## Paradigms for Studying the Internet

Spring 2012 January 31



Internet & Society Policy and Technology of Control

### Theories, Thinkers and Frames

- Barlow
- Goldsmith and Wu
- Levine, Locke, Searls & Weinberger
- Lessig
- Zittrain
- Benkler
- Shirky



### "You have no sovereignty where we gather."

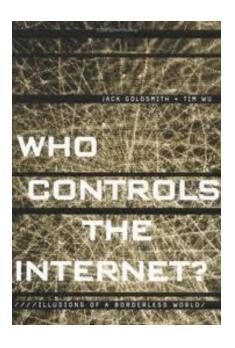
### - John Perry Barlow



Photo by Joi



### Goldsmith & Wu

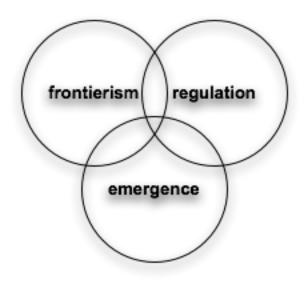






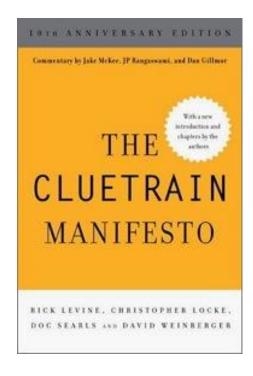
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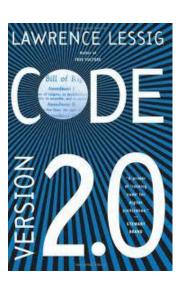


### Levine, Locke, Searls & Weinberger





### Lessig



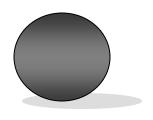






**LAW** 

**NORMS** 



**MARKET** 

**ARCHITECTURE** 

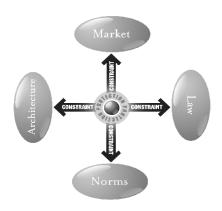


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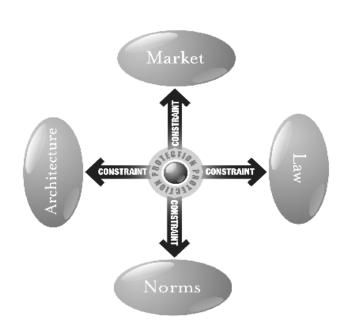
### What do we mean by regulation?

- Constraining Individuals
- Enabling Individuals
- Constraining Government
- Enabling Government





# What kinds of things are suitable to regulate with each of the forces?

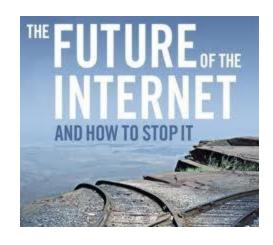




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- Generativity theory
  - Jonathan Zittrain

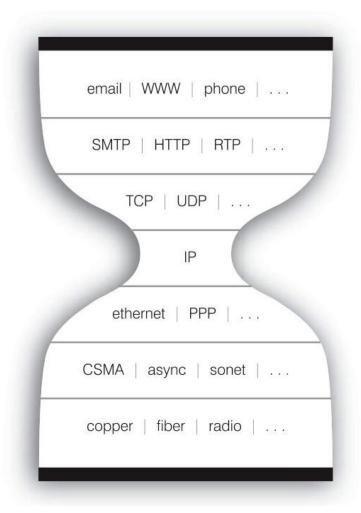
"A system's capacity to produce unanticipated change through unfiltered contributions from broad and varied audiences."





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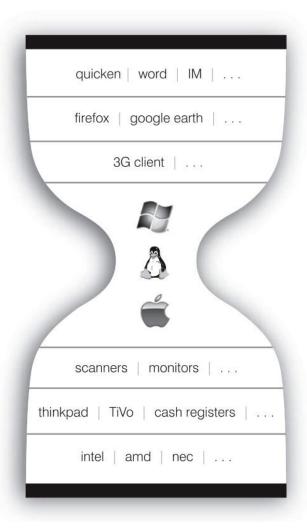






End-to-end Principle

Saltzer, Reed, Clark 1981





- The value of open platforms
- The danger of "tethered appliances"



VS.







