



An Educator's Guide

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Podcasting takes advantage of new communication technologies that allow just about anyone with basic computer skills to create radio programs, known as podcasts, which are stored as links on a web page. These radio programs can then be downloaded by anyone with an MP3 player (usually an iPod, hence the name “podcasts”). This process creates a potentially large group of listeners who can use MP3 players to listen to the podcasts they have selected, when and where they choose.

Accordingly, at its core, a podcast is simply a radio program produced with a computer and distributed via the web to any owner of an MP3 player. Its production and distribution costs are minimal, making podcasts an attractive method of information distribution, much like blogs over the past several years. The implications for PreK-12 education are many.

Instructional podcast projects can be created that cause the audience to have an exact mental picture of the story that unfolds. This type of script writing is depend-

ent upon students' strong research and creative writing ability. Some readers will recall listening to radio plays and variety shows, such as *Boston Blackie*, *Yours Truly Johnny Dollar*, *The Adventures of Sam Spade*, *Dragnet*, *the Mercury Theater of the Air*, *The Bob Hope Show*, *The Jack Benny Show*, *Gangbusters*, *The Shadow*, *This is Your FBI*, as well as radio adaptations of films such as *Shadow of a Doubt*, and *Suspicion*.

All of these shows drew the listeners into the stories through excellent script writing, matched with skillful actors and direction. These same writing and acting techniques can be taught to students as they develop educationally relevant podcasts. In addition, students can create radio news programs, much like those heard on NPR, that offer the audience new insight into topics of interest. News reports can be school or neighborhood features, or other comparative events such as local sports stories. From an instructor viewpoint, verbal notices by teachers can be developed nightly, and easily posted to a web site for use by students, parents, and the community. The variations on these themes are innumerable.

Thus, while much student energy is currently focused on developing “flashy” Microsoft PowerPoint (Microsoft, 2003) presentations, which are more dependent upon graphics than they are on well-written textual communication, podcasting presents an opportunity to refocus students on the written and spoken word and on analyzing

research on a subject rather than on focused searches for graphics that correlate with a subject. There is also the opportunity to teach students strong speaking and presentation skills — an art that, these days, seems to be fading as quickly as good penmanship. Podcasts also provide the students with the potential for a large audience for their work, beyond that of fellow classmates within a small community environment.

As members of the Instructional Technology faculty of the School of Education at the University of Houston-Clear Lake, we recently created and launched *Education and Technology Today*, (<http://inst.cl.uh.edu/podcasts/>) a podcast series dedicated to issues in (what else?) education and the use of technology towards the improvement of education. Stepping through the production of the series will offer a reliable indication of what is involved in producing a podcast.

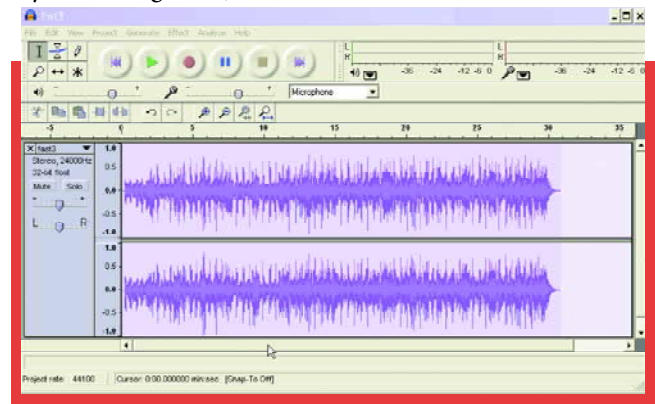
Podcasts: The Beginnings

The first thing we had to do was to identify a physical location that we could use for recording the podcast. That was relatively easy. We selected a large office, with a door that shuts off outside noise, and a supportive secretary to “shoo” away people who might knock at the door. While this might seem elementary, many people new to location production are not initially aware of the subtle details that can produce superior results. However, a professional-sounding podcast is dependent, to large part, upon the quality of the audio offered. Loud air conditioners, humming fans, and phones ringing in the distance are all background noises that we hear and ignore on a daily basis; because they are so common, they don’t register in our consciousness, but they will register on an audio recording and the audience will hear them, registering them as a distraction.

