Podcasting in Higher Education

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I. What is Podcasting?

Podcasting makes it possible for you to record a digital audio file, save it to a server, and make the file(s) available to your students via a subscription hypertext link (using a RSS feed/.XML file) into a "feed reader" such as iTunes (a free program to download).

Once this is completed your students will only need to click once to subscribe to all of your content (present and future podcast episodes). After subscribing your students simply refresh their subscription in iTunes by clicking "refresh" and your new podcasts will automatically download to their computers.

Once on the student's computer they have the choice of listening to the audio in iTunes or connecting a MP3 player (such as an iPod), transferring the file to the MP3 player and listening to your podcast wherever they wish.









I. What is Podcasting?

Let's break this definition down a bit.

Part 1: Record a digital audio file

So you are using your computer, a microphone, and some type of recording software to create podcasts. So far so good... podcasts are just like speaking into a microphone and creating an audio file.

Part 2: Save it to a server

OK, you will need space on a web server somewhere to make the podcasts available. It doesn't need to be a streaming server if you are making the podcasts available for subscription in a program like iTunes.

Part 3: Make it available via hypertext link

You put it up on a web site as a hypertext link that you link into a specific file type called a .xml file.

Part 4: A Feed Reader

iTunes is an example of a feed reader. This is just the "aggregator" of the podcast episodes. It locates, stores, and keeps all of the episodes for you. It also allows for play back and transfer to a .mp3 player.





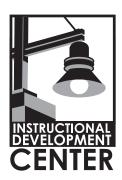
II. Why do Podcasting?

Podcasting is a way for you to deliver audio content to an audience. If you have audio content you would like your students to review, or be able to listen to through a MP3 player, this is an easy way for you to accomplish this.

Some of the ways you can utilize this technology to enhance your classroom experience include:

- Recording lectures for repeated listening (allowing you to devote more class time to group discussion)
- Recording pronunciation of difficult terms (especially useful for medical terminology or foreign language)
- Recording guest presentations (useful for additional semesters if the lecturer is unavailable)
- · Recording reviews of major exams/audio study guides
- · Recording key definitions highlighting their importance

All of these are examples of ways people use podcasts in higher education. We announce news, upcoming events and services offered and tips in our IDC podcast as well as the occasional interview with staff and faculty here at Heartland.





II. Why do Podcasting?

I've heard other people say that listening to podcasts is similar to listening to talk radio or audio books. If you enjoy either of these than you will probably enjoy listening to podcasts.

Usually the podcasts I listen to are released once a week or once a day... so I set aside some time each day to refresh my list and sit down to listen to the podcasts. Sometimes I just play it in the background while I work on something else and if I hear something that piques my attention than I "rewind" the file to the part I want to hear and relisten to it.

John Dotta, photograph instructor at Heartland Community College, uses podcasts in his classes to record lectures, distribute them to students, and then spend more of the class time in dark room, hands on activities or dealing with specific student issues. This frees up most of his classes to pursue one-on-one student/instructor time and yet he still gets the lecture portions of his classes across.

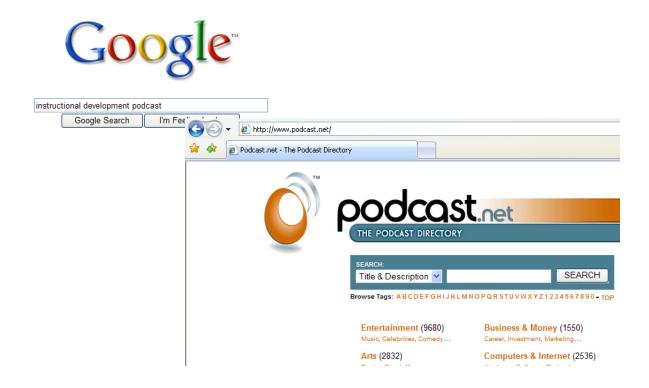
http://web.mac.com/heartlandprof/iWeb/Site/Homepage.html





As a basic search you can go to Google and type podcast and your subject.

There are also several podcast directories out there. If you type podcast directory into Google it will bring up several to choose from. One of the larger podcast directories on the Internet is www.podcast.net. Here you will find categories of podcasts ranging from Science and Nature to Sports to Learning and Instruction.







Also you can search for podcasts in iTunes. iTunes as I mentioned before is a podcast "aggregator" used to collect podcasts and manage them. iTunes is free to download from Apple Inc. web site. iTunes not only manages the podcasts but also plays them back and allows for transfer to a portable audio player such as an iPod.

iTunes has a built in store you can purchase music, movies, audio books, music videos, etc. as well as search for and subscribe to podcasts that are in the iTunes podcast directory. Podcast subscriptions in iTunes are free.







