



Lecture 11

Intellectual Property

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Participation Quiz

Which is most impressive?

- A. The tallest building in the world
- B. The fastest car in the world
- C. The longest nose in the world
- D. The highest dive in the world
- E. The most T-shirts worn at one time in the world



(it was 155)

4.1 Introduction


- Value of intellectual properties much greater than value of media
 - Creating first copy is costly
 - Duplicates cost almost nothing
- Illegal copying pervasive
 - Internet allows copies to spread quickly and widely
- In light of advances in information technology, how should we treat intellectual property?


Tired of being treated like a criminal for sharing music online?

You're in good company. Over 60 million other music fans use peer-to-peer programs like Kazaa and Morpheus to share their favorite tunes. Yet the record labels are bullying ISPs and hunting down college kids in an effort to shut down file sharing.

Isn't it time for a new approach? The Electronic Frontier Foundation thinks so. We believe the answer lies in a model that fairly compensates artists while supporting music lovers. Join EFF today so the music can play on.

**File-Sharing:
It's Music to our Ears**



 Stand up for your right to share the music you love!
Join EFF today at www.eff.org/share.

What Is Intellectual Property?

- Intellectual property: any unique product of the human intellect that has commercial value
 - Books, songs, movies
 - Paintings, drawings
 - Inventions, chemical formulas, computer programs
- Intellectual property ≠ physical manifestation

Property Rights

- Locke: People have a right...
 - to property in their own person
 - nobody should be allowed to enslave you
 - to their own labor
 - to things which they remove from Nature through their labor
- As long as...
 - nobody claims more property than they can use
 - after someone removes something from common state, there is plenty left over



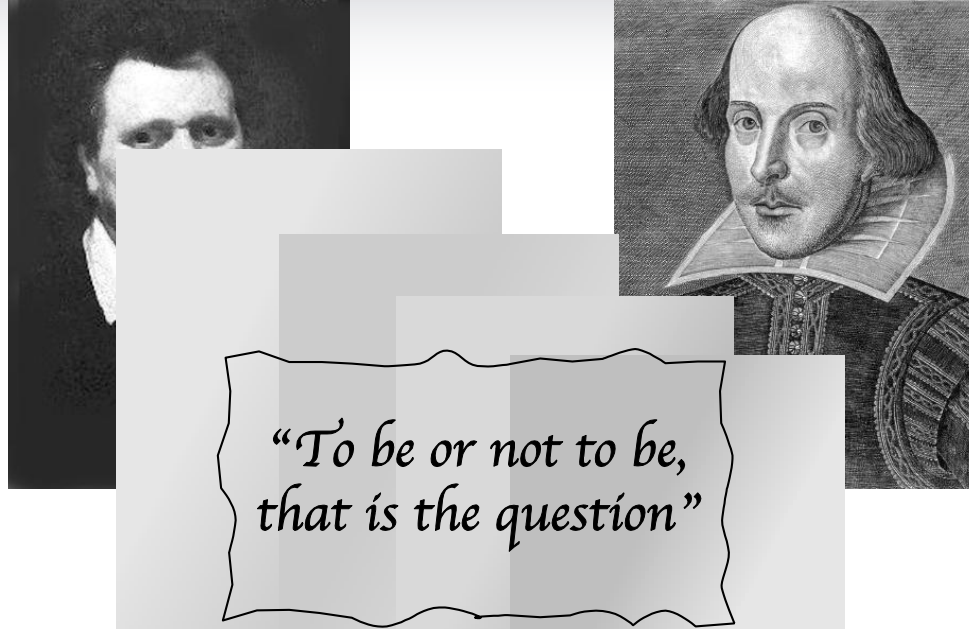
Property Rights

- Pierre-Joseph Proudhon: “Property is Theft”
 - "The liberty and security of the rich do not suffer from the liberty and security of the poor; far from that, they mutually strengthen and sustain each other. The rich man's right of property, on the contrary, has to be continually defended against the poor man's desire for property."
- Do you think property is a right? If so, should the right have limits?

Expanding the Argument to Intellectual Property

- For example we could say that “Writing a play is akin to making a belt buckle”
- Belt buckle
 - Mine ore
 - Smelt it down
 - Cast it
- Writing a play
 - “Mine” words from English language
 - “Smelt” them into prose
 - “Cast” them into a complete play

Are We Convinced?