Next, we needed to make certain that we had all the tools of production. We needed a computer. We selected the desktop in one of our offices. Then, microphones became a consideration. At first, we began with a single inexpensive (approximately \$5 each) omni-directional stick-type microphone, the same kind that many people use for voice conferencing using services such as Yahoo Messenger (Yahoo! Incorporated, 2005). This type of microphone picks up sound from all directions, and our results were terrible. All the background sounds of the room were recorded, while our voices did not record at a sufficient level of volume. The initial playback sounded as if we were in a deep, noisy cave. After some experimentation, we decided upon a headset that combined a unidirectional microphone with headphone speaker capabilities, along with background noise reduction (approximately \$20 each); the headset also placed the microphone at the end of a flexible cable that enables the adjustable

microphone to be placed an appropriate distance from our mouths, giving us a second method through which to adjust audio input volume (the first method resting with the audio editing software).

Figure 1. Recording sound with Audacity (<http://audacity.sourceforge.net/>).



Next, we needed a computer-based audio editing system that would allow us to record and then edit what we recorded. A quick Internet search for sound editing software yielded the open source software program Audacity (<http://audacity.sourceforge.net/>), which allows recording and editing of sounds. Audacity can be used to record live audio and sounds, or input audio from a file source; the audio can be recorded, edited, and then converted to MP3 files. Audacity is easy to use, with an insignificant learning curve, especially if you have had some audio or video editing training. The price is right, so to speak, because it is freeware that can be used without any form of reimbursement.

Enhancing the Message: Music and Sound Effects

Anyone who has listened to radio plays before television took over, or listens to AM talk radio or any NPR show, such as *A Prairie Home Companion* or *Morning Edition*, realizes that music and sound effects go a long way towards enhancing a production. We drew the same conclusion. However, not having a budget to purchase the rights to music or effects, we did another web search and located a site by Koumis Productions (<http://www.koumis.com/>) that offers music and effects that are free to use for both personal and commercial use (but cannot be sold or redistributed in any way) and are royalty free (<http://www.koumis.com/resource.htm>). Although the list of offerings is not extensive, it does cover a lot of ground; the background music and sound effects support the basic podcast production effort through the offered audio files

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and a credit line does not have to be provided. The selections are easily edited and integrated into a podcast production using Audacity software.

Web Site Considerations

There are two other necessary items to support your podcast production and make your completed podcast shows available to a large community of listeners. The first necessary element is a web page on which to host your podcasts. The web page should have an introduction, noting the purpose of the show, and program notes to help describe the focus of each podcast production.

If you are only podcasting to your class or the population of your school, you need go no further than what has already been described, so as to support your efforts. Your listeners can simply be informed of the podcast web page with periodic podcast updates. However, if you want to reach a larger audience, for instance anyone in the United States with an iPod or other MP3 player, then listing the podcasts on a podcast directory site is necessary.

Let the World Know

A podcast directory site is merely a location through which the larger communities can easily access subject-specific podcasts of interest. Two well-known podcast directory sites are iTunes (<http://www.apple.com/podcast/ing/>) and iPodder (<http://ipodder.sourceforge.net/index.php>). In effect, these two services allow listeners to subscribe to podcasts and automatically receive updates of each show; once you become a part of the podcast directory site, your podcasts will be included in the subscription list. This will allow anyone in the larger community to access podcasts of interest. Of course, a note of caution is offered to educators who plan to offer students the opportunity to develop and post podcasts, as well as subscribe to podcast directories. The primary concern is for the security and safety of each student; as such, careful monitoring of each podcast, to ensure that personal information is not mentioned in a podcast, is essential.

RSS Feeds

Subscribing to the podcast directories is simple enough, but in order to accomplish this, yet another component is necessary. A Really Simple Syndication (RSS) feed will need to be added to your web page. RSS feeds “speak” to distribution sites, and inform the podcast distribution sites when a new podcast show is available for access and download. The podcasts are then automatically downloaded to all listeners who have subscribed to a par-

ticular podcast series. At present, there is no standard for RSS feeds. Readers who would like more information on the subject should visit sites such as American Public Media's Future Tense (<http://www.publicradio.org/columns/futuretense/rss.html>) or Birds-Eye.Net (http://www.birdseye.net/definition/r/rss-really_simple_syndication.htm).

Ready for the Big Time

For our podcast series, *Education and Technology Today*, we decided upon a dual-host talk show format. We begin the show with music “fade in” to the introduction. We then fade the music out as the introduction begins. During the introduction we, the hosts (and producers), provide the information by interacting in conversational style. By the time the topic of each individual show is introduced, the music is completely faded out and we then begin our topic-specific discussion.

