CPSC156: The Internet Co-Evolution of Technology and Society

Lecture 7: February 6, 2007

More about browsers (ack.: L. Cranor);
Introduction to Digital Copyright and Online Content Distribution
Cookies, web bugs, etc.

See beginning of November 6, 2001 lecture of CPSC155:

http://zoo.cs.yale.edu/classes/cs155/fall01/cranor.ppt
Basis of US Copyright Law

U.S. Constitution:
[Article I, Section 8]
“The Congress shall have Power...
[Clause 8] To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries...”

Note: The founding fathers did not feel the need to empower Congress to create physical property rights.
Examples of Exclusive Rights

• to reproduce the copyrighted work
• to prepare derivative works
• to distribute copies through sales, rental, lease, or lending
• to perform the copyrighted work publicly (applies, e.g., to plays)
• to display the copyrighted work publicly (applies, e.g., to sculpture)
• digital audio transmission

[These are paraphrases.]
Exception: “4-factors” test for “Fair Use”

- The purpose and character of the use, including whether such use is of a commercial nature or is for non-profit educational purposes
- The nature of the copyright work
- The amount and substantiality of the portion used in relation to the copyright work as a whole
- The effect of the use upon the potential market for or value of the copyrighted work
Exception: First-Sale Rule

• When a copyright owner sells a copy of a work, he relinquishes control over that copy but not over the work.
• The work cannot be reproduced by the purchaser, but the copy can be loaned, resold, or given to someone else.
• “Promotes progress” by enabling, e.g.
  - libraries
  - used book stores
General Structure of Copyright Law

• Copyright owners’ rights stated explicitly.
• General public has no explicitly stated rights, just exceptions to owners’ rights.
• Fair use is a defense against a charge of infringement.

This structure works fairly well for traditional media, particularly books.
Structure is Challenged by Digital Works

• Digital documents are fundamentally different:
  - Copies are perfect.
  - Copies can be made at zero cost.
  - Copying is not necessarily a good proxy for infringement.

• TPSs are imperfect:
  - A perfect TPS could moot fair use: no infringement, no charge, no defense.
  - But no TPS can be perfect in today’s computers. General purpose PCs are programmable, and hence TPSs are circumventable (at least by experts).
Three Major “Enforcers” Support a Content-Distribution Business

- Copyright law

- Technical Protection System (TPS)

* Business Model
Dual Doomsday Scenarios

Rights Holders and Distributors:
TPSs don’t suffice. Digital copying, modification, and distribution are uncontrollable. We need more legal and social sanctions.

Fair-Use Advocates and (Some) Consumers: TPSs work too well. Some rights holders now have more control than they do in the analog world. Normal use can often be monitored and controlled in the digital world.
Best TPS is a Great Business Model

“The first line of defense against pirates is a sensible business model that combines pricing, ease of use, and legal prohibition in a way that minimizes the incentives for consumers to deal with pirates.”

Holy Grail: A Great Business Model for Internet Music Distribution

Hal Varian (quoted in C. Mann’s 2000 “Heavenly Jukebox” article): “Maybe Coke will find a way integrate itself directly into the shows. Or they’ll release the music free on the Internet, except that it will be wrapped in a commercial.” What’s the difference if the Spice Girls are marketed by Coca-Cola or by Virgin Records, soon to be a subdivision of AOL-Time Warner?

2000 Sales by RIAA members: $15B
2000 Coca-Cola Net Operating Income: $20.5B
Discussion Point

To what extent is *iTunes* this Holy Grail?
Assignments

HW2 was posted on the website last weekend. Due Feb. 13, 2007.

Reading: From the National Research Council’s Digital Dilemma report on copyright challenges in the Internet age: