

Sensitive Information in a Wired World

CPSC 457/557, Fall 2013

Lecture 3, September 5, 2013

1:00-2:15 pm; AKW 400

<http://zoo.cs.yale.edu/classes/cs457/fall13/>

Past tense

- Early copyrights and “privileges”
 - Rome (1st century BCE)
 - Venice (1447)
- The Royal Society, Newton, and Grub Street
- The Enlightenment
- The Printing Press

Incentives

- For IP
 - Author / creator
 - State & people
- For “piracy”
 - Cheaper; used to be lower quality
 - Edge of civilization or “near abroad”

If it isn't nailed down..

- Books
- Music
- Movies
- What else?

The Switch to Digital & the Internet

- Boundaries
- Cost (time & resources) of copying
- Quality of copies

How do these shifts affect copyright enforcement?

What works, what doesn't, and why

CURRENT COPYRIGHT ENFORCEMENT

Books

- DRM
 - Mobipocket (variants), Adept, Fairplay
- “Accountability” techniques (watermarking)
- Library Genesis, library.nu, etc.
- Amazon’s 1984 move (2009)
- Circumvention
 - OCR
 - Leaked copies

Music

- DRM
 - XCP and MediaMax
- The iTunes Revolution
- Streaming Music & Internet Radio
 - Spotify
 - Grooveshark
 - Pandora
- YouTube
 - Identifying music and autotagging

Movies

- DRM
 - Content Scrambling System
 - WMD: Weap.. I mean, Windows Media DRM
 - Advanced Access Content System
(HD-DVD & BD-ROM)
- Tracking downloads and “entrapment”
- Streaming
 - NetFlix, Amazon Instant Video
 - YouTube, solarmovie.{so, eu, me,...}, novamov, etc.

Others

- TV
- Periodicals
- What else?

Software & the Internet

- Games
- Applications
- OS

Torrents and downloads

- File sharing
- P2P
- Tracking and circumvention

Patterns

- Let's put software aside for now..
 - What are the general classes of techniques that are being used to enforce digital copyright?
- Incentives
 - Copyright holders
 - Enforcement = profit?
 - Vendors of enforcement software
 - Big user base
 - What kind of software do they want?

Technical and ethical issues

- What works
- Ideas for solutions?

That's all, Folks!