

Podcasting Computer Science E-1



Computer Science E-1: Understanding Computers and the Internet

Harvard Extension School

www.computerscience1.org

SIGCSE

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David J. Malan

Division of Engineering and Applied Sciences
Harvard University

malan@post.harvard.edu

with

Rei Diaz

Dan Armendariz

Eugenia Kim

Chris Thayer



The Podcast

Many students accessed it via iTunes.

The screenshot shows the iTunes application window. The top menu bar includes File, Edit, Controls, Visualizer, Advanced, and Help. The main window title is 'iTunes'. Below the title bar is a search bar for the Music Store and a 'Browse' button. The left sidebar shows the 'Source' menu with options for Library, Podcasts, Videos, Party Shuffle, Radio, and Music Store. The main content area displays the podcast page for 'Harvard Extension School's Computer Science E-1: Understanding Computers and the Internet' by David J. Malan. The page includes a Harvard University crest, a 'Podcast Description', 'Customer Reviews' (Average Rating: 4.5 stars), and a list of 15 episodes with columns for Name, Time, Release Date, Description, and Price. Each episode has a 'CLEAN' button and a 'GET EPISODE' button.

Name	Time	Release Date	Description	Price
1 Welcome to Computer Science E-1 (video)	2:44	2/3/2005	A brief welcome, in which members of the staff introduce themselves.	Free GET EPISODE
2 Lecture 1 (audio): Hardware	1:43:54	9/22/2005	Computation. Overview. Bits and bytes. ASCII. Processors. Moth...	Free GET EPISODE
3 Lecture 1 (video): Hardware	1:43:43	9/22/2005	Computation. Overview. Bits and bytes. ASCII. Processors. Motherb...	Free GET EPISODE
4 Lecture 1 (slides): Hardware		9/22/2005	Slides to accompany Lecture 1.	Free GET EPISODE
5 Lecture 2 (audio): Hardware, Continued	1:53:03	9/29/2005	Secondary storage: floppy disks; hard disks; CD-ROM discs; DVD-...	Free GET EPISODE
6 Lecture 2 (video): Hardware, Continued	1:52:45	9/29/2005	Secondary storage: floppy disks; hard disks; CD-ROM discs; DVD-RO...	Free GET EPISODE
7 Lecture 2 (slides): Hardware, Continued		9/29/2005	Slides to accompany Lecture 2.	Free GET EPISODE
8 Lecture 3 (audio): Software	0:48	10/6/2005	It's the first of two movie nights for Computer Science E-1! A look...	Free GET EPISODE
9 Lecture 4 (audio): The Internet	1:38:21	10/13/2005	Networks: clients and servers, peer-to-peer, piconets, (W)LANs ...	Free GET EPISODE
10 Lecture 4 (video): The Internet	1:38:08	10/13/2005	Networks: clients and servers, peer-to-peer, piconets, (W)LANs and ...	Free GET EPISODE
11 Lecture 4 (slides): The Internet		10/13/2005	Slides to accompany Lecture 4.	Free GET EPISODE
12 Lecture 5 (audio): The Internet, Continued	1:48:07	10/20/2005	Network topologies. Ethernet: NICs, cabling, hubs, and switches....	Free GET EPISODE
13 Lecture 5 (video): The Internet, Continued	1:47:48	10/20/2005	Network topologies. Ethernet: NICs, cabling, hubs, and switches. Wi...	Free GET EPISODE
14 Lecture 5 (slides): The Internet, Continued		10/20/2005	Slides to accompany Lecture 5.	Free GET EPISODE
15 Workshop 4 (audio): Inside the 'Net	1:51:56	10/22/2005	A talk by Scott Bradner.	Free GET EPISODE



The Podcast

It's simply an RSS feed.

```
<?xml version="1.0" encoding="UTF-8"?>
<rss xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd" version="2.0">
  <channel> [...]
    <item>
      <title>Lecture 1 (video): Hardware</title> [...]
      <itunes:author>David J. Malan</itunes:author>
      <itunes:summary>Computation. Overview. Bits and bytes. ASCII. Processors. Motherboards: connectors, ports, slots, and
        sockets and system bus. Memory: ROM, RAM, level-1 and -2 cache, secondary storage, and virtual memory.</itunes:summary>
      <itunes:duration>1:43:43</itunes:duration>
      <enclosure url="http://www.courses.dce.harvard.edu/~cscie1/podcasts/lecture1.mov"
        type="video/quicktime"
        length="210092794" />
      <pubDate>Thu, 22 Sep 2005 19:30:00 EST</pubDate>
    </item> [...]
  </channel>
</rss>
```



