



Lynn Johnson, PhD
Director of Dental Informatics



**iTunes U: How the UM School of Dentistry
got there and where we are headed**

Topics

- What is podcasting?
- Our story
- iTunes U
- Next Steps
- Final Comments



What is podcasting?

Podcast (n)

“A digital recording of a radio broadcast or similar program, made available on the Internet for downloading to a personal audio player.”

2006 New Oxford American Dictionary
Word of the Year

What is podcasting?

- Text, audio, video, or.....
- Mobility
- Continual creation of content
- Subscription (RSS)



Our Story

“ We want to video tape
every dental school lecture ”

My Initial Reaction

\$\$\$\$
\$\$\$\$

Keep an open
mind.....

Maintain a poker
face...

What I said

“... *consider*...”

“... *pilot*...”

Student Advisory Committee

- Selected pilot course
- Helped write the survey & focus group questions
- Understood constraints & show stoppers



300 MB

20%



100 MB

14%



30-50 MB

66%





I

II

III

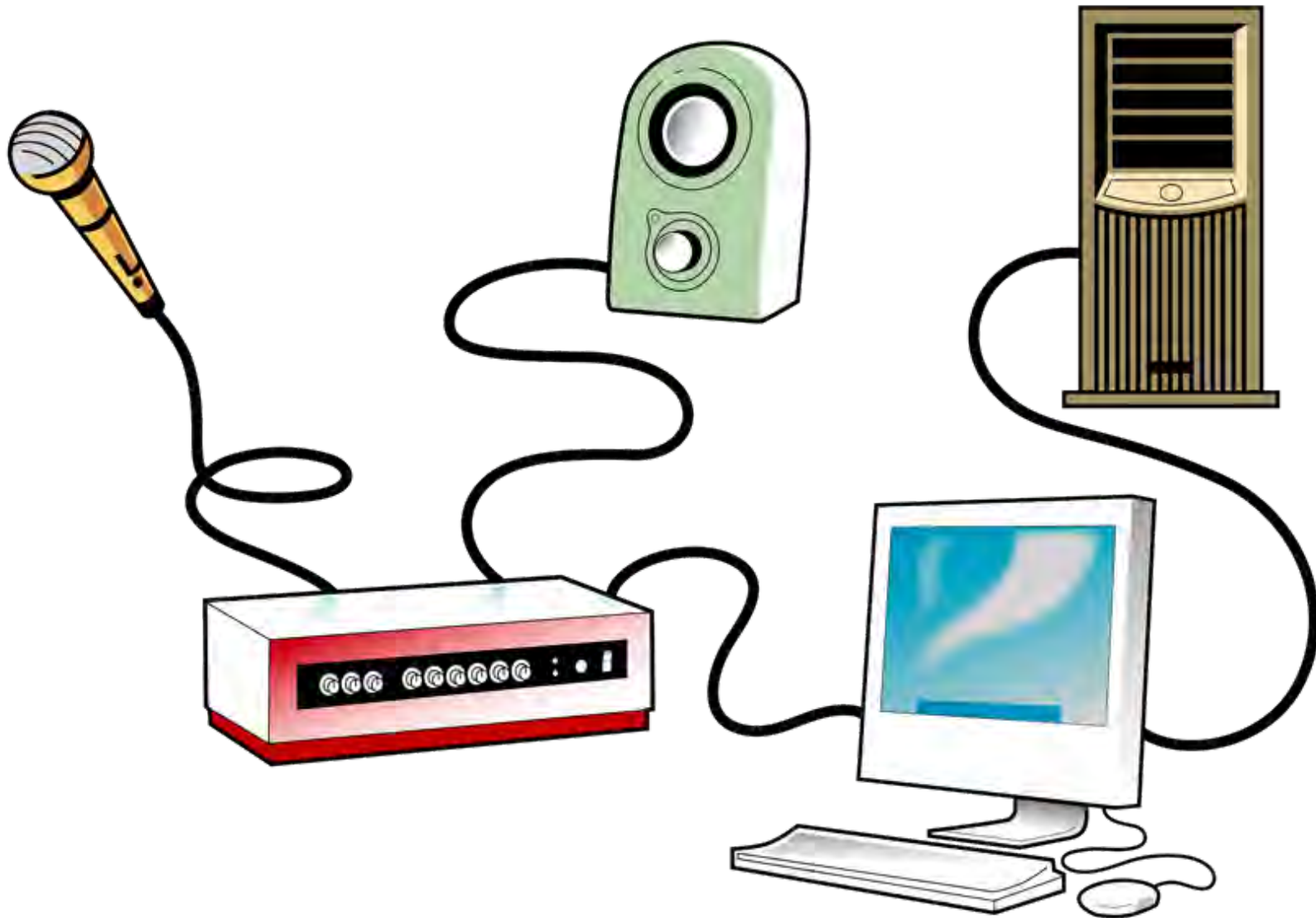
Formats

	
Camera	iPod / Computer
CTools (Sakai)	Custom Web

Acquisition

Dissemination

Classroom Equipment

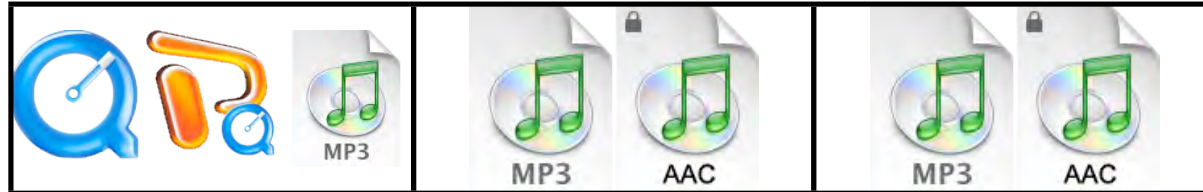


I

II

III

Formats



Acquisition

Camera

iPod /
Computer

Student
Operated Comp

Dissemination

CTools (Sakai)

Custom Web

RSS

What the Students Do...

- Obtain faculty permission
- Conduct the recordings
- Organized by class officers



What the Students Do...



Begin Recording Lecture?

Click the "Record" button to begin recording your lecture

Cancel

Record

What the Students Do...



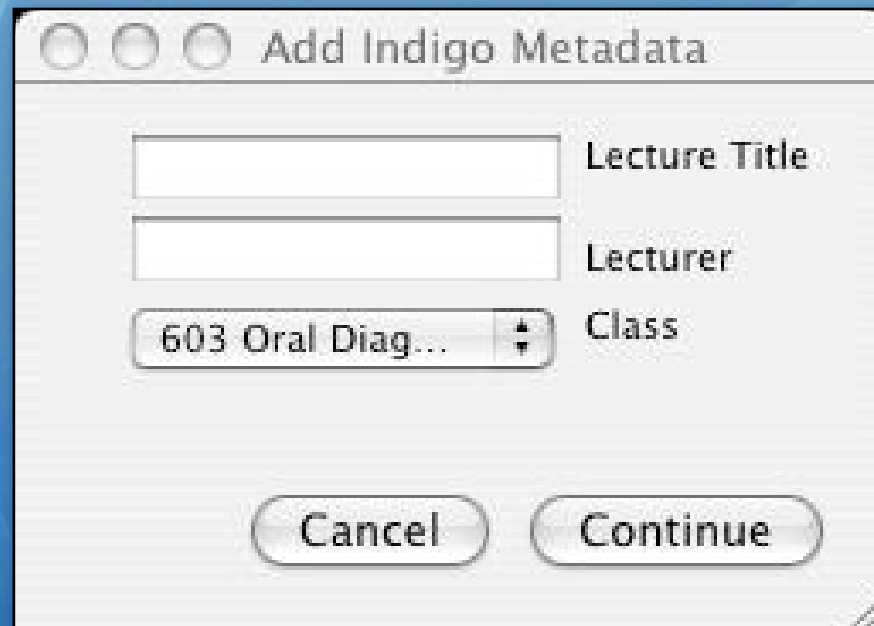
Lecture Recording

Your lecture is recording. When the lecture has ended, press "Add to iTunes" to add this lecture to iTunes and make it available for download.

Cancel

Add to iTunes

What the Students Do...



A screenshot of a dialog box titled "Add Indigo Metadata". The dialog box has a title bar with three window control buttons (minimize, maximize, close) on the left. The main area contains three input fields with labels to their right: "Lecture Title", "Lecturer", and "Class". The "Class" field is a dropdown menu with "603 Oral Diag..." selected. At the bottom of the dialog box are two buttons: "Cancel" and "Continue".

Field	Label	Value
<input type="text"/>	Lecture Title	
<input type="text"/>	Lecturer	
<input type="text" value="603 Oral Diag..."/>	Class	603 Oral Diag...

Buttons: Cancel, Continue

What the Students Do...

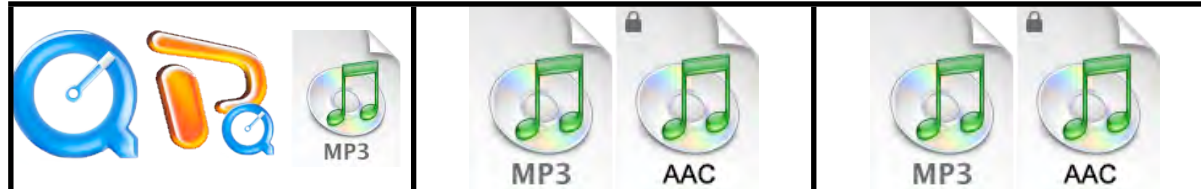


Lecture Added to iTunes

Your lecture has been added to iTunes. Please remember to log off of the machine.

Cancel

OK

I**II****III****Formats****Acquisition**

Camera

iPod /
ComputerStudent
Operated Comp**Dissemination**

CTools (Sakai)

Custom Web

RSS

Class Hours

3.5 hours

6 hours

15 hours

Trek Time

12 hours

26 hours

15 minutes

Workflow

Manual

Manual


Automated

Students

30

30

60

	I	II	III
Formats			
Acquisition	Camera	iPod / Computer	Student Operated Comp
Dissemination	CTools (Sakai)	Custom Web	RSS
Class Hours	3.5 hours	6 hours	15 hours
Trek Time	12 hours	26 hours	15 minutes
Workflow	Manual	Manual	Automated
Students	30	30	60



Trek

(\$12/hr temp)