Within iTunes click on the store button of the left side of the screen (sixth down under iTunes Store). Once here you can click Podcasts on the left side of the screen. Now you can see you are in the podcasts section from looking at the link you clicked (greyed color) or looking at the breadcrumb list at the top of the screen. Featured podcast providers are listed on the left side, top downloaded podcasts are listed on the right and featured podcasts that change out week to week are also shown in the middle.

To narrow down your search you can choose a catagory on the left. If you go into Education this will bring up all types of podcasts about education from English as a Second Language to LSAT reviews.







You can also just type in a topic into the search field in the upper right corner. This will search the whole iTunes music store for that topic.

Once you go into a specific podcast you can read more about the whole podcast, specific episodes as well as subscribe to the podcast or just download one or two specific podcasts you'd like to listen to. There are even reviews given by listeners to that podcast.

After you subscribe to a podcast iTunes will keep track of the podcasts for you. By clicking on Podcasts in the upper left corner of the iTunes program you can see all of the podcasts you are subscribed to. You can click refresh in the lower right corner to have iTunes go out and see if any new episodes are available. This is the real power of podcasts... you don't have to remember a web site URL or a location of all of the podcasts you listen to or like. You can also play them straight from iTunes rather than having to load the podcasts in a different audio player.









Like I said before, podcasting requires you to create a digital audio file using a computer, a microphone, and some type of recording software to create podcasts.

a computer: Windows or Macintosh a microphone: hand held or headset style recording software: freeware like Audacity up to professional recording software and everything in between.

Apple makes a very good program called GarageBand for recording all types of sounds ranging from podcasts to mixing music tracks, though this is only available on a Apple/Macintosh computer.

There are all in one software packages, like Propaganda, that allow for not only recording but posting of the podcast. (Propaganda has a free trial for 30 days;~\$50.00 price).

http://www.download.com/Propaganda/3000-2170_4-10509667.html

And finally, there are simple recording software that just creates the .mp3 file like Audacity (freeware).





Downloading Audacity

Audacity:

You can download Audacity from a web site called sourceforge.net. It is free to download and works on both Macintosh and Windows platforms.

http://audacity.sourceforge.net/download/

LAME Encoder:

You will also need something called the LAME encoder. This is a plug-in for Audacity that allows you to save .mp3 files out of Audacity. Follow along the instructions on the web site below to download and install the LAME encoder.

http://audacity.sourceforge.net/help/faq?s=install&item=lame-mp3

Once you have these files downloaded and installed and you have a microphone you are ready to go.





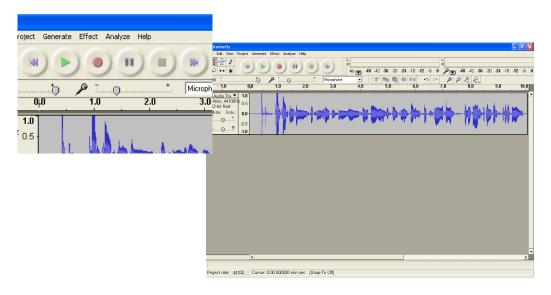


Recording the podcast

The first thing I do when recording a podcast is write up a rough script so I know what I'm going to be saying. I usually just type it out in Microsoft Word as an outline with some notes and follow off of it as I record my podcasts.

In Audacity you simply hit record and you can start talking. Don't worry about mistakes. Those can be edited out and you can even start over at any time. Just make a new file if you want to try again.

You can pause the recording process by clicking pause and stop with the stop button.







Adding Sound Effects or Bumper Music

You can add music tracks or sound effects. Be sure to use royalty free sounds though... this is being heavily cracked down by the Recording Industry Association of America (RIAA). The "bumper" music we use for the intro and outtro of the podcasts for the IDC are royalty free sound clips I have in the GaragaBand program I mentioned earlier on a Macintosh computer. You can use these on a Windows PC in Audacity too.

You add audio tracks like music or sound effect clips by going to Project-->Import Audio. Select your file and Audacity will create a new track for the sound clip to sit inside of.







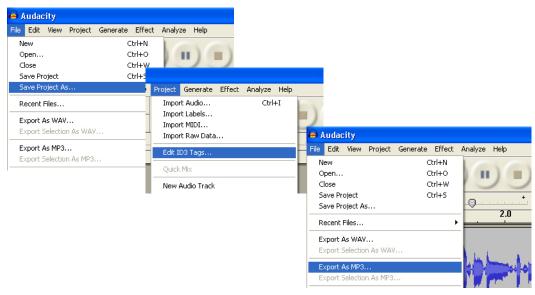
Saving your Project

Save your file as a audacity project by going to File--> Save As... (this will allow you to go back into the file and do any editing in the future).

Once you are totally done recording that episode you can add/edit ID3 tags. These are tags embedded into the .mp3 file with information about the Author, Album Name, Genre, Year recorded and other information.

You add these under "Project--> Edit ID3 tags".