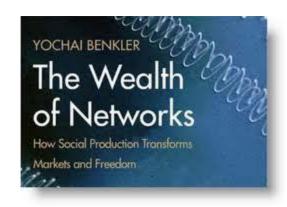
### Generativity

- Leverage
- Adaptability
- Ease of mastery
- Accessibility





### **Benkler**





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### **Networked Pubic Sphere**

- Universal uptake anyone can participate
- Offer and debate political opinions
- Reporting and watchdog roles
- Collective filtering
- Less subject to state authority and elite actors: more bottom-up rather than top-down





- Autonomy + individual empowerment
- Increased ability to share and coordinate
- Changing capital structure of production







### Institutional ecology



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### Recurring themes

- Internet infrastructure: foundational, multipurpose
- Innovation and public spaces
- Networks, openness, distributed, decentralized + innovation
- Digital disruption: challenges to existing institutions



Individual empowerment



Organization



Regulation

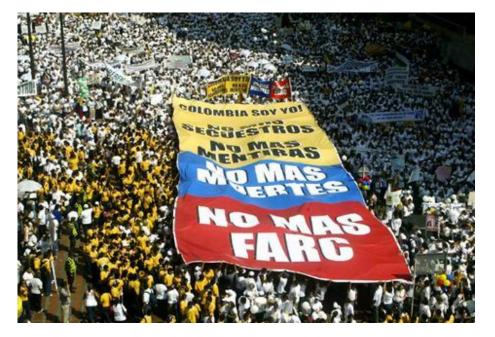




#### Russian Police Officer pt. 1



Highest Dated Comments







# Digital tools and participation in political and social life: a simple framing

- Change in the benefits and costs of individual participation and collective action
- Lower transaction costs
- Shift in the risks of participating
- New information/knowledge new motivation
- Changes in expected benefits



### Levels of individual engagement

- Read-watch
- Report
- Opine
- Debate + deliberate
- Reveal preferences like!
- Join a group
- Recruit others
- Participate in collective action



### **Organizations**

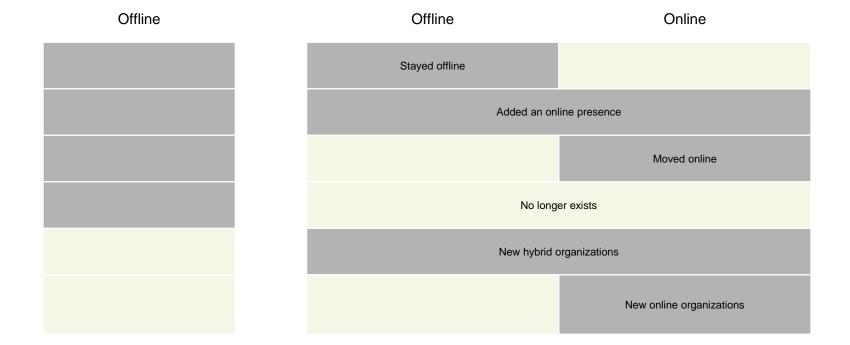
- Government
- Private sector
- Civil society
  - Civil society organizations
  - Social movements
  - Issue campaigns
  - Flash mobs



### **Organizations**

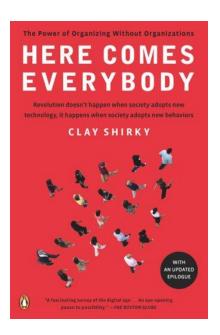
Pre-digital age organizations

Post-digital age organizations





### **Shirky**





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### Institutional challenges







#### **Institutions**

- Institutions = Rules + Organizations
- Shape, guide and constrain human interaction
- Created by history, precedent and constraints
- Key determinant of economic growth
- Slow to change
- Markets, governmental structures, laws, cultural and social norms, etc.



- Markets
- Laws
- Social norms
- Code

Code = law











### Recurring themes

- Internet infrastructure: foundational, multipurpose
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### Digital public spaces

- Expansion of public spaces... for those with access
- Private and public benefits
- Private and public provision models



### **Public and Private Goods**

	Excludable	Non-excludable
Rival	Sushi	Fishery
Non-rival	Cable TV Copyrighted work	Public defense



### **Public Goods**

	Excludable	Non-excludable
Rival	Private goods	Common-pool resources
Non-rival	Club goods	Public goods (pure)



### **Internet: Public or Private?**

Excludable	Non-excludable
	Excludable



### **Internet: Public or Private?**

	Excludable	Non-excludable
Rival	Internet infrastructure Spectrum 1960	Internet infrastructure
Non-rival	Internet infrastructure Applications Spectrum 2011 Information	Information F/OSS



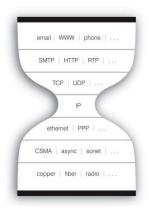
### Public goods

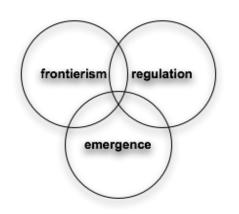
- Free rider problem
- Market failure leads to inadequate provision
- Rationale for government intervention
- Standard market-based solution create property rights

### **Property rights**

- Exclusive right to decide use of resource
- Exclusive right to the services of the resource
- Exclusive right to transfer/sell the resources

 Absence of property rights is often cited as leading to a tragedy of the commons







**NORMS** 



**MARKET** 

**ARCHITECTURE** 







