Rich Technology and Lean Budgets

Using Instructional Technology to Teach Smarter, Not Harder

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This Talk

• Who am I? Why am I here?
• Some tech tools I’ve encountered that improved the student experience in classes
  • Particular focus on “cheap” initiatives
• Close with some general thoughts about how tech costs might matter
My Background

• Chair of Communication Studies Dept.
• Former member of UCLA’s Faculty Committee on Educational Technology
• Been at UCLA since 2001
• Previously helped train TAs at UCSD to use instructional technology
• Longstanding interest in technology and its effect on society (teach “Revolutions in Communication Technology” class).
Today: Technology Tools and Teaching

- Talk about some efficient (low cost and/or high reward) uses of tech tools that improve teaching
- Some from my own teaching; some for which I can’t claim credit
- Tools/techniques that drastically improve the student experience with modest investment
- Tools/techniques that help “hold the line” in cases of budgetary retrenchment
Tool #1: Class Survey
• Dual purpose: 1) Get to know students; 2) example for class re: framing and persuasion.

• Trick: Random assignment to different surveys

• Key Question: Grading Scale (Equivalency Framing)
Effectively demonstrates that you can influence people’s decisions over important issues without changing what they believe (Only complicated part was randomizer)
Tool #2: Digital Video Editing

- Teach students about role of TV advertising in persuasion and campaigns
- More effective for students to learn by doing
- But... TV production used to be nightmarishly complex and expensive
- Technology has filtered down to allow them to become producers of mass media
- Anyone can learn the basics of iMovie in an hour
The Project

- I choose two candidates and provide raw footage from the UCLA Communication Studies Archive and C-SPAN
- I teach them how to edit video using iMovie (one 50-minute class for the basics; one 50-minute class for additional help)
- 3-person groups make a positive & a negative ad (30 seconds each)
- Can’t lie; have to use at least 7 seconds of my footage of the politician speaking; can use “outside” footage & music, too (fair use).
Development of Project

- Started in 2002 using digital 8 tape, firewire hard drives, and shared computers in a multimedia lab.
- Now use regular Moodle course site to host footage and turn in projects; CLICC laptops or own machines to edit.
- In general, students were surprised at how:
  - ... little “real” information fits in 30 seconds
  - ... much easier negative ads were
  - ... certain soundbites dominated
  - ... they hadn’t paid attention to ads before
Negative Ad

Group 5
Negative Ad
Positive Ad

Group 17
Positive Ryan
Another Positive

Group 04
Positive
My Wife’s Favorite

Group 19
Negative Landrieu
Last Examples: Biden/Romney
Other Notes

• Students get a DVD with all the projects; do peer evaluations, then we have an awards ceremony.

• Use Moodle survey tool for audience survey and peer evaluations (previously used Filemaker Pro and Google Docs)

• Main costs of project: time.

• Can view all the commercials since 2002 online here: http://www.sscnet.ucla.edu/comm/groeling/web/CommercialProject.html
Tool #3: Video Archive

- Want to study & understand TV
- UCLA has been recording ephemeral programming since Watergate hearings
  - Expanded daily schedule since late 1970s
- Local and national news & public affairs
- Tremendous collection (one of the largest in the world)
Problem: Access

- Important resource for students and faculty
- Tapes were stored in boxes all over campus and SRLF
- Finding a particular date or show was difficult
- Finding material without knowing what day and/or show it was: nearly impossible
- No index. 4-8 hours of shows per tape.
Now...

- Digital collection (since Oct. 06)
- Two main search channels:
  - Visuals (thumbnails)
  - Text (closed-captioning)
Search: Paul Ryan

UCLA Communication Studies Archive

Find news programs

with all of the words
with the exact phrase
with at least one of the words
without the words
with the word/phrase within the same segment of the word/phrase

Date and time:
from 01/03/2005 09:00:00
to 04/01/2010 00:37:00
(e.g. 12/31/2006 17:00:00)

Sort by:
Frequency

Counts:
Videos

Networks:

BET
CNBC
CNN
CNN-Headline
CSPAN
CSPAN2
ComedyCentral
Court
Discovery
ESPN
FOX-News
History
KABC
KCAL
KCBS
KCET
KNBC
KTLA
KTTV-FOX
MSNBC
Presidential

Select All
Select None
Invert Selection

Series:

1600 Pennsylvania Avenue (MSNBC)
1969 Moon Landing (History)
1st Presidential Debate (KCBS)
1st Presidential Debate (FOX-News)
1st Presidential Debate (CNN)
1st Presidential Debate (MSNBC)
1st Presidential Debate (KABC)
20-20 Royal Family (KABC)
2nd Presidential Debate (MSNBC)
2nd Presidential Debate (KABC)
2nd Presidential Debate (CNN)
2nd Presidential Debate (KCBS)
3rd Presidential Debate (CNN)
3rd Presidential Debate (KABC)
3rd Presidential Debate (MSNBC)
3rd Presidential Debate (FOX-News)
Another Use Case: CS162

- My course on Presidential Communication
- Allowed students to conduct original primary source research into the 2008 election

Project Option 2: The Tube on the Trail

CS162 2008 Presidential Election Coverage Assignment

This project will have students examine television news content during the 2008 election. Using the resources of the UCLA Communication Studies Archive, students will have access to computer-indexed coverage recorded in the Los Angeles media market during the 2008 race.

Video Archive Searches

All searches will be conducted using the UCLA CS Archive Search Engine at http://www.sscnet.ucla.edu/csa/search/. This link will be restricted to UCLA computers (note: You can use the BOL VPN client (see http://www.bol.ucla.edu/services/vpn/) or a proxy server if you’re off-campus.)
Sample project:

- Studied how different news outlets characterized candidate ads
- Coded tone of stories by outlet

The Expression of Network Bias: Presidential Candidates and Their Campaign Ads

Research Question
Is there a difference in the networks’ (KCBS, KNBC, KABC, KTTV-FOX, Comedy Central, Fox News, CNN, MSNBC) treatment of campaign ads in their programs depending on the party affiliation of the ads?

Introduction
Candidates try to disseminate their campaign messages through advertisements in order to better control their image. Although a candidate can control the messages within their ads, they cannot control the ways in which the ads are interpreted and analyzed through the news and entertainment media. This raises the question of network bias and different campaigns receiving differential treatment across news networks based on the political affiliation of their candidate.

Through our research we will examine the coverage that networks give to political ads during the campaign, and determine if the networks give preferential treatment to certain campaigns. Our research will attempt to answer the question: do networks (KCBS, KNBC, KABC, KTTV-FOX, Comedy Central, Fox News, CNN, MSNBC), give Barack Obama and John McCain differential treatment when broadcasting their campaign ads?
Another sample:

Voting Info

- Compared campaign coverage on Anderson Cooper 360 vs. The View or Entertainment Tonight
- AC360 spent proportionately more time on horserace/personal coverage than The View (less than ET)

Useful Voting Information on Political v. Entertainment Shows

Group 6
(3 people)
Archive Technology: Efficient

- Put cheap consumer video capture cards in rackmounted computers (4 per unit)
- Heavily automated computerized indexing and monitoring cuts personnel costs
- Use open-source tools and distributed processing of unused departmental computers and UCLA Dawson Cluster for large-scale conversion; hosted on Wowza server.
- Small grants from our Dean, Office of Instructional Development, and CCLE, and partnerships with UCLA’s Social Sciences Computing (plus Communication Studies and outside grants) and hosting from ATS keep the lights on.
- Note: we’re expanding our collection to cover other markets (beginning with California). Partners needed.
- Can share infrastructure costs across partners=cheaper.
Tool #4: Podcasting

- Started experimenting in Spring 2005; central part of my lecture classes beginning in Fall 2005
- Key point: low-cost, high-benefit
• Before class:
  PDFs with sparse outline of lecture (students bring to class; take notes on slides)

• Announcements
• Audience survey results returned to groups (Might have to do it on paper)
• Today: The Supremes, Agencies, and Interest Groups as sources
• After class: “enhanced” podcast uploaded.
• AAC file (rather than MP3) that includes audio and slides
• Chapters are killer app
Newest Quicktime
Benefits to Students

- RSS saves students having to pull info from course site (or keep checking if it’s there yet)
- Nice way to organize files and (if you have an iPod) access them away from your computer
- Help students who had to miss class.
- Main purpose: Help review for exams
- Chapters are amazingly helpful
Podcasts for Exam Review

• For reviewing lecture, students:

• Take notes on slides in-class, then review those notes before exams

• When their notes or the slide don’t make sense, they can go to that podcast and jump right to the discussion of that slide.
Costs: Minimal

- Old way: use garage band and put the chapter breaks and graphics in by hand (painful)
- Or have audio/video recording (good, but lose chapters)
- I use ProfCast software and give the lecture exactly the way I would have before (easy).
- Program captures my audio and slide advances, and automatically generates enhanced podcast file
- Can publish to iTunesU: Easy, good for material you want to get public attention (indexed through iTunes search engine), me.com, your university, etc.
• Lecture outlines are in announcements (so students get e-mail); podcasts are in the discussion forum (so they don’t).
Tool #5: Video Annotation Tool

- Partnered with SSC to develop a Moodle/CCLE tool to facilitate content analysis of video
- Time coded tags and events layered on video
Related Problems

- Budget crisis put pressure on CS1: Intro to Public Speaking classes

- Students typically gave 3-4 speeches in front of the entire class

- Some students had difficulty confronting fear of public speaking

- Bottleneck: Classes couldn’t easily scale past 25 students because of time devoted to presentations in class
Possible Solution: Shift Some Speeches Online

• Most laptops (and all CLICC laptops) have webcams. Video annotation tool allows instructor (and potentially peers) to annotate/grade speeches.

• Moving early speeches online allows reduced pressure (multiple takes) & more opportunities for self-reflection.

• More class time can be devoted to later speeches in front of the whole class.

• Piloting online speeches this summer.
Final Tool: Communication

• Tools aren’t always complex; but sometimes coming up with the idea is the hard part

• Excited to learn about this conference because it seems to be a good way to disseminate good instructional tech ideas

• Learning from others’ mistakes or successes is important
UCLA: Copenhaver Award

- Provides an incentive for innovators to share ideas
- I’ve learned a lot about what people are trying based on these awards
- Doesn’t have to be expensive
Cheap Revolutions

• Technology doesn’t have to be expensive to be transformative.

• Some of the most important informational revolutions have been based on changing the costs of a technology, rather than inventing something completely new.

• Best example: Printing press. A press with cast movable metal type, paper, and better ink took an existing invention (the book) and made it far cheaper.

• Changing the costs of using tech for instructors and students (or building on “found” tech they already own, like cell phones or webcams) might help them more than inventing something completely new.