And you can finally export the file as an .mp3 under "File-->Export as mp3".





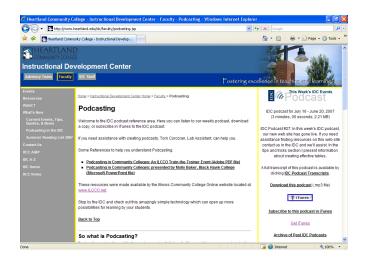


Uploading your podcast

If you have server space for a web site here at Heartland you can upload the .mp3 file just like you would any other file type. Simply copy and paste the file into a folder for storing your podcasts. Once you do this you can create a section on a web site for podcasts.

If you are using WebCT, simply log into WebCT, bring your class up and upload the file the same way you upload all other file types. Then you can make a hypertext link to the file on the WebCT screen of your choice.









XML file

A template for an XML Podcasting file can be found by clicking "XML Template for iTunes Podcasts" on the IDC web site. In Microsoft Word you can edit the bold entries for your specific podcast information (title, author, audio file name, etc.), leave the xml tags and then save this file out with a new name and a xml extension.

Then to make your Podcast "subscribable" in iTunes, you create a hypertext link on a web site to this new XML file, but rather than beginning the link with http:// you begin the link with itpc://

This will cause iTunes to load, read your xml file, subscribe to your podcast and transfer your podcast into iTunes for listening.

To validate that your XML file is correctly formatted you can go to http://www.feedvalidator.org and test your XML file.

This site will tell you if your XML file is accurately formatted and will give you feedback about any errors in the code.





XML file example

```
<?xml version="1.0" encoding="UTF-8"?>
<rss xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd" version="2.0">
 <channel>
  <title>TYPE YOUR MAIN TITLE HERE</title>
  <description>TYPE YOUR MAIN DESCRIPTION HERE</description>
 TYPE YOUR MAIN WEBSITE HTTP LINK HERE
 <language>en-us</language>
  <copyright>Copyright 2007</copyright>
  <a href="mailto:</a><a href="mailto:lastBuildDate">lastBuildDate</a>>
 <pubDate>Sat, 25 Mar 2006 11:30:00 -0500/pubDate>
  <docs>http://blogs.law.harvard.edu/tech/rss</docs>
  <webMaster>TYPE THE WEBMASTER EMAIL ADDRESS HERE</webMaster>
 <itunes:author>TYPE THE AUTHOR/NARRATORS NAME HERE</itunes:author>
 <itunes:subtitle>TYPE YOUR SUBTITLE HERE</itunes:subtitle>
  <itunes:summary>TYPE YOUR MAIN SUMMARY HERE</itunes:summary>
  <itunes:owner>
     <itunes:name>TYPE THE OWNERS NAME/AUTHOR HERE</itunes:name>
     <itunes:email>TYPE THE EMAIL ADDRESS OF THE OWNER
HERE</itunes:email>
  </itunes:owner>
<itunes:explicit>No</itunes:explicit>
<itunes:image href="TYPE THE HTTP LINK TO AN IMAGE YOU WANT</pre>
DISPLAYED TO GO ALONG WITH YOUR PODCAST IN ITUNES HERE"/>
<itunes:category text="Technology">
  <itunes:category text="Podcasting"/>
</itunes:category>
```





XML file example

//FOR EACH PODCAST EPISODE YOU WILL NEED EVERTHING FILLED //OUT BETWEEN THE <item> tag and the </item> tag

<item>

<title>TYPE YOUR SPECIFIC EPISODE TITLE HERE</title>

<link>TYPE THE MAIN URL LINK HERE</link>

<guid>TYPE THE HTTP URL AUDIO FILE LINK TO THE SPECIFIC EPISODE
HERE

<description>TYPE THE DESCRIPTION OF THE EPISODES CONTENT
HERE</description>

<enclosure url="TYPE THE HTTP URL AUDIO FILE LINK TO THE SPECIFIC
EPISODE HERE" length="TYPE THE LENGTH IN WHOLE NUMBERS HERE"
ex. A 2.21 Megabyte file would be typed in as "2210" type="audio/mpeg"/>
<category>Podcasts</category>

<pubDate>Sat, 25 Mar 2006 11:30:00 -0500 REPLACE THE TEXT AT LEFT WITH
YOUR PUBLICATION DATE OF THE EPISODE/pubDate>

<itunes:author>TYPE THE AUTHOR/NARRATORS NAME OF THE SPECIFIC
EPISODE HERE</itunes:author>

<itunes:explicit>No</itunes:explicit>

<itunes:subtitle>TYPE YOUR SUBTITLE FOR THE SPECIFIC EPISODE
HERE</itunes:subtitle>

<itunes:summary>TYPE YOUR SUMMARY OF THE SPECIFIC EPISODE
HERE</itunes:summary>

<itunes:duration>00:24:30 REPLACE THE TEXT AT LEFT WITH THE HOURS MINUTES SECONDS LENGTH OF THE EPISODE </itunes:duration>
<itunes:keywords>TYPE YOUR KEYWORDS OF THE SPECIFIC EPISODE HERE</itunes:keywords>

</item>

</channel>

</rss>



Appendix A: Definitions

aggregator: a synonym for a feed reader. An aggregator is the program used to collect the subscriptions to podcasts. iTunes is a commonly used podcast aggregator. Other aggregators include Juice, Doppler, and Google Reader.

