

# Monetization of Podcasting in the Context of the University Learning Environment

Jim Janossy, DePaul University  
School of Computer Science, Telecommunications, and Information Systems  
DePaul Information Services  
jjanossy@depaul.edu

## Abstract

Podcasting is a recent phenomenon that has relevance to the enhancement of the learning experience. It consists of providing portable audio, or audio and video, presentations to a wide audience via the internet. This paper proposes and explores a model for the monetization of podcasting--how it can generate revenue, and for whom--in the context of a wider range of pedagogical and research issues in the university environment. Described and discussed is experience already gained with podcasting in the IT-201 course in the spring 2006 term at DePaul University, and further explorations planned for the autumn, 2006 in multiple sections of this course, entitled "Introduction to Information Technology."

Podcasting is a phenomenon involving the provision of sound files, or sound and video files, in the form of .mp3 or more advanced formats. The technology to record sound digitally is several years old and is not in itself the major new feature of the phenomenon. The phenomenon is instead centered on the distribution mechanism, which provides the means for interested parties to subscribe to downloading services that can make newly created files readily available on portable audio listening devices. These devices, created to allow playback "on the go," had become popular by 2002. Originally designed for music playback, they play back any form of audio. "Podcast" is a play on the words "broadcast" and "Ipod", Apple's premier portable audio playback device. While Apple has the largest share of the market, many other manufacturers produce competing .mp3 players that perform in nearly identical ways, as far as sound reproduction is concerned.

By 2004 enterprising people realized that .mp3 files provided a way to store recorded lectures or chatter, and to make these available to others via the internet. An earlier phenomenon, "blogging," uses the web to share textual information including personal observations and thoughts, diaries, ramblings, rantings, and the diverse or perverse notions that some people are compelled to share with others. According to popular literature, podcasting is growing by leaps and bounds, and encompasses everything from audio blogging to the provisions of works of literature in recorded form.

It has occurred to many people in education that podcasting offers a new avenue into the mind of the student. Indeed it does. This brief exploration of podcasting examines initial academic experience with it, and provides observations and intuitions about where it may have the most relevance. More importantly, I examine here the critical issue of how to deploy this new medium in such a way as to "monetize" it, that is, produce a revenue stream from it. The proposal appears to fit well with the higher education environment and established norms and practices regarding instructor prerogatives, the student learning experience, and faculty intellectual property rights.

## **Effective podcast content isn't an accidental byproduct**

It's amazing to see how some individuals regard podcasting as the first way that anyone has ever been able to record his or her own voice and make it available for others who may, or may not, be interested in hearing it. Magnetic tape sound recording has been commercially available since the 1950's, and the tape cassette of the 1960's made it

convenient and portable<sup>1</sup>. Conventions and churches have for many years created sound recordings of sessions and sermons and made them available to their attendees. Providing this type of recording to a listener meant physically providing a copy of a tape. What podcasts introduce is immediacy of delivery and the need for conveyance of a physical object. Yet, in both cases, the delivery of the recorded sound is only half of the equation. What is the sound of one hand clapping? What is the sound of a recording (of any type) if no one listens to it?

The realization that listener interest is needed hasn't yet dawned on some people eager to create podcasts. A simple Google will readily locate yawn-inducing, hour long, 60 Mb. podcast downloads of lectures on arcane topics that probably appeal to few people besides their originators. Perhaps that is the benefit of these types of podcasts: even the interests of a limited few can be served. But if a prospective listener has no interest in the content, or falls asleep during the process, the podcast hasn't succeeded anymore than would a radio station broadcasting in Greek to an audience fluent only in Portuguese. The same prerequisites that apply to any form of entertainment apply to podcasting that is intended to be of widespread relevance to the enhancement of the learning experience:

- relevance of content
- appropriateness of packaging
- appeal of the presentation
- time expenditure vs. benefit (is the amount of time needed to listen worth the experience?)

For these reasons, podcasts that are simply lengthy recordings of class lectures, replete with pauses and gaps, administrative redundancies, references to slide or blackboard presentations that are not visible, and including poorly recorded extraneous questions from students, are apt to be losers and are hardly worth the effort to create. And if the production of these distracts from the production of truly interesting podcasts, a double disservice is done.

**Podcasts that are created to capitalize on the nature of the medium and intended audience stand a better chance of being considered relevant.** These will be podcasts that are created in a manner similar to other short, high-impact audio and visual experiences. Many people outside of the broadcast industry don't realize that even very short commercials or informational presentations require much planning, scripting, and content preparation. Successful podcasts of educational content require the same kind of thought, focus, and effort.

