

Podcasting from PowerPoint Made Easy for Faculty -----

William J. Attenweiler

Northern Kentucky University

Gregory A. Bryant

Northern Kentucky University

Michael Lively

Northern Kentucky University

Alex Greene

Northern Kentucky University

Student demand, institutional support, and evidence of quality learning through web-based instruction should encourage faculty to experiment with alternative methods of delivering instruction. The authors developed a procedure to produce and deliver classroom lecture material by narrating PowerPoint presentations and converting to podcasts. This procedure requires little to no technical support, even for the technologically impaired, and costs less than \$100 in equipment and software combined. It is an example of the many alternative distance education options available to educators today.

Keywords: *distance learning, podcast, web-based instruction*

Student demand for web-based learning opportunities appears limitless. Employed students pressure educational institutions to provide more on-line learning due to time pressures, convenience, and accessibility (DiPaulo, 1999). Even full-time traditional students that live on or near campuses are requesting on-line courses (Pope, 2006). The author converted his classroom instructed undergraduate course in Industrial and Organizational Psychology to a web-based class three years ago, and enrollment requests have far exceeded availability each semester since. *Response to demand for web-based learning.*

For-profit universities such as Capella, Phoenix, and Walden are growing dramatically by offering wide varieties of both graduate and undergraduate degree programs entirely on-line. Public and private colleges and universities are offering on-line degrees in broad ranging fields including business, engineering, nursing, and communication. Faculty members are being encouraged to consider teaching web-based courses as an alternative to traditional classroom instruction.

A national survey of chairs of psychology departments indicated that both institutions and psychology departments hold favorable attitudes toward the use of the internet in teaching. The reasons for institutional support include accessibility, inclusion of non-traditional students, stores of information, the potential for immediate feedback, and interaction (Piotrowski and Vodanovich, 2004). In this context, we understand non-traditional to include geographically rural and distant students, as well as older and working students.

University faculties are responding to the student demand and institutional support for online education, but growth is not rapid enough to meet student demand. Shea, Pickett, and Li (2005) view this as a dispersion of innovation issue, referenced Roger's (2003) Diffusion of Innovation Model, and identified five characteristics of innovation needed to persuade adopters. The characteristics are: relative advantage (Will it improve efficiency or effectiveness over existing methods?), compatibility (How does the new technology fit with what already is in place?), "observability" (How easy is the technology to describe, see, or imagine?), "triability" (How easy is it to test, experiment with, the new technology?), and complexity (How hard is the new technology to understand?) (Rogers, 2003). Answering these questions should help recruit faculty to on-line instruction.

Faculty satisfaction will depend greatly upon interaction (Did the perceived level and quality of interaction with students increase?), technical support (Were technical difficulties low, and support overcoming those obstacles high?), and opportunities for learning (Were they afforded the opportunity to consider alternative means of instruction and evaluation?). Surprisingly, time was not a significant predictor of faculty satisfaction. In fact, those who took longer in preparing their on-line courses reported more satisfaction (Shea, Pickett, and Li, 2005).

Quality of web-based courses

Thus far, the quality of on-line instruction does not appear to differ from that of classroom courses. Warren and Holloman (2003) found no significant differences in learning outcomes between face-to-face and on-line courses. In an experiment comparing conventional (face-to-face) with synchronous (same time/any place) and asynchronous (any time/any place) lectures, Newlin, Lavooy and Wang (2005) found no differences in the amount learned. They also reported that students in both web conditions (synchronous and asynchronous) were more positive, reporting they felt they learned more. Students in the web conditions said they were more likely to take the course, based on the 20 minute introductory lecture. Finally, a meta-analysis conducted by Sitzmann, Kraiger, Stewart and Wisher (2006) supported the comparable quality of web-based and classroom instruction. They found web-based training

Attenweiler, William/PODCASTING FROM POWERPOINT

was actually 6% more effective than classroom instruction in teaching declarative (facts and principles) knowledge, while they were equally effective in teaching procedural (how to) knowledge.