The Podcast

**45% of students used the podcast for review,
18% as an alternative to attendance.**

“I love this feature, I have an hour to an hour and a half commute each way to work everyday and to have the podcasts helped with reviewing the lectures (on the go).”

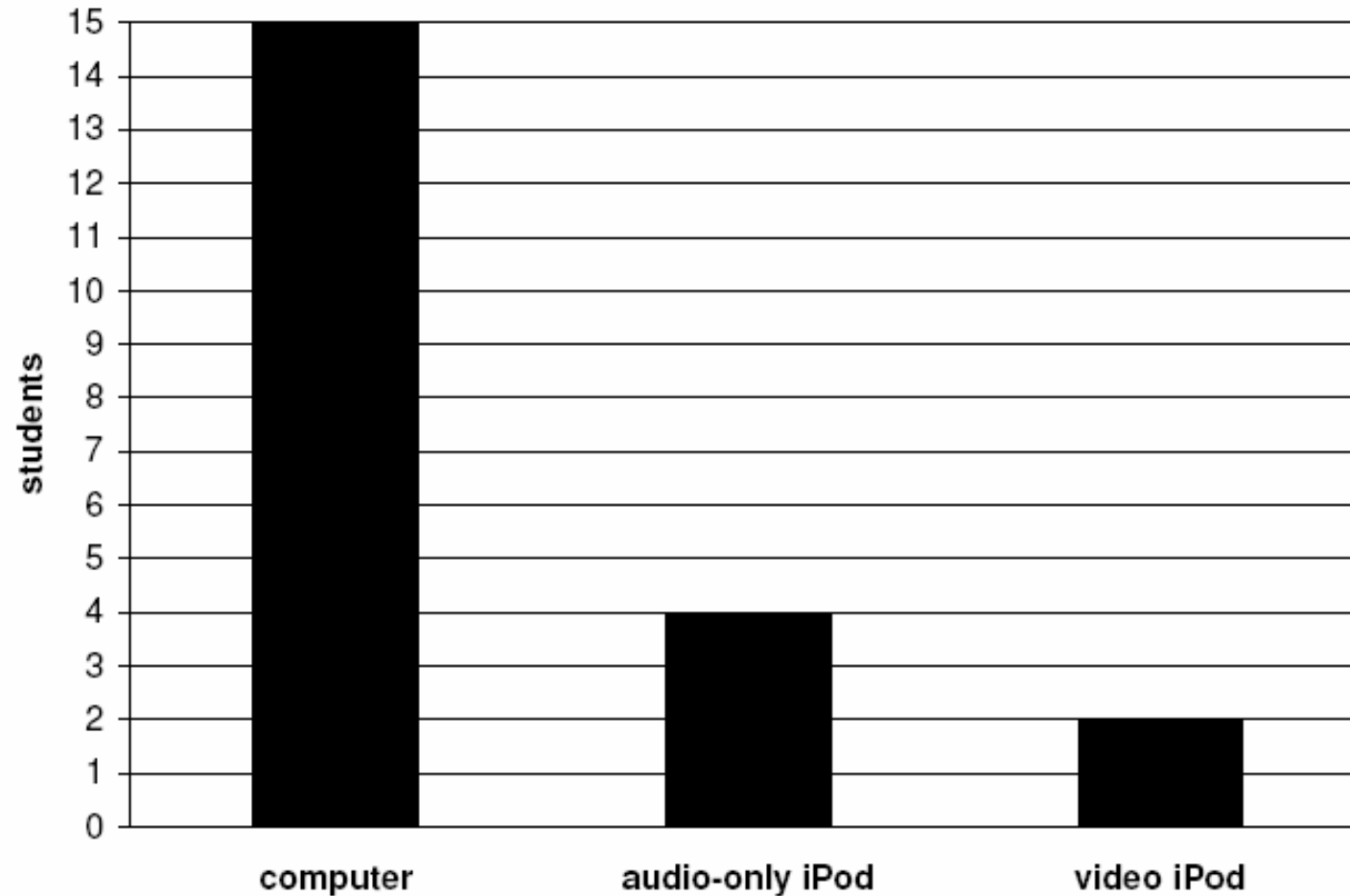
“I think it was also very much in line with the course curriculum to have students learn about and use the technologies that are available, including the iPod. How very cutting edge we were!”

