

# Intellectual Property

CS 305: Social, Ethical and Legal Implications of Computing

# Whence Intellectual Property Rights?

- Quinn's analysis finds no "natural right"
  - Compare to Locke's right to physical property.
- US Constitution gives congress the power to create a right:

## Article 1 - The Legislative Branch

### Section 8 - Powers of Congress

The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

To borrow money on the credit of the United States;

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

To establish Post Offices and Post Roads;

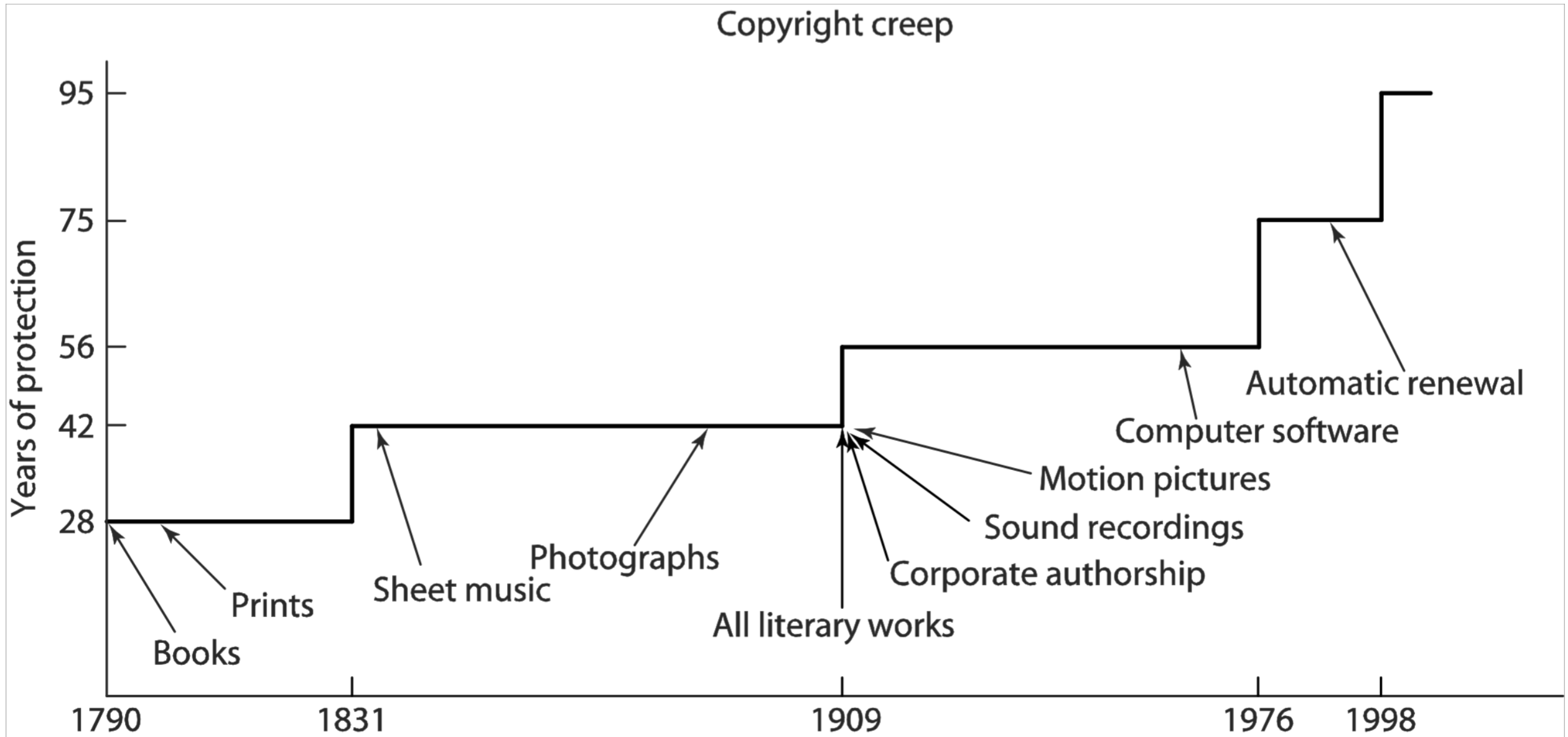
**To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;**

To constitute Tribunals inferior to the supreme Court; ...

