CS305 - Social, Ethical, and Legal Implications of Computing

- 3: Intellectual Property -
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The US Legal Framework

- 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...creating
• Gives right to
  • Reproduce
  • Prepare derivative works
  • Distribute copies
  • Perform, Display
• Enforced by civil suit (mostly)
(Utility) Patents

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

- Covers a distinguishing mark
- Last 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
- Last as long as the secret stays secret
- Right to prevent employees etc from disclosing the secret
- Enforced by civil suit (mostly)
IP: 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 “his/her” 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:
  - Vanilla ala Creative Commons, Open Source
  - “Viral” ala GPL
Free Software

- RMS and the “Four Freedoms”
- The GPL as a legal hack
- Commercial business and the GPL
- Case study: The Linux kernel
Four Freedoms

• 0. Freedom to run the program as you wish.

• 1. Freedom to study the source code of the program and then change it so the program does what you wish.

• 2. Freedom to help your neighbour. That’s the freedom to redistribute the exact copies of the software when you wish.

• 3. Freedom to contribute to your community. That’s the freedom to distribute copies or modified versions when you wish.
Ethics of the Four Freedoms

- From what ethical framework do these freedoms flow?
- Are they stated in a way that biases the ethical case?
  - Robin Hood
  - Bitcoin
- Do they reflect a different understanding of “property”?
The GPL as a Legal Hack

• Already covered last week
• Ethics of legal hacking?
  • Sets bad precedent (c.f. kernel headers); encourages litigation (c.f. Busybox)
  • Can be risky (courts/lawmakers can wreak havoc with the framework)
• Following vs setting community norms
  • c.f. Bill Gates's Letter
Commercial vs Free

- The Free Rider problem (?)
- Commercial tech economy is incredibly valuable (IP is biggest US export)
- Where should the bar be set?
Too-brief history of UNIX

- A new kind of OS from AT&T
- UC Berkeley and BSD
- BSD entirely frees UNIX (c.f. SysV)
- MINIX, etc
- Early Linux
- Commercial Linux adoption
- Mega-GPL
Linux kernel

- OS kernel vs utilities
  - “GNU/Linux”
- Kernel interfaces, headers
- Kernel community
  - Consensus feedback both to and from
  - Conflicting goals
  - Open...but
  - The Benevolent Dictator
Final Questions

• Is the future open? Free? Mixed?
• What *should* the future be?
• What is the proper relationship between community effort and commercial effort?
  • Does everything have to be market-driven?
  • Does everybody just have to get along?
• All in all, this microcosm raises many of the same questions as modern tech society in general...