- If Ben Jonson and William Shakespeare simultaneously write down Hamlet, who owns it?
 - If that sounds far-fetched, two modern artists who paint a canvas blue
 - Two people can't have intellectual property rights to the same idea, even if they both had it independently
- If Ben "steals" the play from Will, both have it
 - Unlike a belt buckle, stealing doesn't deny ownership to the owner

Intellectual Property Protection

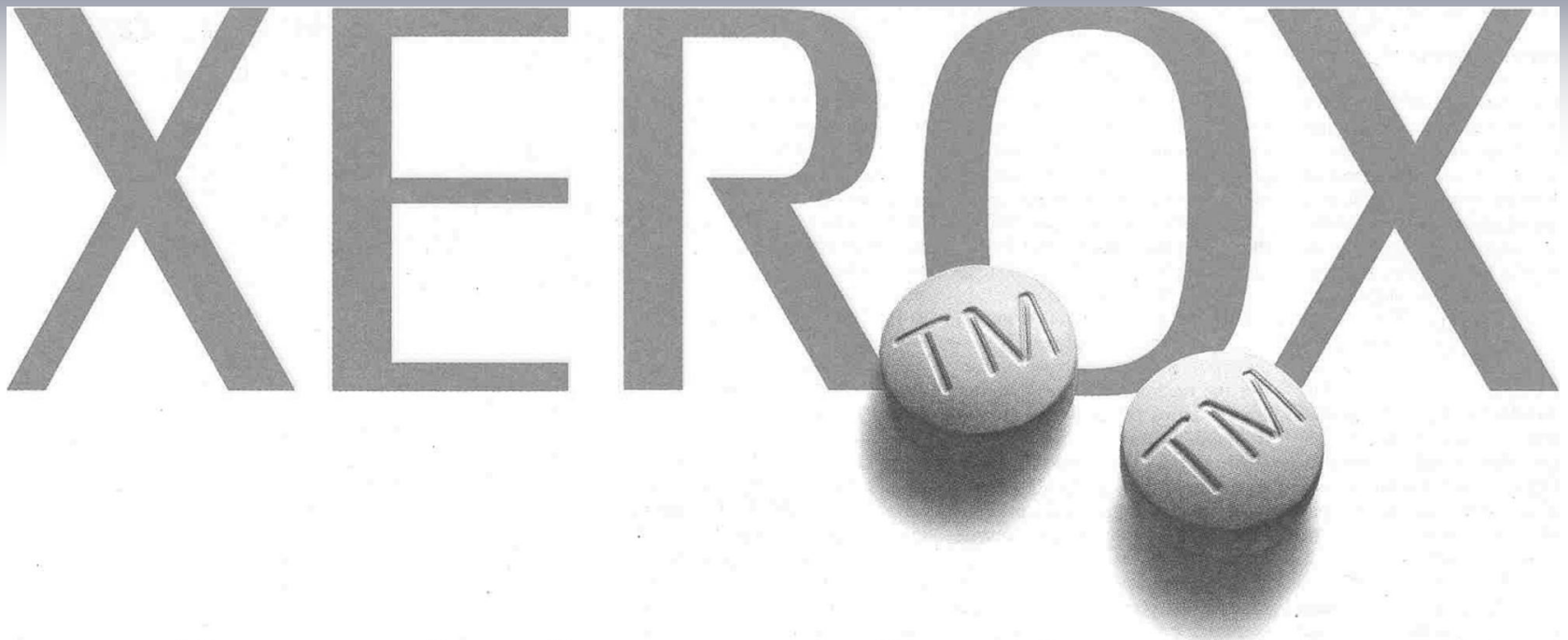
- So, why Intellectual Property Protection?
 - Some people are altruistic; some are not
 - Allure of wealth can be an incentive for speculative work
 - Thus, benefits to limited intellectual property protection
- But, these rights should come with limits
 - Giving creators rights to their inventions stimulates creativity
 - Society benefits most when inventions in public domain
 - Strike a compromise by giving authors and inventors rights for a limited time
- It might make more sense to call it “intellectual monopoly” rather than “intellectual property”

1. Trade Secret

- Confidential piece of intellectual property that gives company a competitive advantage
- Never expires
- Not appropriate for all intellectual properties
- Reverse engineering allowed
- May be compromised when employees leave firm

2. Trademark, Service Mark

- Trademark: Identifies goods
- Service mark: Identifies services
- Company can establish a “brand name”
- Does not expire
- If brand name becomes common noun, trademark may be lost
- Companies advertise to protect their trademarks
- Companies also protect trademarks by contacting those who misuse them



When you use “Xerox” the way you use “aspirin,” we get a headache.
There’s a new way to look at it.