“It’s simply a good way to review and listen to lectures.”

The Podcast



Most students watched or listened on their computer, not iPod.





The Podcast



Enthusiasm != Usage.

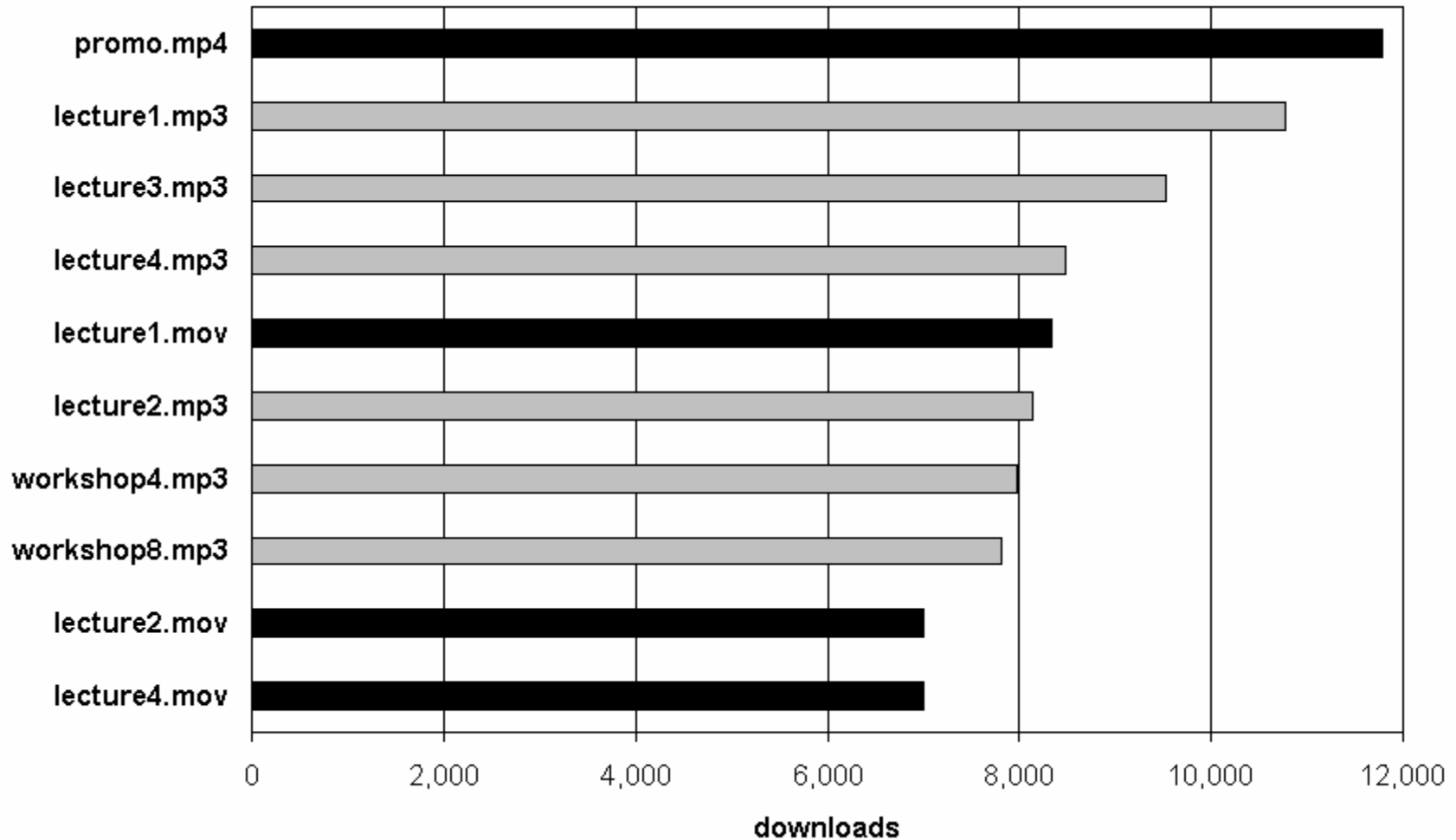
“I really liked [the] concept of using podcasting as an educational medium. It extends the reach in very affordable ways... I think I only listened to one podcast and none of the videos.”

