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

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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)
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:
- Sunday
- 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) -> RSS Hosting Site -> RSS Parser Student Subscriptions -> Personal Audio Device

iTunes
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.
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/

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?

CHM124
Spring 2006
Instructor: David McMillin
Meets Every Monday, Friday.

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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

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

**Keep New:** No
RSS Feed / Podcast in iTunes

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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
Both want video and/or PowerPoint

Both appreciate the various formats

Students like it for review and missed classes

Lectures are posted quickly

Faculty like it because it is painless and

Know where the podcasts are

Sometimes students and/or faculty do not

Faculty/Student Reactions
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