Boy, what a headache! And all because some of you may be using our name in a generic manner. Which could cause it to lose its trademark status the way the name “aspirin” did years ago. So when you do use our name, please use it as an

adjective to identify our products and services, e.g., Xerox copiers. Never as a verb: “to Xerox” in place of “to copy,” or as a noun: “Xeroxes” in place of “copies.” Thank you. Now, could you excuse us, we’ve got to lie down for a few minutes.

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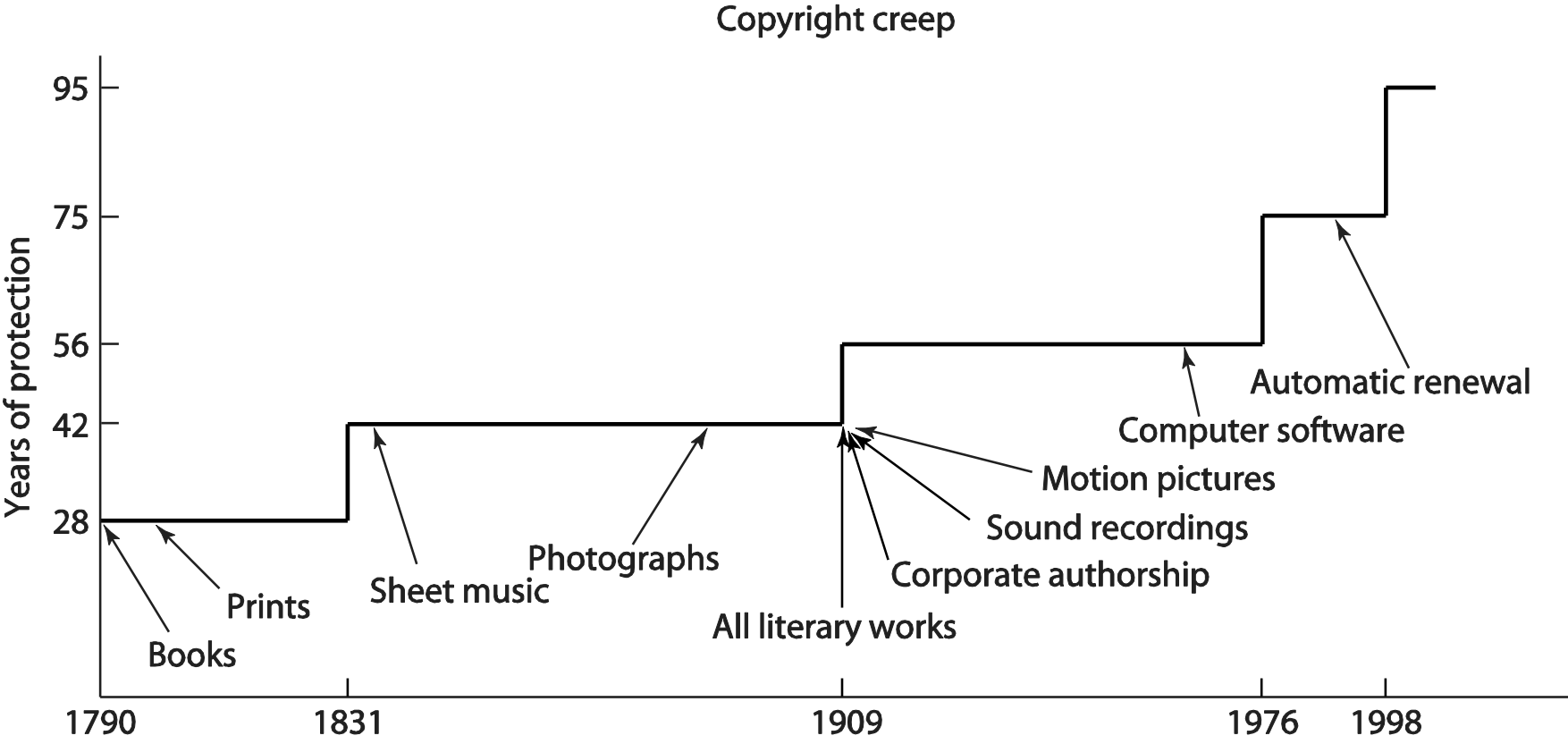
3. Patent

- A public document that provides detailed description of invention
- Provides owner with exclusive right to the invention
- Owner can prevent others from making, using, or selling invention for 20 years

4. Copyright

- Provides owner of an original work five rights
 - Reproduction
 - Distribution
 - Public display
 - Public performance
 - Production of derivative works
- Copyright-related industries represent 5% of U.S. gross domestic product (> \$500 billion/yr)
- Copyright protection has expanded greatly since 1790