In our experience, podcasts that are intentionally scripted to serve a specific purpose in a five to ten minute span are likely to be considered useful. This length of time fits well with typical uses of portable sound devices, which are often turned on walking between one place and another, or in the time between one class and another, or when some other semi-somnambulant activity is underway. This length of podcast is enough time for a 500 to 1000 word mini-lecture, which is about two to four pages of double-spaced text. If you consider what two or three important topics you hope to cover in a typical 90-minute class session, why not carefully craft a script for each topic, and create a well-developed podcast for each? Hone each script and tune its content to be clear and concise.

The script for a podcast needs to be good writing. Even as academics accustomed to the need for clear and unambiguous expression, we may be prone to the same sloppiness of speech that plagues others, including the use of ugly, silence-killing "uhhhhs" and the trite repetition of phrases like "you know." Producing a transcript of a lecture containing this kind of speech makes this evident. (Don't laugh; a lot of transcripts produced from lectures now accompany podcasts on the web, and many of these actually include the uhhhs and other phonetic renditions of meaningless utterances!) Creating a podcast transcript from speech proceeds in the wrong direction. It's much more advantageous to produce good writing, honed to the purpose, and focused on a single important topic or concept, then create the audio from that. This is the stuff of useful podcasts. This gives you a "transcript" first. But how do you get your text content into audio form? Who will "read" it to produce spoken sound?

### **Getting podcast scripts into audio form using software**

Most individuals taking an interest in podcasts automatically assume that making a mini-lecture podcast involves recording your own voice, and dwell on microphones and sound mixing. This is not often a good idea. Most of us are blessed with voices that can communicate, but only a few have voices that are especially pleasant to hear. Unless a person starts with a fine voice and has been trained to use it well, podcasts produced by amateurs sound exactly as expected: amateurish. A voice not trained as an announcer will stack up very poorly next to other voices the listener is already familiar with from radio and television. It's inescapable that listeners will make this comparison, because

---

<sup>1</sup> For a comprehensive and informative history of magnetic tape recording, see Steven Schoenherr's presentation to the IEEE Magnetics Society Seminar, UCSD, Nov. 5, 2002, <http://history.acusd.edu/gen/recording/magnetic4.html>.

all of us in modern society are already exposed to the sounds of scores of capable, trained announcer's voices. But why think about having anyone read your material? Why not let software do it?

Software to produce audio from written text works very well and is amazingly inexpensive. TextAloud, the same product used by Adobe Acrobat to "read" .pdf documents, licenses for only \$29. However, if you have heard a spoken Acrobat document, you're probably unimpressed. The pronunciation quality of the default voice software is fairly low, having originated with telephone answering systems and recorded with sampling rates as low as 8K bps. Several much higher quality voices are available and integrate smoothly with TextAloud; check out the web site at <http://www.nextup.com/> to listen to samples of scores of them. Surprisingly, none of the high quality voices is very expensive either. Laura McFall and I have been using "Daniel", a 22K bps voice from ScanSoft for our series of 80 tightly-focused podcasts for the IT-201, Introduction to Information Technology course. Daniel sounds like a BBC announcer. To most people, his speech is indistinguishable from that of a real human reading the material. The Daniel voice license costs only \$45. So for about \$75 and some experimentation with settings, we're able to produce podcasts with consistently high quality audio, without having to utter a syllable ourselves. A little work with Audacity, a free audio editor, allows us to apply a few musical bars to the beginning and end of each podcast, giving each a distinctive audio "signature." The effect is close enough to a professional production that it strikes listeners as such. Want to hear our podcasts? Visit [www.ambriana.com](http://www.ambriana.com) and click the red button at the bottom of the screen, which will lead you to the pages for the Information Technology Workbook.

In creating this course workbook, we found it invaluable to write with the intention of the writing being listened to, rather than read. This produces much more concise and focused writing. We provide the transcripts in the workbook as original writing. Having both the written text and clear speech allows learners a variety of ways to absorb the material. We call these podcasts "designed" podcasts, to distinguish them from the extemporaneous podcasts that result from simply recording lectures.

### **Monetizing podcasts: what is the podcast payback, and to whom?**

If designed podcasts make the learning experience better for students, they are worthwhile. But creating this form of learning materials requires time and energy. Some instructors will do it simply out of interest, but for most, some form of incentive is needed. Given that effective designed podcast creation for teaching purposes takes time and effort, what is the payback to instructors to do it?