“I think podcasting is a good idea.
The more formats information is made available in, the better.
However, I did not listen to any of the podcasts.”

The Podcast



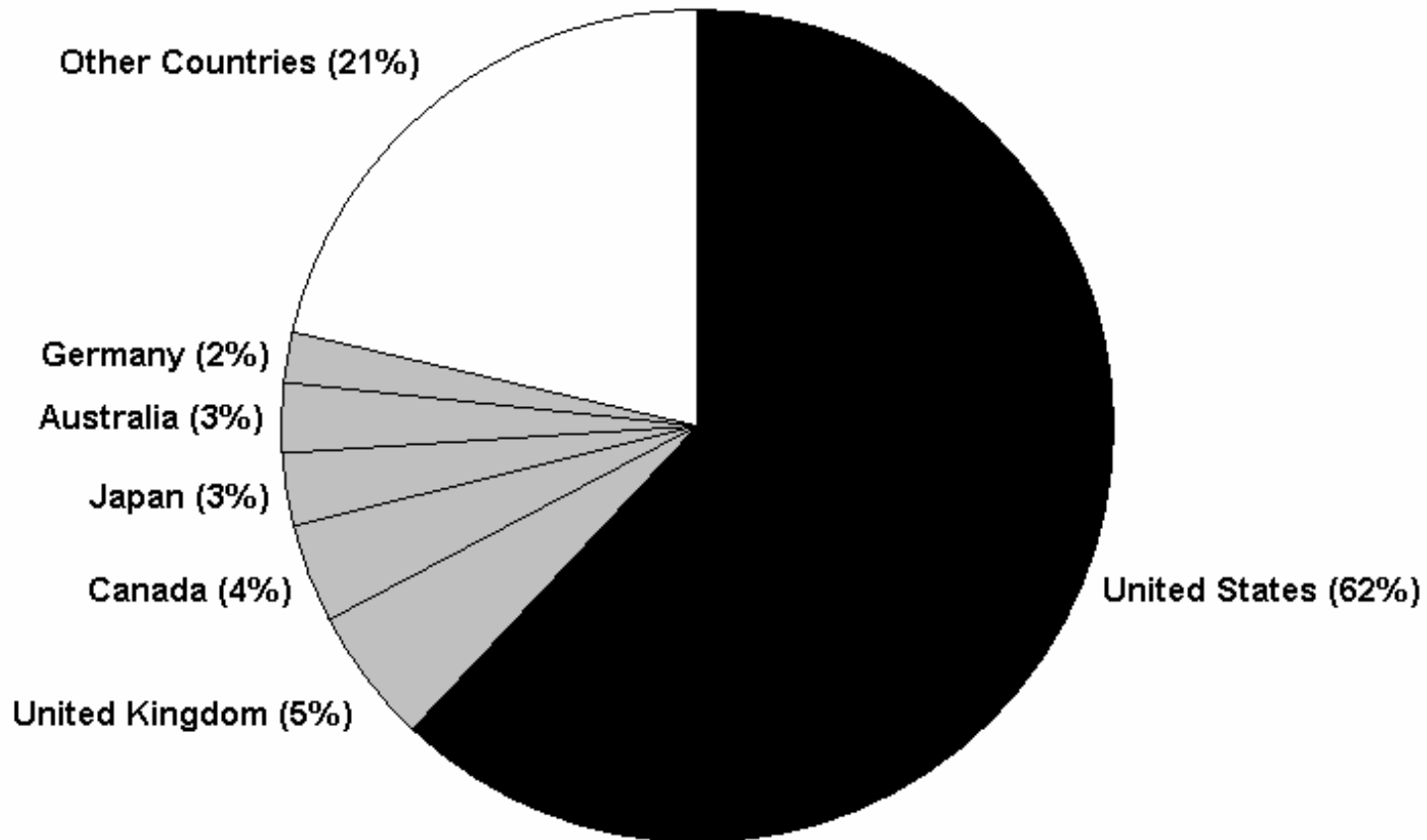
Logs suggest 6,000 – 10,000 subscribers between September 2005 and September 2006.