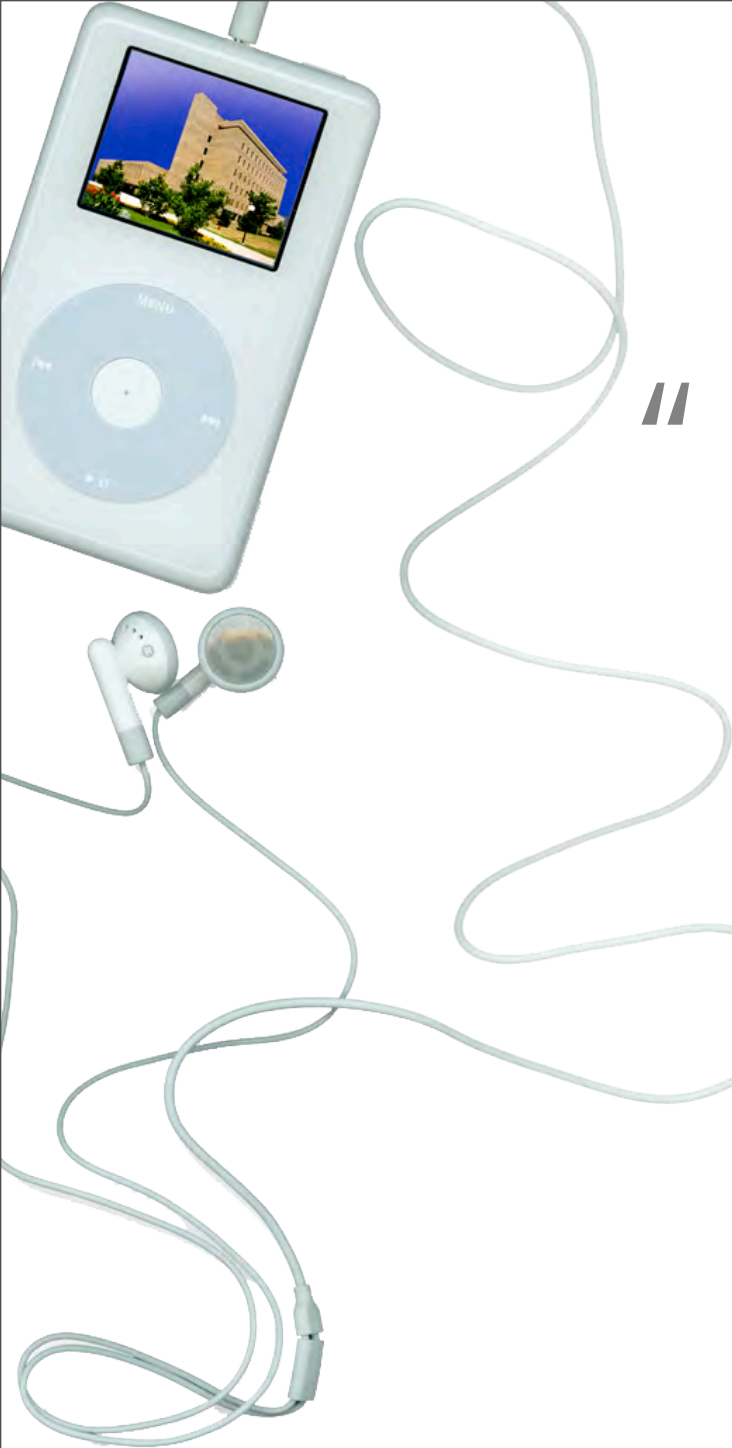
Good work ethic
Team player

My Role

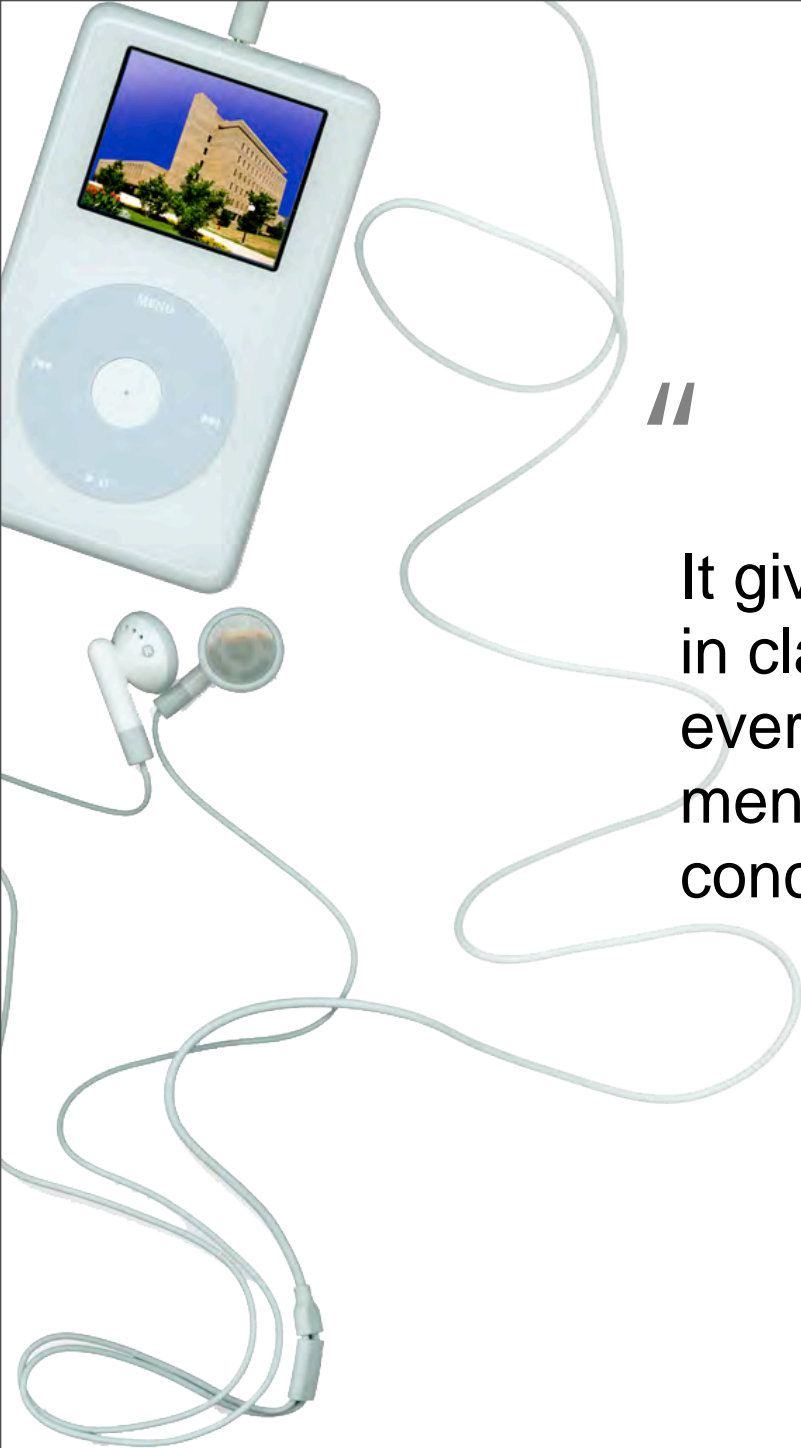
Provide opportunities
Share the stage

Feedback

Dental Students



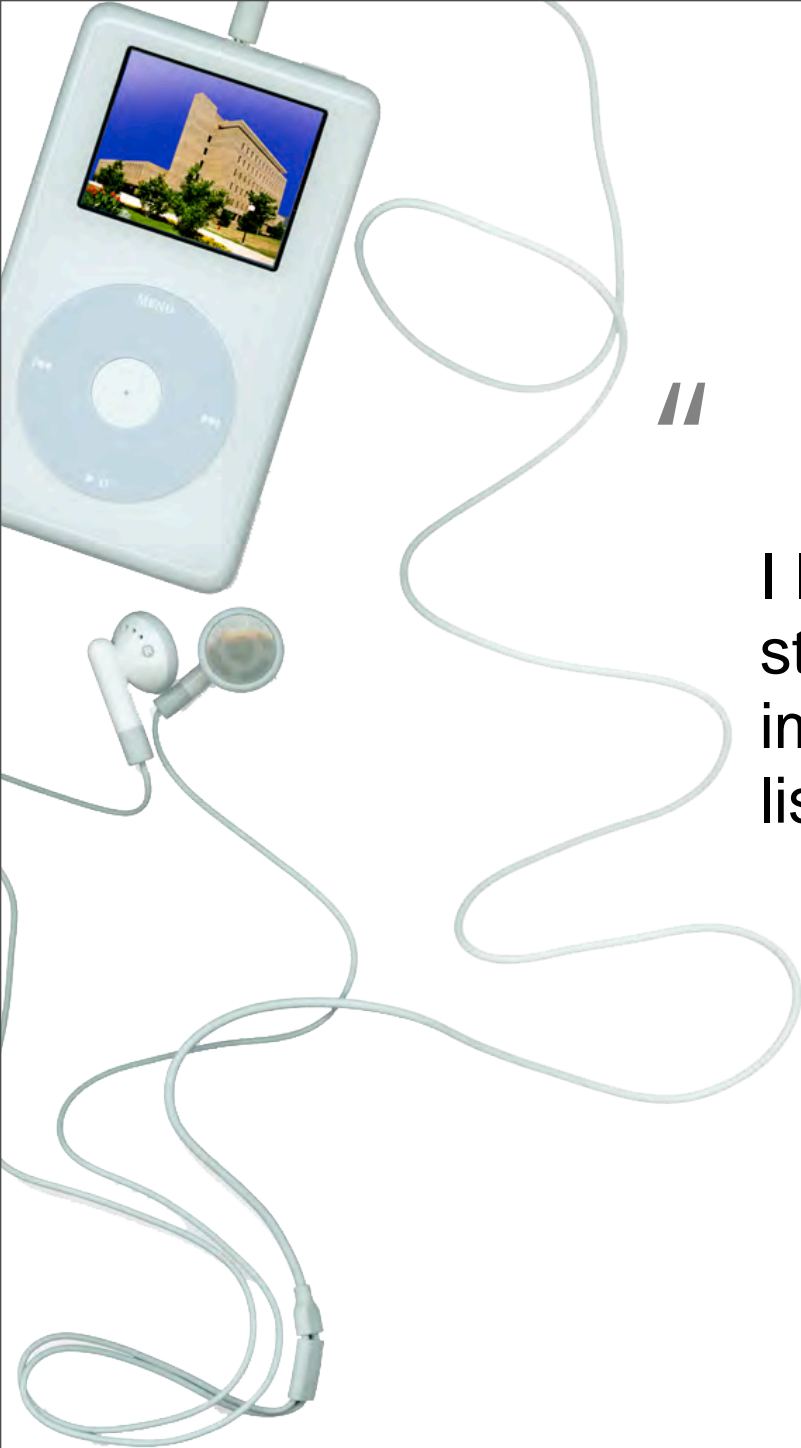
“ It is a useful tool that I am amazed that I hadn’t used before. I was initially skeptical about its efficacy, however a few difficult anatomy lectures at the beginning of the semester quickly changed my mind! It allows you to “burn” in your memory, phrases and ideas the prof wanted you to take away from the lecture. ”



