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!