Audacity: a freeware sound recording program that can be used to record podcasts. Available at: http://audacity.sourceforge.net/download/

bumper music: music heard at the beginning and end of a podcast (or radio program) episode. Generally the intro and outtro music with voice over.

enhanced podcast: a podcast that contains chapters and possibly hypertext links which can be viewed in QuickTime or iTunes. Can be created using GarageBand.

feed reader: also called a aggregator. The program used to collect the subscriptions to podcasts. iTunes is a commonly used feed reader.

feed validator: a web site that will validate your XML files and check if the file is formatted correctly. Found on the Internet at http://www.feedvalidator.com

freeware: software that is free to download on the Internet.



Appendix A: Definitions

GarageBand: part of the Apple Inc. iLife suite of software. GarageBand is used to record all types of audio from music tracks to podcasts. It also has the built in ability to create enhanced podcasts.

ID3 tags: words you can add to mp3s which identify the files content type to feed readers. Common ID3 tag examples are Title, Artist, Album, Genre, and Comments.

interstitial: breaks in a podcast episode which signify moving from one topic or section to another. Often coming in the form of a short music jingle.

iPod: Apple Inc. portable audio/video playback device.

iTunes: a free program from Apple Inc. iTunes can be used as a "feed reader" collecting and organizing and playing back your podcasts and other audio/video content.

iTunes Podcast Directory: a directory of all types of podcasts within the iTunes Music Store.

iTunes University: a service Apple makes possible to Colleges and Universities to have entire sections of the iTunes Podcast Directory devoted to that institutions podcasts.



Appendix A: Definitions

LAME encoder: a "plug-in" for the sound recording program Audacity which allows the user to save projects as mp3s.

.mp3: one of the most common file types of podcasts. MP3s (MPEG 1 Layer 3) compression allows for smaller file types and playback on a wide variety of music devices and computer programs. MP3s play on iPods, QuickTime, iTunes, Windows Media Player and other devices/programs.

podcast: a podcast is a digital audio file, saved to a server, and made available via a subscription hypertext link (using a RSS feed/xml file) into a "feed reader" such as iTunes.

podcast.net: a podcast directory web site on the Internet.

RIAA: Recording Industry Association of America. This organization regulates policy with regards to music copyrights and usage and protects against piracy.

RSS: Real Simple Syndication. A method for making content on the Internet (podcasts, web pages, etc.) available to subscribers.

XML: Extensible Markup Language. The format commonly used to create "subscribable" podcast content on the Internet.



Appendix B: Further Resources

Feed Readers (freeware programs) Doppler:

http://www.dopplerradio.net/

Google Reader:

https://www.google.com/accounts/ServiceLogin?nui=1 &service=reader&continue=http%3A%2F%2Fwww.googl e.com%2Freader%3Ftab%3Dwy

iTunes:

http://www.apple.com/itunes/download/

Juice:

http://juicereceiver.sourceforge.net/

Feed Validator

http://www.feedvalidator.org

Sound Recording Software

Audacity (freeware):

http://audacity.sourceforge.net

GarageBand (for purchase-Macintosh only): http://www.apple.com/ilife/garageband/

Propoganda (for purchase):

http://www.download.com/Propaganda/3000-2170_4-10509667.html



Appendix B: Further Resources

Web Sites
Heartland Community College:
Instructional Development Center: Podcasting
http://www.heartland.edu/idc/faculty/podcasting.jsp

ILLCO: Podcasting in Community Colleges http://www.ilcco.net/ILCCO/resources/Podcasting 101 tutorial.pdf

iTunes University
http://www.apple.com/education/itunesu/

Northern Illinois University: Introduction to Podcasting http://www.niu.edu/facdev/technology/handouts/html/podcasting01.htm

Podcasting in Higher Education: How disruptive will it be? http://www.masternewmedia.org/news/2005/04/16/podcasting_and_vodcasting_in_higher.htm

Podcasts: Earmarked for Success: Profiles in Success: University of Wisconsin-Madison
http://www.apple.com/education/profiles/
wisconsin-madison/

University of Missouri: Podcasting and Vodcasting: http://edmarketing.apple.com/adcinstitute/wp-content/Missouri_Podcasting_White_Paper.pdf



Contact Information

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http://www.heartland.edu/idc/

