

Government Policy About Open Source

What is the problem here ?

Three perspectives

- What is the logic of government action around open source (can't avoid some views on government action in IT markets more generally, or in any markets)
- What are governments actually doing? and why? (a few interesting examples)
- What difficult decisions are governments likely to confront in 2007?

What is at stake?

- decentralized truth telling – how do groups of people grope their way to better knowledge? Under what conditions is Erik Raymond's statement true?
- strategic behavior in markets – at least as a starting point, it would always be advantageous to have all layers in the stack below you remain open.
- social goals - if there is a visible trade off between innovation and distributional equity, how should those terms be set? if there is no clear trade off, who can umpire and measure the experiments that can teach us the terms?
- fundamental role of government in markets: following 'utopia on the potomac' and 'the revenge of the realists' governments enter the third generation of public policy without overarching principles and instead are being buffeted by strange coalitions – engineers and grateful dead lyricists on one side, the EU and Sun Microsystems on the other, and lawyers becoming the oracles of creativity.

Five recent historical cycles -- note government role in each

		Innovation		Crash	Deployment	
		Irruption	Frenzy		Synergy	Maturity
1	The Industrial Revolution	1771	Panic 1797		<ul style="list-style-type: none"> Manufacturing Repeal of Corn Laws 	1829
2	Age of Steam and Railways	1829	Panic 1847		<ul style="list-style-type: none"> Joint stock companies Economies of scale 	1873
3	Age of Steel, Electricity and Heavy Engineering	1875	Depression 1893		<ul style="list-style-type: none"> Separation of savings, investment banks 	1920
4	Age of Oil, Automobiles and Mass Production	1908	Crash 1929		<ul style="list-style-type: none"> Interstate highways IMF, World Bank 	1974
5	Age of Information and Telecommunications	1971	Dot.com Collapse		Current period of Institutional Adjustment	

Some very hard questions

- Should governments compel Google to publish its page rank algorithm?
- Should governments legislate co-location on essential services for CLEC equivalents to UPS or FedEx? how about the basic molecular structure of a statin drug?
- Should governments force interoperability on iPod/iTunes... for music? books? podcasts? video?

A simple null hypothesis that we can 'fix' over the course of today

- A series of closed and non interconnected systems is suboptimal for innovation, aggregate welfare, and not interesting to companies
- A purely open system is unsustainable from the perspective of a firm (no profit); innovation (no Schumpeterian rents); and society
- It is generally advantageous for a firm to have other links of the value chain be open
- Conflict arises because everyone wants to be the 'closed' link in the chain
- The combination of the two points above means that purely open and purely closed systems will always be challenged by private actors, and thus governments need not be the challenger
- The role of government is not to 'solve' the problem but simply to ensure that any solution that does emerge guarantees the provision of essential public goods.

What I hear from governments

- **Anti-dependency:** setting the terms of connection to the knowledge economy
 - cost savings
 - balance of trade
 - avoid opportunism by suppliers
 - incentivize upgrading of skills, human resources, in the hope of building local software industry
 - cluster vs. enclave logic

What I hear from governments

- **Security and Autonomy:** software markets are the continuation of politics by other means
 - e-governance systems: can't choose your customers, open data formats
 - no trap doors
 - technology export control -- access in real time (x86 example)

What I hear from governments

- **The new IP enforcement**
 - With or without WTO / TRIPS Plus, the choices are now more clear
 - “Every dollar MS spends fighting piracy in China, is ten dollars of free advertising for Linux”

