

Contractually Constructed Research Commons: a critical economic appraisal

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Outline

- Why an economic appraisal?
- A narrative account of research commons initiatives
- Three main economic arguments
- Research commons under an evolutionary perspective

Some examples

- Scientific Data
- ITPGRFA (genetic resources for agriculture)
- Microbial Research Commons
- CAMBIA: OS-like licensing for biotech research tools

Why an economic appraisal?

A persisting key question: tragedy or transition?

Are institutions for the transfer of
knowledge and information resources
emerging or failing in the new
proprietary context?

Implications

- A new step in the debate about the expansion of exclusionary strategies in science and IP
- If transactions are fading, are research commons effective solutions to this problem?
- If not, are research commons still sustainable institutional alternatives to markets and collaborative networks?

Contractually based research commons

A narrative account

1. The enclosure movement

- Economic and technological changes
- New opportunities, but changes in agents' behavior and expectations
- Privatization pressures and proliferation of exclusive rights
- Domino Effect

2. The unintended consequences

- Alleged increase in transaction costs
- The risk of anticommons tragedies
- Dual equilibrium for the exchange of information resources
 - Formal system under restrictive conditions
 - Informal system of close-knit research communities

3. The way ahead

- Proposal of contractually reconstructed research commons
- Novel use of property rights
- Open up access to knowledge through standard contractual or compensatory liability regimes

Only one side of the story...

- Are the negative effects generated by the privatization trend real and burdensome?
- Do we need new governance models beyond strong property rights and freedom of contracting?
- Will research commons initiatives be easily adopted by research communities?

Three main economic arguments

...or three field of contention!

1. The quest for Anticommons

- Little evidence of
 - Increased transaction costs
 - Bargaining breakdown
 - Projects delays
- Agents tend to adopt alternative strategies and “working solutions”

In general, it is hard to measure the Social Cost in a dynamic changing world.

However, absence of evidence for anticommons tragedies is not evidence of the absence.

2. Governance structures

- Two network governance models
 - Exclusion and strong ties
 - Sharing and weak ties
- Economic justification of commons based peer production systems

Growing evidence that under certain conditions enhancing network externalities and learning effects is better than fostering appropriation of research output.

3. Institutional change

- A rather overlooked issue in this context
- Understanding the change in norms, incentives, behaviors and expectations
- Privatization pressures has led to a new institutional equilibrium, which research commons initiatives try to change or compete with.

Cognitive bias example

Detachment between the low marginal value of research assets scattered among the many actors of the research communities and the high payoff expected especially from downstream commercial applications.

Towards an evolutionary perspective

Some preliminary conclusions

Contractually reconstructed research commons are just one of the possible institutional solutions

Focus on

- institutional structure of research communities
- adaptive behavior dynamics
- collective action problems
- path dependency
- agents' complex feedback mechanisms

Addressing integration

- Data, knowledge, research tools and materials
- Different features
- Different conditions for appropriability
- Increasingly complimentary resources

Thank You!!!

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