//

It gives you the opportunity to listen actively in class, instead of worrying about taking every little note down that the professor mentions. Also if you don't understand a concept you can go replay it a couple times.

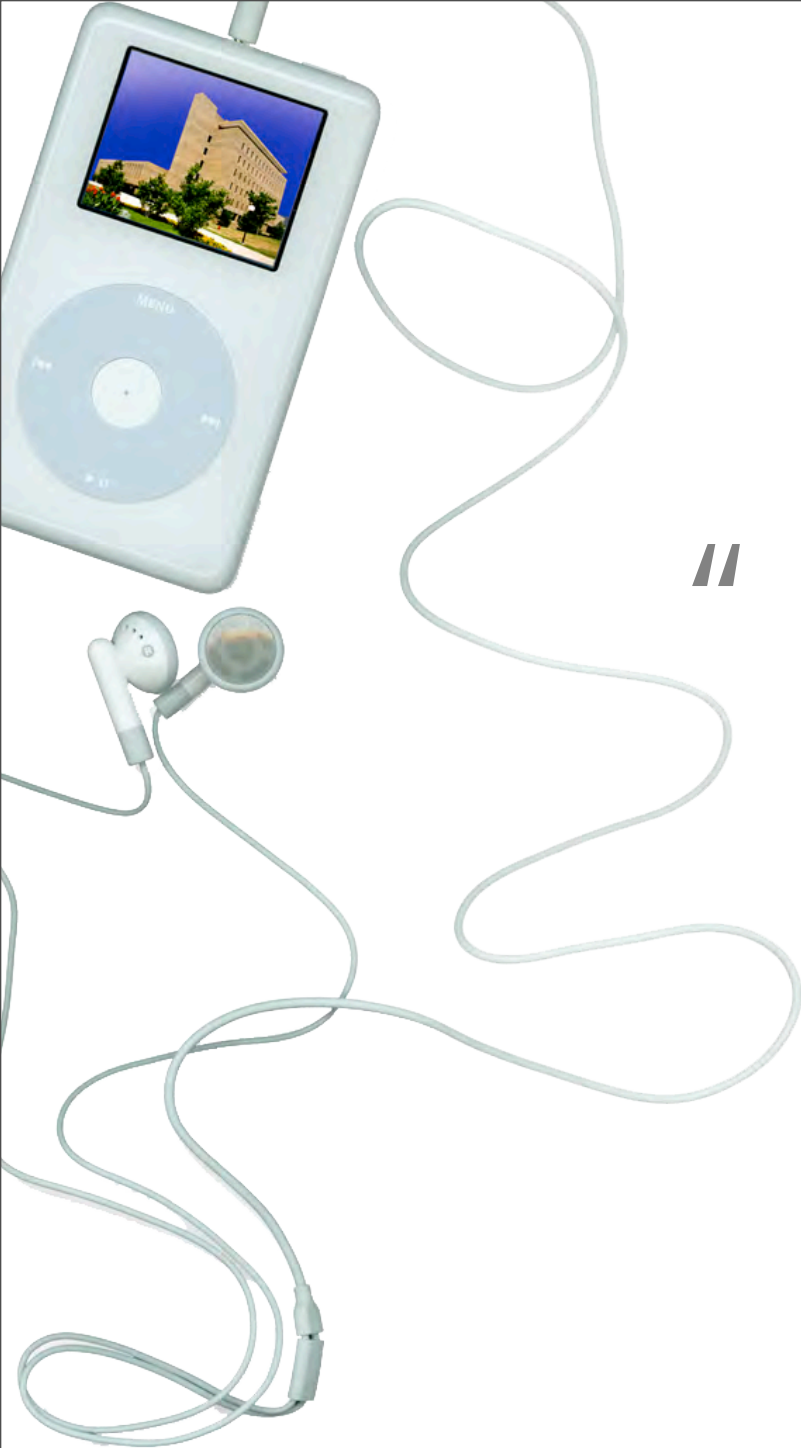
//



//

I loved using the recordings in my studies. These recordings helped me improve my grade! I study better by listening than reading off the paper!

//



//

We definitely need to keep this going for our class and have it set up for the D1s next year.

//



//

I LOVE IT I LOVE IT
I LOVE IT...

//

iTunes U



+



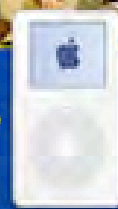


University of Michigan School of Dentistry



University of Michigan School of Dentistry and Apple® are pleased to offer university-related audio content via iTunes®.

This site and its content are for the exclusive use of University of Michigan School of Dentistry students, faculty and staff. Any unauthorized use or distribution is prohibited.