The next step in our creative process is to use a portable computer as a mobile production center, to expand our podcast discussion and invite guest experts to become a part of the show. Actually, we merely loaded Audacity software onto a laptop, attached an audio-in connector with three inputs (to allow for three microphone headsets to be used) and took the whole package to our guest's location where we conducted the interview.

Helpful Production Hints

There are a few basic production points to remember that focus upon the realm of acting, because the acting component is of significant importance to the success of the podcasts. Even if the podcaster's focus is upon the production of a monologue, it is still acting. This means that it is necessary for the podcaster to pay attention to the voice quality of the production. If the podcast producers and actors simply pull together a prepared script or discussion outline, and then record the show without rehearsal of any kind, the end result will most likely appear to be amateurish in nature. Nobody will listen to it beyond the first few minutes due to the high level of communicative expectations within society today. Hence, focus upon the end-user and respect that the person listening to your podcast has very little available time, and perhaps an even shorter attention span. Without testing the production environment and smoothing out the “kinks” in the actor personalities, in effect, you will have published a first draft product without the support of corrections or revisions. This is always a bad idea.

So, for starters, keep the following in mind. First, make

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certain that the podcast actors, moderators, and all other talent focus upon speaking slowly, clearly, and distinctly. The natural tendency when developing audio recordings is to speak very quickly, which leads to slurred words that are difficult to understand. Speaking more quickly also tends to produce that “sing-song” voice that immediately identifies the speaker as an amateur, who may be uncomfortable being the focus of the podcast and has not received the benefit of a drama coach nor a presentation professional, such as is available through the Presenter’s University (<http://www.presentersuniversity.com/>). Make certain that podcast rehearsals are a natural part of the production process and encourage the implementation of rehearsals so that the talented actors can hear the effect of their voice within the podcast communicative media environment. Further, test the podcast on a small audience and get their advice on how to improve it; consider this process the formative evaluation, before the final product.

Final Thoughts

Interestingly enough, a mini review of the history of education-focused radio will reveal that much of what we

just mentioned was already put into place nearly a century ago. In fact, much like the computer-mediated communications of today have been adapted for use in education, when radio was introduced in the early 20th century, its possibilities for use towards the improvement of education were immediately recognized.

Podcasting now offers us the opportunity to use what we have learned from radio education, educational television, and computer-mediated education through a medium that offers low production costs and that can be made available to specific audiences in ways that can benefit our students and help to increase communicative linkages between school and the community.

Good luck with your podcast production!

References

- Microsoft Corporation. (2003). PowerPoint. Redmond, Washington: Microsoft Corporation. [software]
Yahoo! Incorporated (2005). Yahoo Messenger. California. [software]

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TCEA EDUCATOR AWARDS

► **Classroom Teacher of the Year** — This award is presented to a teacher who exhibits exemplary use of technology in the classroom.

► **Instructional Technology Specialist of the Year** — This contest recognizes exemplary support personnel who work with one or more campuses in technology planning and curriculum integration.

► **Librarian of the year** — This award will recognize a certified librarian who actively promotes the integration of technology in the Library Media Center and works collaboratively with administrators and teachers to promote and support the integration of technology throughout the curriculum.

► **Technical Support Person of the Year** — This contest recognizes exemplary support personnel who make a significant contribution to the successful use of technology on a campus or at the district level.

► **Technology Administrator of the Year** — This award is presented to a technology administrator who exhibits exemplary vision and management of technology at the district level.

► **Administrator of the Year** — This award is presented to a principal, assistant principal or district administrator who recognizes the importance of technology in the teaching and learning process, and actively promotes the use of technology on the campus or throughout the district.

► **Superintendent of the Year** — This award is presented to a superintendent who recognizes the importance of technology in the teaching and learning process, and actively promotes the use of technology throughout the district.

► **TCEA Scholarship Awards** — To encourage and enhance the learning of technology skills for practicing and pre-service educators, TCEA supports professional growth in technology through the awarding of scholarship grants.

TCEA chooses teachers and administrators from across Texas, based on their dedication to the integration of technology into the classroom curriculum, and honors them at the annual convention in February. The TCEA scholarships are awarded every year to deserving teachers who desire to further their knowledge of technology education.

This year the Teacher of the Year and Superintendent of the Year recipients will be entered in the IS TE Outstanding Teacher/Leader of the Year respectively.

Nomination deadline: Nov. 18, 2005

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Visit the TCEA web site, Contests and Awards section, for the rules, criteria and entry form.

WWW.TCEA.ORG