# My interpretation:

- Congress has a *constitutional duty* to balance
  - ▶ “The progress of Science and the Useful Arts”
    - furthered by allowing the widest possible dissemination
  - ▶ The rights of authors and inventors
    - furthered by giving them exclusive rights to the products of their intellects
- Time limits have been used to set the balance

# Copyright Creep



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# The US Legal System

- Two sources of law: Congress, Courts
- Two kinds of law: Criminal, Civil
- Trials
- Right to appeal; grounds for appeal

# Legal Framework for IP

- Four basic kinds of protection
  - ▶ Copyright
  - ▶ Patent
  - ▶ Trademark
  - ▶ Trade Secret
- Many goals for this framework

# Copyright

- Covers an *expression* of a creative work
  - ▶ Everything since about 1930
  - ▶ Currently obtained by ...
- Gives right to
  - ▶ Reproduce
  - ▶ Prepare derivative works
  - ▶ Distribute copies
  - ▶ Perform, or Display, in public
- Enforced by civil suit (mostly)

# “Fair use”

- The copyright holder cannot prohibit “fair use” of legitimate copies.
- Is it Fair? Depends on:
  - ▶ purpose
  - ▶ nature of work
  - ▶ how much of the work
  - ▶ how market is affected

# Example Case 1

- *The Nation* magazine published excerpts from ex-President Gerald Ford's unpublished memoirs. The Nation published several weeks prior to the serialization of these memoirs in another magazine.
- Verdict: Not Fair use
- Important factors: The Nation's copying seriously damaged the marketability of Mr. Ford's serialization rights.

# Example Case 2

- Publisher Larry Flynt made disparaging statements about the Reverend Jerry Falwell on one page of *Hustler* magazine. Rev. Falwell made several hundred thousand copies of that page and distributed them as part of a fund-raising effort.
- Verdict: Fair use
- Important factors: Falwell's copying did not diminish the sales of the magazine (it was already off the market) and would not adversely affect the marketability of back issues.

# Example Case 3

- A television news program copied one minute and 15 seconds from a 72-minute Charlie Chaplin film and used it in a news report about Chaplin's death.
- Verdict: Not Fair Use
- Important factors: The court felt that the portions taken were substantial and part of the "heart" of the film. *Roy Export Co. Estab. of Vaduz v. Columbia Broadcasting Sys.*

# Sony v. Universal City Studio

- Example of Supreme Court making law:
  - ▶ UCS sued Sony for selling VCRs, which were being used to time-shift copyrighted movies licensed by UCS to TV stations.
  - ▶ Supreme court ruled that Sony was innocent, for two reasons:
    1. Copying for later, private viewing was fair use
    2. VCRs have substantial uses that are clearly legal

# Authors Guild v. Google

- Is it legal for Google to scan millions of books from libraries, and make them searchable on the web?
  - ▶ Kelly v. Ariba Soft implies “yes”
  - ▶ Settlement rejected by US District Court, March 2011

# Digital Millennium Copyright Act

- US law since 1998, makes it illegal:
  - ▶ to circumvent encryption schemes on digital media,
  - ▶ to sell software designed to circumvent such schemes, and
  - ▶ to discuss circumvention online

# Patents

- Covers a novel, useful idea
- Lasts 20 years
- Application process through USPTO
- Right to “practice” idea
- Enforced by civil suit

# Trademarks

- Covers a distinguishing mark
- Lasts as long as in trade use
- Application through USPTO
- Right to use mark (*c.f.* Lanham Act)
- Enforced by civil suit

# Trade Secrets

- Covers a “secret” (probably even if otherwise not protectable)
- Created by not disclosing
- Lasts as long as the secret stays secret
- Right to prevent employees, *etc.*, from disclosing the secret
- Enforced by civil suit (mostly)

# Ethical and Social Issues

- What goals are served by current IP law?  
Consider categories of IP that are currently not protected...
  - ▶ When does IP protection inhibit creation?
  - ▶ When does it encourage it?
- From what ethical framework does a “creator's right” to control “their” IP flow? Is it universal?
- What price is society willing to pay to “protect” IP? Is it technical? Social?

# “Open” IP

- Movement for collective creation
- Typically focused around copyright, source code
- Idea: license away individual rights
- Two flavors:
  - ▶ “Non-infectious”: Creative Commons, Open Source
  - ▶ “Viral”: GPL

# Free Software

- Richard Stallman and the “Four Freedoms”
  - ▶ freedom to run a program for any purpose
  - ▶ freedom to study the mechanics of the program and modify it
  - ▶ freedom to redistribute copies, and
  - ▶ freedom to improve and change modified versions for public use

# GNU General Public License

- “Viral” license
  - ▶ “Copyleft”: derived works can be distributed only under the same license terms as the original work.
- Source must be distributed
- When combined with other software, must be distributed under the same terms
- v2 (1991) added “Liberty or death” clause
  - ▶ LGPL license added as “lesser” alternative

# Free Software

- Commercial business and the GPL
- Case study: The Linux kernel

# Open Source Software

“The open source movement has proven that it is able to produce alternatives to proprietary programs (for example, StarOffice instead of Microsoft Office), but it has not demonstrated its ability to innovate completely new products.”

*Quinn, p204.*

# Should software be protected by Copyright?

- Argument in favour:
  - ▶ Copying  $\Rightarrow$  fewer purchases
  - ▶ fewer purchases  $\Rightarrow$  less profit for creating software
  - ▶ less profit  $\Rightarrow$  less new software
  - ▶ less software  $\Rightarrow$  harm to society
- Is this a strong argument?