Dental School Content



Class of 2008
Last Modified: Aug 11, 2005 1:26:06 PM
Total Tracks: 99



Class of 2009
Last Modified: Aug 11, 2005 1:28:12 PM
Total Tracks: 7

- Links
- C-Tools
- U-M Home
- Dental Home
- Intranet
- Logout

Demo

User Actions

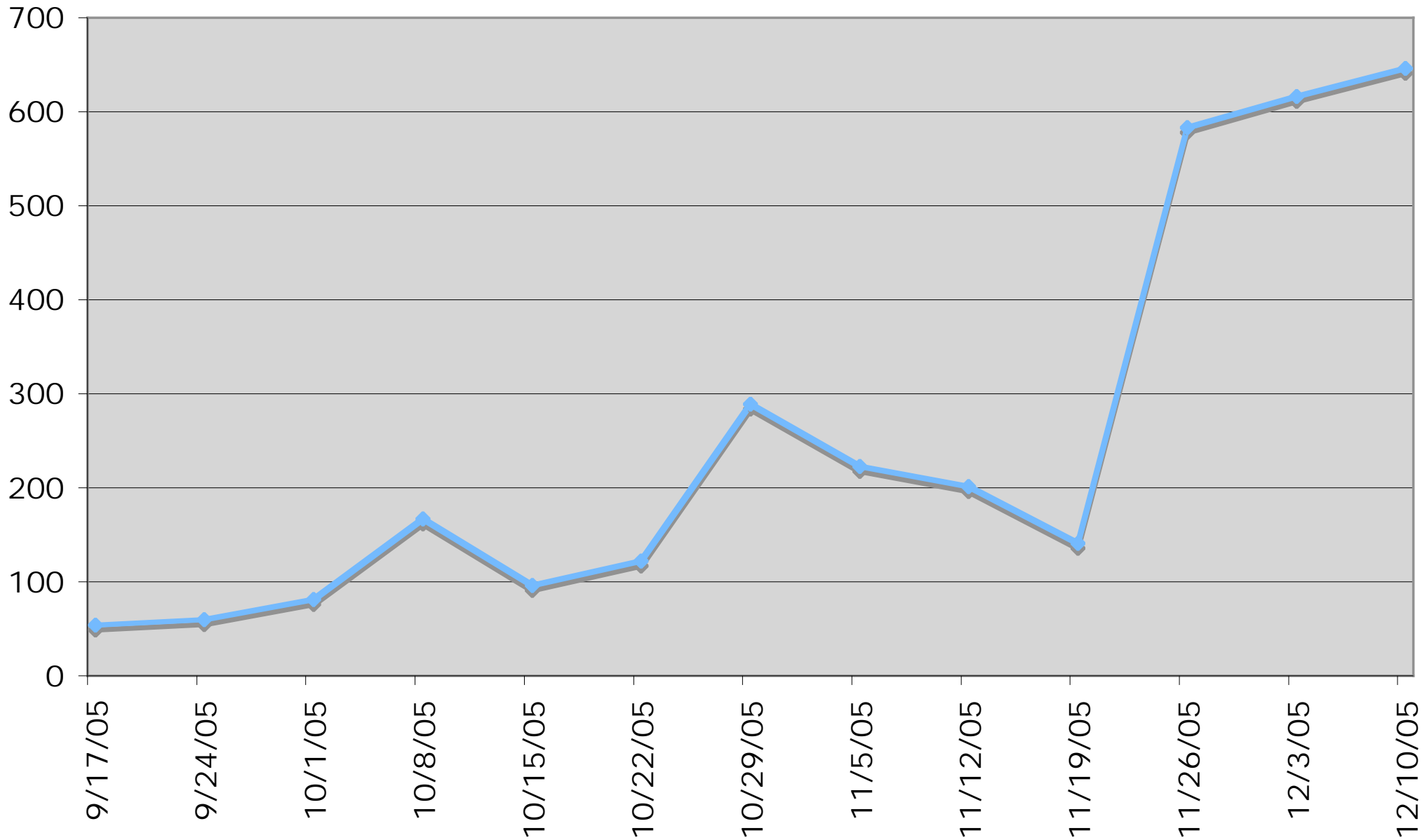
- 62% Browse
- 43% Download
- 12% Subscribe

Popular Courses

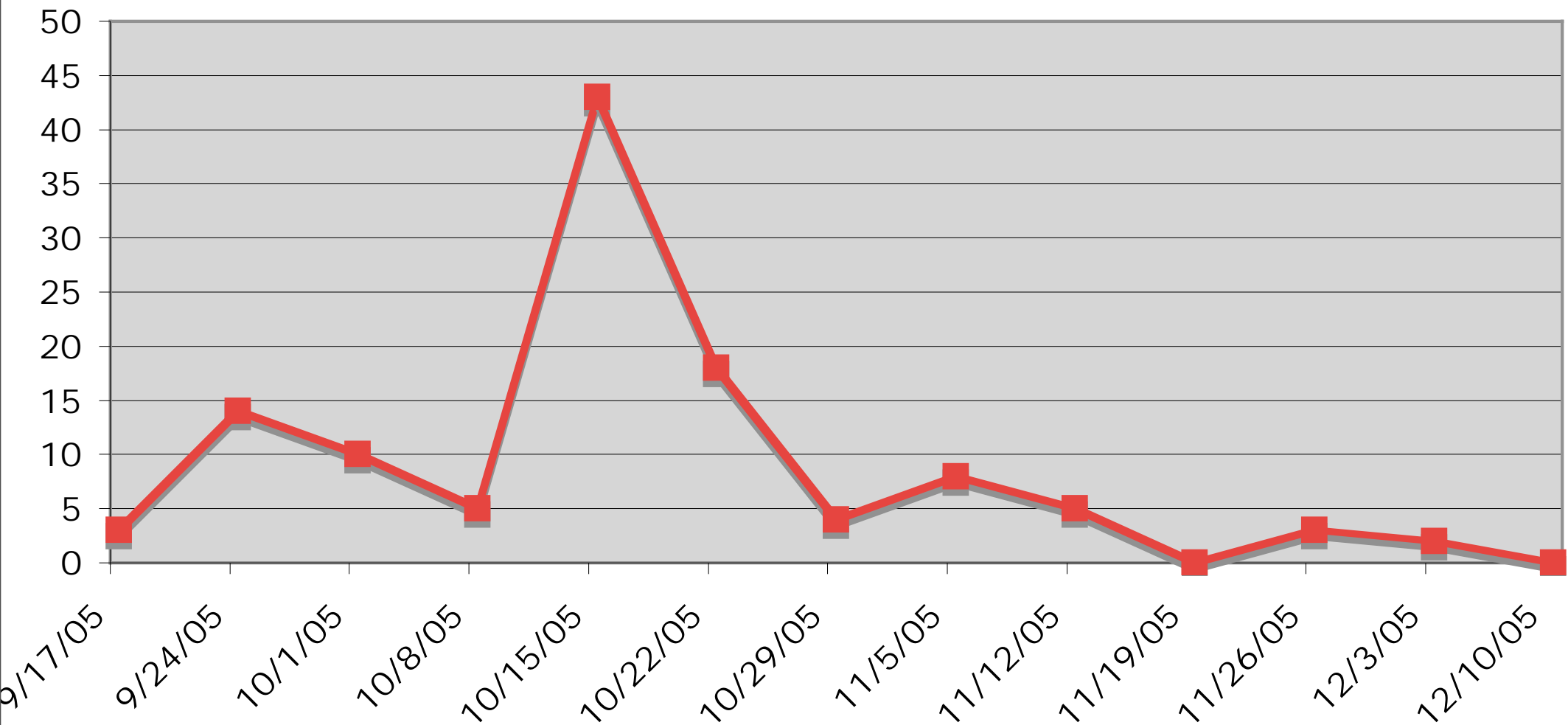
Times a course viewed in one month
(11/16-12/13/2005)