My own experience leads me to suggest that a viable way to monetize the provision of podcasts is to see them as an extension of a publishing effort that includes a traditionally published paper workbook, sold in the bookstore, from which a royalty customarily accrues to an author. I come to this suggestion by having backed into it myself. Up to this point, I have written and published three workbooks for use in DePaul courses. One was done several years ago, a second was the JavaPlease Workbook which I used in a summer Java programming course and which has been adopted by other schools. The third is a workbook for a visual technologies course, which I have used for six terms in teaching this course since early 2005. All of these existing workbooks predate the podcast phenomenon.<sup>2</sup>

I taught IT-201, Introduction to Information Technology, in Winter, 2006 and was appalled at the \$125 cost of the required text, published in 2003 and by that point stale. I established a goal of researching content equivalent to the book from freely available web sources, such as professional organizations, vendor sites, and government sources. The effort was a complete success. Laura McFall got the course assignment for spring term, and liked the web link idea; it appealed to Terri Steinbach, head of the IT area, as well. Eliminating a \$125 student expense for reading materials for a basic "concepts" survey course is a boon, and we find that the freely available web-based content is actually superior to the static text. The \$30 workbook has become the only required text for IT-201 in autumn.

---

<sup>2</sup> A word about workbooks and workbook publishing. These are real published books, produced by Stipes Publishing of Champaign, Illinois. Stipes has published workbooks for many years and specializes in this business. You provide them your copy about two months in advance of the course and they issue an ISBN, print sufficient copies, and deal with your book store. The author receives the customary 15% royalty on the retail price, which is usually in the \$25 to \$35 range. The author has no document handling responsibility. For courses that you organize well, workbooks with one chapter for each academic week (ten chapters in our case, one for each week in DePaul's 10-week term) make excellent sense for both instructor and student. Students appreciate the workbook because it contains what they need for the course, and no chapters are skipped.

Then along came the notion to form "podcast previews" of groups of web-link readings! Laura and I decided to collaborate on writing the podcast scripts and to co-author a printed workbook that houses the homework assignments, podcast scripts<sup>3</sup>, note-taking copies of the lecture slides, and a sample final exam. The publisher is excited about the project; we delivered the workbook manuscript in late August and the bookstore received the published workbooks on September 14. Both sections of IT-201 are using only the workbook and the web-link readings provided at the workbook web site.

The idea of web link reading--either fully supporting a course, or as a supplement to traditional text usage--is certainly not new. But the combination of web links and podcast topic lectures and the provision of printed podcast transcripts can readily be adapted to several other courses .

### **The monetizing model in summary**

The core of a suggested podcast monetizing model is this:

1. **Each course deserves a workbook.** It should contain homework assignments, learning objectives or study and review questions, exercises appropriate to the course, copies of slides for notetaking, and podcast scripts. This should be arranged in the same number of chapters as the term has weeks. It is a published document, students buy it in the book store at a reasonable price, and the instructor(s) receive a royalty on it. As in any traditional arrangement the instructor is the author of this workbook--intellectual property--and owns the copyright to it.
2. **A web site is needed to support the course.** This can be a freestanding site such as [www.ambriana.com](http://www.ambriana.com) or a course support system such as BlackBoard. The web site includes information about the text (s) used for the course (if there are regular texts) and how to order them online. We use an independent web site which our BlackBoard system links to, so that the web site is readily accessible to anyone outside of the university.
3. **The web site provides links to assigned web readings.**
4. **The web site provides access to the podcasts.** One format for the podcasts is the kind of five to ten minute mini-lectures we produced for IT-201. This need not be the only access to the podcasts; see below.

This arrangement provides an incentive for the instructor to author the workbook and make it generally appealing. The more it is adopted by others at other institutions, the greater are the royalties, the same as is the case with any published book.<sup>4</sup>

### **Free podcast distribution? Yea or nay?**

The University of California at Berkeley and several other universities are making podcasts available free to all, via I-Tunes.<sup>5</sup> Distribution via I-Tunes is not a significant factor for student access in course instruction in this model. Students need to get to the course-support web site anyway in order to access links to web readings, and they can readily click on podcast downloads there as they choose to hear them. But I-Tunes listing or free subscription availability does serve two very important ancillary purposes and is certainly a worthwhile goal:

- **It publicizes the workbook**, which may encourage other instructors at other institutions to adopt it, potentially expanding the workbook royalty revenue stream for the authors and workbook publisher
- **It brings exposure to the institution for student recruiting purposes.** It's quite likely that learners exposed to appealing instruction podcasts will recognize and carry a favorable attitude toward the institution associated with them. This could be reflected in the schools they designate to have test scores sent to on SAT and ACT college entrance exams.