Copyright Creep



Copyright Creep

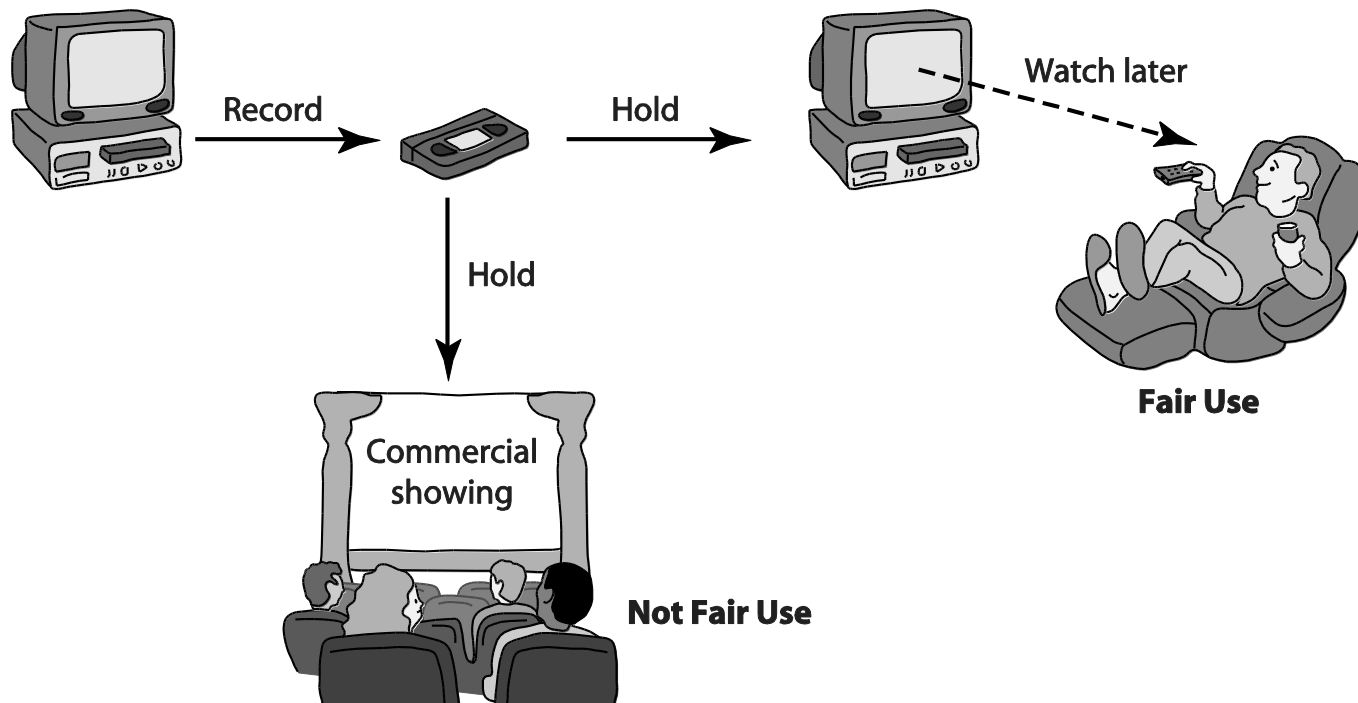
- Since 1790, protection for books extended from 28 years to 95 years or more
- Some suggested latest extension done to prevent Disney characters from becoming public domain
- Group of petitioners challenged the Copyright Term Extension Act of 1998, arguing Congress exceeded Constitutional power
- U.S. Supreme Court
 - CTEA does not create perpetual copyrights
 - CTEA is constitutional

Fair Use Concept

- Sometimes legal to reproduce a copyrighted work without permission
 - USA, laws actually less favourable in Canada
- Courts consider four factors
 - Purpose and character of use
 - Nature of work
 - Amount of work being copied
 - Affect on market for work

Sony v. Universal City Studios

- Sony introduces Betamax VCR (1975)
- People start time shifting TV shows
- Movie studios sue Sony for copyright infringements
- U.S. Supreme Court rules (5-4) that time shifting is fair use