- 231--Integrated Medical Sciences III
- 202--Integrated Medical Sciences I
- 103--Oral Facial Function

Tracks Downloaded



Subscriptions





Next Steps

Sakai/iTunes U Integration

- Use intact Sakai authentication
- Add iTunes U tool to a course
- Fall 2006 release



ctools.umich.edu
course/project sites

Enhanced Podcasts

Dental Hygiene--November 2006



242 Oral Anatomy

Last Modified: Mon Oct 16, 2006
Tracks in Lectures: 2

[GET TRACKS](#)

[SUBSCRIBE](#)

Links

- [Edit Page](#)
- [Edit Access](#)
- [Upload Files](#)
- [Logout](#)

Lectures

	Name	Time	Artist	Album
1	Mandibular & Maxillary Canines	33:15	WK	Michigan
2	Tooth Development	43:42	WK	Michigan

Clinical Skills Video



- On demand
- Portable





YOU ARE HERE: [School of Dentistry](#) / [Informatics](#) > Boot Camp

IT Boot Camp - Fall 2006


Get episodes of the IT Boot Camp presentations as they're posted.



See [archive listing of past IT BootCamp presentations](#)

Workshops at the School of Dentistry **do not** require registration. All other external workshops listed here require registration. Follow the links on those titles to access the registration pages.

For a complete listing of other TTC Workshops (Teaching and Technology Collaborative) view [schedule here](#).

Link	Date	Time	Location	Title	Presenter
	Oct 11	12-1pm	G580 Dent	Delicious - Managing & sharing browser bookmarks	Patricia Anderson
	Oct 25	12-1pm	G580 Dent	3D Tooth Atlas - Demonstration	Dr N.J. McDonald
	Oct 25	3-4pm	ULIC - 4059 Shapiro Library	Introduction to NCBI Resources: Overview and Entrez	Scott Martin
	Oct 31	12-1pm	2802 Med Sci 2	Resources for Scientific Writing and Publishing	Anna Schnitzer
	Nov 1	12-1pm	G580 Dent	Exchange based Calendaring - Productivity tips and best practices demo.	Matt Vuocolo
	Nov 2	2-4pm	Faculty Exploratory 206 Hatcher Graduate Library	Using Word Effectively for Your Dissertation	Jennifer Brandon
	Nov 8	12-1pm	G580 Dent	Finding Funding: Grants and Foundations	Karen Downing
	Nov 14	1-3pm	2802 Med Sci 2	Beginning PowerPoint	John Westfall
	Nov 15	12-1pm	G390 Dent	Preparing for a New Generation of Learners	Sharon Grayden
	Dec 6	12-1	G580 Dent	Creating Posters. From templates to layout to printing	Chris Jung

Information for Faculty and Staff

Information for Students

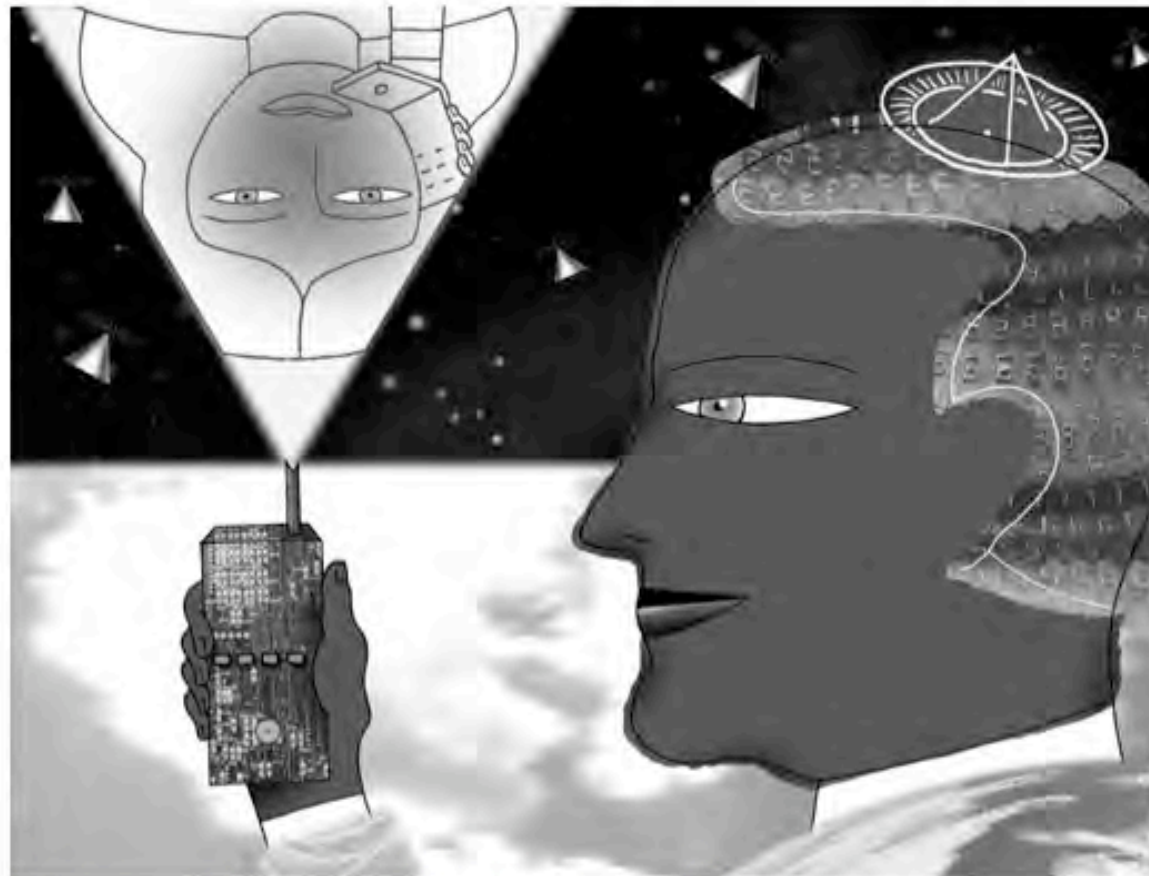
[About Us](#)

Quick Links

News and Events



EDUCAUSE
Quarterly; vol 29,
no 3, p. 24-31.



