On the go with CHM 125, ECON 210, PHYS 218, and BIOL 205: Coursecasting at a large research university

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On the go with CHM 125, ECON 210, PHYS 218, and BIOL 205: Coursecasting at a Large Research University

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Purdue University – West Lafayette, IN
Today’s Talk...

- Who we are
- Why do we want to do this
- What it is
- How we do it
- How it looks
- What are some early outcomes
Description of Purdue University

- Purdue is a public, doctoral-granting research university and Indiana's land-grant university.

- Fall 2005 enrollment: 38,712 students

- Chemistry Department
  - 48 faculty members
  - 250 undergraduate students
  - 300 graduate students
  - 90 support personnel
Why Switch to Podcasting?

- 35 years of audio cassette recording of courses
  - Bulk handling and erasing of 2500 cassettes a semester
- Library was depository for these cassettes
  - Podcasting relieves burden on library
- We see those white ear buds “everywhere”
Defining Podcasting

- Podcasting, a portmanteau of Apple's "iPod" and "broadcasting", is a method of publishing files to the Internet, allowing users to subscribe to a feed and receive new files automatically by subscription, usually at no cost.

  - en.wikipedia.org/wiki/Podcasting (3/16/06)
Another Definition

- A form of audio blogging created by Adam Curry, a former MTV Host, and Dave Winer, the founder of Userland Software. Its name comes from the targeting of audio posts to Apple’s iPod audio player, although podcasts can be listened to on competing players and on computers.

- [www.fzelders.nl/weblog/](http://www.fzelders.nl/weblog/) (3/16/06)
Other Uses

- Classes = learncasting, podagogy
- Videos = vodcasting
- On mobile phones = mobilecasting
- On Palm devices = Palmcasting
- Sermons = Godcasting

- Taken from additional Wikipedia entries
Pros to Podcasting/Coursecasting

- Self-evaluation for the instructor
- Student review of lecture materials
- Allows for supplemental material
- Utilization of “trendy” technology
- Convenience
- Assists auditory and ESL learners
Cons to Podcasting/Coursecasting

- Do you change the way you teach?
- How effective without video?
  - How effective at all?
- Change in level of attendance?
- Intellectual Property concerns
- Privacy issues
- Course auditing
Implementation at Purdue
University-Wide Involvement

- **Fall 2005**
  - 73 classes, 6 restricted (10 in chemistry)
  - 37 departments

- **Spring 2006**
  - 61 classes, 11 restricted (7 in chemistry)
  - 32 departments
Number of capable classrooms

- 55 capable classrooms in 27 buildings
- 17 other capable rooms
  - Conference rooms
  - Large rooms in the Student Union
Faculty Request Form
(including “disclaimer/authorization”)

Required Information:

Person Requesting Service: ___
Course Instructor Name: ___
Course Instructor e-mail: ___
Course Instructor Department: ___
Course Instructor Office: ___
Course Instructor Phone: ___
Course ID (i.e. "COM114"): ___

Days Course Meets:

- [ ] Monday
- [ ] Tuesday
- [ ] Wednesday
- [ ] Thursday
- [ ] Friday

Time Course Meets: FROM: ___ TO: ___

Building Scheduled for Course: ___
Room Scheduled for Course: ___
Technical: How it is done

Classroom Microphone

Open Phone Line

Real Time MP3 Encoder (central location)

Personal Audio Device

RSS Parser

Student Subscriptions

RSS Hosting Site
Technical: Specs of files

- **MP3 files**
  - ~1 MB per minute
  - 50 minute average lectures
  - 64 kbps, 44 kHz, mono
  - Metadata with course info
Technical: How to access

- Download – MP3
  - Myriad of ways to play/listen

- Streaming – MP3
  - Streams through Windows Media Player or RealNetworks RealPlayer

- RSS
  - Can use with news aggregators (like Bloglines) or with Apple’s iTunes.
Security Concerns

- Intellectual Property
  - World accessible
  - No file sharing protection

- Password Protection
  - Faculty chooses own username and password
  - Faculty distributes information to students
Technical: Costs

- Classroom Microphones
  - $250-$1000

- Real Time MP3 Encoder
  - $800-$1000 per encoder

- Server
  - Storage ➔ ~$10 per course
  - Software for streaming ➔ $1000-$4000

- Staff Time
  - 1 FTE

All costs are estimates
What does it look like?
http://boilercast.itap.purdue.edu:1013/Boilercast/

What is BoilerCast?
Use Apple iTunes with BoilerCast
How-To Guide

Online Boilercast Request Form
(Faculty Only)
List of BoilerCast Capable Rooms

SPRING 2006 Course List:

- AD384
- AD395
- AD602
- AGRY350
- ANTH205
- AT479
- AT999
- BIOL110
- BIOL111
- BIOL206
- BTNY210
Books and Coffee
What does an individual class look like?

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<th>MP3 Download Link</th>
<th>Windows Streaming Link</th>
<th>Real Networks Streaming Link</th>
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<td>Real Player Stream</td>
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RSS Feed through Bloglines

CHM124 BoilerCast!
Classroom Audio Recordings for CHM124 Spring 2006 Section 0101
16 Items | Sort Oldest First | Updated: Tue, Mar 7 2006 3:02 PM

Mon Mar 6, 2006 CHM124
By Purdue University
CHM124 Spring 2006 Recorded: Mon Mar 6, 2006

Enclosure
Posted on: Tue, Mar 7 2006 3:02 PM | Email This | Clip/Blog This

Fri Mar 3, 2006 CHM124
By Purdue University
CHM124 Spring 2006 Recorded: Fri Mar 3, 2006

Enclosure
Posted on: Tue, Mar 7 2006 3:02 PM | Email This | Clip/Blog This

Mon Feb 27, 2006 CHM124
By Purdue University
CHM124 Spring 2006 Recorded: Mon Feb 27, 2006

Enclosure
Posted on: Tue, Mar 7 2006 3:02 PM | Email This | Clip/Blog This
RSS Feed / Podcast in iTunes
Preliminary Usage Stats

- Service available Aug. 22, 2005
- 35 initial courses
- 1080 downloads within the first week of classes
- ~40,000 downloads as of 10/17/05
Other Uses on Campus

- Undergraduate Library Tour
  - 3 iPods, 227 uses since August
  - 99% of usage is because of assignments

- The Exponent (student newspaper)

- Books and Coffee (book series)

- Academic Interviewing, Fellowship Training, and Proposal Writing informational sessions
Faculty/Student Reactions

- Sometimes students and/or faculty do not know where the podcasts are.
- Faculty like it because it is painless and lectures are posted quickly.
- Students like it for review and missed classes.
- Both appreciate the various formats.
- Both want video and/or PowerPoint.
Lessons Learned

- Scalability
- Faculty Education
  - Have we made it too easy?
- Intellectual Property
- Audio Quality
Future Directions

- Scale UP!
- Authentication
- Faculty Education
- Video…PowerPoint…PDFs…???
Additional Resources

- Apple iPod in the Classroom
  http://www.apple.com/education/ipod/

- Pod Pedagogy Blog
  http://www.bio.purdue.edu/mt/feeds/pod_pedagogy/

- Podcasting 101
  http://podcasting101.pbwiki.com/

- Podcasting @ Univ. Wisconsin – Madison
  http://engage.doit.wisc.edu/podcasting/index.html