Digital Recording Technology

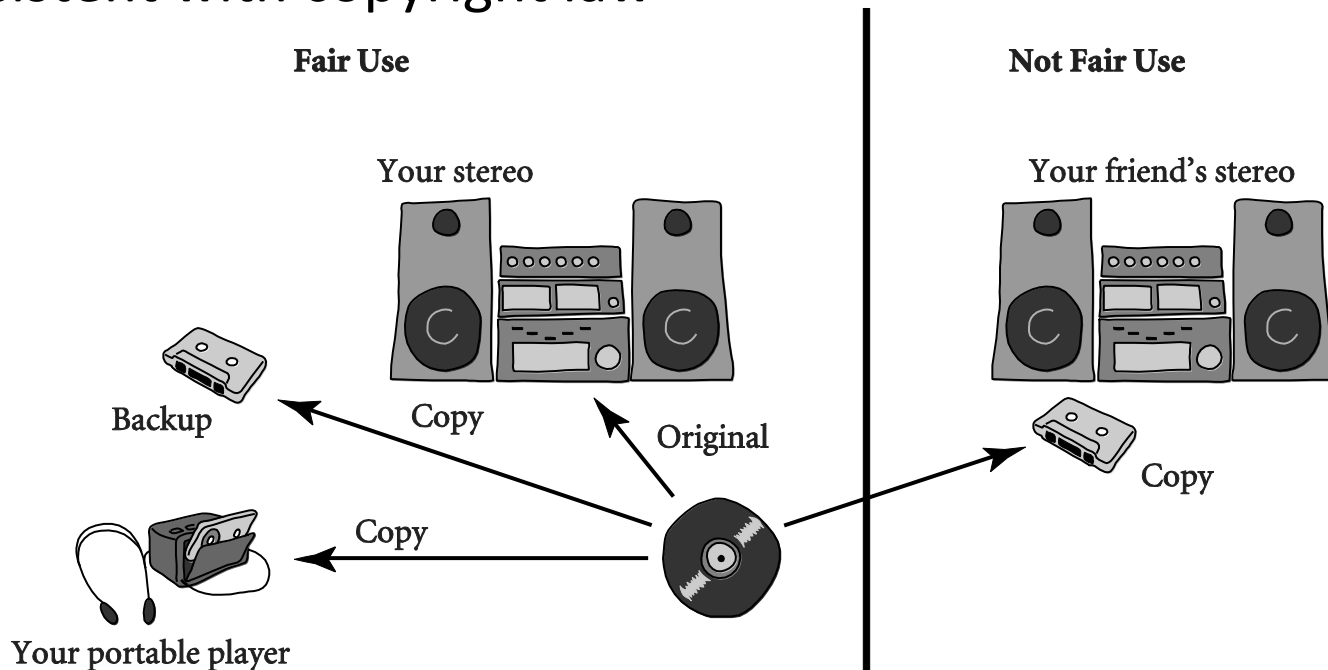
- Copying from vinyl records to cassette tapes introduced hiss and distortions
- Introduction of compact disc a boon for music industry
 - Cheaper to produce than vinyl records
 - Higher quality
 - Higher price \Rightarrow higher profits
- BUT it's possible to make a perfect copy of a CD

Audio Home Recording Act of 1992

- Protects rights of consumers to make copies of analog or digital recordings for personal, noncommercial use
 - Backup copy
 - Give to family member
- Digital audio recorders must incorporate Serial Copyright Management System (SCMS), so consumers can't make a copy of a copy

RIAA v. Diamond Multimedia Systems

- MP3 compression allows songs to be stored in 10% of the space, with little degradation
- Diamond introduces Rio MP3 player (1998)
- People start space shifting their music
- RIAA starts legal action against Diamond for violation of the Audio Home Recording Act
- U.S. Court of Appeals, 9th Circuit, affirms that space shifting is consistent with copyright law



Kelly v. Arriba Soft Corporation

- Kelly: Photographer maintaining Web site with copyrighted photos
- Arriba Soft: Creates search engine that returned thumbnail images
- Kelly sues Arriba Soft for copyright infringement
- U.S. Court of Appeals, 9th Circuit, affirms that use of images is a fair use

Google Books

- Google announced plan to scan millions of books held by several huge libraries, creating searchable database of all words
- If public domain book, system returns PDF
- If under copyright, user can see a few sentences; system provides links to libraries and online booksellers
- Authors Guild and publishers sued Google for copyright infringement
- Out-of-court settlement under review by U.S. District Court for Southern District of New York

Proposed Settlement

- Google would pay \$125 million to resolve legal claims of authors and publishers and establish Book Rights Registry
- Readers would have much easier access to out-of-print books at U.S. public libraries and university libraries
- University libraries could purchase subscriptions giving their students access to collections of some of world's greatest libraries
- Authors and publishers would receive payments earned from online access of their books, plus share of advertising revenues