Web/CD Hybrid Model for the Distance Learning Environment

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According to a National Center for Education Statistics Report (1999) [survey of over 3500 institutions]

- Universities using distance learning:
  - 78% of four-year
  - 62% of two-year colleges and
- Electronic learning was mostly at the individual course level rather than complete academic programs.
- Estimated 1.6 million students across the nation took at least one course through distance learning
- Presentation format of asynchronous computer based instruction
- Approximately 83% of all electronic distance learning courses
Real estate
- Location
- Location
- Location

Telecommunications
- Bandwidth
- Bandwidth
- Bandwidth

Low Bandwidth:
- Text
- Pictures

High Bandwidth
- Voice
- Sound
- Video
- Programs

Other issues:
- Slow modems
- Connection issues
Internet Access

- Campus network - live/work on campus
  - Why take distance learning?
- Cable modem
- Dial-up modem
- 6 million homes with broadband access,
  - nine percent of the households,
  - (NCTA 2001 & Cisco 2001)
650 MEG
High Access Speed
Drives standard in computers
Holds data/programs/links
An online web environment allows instructors to have a course that:

- Is easily updated
- Tracks where and how long students use
- Allows students to input information into discussion boards, online tests, or whiteboards.
Course Based CD

A CD can provide:

- full screen,
- non-delayed extended video and audio
- access and review offline
- play on devices other than a computer, such as a DVD or CD player.
Hybrid - Internet + CD

melds the two delivery formats

takes the advantages of both systems

eliminates many of each format’s shortcomings
Hybrid Advantages

- Links to Timely Information
- Real-time Interaction
- Centralized Tracking of User Activity
- Testing Security
- High quality/volume audio/video/programs
Internet based → Hybrid

- Identify “high-bandwidth” components
- Identify complex components
- Transfer these high-bandwidth files off the web server and place them on a CD, which is distributed to the students.
CD based → Hybrid

- Determine needed online support
  - Interactivity
  - Assessment
  - Currency
- Create an online course site
- Place links onto the course’s CD that direct students to the online environment.
In course environment place link to call file from CD.

- Blackboard
- WebCT
- eLearn
- Internet
Sample

- 147 megabyte mpeg streaming video
- 30 seconds Cable Modem
- 400 times that for a standard dial up modem
- 2 seconds to start from a CD