Across all 96 studies analyzed by Sitzmann, et al. (2006) blended instruction (classroom supplemented by web-based) was found more effective in all evaluated criteria, except trainee satisfaction. The decreased satisfaction was possibly due to feeling over worked. Stodel, Thompson, and MacDonald (2006) looked at on-line learning from the learners' perspectives. Learners' main criticism of on-line formats was that they missed the face-to-face contact of the classroom. Stodel, et al. qualitatively analyzed the roots of this criticism and developed specific implications for practice. One of those recommendations was "Explore and use diverse technologies for enhancing communication and social; presence" (pg 18). *Podcasting as a method of web-based instruction*.

Based on the student demand, institutional support, and quality results achieved to-date, faculty need to be encouraged to experiment with technologies enabling more on-line teaching. Creative ways of bringing the classroom to the web are what we need. Making lectures available on-line as podcasts is an option faculty might consider if it was simple, inexpensive, and compatible with what they already do.

A podcast is an audio and/or video file that can be downloaded from the web and played on a computer or MP3 player, such as Apple's iPod, though owning an iPod player is not a requirement for receiving podcasts. Any MP3 player, or computer will work. Users can subscribe to podcasts, which will download automatically to their computer. The podcast format allows greater control by the student, including forward, rewind, skipping to a desired section, and so on (Balas, 2005). During previous semesters, the author presented his on-line lecture content via streaming video. Students requested that the lectures be presented as podcasts for the reasons cited above and mobility, and initial feedback has been very positive.

The United States Distance Learning Association identifies such asynchronous web-based instruction, vodcasting, as being especially advantageous in providing students unrestricted access to course content. Students can view these lectures at their convenience and repeat content as needed (Holden and Westfall, 2005).

Over the past decade, Microsoft's PowerPoint has become a ubiquitous staple of both the office and the classroom. Faculty use PowerPoint slides to visually complement their lectures. Many of us provide these same slides as handouts for note-taking purposes. It seems to have become the technology

Attenweiler, William/PODCASTING FROM POWERPOINT

platform of choice for the classroom lecture of today. *Podcasting from PowerPoint*

PowerPoint can be used in adapting traditional classroom lectures to the web for either enhancing traditional classroom instruction by blending on-line with classroom instruction, or to transition a course from the classroom to a full on-line format. You will go through several steps to prepare your PowerPoint presentation for conversion into a podcast. The first step is to break it down into single topic shorter presentations. For best results, keep each individual PowerPoint presentation short (4 to 10 minutes; no more than 20 slides), as these will allow your students to take advantage of short periods of free time, while maintaining high levels of concentration.

PowerPoint has a narration feature. However, the differences between the sound hardware and drivers installed by different computer manufacturers make it difficult to capture podcasts from previously narrated PowerPoint presentations. Instead, you'll narrate your presentation while you capture it.

Talking into a microphone is different from classroom lecturing. Expect your total talk time to decrease, as you will focus more on the central issues and have fewer sidebars. Relevant sidebars should be considered for inclusion as stand-alone narrations. An added advantage of narrating shorter topical lectures is that it becomes very easy to update your course by updating selected topics within a module of several narrations.

As you complete a set or module of PowerPoint slides, you will narrate and convert those to movie and podcast formats. This is also your opportunity to balance the competing issues of file size and audio-visual quality. Larger screen size, numerous and complex animations, and better sound quality, each increase the file size of your end product. In the past, file size was a much bigger concern than it is today. However, if your students want to view your lectures on their iPods, small screen and file size may be important again, as educational files compete for space with music, video and other entertainment files.

We designed our procedure to convert PowerPoint presentations to podcasts using two very inexpensive multimedia applications, Capture Wiz Pro and QuickTime Pro. Each is under \$30, and Capture Wiz Pro offers a free 30-day trial. Generally anything that you can display on a computer screen can be turned into podcast using this procedure. Capture Wiz Pro by Pixel Metrics (<http://www.pixelmetrics.com>) allows you to capture still images, full motion video and audio from your computer screen, as if using a video camera.