Some government perspectives

- China
- EU
- Massachusetts
- Peru

Governments and Development - A global view

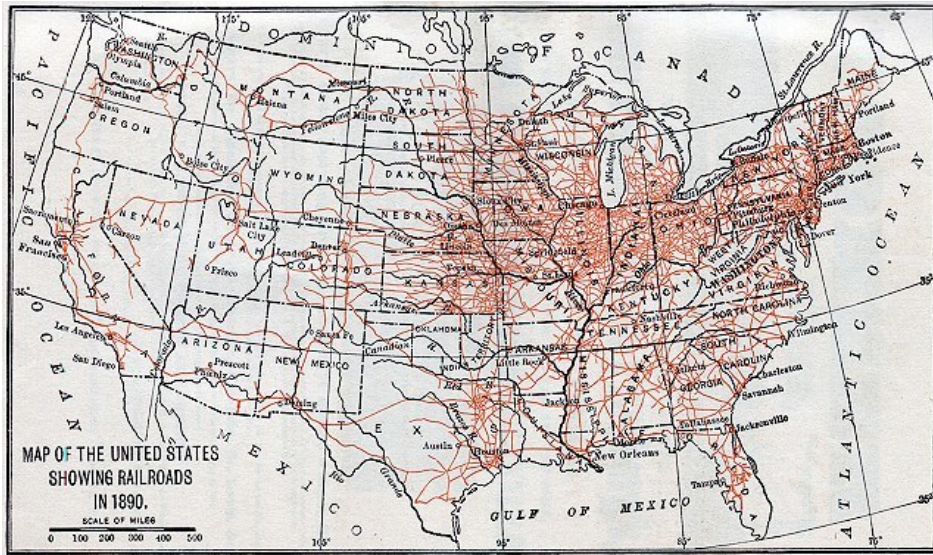
- Unique opportunity to build a shared global digital infrastructure as the foundation for the next phase of global economic development?
- Hypothesis: 'Getting the global digital infrastructure right' is one of the most important things governments need to do.

One argument to governments

A global digital infrastructure for distributed innovation?

- Economic progress depends on allowing producers, consumers, and innovators to connect with each other at decreasing cost.
- Infrastructure is not given by nature. We have to build it, sustain it, maintain it, and upgrade it over time.

