SI 521
Data is Different

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ZERO
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Commons vs Public Domain?

- Boyle argues for a deeper understanding of the importance, and the history, or the notions of the commons and the public domain
- CW tells us that private property in all guises, and unfettered markets, are most efficient
- Would this sound different if written today, not 2003?
- Does “private property save lives”?
- Do gene patents save lives?

Commons Enclosure

- What was this
- When did it happen
- What were the results
- What “common wisdom” has resulted?
- What is the tragedy of the commons - did it occur? - underinvestment, overuse
- What were “softer” norms that might have restrained overuse or provided incentives for investment
- Is “order without law” possible? What does this mean?

Second Enclosure Movement

- “the enclosure of the intangible commons of the mind”
- Should there be patents over human genes?
- Should collections of fact, eg, databases be copyrightable?
- Should “business methods” be patentable?
- Should fair use rights be blocked by laws against decryption?
- What should be the time limit for the monopoly of copyright?

Rip. Mix. Burn.

- Was Apple Encouraging Piracy?
- http://www.youtube.com/watch?v=K0ZWuhcM7t4
- Or was Apple encouraging legal use, within the confines of the iTunes walls?
- How do community practices today reflect answers to these questions?

How do Commons differ?

- Earthy vs ‘of the mind’
- Physical vs virtual
- Rivalry - non-rival, anti-rival - uses not mutually exclusive - unlike crops v sheep
- Excludability - anyone can copy - leads to collective action question of incentives to create the resource in the first place
- Since copying easier, shouldn’t we increase strength of IP laws and sanctions? To protect rights of creators?
- Here IP rights and copying costs are in inverse relationship - as one goes up, other goes down
- “IP maximalist” position

“Large Leaky Market”

- Key idea in Boyle’s case
- Notes that as copying costs drop, so do production, distribution and marketing costs
- So, which benefits creators more:
  - tightly held restricted market (smaller by definition)
  - Or large (big as the web) leaky market
- Boyle says we don’t know yet, but clearly harm can be done by too restrictive laws
  - See: “The Tragedy of the Anticommons”
  - Think of: “Comedy of the Commons”

Costs of Protection

- “every…increase of protection..raises the cost of, or reduces access to the raw materials…”
- Do intellectual property rights slow down innovation?
- Heller and Eisenberg: Tragedy of the AntiCommons

Does Global Network Change the Game?

- Does it transform our assumptions about creativity and innovation so as the *reshape the debate about needs for incentives?*
- Remember the goals in the Constitution: "To promote the Progress of Science and useful Arts…"
- Remedy was to increase incentives by providing limited monopolies
- What if such incentives are not needed? Or not needed near as much? Or in all areas?
- Boyle pushes on the first (not needed) by pointing to open source software

Distributed Production Models

- “E pur si muove”
  - and yet it moves
- Should the success of open source be a surprise?
- Or do we find similar practices “even before the Internet”? Science, law, education, music, political culture, art, popular culture…
- Is commodified innovation the special case?

http://www.wilfriedbluhm.de/Landkarten/index.htm?geschichte_karten_2e.htm

Incentives

- Benkler - doesn't matter - the field of potential contributors is so large on the web, that 'someone' will find return from their contributions above their 'reserve price' and turn off *Survivor*.
- Steven Weber - there are actually general positive incentives for contributions, and positive returns - "OSS is anti-rivalrous" - the more people use the software, the more contributions, the better it gets, the greater the return to contributors

http://journal.code4lib.org/articles/30

Data-driven Science

- “…my guess is that the increasing migration of the sciences towards data- and processing-rich models make more innovations and discoveries potential candidates for the distributed model”
- But DMCA, copyrighting of data, software patents, et al…”not merely make…the peer-to-peer model difficult, but..in many cases… rule it out altogether.”

(Boyles p 48)

- We should think hard about this, now

To help us think about it - some data

- Phil Andrews - Professor of Biological Chemistry
- Proteomecommons.org project
- Tranch software development project www.trancheproject.org
- What does data sharing mean in genomics and proteomics? How much is it done?
- How is science done here? What are the local norms of science?
- What are institutional incentive structures?
- What does this have to do with the Personal Genome Project? http://openwetware.org/wiki/PGP_and_Tranche

http://mndoci.com/blog/2007/03/11/proteomecommonsorg-tranche-a-commons-for-proteomics-data/

Change in the way we perceive self-interest

- Second half of the article will propose the need to “invent” the public domain, and the commons
- Much like the “environment” was invented in the 60’s and 70’s

Modularity

- For many, a key component of good distributed development candidates
- Each can contribute a *little*, and everyone benefits