---

<sup>3</sup> For an example of a podcast script formatted for the workbook, visit the course workbook web site, at [www.ambriana.com](http://www.ambriana.com) The first two chapters in their entirety are downloadable in .pdf form from the site.

<sup>4</sup> As a variation on this, more common to commercial training vendors, the organization commissions one or more subject matter experts to create the course materials and owns it. While this variation could work in academia, it is not the way that instructors typically view their written products. Academicians would have to understand that it would probably require extra pay to have instructors author works to which they would not retain an intellectual property right. The workbook approach is a more appealing proposition and encourages us to put forth our best effort, which will continue to be directly rewarded if we do in fact create an appealing product that sells well.

<sup>5</sup> For a recent article on I-Tunes distribution of academic podcasts by the University of California at Berkeley, see [http://www.campus-technology.com/news\\_article.asp?id=18581&typeid=185](http://www.campus-technology.com/news_article.asp?id=18581&typeid=185)

Frankly we see no reason to hide podcasts behind a security mechanism so that only enrolled students can access them. That appears to be counterproductive, hiding a good thing under a bushel basket. Good educational podcasts are as useful as advertising, for both author and institution, as they are as teaching materials.

### **Research questions and possibilities**

Several questions and topics suggest themselves as fruitful for investigation as podcast creation and provision proceeds in the university environment. I list a few of these here to spur thought and discussion. We are interested in collaborating with others in shaping research efforts in these areas as early as the autumn 2006 term.

1. To what extent does attendance in class diminish if much of the course content is available in podcast form? Does it necessarily diminish at all?
2. How does podcast usage vary between students?
3. Is there any association between use of podcasts and student performance? It's not necessary (or even possible) to set up control and experimental groups, but students may self-select to avail themselves of podcast usage, or choose not use them. Identifying users and non users and examining performance might produce some interesting results, if the effect of other factors could be identified and assessed. One acceptable way to structure an experiment might simply be to provide podcasts for some topics and not for others, within the same course. In fact some podcasts may not actually have been produced in time for use in a class, causing this situation to occur in any case.
4. Do podcasts have a differential effect on native English-speaking students and students classified as English as a second language? Anecdotal evidence exists that foreign students find recorded lectures particularly good for reviewing not only content but improving language skills. Podcasts could have similar or greater effects.
5. What study strategies emerge for using podcasts? Do some students use them to preview material before a class session covering the topic, or use them to preview readings? What role do they or can they play in the quiz and exam review processes of students?
6. What use do students make of the printed podcast scripts? What preferences exist between reading the material, listening to it, or a combination?
7. How does distribution of podcast mini-lectures for a course on one consolidated CD-ROM, in addition to their provision for download from a web site, affect usage? Is provision of a few copies of such a CD-ROM on reserve in a library, for copying to a laptop in the library, a workable alternative to provision to each student directly? Would it increase productivity to a high enough degree to warrant providing all podcasts for a course on a CD-ROM packaged with the workbook, which could add a few dollars to production costs, so that a learner could load all of them to a portable sound device at once?
8. How does the length of a podcast affect learner interest, usage, and assimilation of knowledge? Anecdotal evidence seems to indicate that at least for some people, a length of more than 5 to 10 minutes is unappealing. It would be illuminating to measure these factors in a formal way to provide a guide for effective podcast content preparation.
9. In what circumstances and in what is the incorporation of video with audio are most effective? Once we get past the "talking head" and shrunken PowerPoint slide stage in podcast evolution, what ways suggest themselves as particularly well suited to productive use of this medium for learning purposes?
10. Does the use of continuous low-volume background music with speech produce podcasts with greater attention-holding capability than podcasts containing only a voice? If so, what type of music seems to appeal to various potential listeners of podcasts produced primarily for use as academic support materials?

We welcome your comments, insights, and suggestions. Please e-mail Jim Janossy at [jjanossy@depaul.edu](mailto:jjanossy@depaul.edu).

### **Bibliography**

Duke University. "Duke Digital Initiative: End of Year Report on the 2005-06 Duke Digital Initiative."  
[http://www.duke.edu/ddi/pdf/ddi\\_exec\\_report\\_05\\_06.pdf](http://www.duke.edu/ddi/pdf/ddi_exec_report_05_06.pdf)

University of California at Davis. "Fall 2005 Pilot and Winter 2006 Developments Report."  
<http://clm.ucdavis.edu/podcast/2005-2006report.html>.

University of Iowa. "Podcasts --Early Exploration Results." <http://at.its.uiowa.edu/digimedia/projects/podcast.shtml>