

CSE312/ISE312

Gift of Fire, Fourth edition by Sara Baase

Read: Section 4.3-4.5

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What We Will Cover

- Search Engines and Online Libraries
- Free Software
- Patents for Inventions in Software

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Search Engines and Online Libraries

Search Engines

- Caching and displaying small excerpts is fair use
- Creating and displaying thumbnail images is fair use
- Google negotiated licensing agreements with news services to copy and display headlines, excerpts, and photos.
- Trademarked search terms

Since Google makes money from ads responding to searches of copyright material, should they share with copyright owners?

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Search Engines and Online Libraries

Books Online

- Project Guttenberg digitizes books in the public domain
- Microsoft scanned millions of public domain books in University of California's library
- Google has scanned millions of books that are in the public domain and that are not; they display only excerpts from those still copyrighted
- Some court rulings favor search engines and information access; some favor content producers

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Free Software

What is free software?

- Free software is an idea advocated and supported by a large, loose-knit group of computer programmers who allow people to copy, use, and modify their software
- Free means freedom of use, not necessarily lack of cost
- Open source - software distributed or made public in source code (readable and modifiable)

GNU project

- Began with a UNIX-like operating system, a sophisticated text editor, and many compilers and utilities
- Now has hundreds of programs freely available and thousands of software packages available as free software (with modifiable source code)

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Trial of Sergey Aleynikov

Source: Flash Boys by Michael Lewis

- \$400K/yr SW developer for Goldman Sachs
- Tried for theft of SW, convicted (8 years sentence), then eventually set free
- SW – part of a 60M LOC system
- Goldman typically downloaded open source code, then relabeled it as Goldman Sachs proprietary
- Serge was offered \$1M+/yr by a new trading firm
- Mailed himself code he was working on (open source + proprietary)

What are the ethical issues?



Patents for Inventions in Software

Patent decisions, confusion, and consequences

- Patents protect inventions by giving the inventor a monopoly for a specified time period.
- Laws of nature and mathematical formulas cannot be patented.
- Obvious inventions or methods cannot be patented.


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Patent Realities

- Cost
- Not difficult to be innovative
- Patents encourage inventors to be expansive
- Legal issues
 - Patent trolls - Companies that accumulate thousands of technology patents, may money on patent infringement suits
 - Companies collect patents for market protection
 - Patent enforcement beyond the limits of individuals


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Should Software be Patentable

- In favor of software patents
 - Reward inventors for their creative work
 - Encourage inventors to disclose their inventions
 - Encourage innovation
- Against software patents
 - Being first to market is enough of an incentive
 - Patents can stifle innovation
 - Legal costs
 - Difficult to determine what is truly original

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HW Assignment

- Read one SW patent
- Be prepared to comment on it during the next class
- google.com/patents is a good place to look for an interesting patent

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