Attenweiler, William/PODCASTING FROM POWERPOINT

Open your PowerPoint presentation on the screen, choose a few settings in both PowerPoint and Capture Wiz Pro, and then press the start button. During the capture process, you will narrate your slides, clicking through slide animations and transitions as you go. Be careful to pause when clicking. This will ensure the full recording of your narrated words and give the students an opportunity to adjust to each new slide. To digitally narrate the podcast, all you need is a \$20 microphone.

Step	Description
1.	Open the PowerPoint presentation.
2.	Select Slide Show / Set Up Slide Show. Put a check mark in the box marked "Browsed by an individual (window)." ¹
3.	Resize your lecture to approximately 3 ¼" wide by 2 ½" high. You might wish to spot check the text to make sure that it is readable. If not, resize the lecture window.
4.	Open Capture Wiz Pro.
5.	Select Options, then the Video tab.
6.	Under "Video" set the Countdown to five seconds. For lectures with few animations choose 2 frames per second. For lectures with more extensive animation choose 10 frames per second.
7.	Other recommended settings are: compression – movie slider to "smaller files;" check the box "include audio."
8.	Under "Audio," click the "Settings" button. The Recording Control panel appears. Check the box marked "Select" under "Microphone."
	For "Sample Rate," choose 11025Hz (smallest file); for "Sample size (bits)," choose 16 bit (CD quality); for "Mono or stereo," choose mono.
	Make sure that your microphone is plugged in. You are ready to begin recording your lecture to your PowerPoint presentation.

9. Select the “2-Point” capture button. The “cross-hairs” appear on the screen. Start the cross-hairs at the upper left corner of the PowerPoint lecture. Drag the cross-hairs to the lower right corner of the PowerPoint lecture. Once you have selected the screen, the output panel appears. Press the video button. The Start recording panel appears. Press the “count” button. The count button gives you a five-second countdown to the start of recording.
10. Click on and make active the PowerPoint window. Begin recording your narration to your PowerPoint slides. Use your keyboard arrows or mouse to advance the PowerPoint presentation as you normally would do. If you wish to avoid any stray cursor movement on the screen while you capture, use your right arrow key to advance the PowerPoint presentation. Or you may wish to use the cursor to direct the viewer’s attention to items of interest in your PowerPoint presentation. When your recording is completed, press the pause button, and then the save button. Name and save your file.

Table 1: Narrating and Converting a PowerPoint Presentation as a Movie: Using Capture Wiz Pro.

*Note.*¹ This allows you to resize your presentation while it is playing. You probably do not want a full-screen presentation.

Step	Description
1.	Open Quicktime Pro.
2.	Through Quicktime Pro, open the movie (avi) file you captured with Capture Wiz Pro.
3.	Select File / Export. In the export menu, select the option “Movie to iPod.”
4.	Enter the new file name. ¹ Change the extension of the file to “mv4.” Do not use spaces between words in filenames. Instead, use an underscore between words, such as “filename_1”.

Table 2: Converting Movie to Podcast: Using Quicktime Pro

Note. ¹ When naming the new file (podcast) you may want to prepare an organized titling taxonomy for your class' podcasts. We use a schema that has each full week of lectures identified as the module with individual lectures numbered sequentially.

There is a second step in the conversion process. The format for podcasts with video is MV4. QuickTime Pro, from Apple, converts AVI files to MV4 format. One of the benefits of the MV4 format is that it will compress the lecture into a smaller file size. Quicktime is a free download from Apple. However, you will need to upgrade that software to Quicktime Pro in order to take advantage of its conversion features. (<http://www.apple.com/quicktime/>)

The final step in our procedure, like the first, uses a ubiquitous product of today's classroom, Blackboard Learning System (www.blackboard.com). Blackboard allows instructors to upload podcasts and students to access them through iTunes U (www.apple.com/education/intunesu) at no cost. Many are making pod-casts publicly available as part of these new on-line offerings (DiPaulo, 1999).