Podcasting Lectures

*Formative
evaluation
strategies helped
identify a solution
to a learning
dilemma*

By **Sarah Brittain,
Pietrek Glowacki,
Jared Van Ittersum,
and Lynn Johnson**

At some point in their educations, students must learn copious amounts of information. To do this, they use a variety of well-known strategies such as study groups, note-taking services, and videotapes of lectures. In fall 2004, a group of first-year dental students at the University of Michigan (U-M) School of Dentistry asked to have all dental school lectures videotaped and recordings made available on a Web site. The students' doubted their ability to accurately summarize in their notes the quantity of information presented in lectures. The students thought that reviewing a video recording of each lecture would

help them better retain the biomedical information presented.

The Office of Dental Informatics is responsible for the development, implementation, and evaluation of learning-technology activities in the school. This includes faculty development, course Web pages, research with and about learning technology, and the formative and summative evaluation of learning technology projects. The office is also responsible for the acquisition, installation, and operation of classroom and computer lab equipment.

In response to the students' request, the Dental Informatics group applied formative evaluation strategies to determine

Summative Evaluation

Data Collection--Fall 2006

1. Class attendance
2. Test scores
3. Impact on class activity
4. Types of usage

My Predictions

- Courses only

The screenshot shows a web browser window with the address bar displaying 'lynjohns@Michigan' and 'SI 539 001 F06 - Lectures'. The page title is 'SI 539 001 F06' by Hans Masing and Trek Glowacki. A 'RAILS' logo is visible on the left. The course description states: 'This course covers the application of database technology to the service of Web sites. Students discuss the underlying technologies of Web site design, implementation, and evaluation. More importantly, students focus on the use of data gathering, storage, retrieval, processing, and formatting, in the context of a Web site. Course covers gathering data from users through online forms and Ruby on Rails programs; effectively storing that data in a database; Web-based administrative interfaces to the database; and the effective formatting and display of the data at the Web site. Web 2.0 technologies such as AJAX and XML are investigated. Practical applications are studied; this is a project-based course.' The page is last modified on Fri Oct 13, 2006, and contains 8 tracks. There are buttons for 'GET TRACKS' and 'SUBSCRIBE'. A 'Links' section includes 'Rails API' and 'Logout'. Below the course information are tabs for 'Lectures', 'Screen Casts', and 'Lecture Notes (PDF)'. A table lists the tracks with columns for Name, Time, Artist, Album, and Price. The table contains 8 rows of data, with the last row highlighted in blue. At the bottom of the page, it says '8 songs'.

	Name	Time	Artist	Album	Price
1	2. Introduction to The Internet & Web	25:17	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
2	3. Introduction to HTML	42:24	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
3	4. Intro to Programming	1:01:59	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
4	5. Introduction to CSS	1:24:35	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
5	7. CSS Positioning	42:48	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
6	8. Object Oriented Programming	32:25	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
7	9. Model, View, Controller	55:05	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG
8	11. Intro to Rails Applications	43:02	Hans Masing & Trek Glowacki	Design of Complex Websites	GET SONG

My Predictions

The screenshot shows the Michigan Ross School of Business website. At the top, there is a navigation bar with the Michigan Ross School of Business logo and name. Below the logo, there are several images: a building, a group of people in a meeting, and a campus scene. To the right of these images is a 'Links' menu with three items: 'Ross Web Site', 'My iImpact', and 'U-M Web Site'. Below the navigation bar, there are four logos for various centers and libraries: 'Center for POSITIVE Organizational Scholarship', 'Dividend', 'The William Davidson Institute at the University of Michigan', and 'Kresge Library DASH'. At the bottom, there are three columns of content: 'News', 'Events', and 'Seminars'. Each column has a header and a list of items with small images and titles.