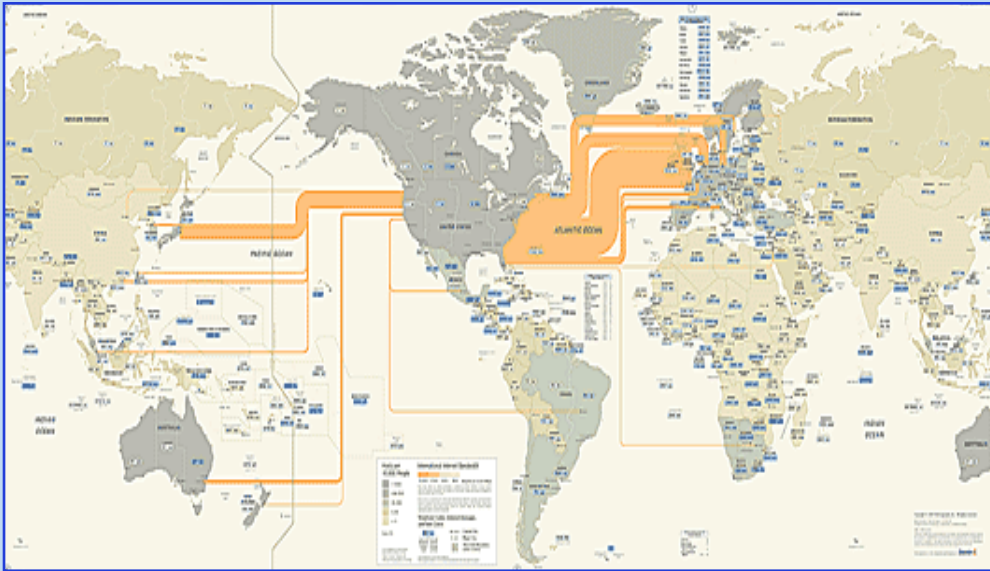
Issue #1: Architecture



1890 Patterns of
Commerce and
Communication



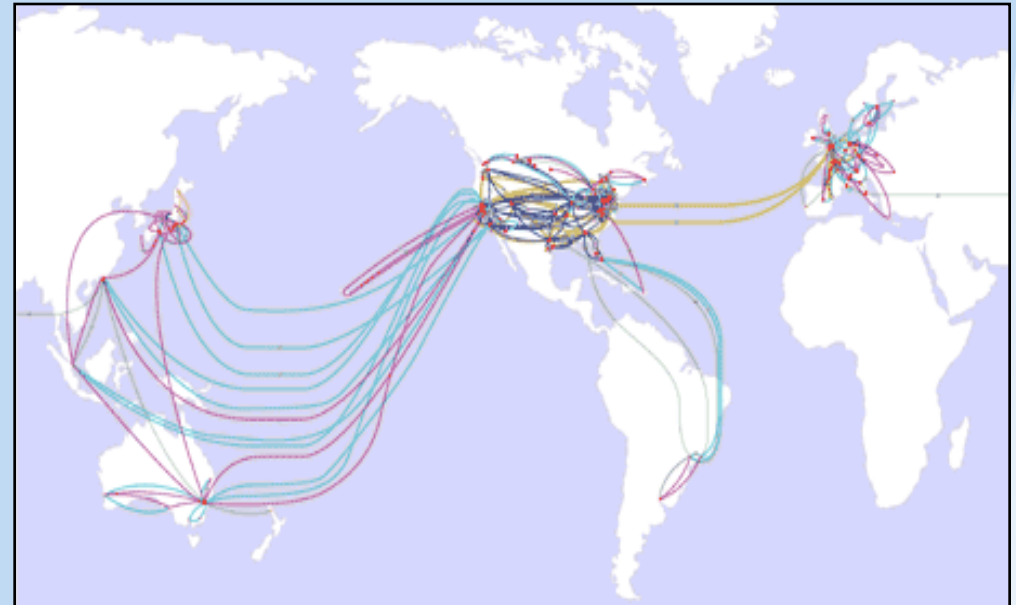
The end of geography?