Step	Description
1.	Open the Blackboard Learning System.
2.	Go to your course's control panel and click "Manage Course Menu," and "Add Tool Link." Choose "iTunes U Tools" from the drop-down menu, and type "iTunes U" for the name. Click submit. This created the iTunes link on the course menu.
3.	Upload your podcasts to iTunes U by clicking the link you just established. ²
4.	You should see your course under "My Courses." Click on the course image or title, and you will see a box on the right side of the screen.
5.	Click "Upload files." A new screen will appear. Click "Add Tracks."
6.	At this point you can browse your local computer for your podcast files like you would browse for any other file or document you might upload to Blackboard. ²

Table 3: Uploading to iTunes U and Making Podcasts Accessible: Using Blackboard¹

Attenweiler, William/PODCASTING FROM POWERPOINT

Notes. ¹ You should check with your Blackboard administrator or IT department to ensure you are registered as an instructor with iTunes U and that your university has enabled Blackboard to upload podcasts.

They should be able to provide information about the availability of iTunes U on your campus, as well as procedures, file size limitations, and so on.

² At these points wait, as it may take more time than you expect for the next screen to appear or for the upload to complete.

The procedure met our goals – it was very inexpensive (total cost in equipment and software, about \$80.00). It was an easy (uncomplicated) procedure, perhaps marred only by the tedium of converting and uploading lectures.

Anecdotal feedback from students who have experienced traditional classroom lectures, streaming video lectures, and podcasts has been very positive for the podcasts. They report appreciating the control and convenience that podcasting provides. It allows students to attend to their studies at their convenience, when they are mentally and emotionally ready. They are able to control, rewind, and re-play what is important. Instructors who see podcasting as a poor substitute for the traditional classroom are encouraged to critically examine the classroom as an ideal setting for teaching.

REFERENCES

Balas, J. (2005). Blogging is so last year – now podcasting is hot. *Computers in Libraries*, 25, 29 – 32.

DiPaolo, A. (1999). Stanford learning: Worldwide availability on-demand at Stanford Online. *THE Journal*, Retrieved May 25, 2007 from: http://www.thejournal.com/articles/14473_2.

Holden, J.T., & Westfall, P.J.-L. (2005). An instructional media selection guide for distance learning. *Distance learning Today*, Retrieved May 29, 2007 from: <http://www.usdla.org>.

Newlin, M.H., Lavooy, M.J., & Wang, A.Y. (2005). An experimental comparison of conventional and web-based instructional formats. *North American Journal of Psychology*, 7, 327 – 336.

Attenweiler, William/PODCASTING FROM POWERPOINT

- Piotrowski, C. & Vodanovich, S.J. (2004). Is web-based instruction popular in psychology? A national survey, *Computers in Human Behavior*, 20, 727-732.
- Pope, J. (2006). On-campus students prefer to study online. *Associated Press*, Retrieved May 21, 2007 from:
<http://www.bteducation.org/news/newsitem.ikml?id=526>.
- Rogers, E. (2003). *Diffusion of innovations*, (5th ed.). New York, Free Press.
- Shea, P., Pickett, A., & Li, C.S. (2005). Increasing access to higher education: A study of the diffusion of online teaching among 913 college faculty. *International Review of Research in Open and Distance Learning*, 6, 1 – 27.
- Sitzmann, T., Kraiger, K., Stewart, D., & Wisner, R. (2006). The comparative effectiveness of web-based and classroom instruction: A meta-analysis. *Personnel Psychology*, 59, 623 – 664.
- Stodel, E.J., Thompson, T.L., & MacDonald, C.J. (2006). Learners' perspectives on what is missing from online learning: Interpretations through the community of inquiry framework. *International Review of Research in Open and Distance Learning*, 7, 1-24.
- Warren, L.L. & Holloman Jr., H.L. (2003). On-line instruction: Are the outcomes the same? *Journal of Instructional Psychology*, 32, 148 – 151.