performance rights license is also needed (p. 48). Because podcasts are downloaded, not streamed, these podcasters recommend contacting the recording company to obtain this second license.

Another practical concern involves the traditional library functions of classification, searchability, and archival of podcasted material. Gordon-Murnane (2005) wondered, "Will you be able to find that podcast that played a tune you really liked when for the life of you you can't remember the title of the song or the name of the artist or even the source of the podcast?" (p. 48). Already, some efforts are being made to tackle these challenges. Gordon-Murnane identified several such efforts (pp. 48-51). First, she described Jason Scott who is attempting to download and save every podcast. She also mentioned new companies looking to fill this archival gap, including Odeo and OurMedia.org. From the classification and searchability angle, Gordon-Murnane mentioned that OurMedia.org is working on ways to apply metadata to the indexing of podcasts, and a new company called Podcast Tags is looking for solutions as well. She also commented that a number of podcast directories have emerged. The most recent of these, *Podscope* (2006) by TVEyes, boasts the ability to "search the spoken word for topics that interest you" (2006). *Podscope* offers the ability to search text within podcasts.

A third issue is security. Tennant (2005) was concerned about security and the lack of company policies to control mobile devices in the workplace. While Tennant pointed out numerous uses for iPods and other mobile tools, he also identified a multitude of opportunities for security breaches. One security

problem is that mobile devices are fresh fields for hackers to deploy viruses and spam. In addition, Tennant argued that when MP3 players become standard workplace technology, "the capacity for corporate data loss will be almost incomprehensible" (p. 22). He believed that insider security breaches are inevitable when employees have access to super-sized portable hard drives, which is what MP3 players basically are. Last, Tennant warned that companies must create policies to control the use of mobile devices in the workplace. Without policies, companies are unprepared for a host of conflicts.

Finally, there is the issue of podcasting's staying power. Barefoot (2005) offered three drawbacks to a lasting podcasting movement. First, he argued that since time is limited to 24 hours in a day, the number of podcasts an individual can review is severely restricted. He also commented that although long-distance commuters can benefit clearly from podcasts, workers and students with short commutes will not be motivated to invest in podcatch capability. Finally, Barefoot said that podcasters and podcatchers are likely to be computer geeks; thus he viewed the podcast arena having a lack of diversity, offering essentially another domain populated by white male geeks.

Podcasting and Beyond

Regardless of the challenges, podcasting is already proving to be a valuable tool for teachers, trainers, and learners as evidenced by the examples listed in articles by Weinstein (2006a), Wilson (2006) and Balas (2005). Clyde (2005) cited a Pew Internet report, "More than 22 million American adults own an iPod or an MP3 player, and of those, more than six million have listened to podcasts or downloaded web broadcasts" (p. 54). As more and more people have the technology and skills to use podcasts, trainers and learners can benefit from the human voice connection, time-shift and multitasking capabilities, and the relative ease of receiving and creating podcasts. Podcasts can extend the classroom into learners' daily down-time when text cannot be used.

What's next? Clyde described mobcasting, which involves podcasts delivered to mobile phones, and she predicts that the term podcasting will give way to new terms like webcasting and screencasting which more accurately reflect the fact that podcasts are not restricted to iPods. In addition, Balas (2005, p.32) mentioned vodcasts podcasts with video components as an emerging application. Wood (2003) suggested that *Gameboys* may be the next entertainment technology co-opted for training purposes and O'Keefe (2005) cautioned that for all these new applications to be effective, the content must be "reengineered to suit the smaller screen size, reduced memory capacity and lack of a keyboard." Since 2000, the term mLearning has been catching on. This new umbrella term describes all these evolving mobile instruction options. The day cannot be far off when mLearning is as common as eLearning is today.

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