M MICHIGAN ROSS SCHOOL OF BUSINESS

Links

- Ross Web Site
- My iImpact
- U-M Web Site

Center for POSITIVE Organizational Scholarship

Dividend

THE WILLIAM DAVIDSON INSTITUTE AT THE UNIVERSITY OF MICHIGAN

Kresge Library DASH

News

- Pathways for Women**
Dan Mulhern

Events

- FuturTech Conference 2006**
J. Bruce Harrel...M Corporation

Seminars

- Building the ...Good to Great**
Dr. Bob Quinn ...ol of Business

- Courses only
- Public

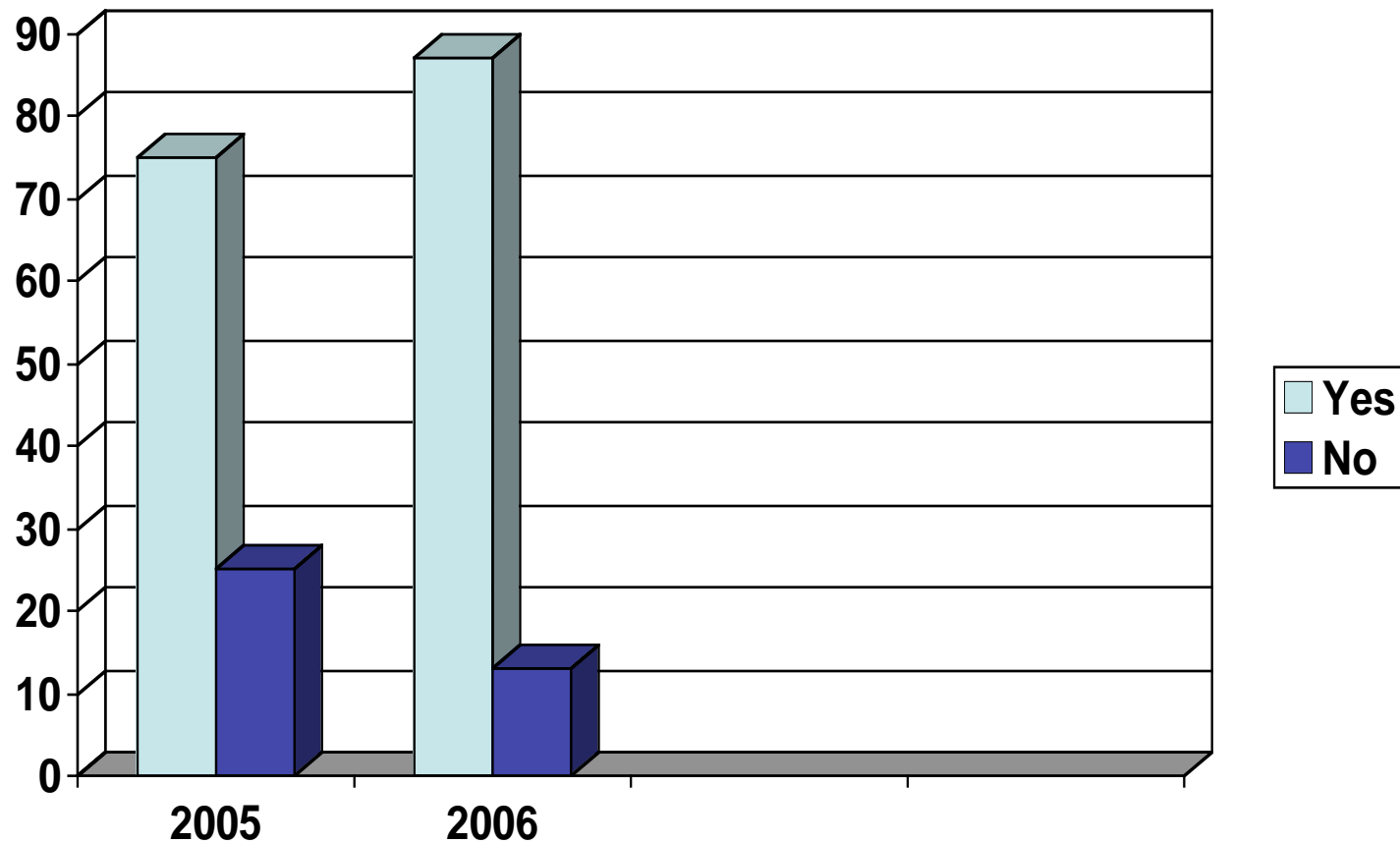


Final Comments

Positive Side Effects

- Notetaking service disappeared
- Decrease costs of ADA compliance

Do you own a portable audio device?



university of michigan
School of Dentistry
iTunes U

Login



[iTunes U](#) / [Press](#) / [Developers](#) / [Contact](#) / [Store](#) / [Login](#)

iTunes U Timeline

date	milestone
2004	
August	Lecture Video recordings requested by first year dental students
September	Content from the Microbiology course is captured to video, audio, and powerpoint synced with audio
October	Students are surveyed about their use of their use of recorded lectures. Results: Audio is the preferred media type (66%). 1/3 of students download lecture content.
November	Two more courses are recorded with only audio. Different audio

Recent News

[Campus Technology Magazine](#) [News.com](#) [MTV.com](#) [WWMT](#)

What Is iTunes U

iTunes U at the University of Michigan School of Dentistry represents a year-long exploration into solving a learning problem: how to help students cope with the intense amount of medical information presented to them.

What started as a student request to video tape lectures turned into a research project exploring student media use, recording and processing procedures, and downloading trends. The overwhelming majority of students said they preferred listening to audio recordings of classroom lectures using their iPods or other portable listening devices. Students report that portable devices gave them maximum flexibility and allow them to listen to lectures at their convenience and regardless of location.

Automated from Start to Finish

<http://www.dent.umich.edu/iTunes>

Dental Students Launch iTunes U Initiative

Profiles in Success: School of Dentistry, University of Michigan



Ann Arbor, MI — On Friday nights, many college students toss their books aside, plug in their ear-buds, and press “play” on their iPods. Students at the University of Michigan’s (UM) School of Dentistry are no exception. But instead of listening to hip-hop tunes, members of an ever-increasing study group gather to review class presentations and listen to audio recordings of lectures. Thanks to a new, student-launched iPod initiative, digital content in a host of subjects is now available to the future dentists.



In 2004, first-year dental student Jared Van Ittersum was frustrated. Feeling that he was sometimes missing key points during lectures, he sought a way to reinforce what he’d heard. Thus, through a collaboration with staff from the School’s Office of

School of Dentistry, University of Michigan

Mobile Lectures

Ear Buds on Campus
Researching the Benefits

Search Education

Featured Apple Solutions



Buy now ▶

Challenges

- Supplement and reinforce in-class lectures
- Enable 24/7 learning outside of lecture halls and classrooms
- Transfer responsibility for content management from faculty to students

Solution

- 3 eMac computers
- University-branded iTunes U Site

<http://www.dent.umich.edu/iTunes>

http://www.apple.com/education/profiles/michigan_dentistry/



K-12



Higher Education



Students



Solutions



Resources



Community



Shop

iTunes U

Click. Sync. Learn.

It all starts with learning

Apple shares common goals with education — to advance teaching, learning, and research through innovation, and engage and empower students. Students expect a campus environment that accommodates their digital lifestyle, adapts to their individual learning needs, and encourages collaboration and teamwork. Introducing a way to simplify and meet all these needs — iTunes U.



Please [contact me](#)
about becoming an
iTunes U campus.

iTunes U in Action

Find out how the University of
[Michigan](#) is putting iTunes U to
work.

iTunes U at a glance

- **Learning to go.** Provide easy access to educational content, 24 hours a day, 7 days a week.
- **Proven and Scalable.** Based on the iTunes Music Store.
- **Easy to learn, use, and administer.** Supports secure web-based standards for authentication and authorization.
- **Part of an end-to-end solution.** iTunes U is a fully integrated part of Apple's end-to-end solution for creating, managing, distributing, and accessing educational content.
- **You are in control.** Site administrators can require authorized users to sign-on securely. For course managers, iTunes U includes easy-to-use online editing tools.

One-click iPad support. It's the

<http://www.dent.umich.edu/iTunes>

http://www.apple.com/education/profiles/michigan_dentistry/

http://www.apple.com/education/solutions/itunes_u/

Success Factors

- Student project
- Senior Associate Dean
- Keep faculty informed
- Limit faculty effort
- Protect intellectual property
- **Data, data, data, data....**

Apple iTunes



techKNOWLEDGEy