Bandwidth

Unet Backbone

The physical infrastructure
is NOT neutral



Issue #2: Financing

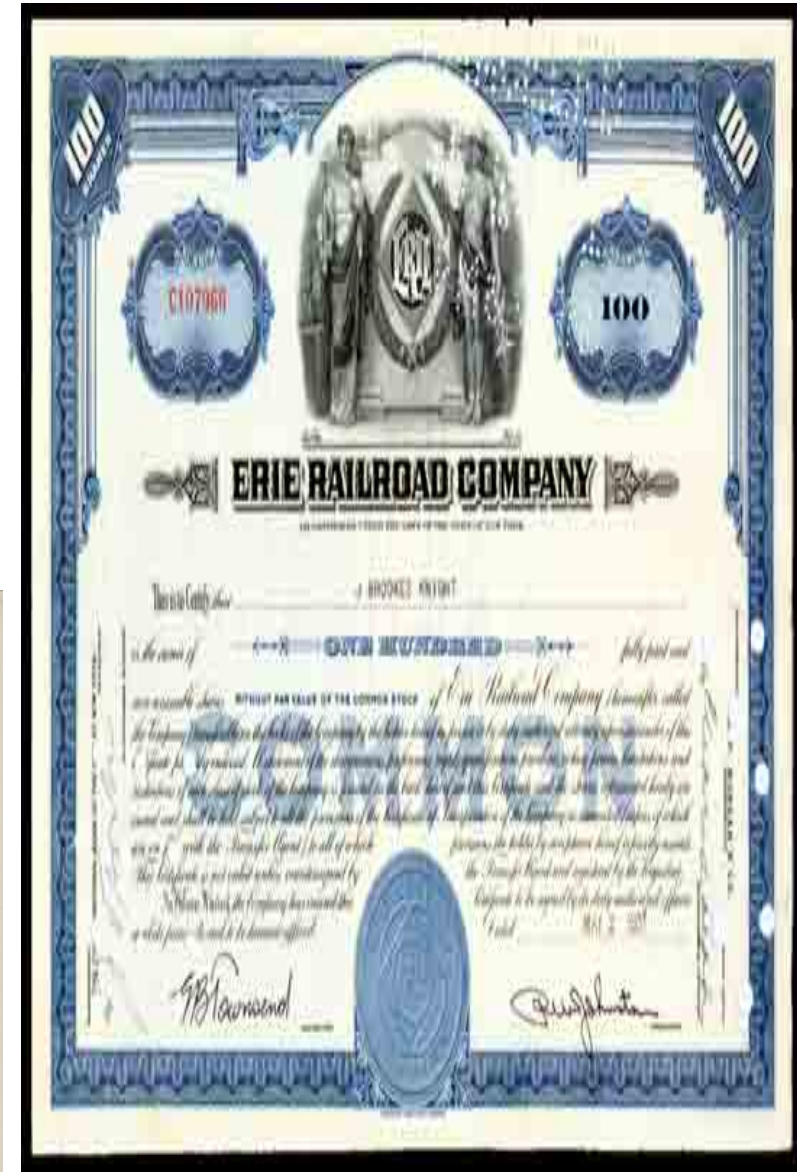


TAX TIME

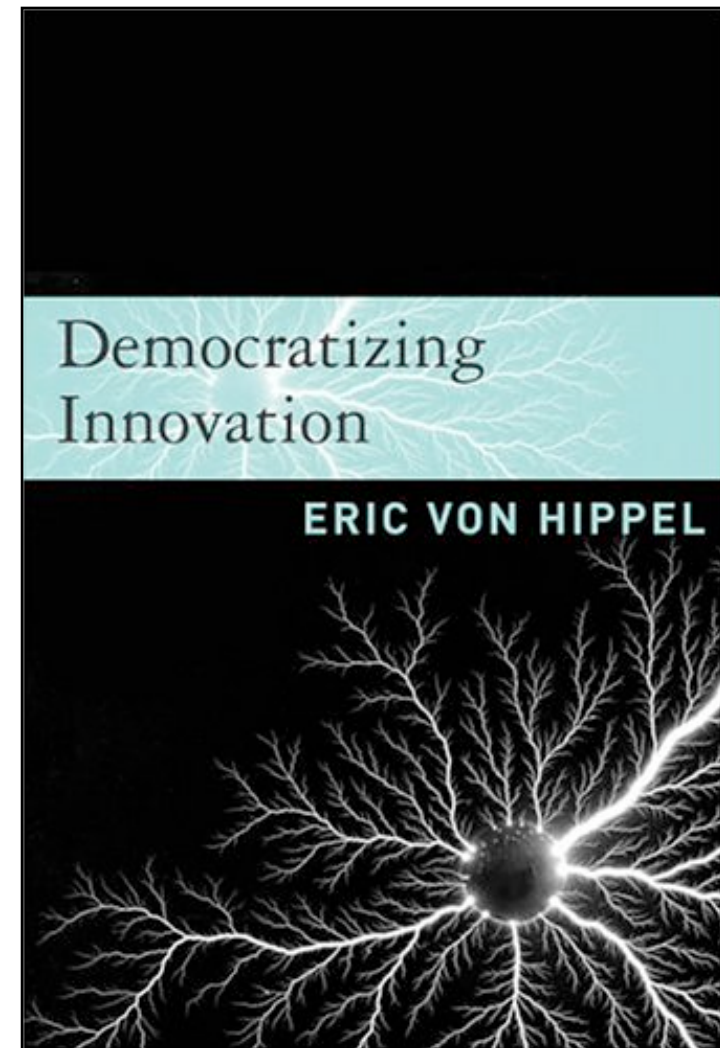
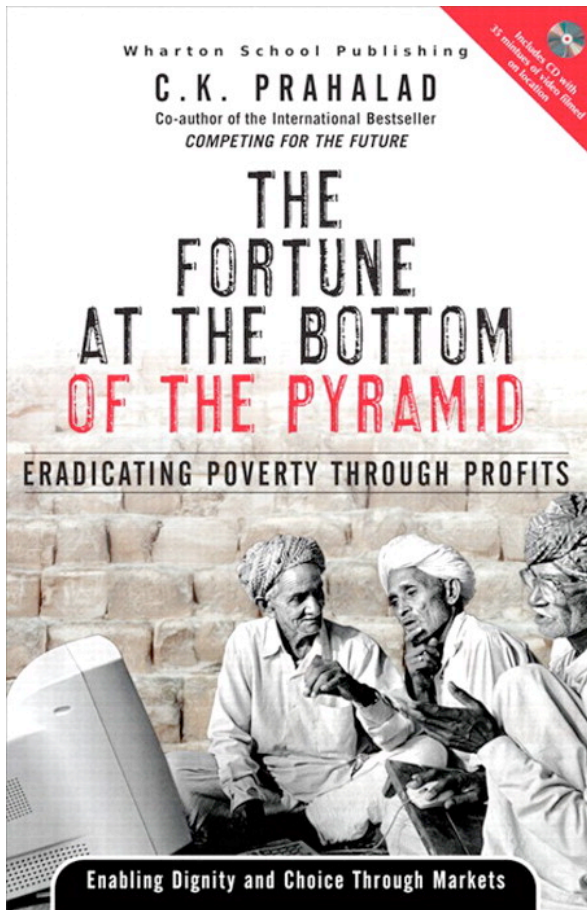


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Open Innovation Systems



Summary Thoughts

- Leadership can come from anywhere.
- Countries making decisions today may be better situated to make far-sighted choices.
- There is no such thing as a policy-free environment. Everyone has a policy, implicit or explicit.

Policy makes a major difference