The Podcast



Subscribers were from over 50 countries.





The Podcast

Emails from Subscribers

"I live in the central interior of British Columbia, Canada, and am surrounded by forest, the nearest town is twenty minutes drive. . . . I pay a great deal of money to connect to the Internet via satellite. . . . I consider the lessons I have learned from you and your colleagues to have completed paid for this service."

"I would like to thank you for posting your . . . lectures . . . as podcasts. The commute to Cambridge from . . . Israel is a bit too much for me to attend the course in person. Nevertheless, your podcasts have been a great 'second best.'"

The Value



Overstated with hype?

“Could ivy-covered lecture halls become as obsolete as the typewriter?”

Newsweek, 28 November 2005

The Value

Podcasting (or future equivalent) offers universities new opportunities to teach populations at large.

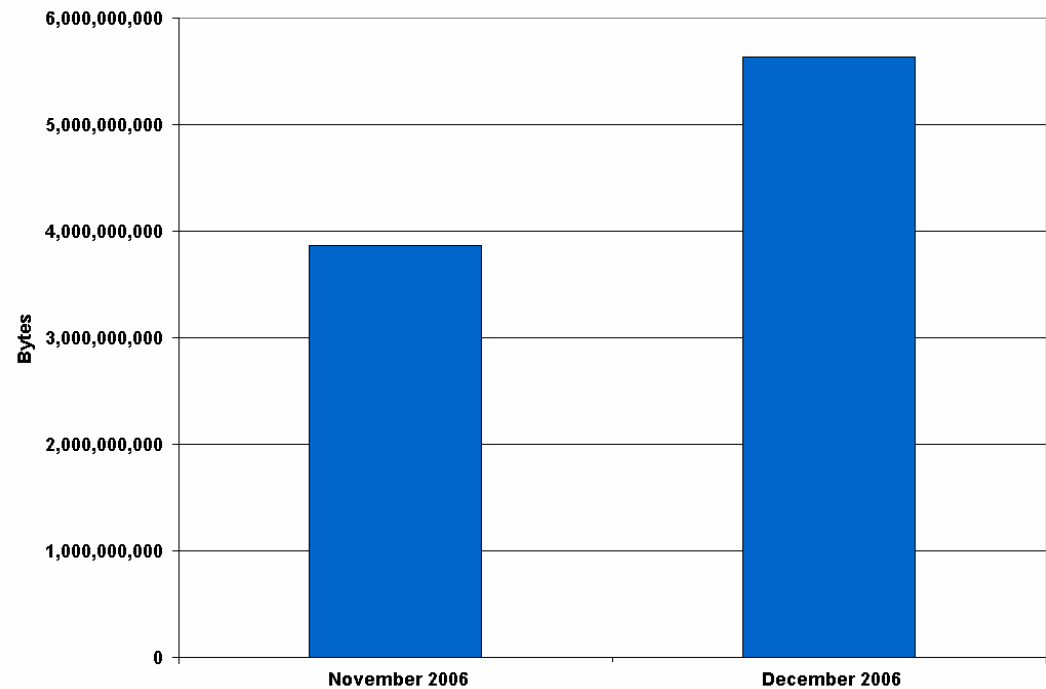




The Issues

Perhaps best tackled on a course-by-course basis.

- Production Costs
 - Storage
 - Bandwidth
- “Branding”
- Will students stop attending?
- Who owns the content?
- Uttering Mistakes (and Opinions) on Camera
- Students’ Privacy
- Fair Use
- “I paid \$40,000 for those classes.”
- ...





Conclusions



Podcasting (or future equivalent)...

- ... is a marginal improvement on trends long in progress.
- ... is perhaps a “next best thing” for those for whom attendance is simply not possible.
- ... offers to extend universities’ reach more than it offers to improve education itself.

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