

# Property and Commons

The new issues of  
shared access and innovation

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*Knowledge Commons, Global Commons,  
and Commons Knowledge*

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## **Draft: DO NOT CITE**

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I want to thank PROPICE and the other organizers for inviting me to speak and participate at this extremely interesting and potentially very important seminar. I would also like to specifically thank Professor Benjamin Coriat, not only for his organizational role, but for his meticulous work on the commons with his careful attention to language, definitions, and intricate detail that commons analysis requires but often fails to get. Indeed, careful attention to language was a foundational concept with Elinor and Vincent Ostrom when they founded their somewhat revolutionary, interdisciplinary institute the “Workshop in Political Theory and Policy Analysis” at Indiana University in 1973. The Ostroms believed that ideas and theories must be considered through the lens of experience—that the critical connection is between ideas and *what gets done*. The eminent commons scholar from Zimbabwe, Marshall Murphree, in his 1996 IASCP keynote address noted the utmost importance and relevance of commons scholarship to the world. But he feared its obfuscation in professional jargon. “We share our insights with each other,” he said, “but not with those who can use them to make a real difference.” He urged commons scholars to “articulate” what we know about the commons to policy makers and the general public. These articulations should be “multidirectional, polyidiomatic and reflexively rapid.” My main message is that we expand our vision of knowledge commons as well as our stewardship of our ideas and knowledge about the commons in order to really make a difference.

For the past four months has have been on research leave which, has, in the first time in almost five years given me time to read and think undisturbedly about the commons. This is relevant to this talk because I have been exploring some new areas, working on some new connections and thoughts, some of which are still in the distillation process. I welcome your comments and suggestions.

Here are the main points I would like to make:

1. There is an important and intricate connection between natural resource commons and knowledge commons
2. Language matters if we are to communicate with each other and to understand how commons work
3. There is an important relationship between global commons and knowledge commons
4. Addressing the enclosure of knowledge commons remains a daunting challenge
5. We need to expand our stewardship, not only about knowledge commons but our knowledge *about* commons

**1. There is an important and intricate connection between natural resource commons and knowledge commons**

We have only been actively studying knowledge as a commons for about twenty years, i.e. dating back to the birth and rise of the Internet. But it has only taken off in the past ten years to the point where now it is a recognized important research agenda. We have, and are continue to make invaluable inroads into many areas, including:

- Understanding how to analyze knowledge, a resource that is both intangible and tangible; a (sometimes) nonrival, nondepletable, replenishable resource
- Identifying and trying to prevent the enclosure of knowledge, particularly through overreaching intellectual property rights systems;
- Designing effective sharing arrangements for scientific research;
- Learning from the success of open-source software communities;
- Applying and/or adapting the Institutional Analysis and Development (IAD) Framework to knowledge commons;
- Reconceptualizing the enclosure of the knowledge commons;
- Researching, learning from, and participating in peer2peer and commons-based peer production;
- Investigating the myriad number of threats from the tragedies of anticommons;
- Advancing the Open Access Movement, while, at the same time—
- Protecting traditional knowledge systems
- Analyzing rules and norms in knowledge systems;
- Delineating distinctions between KC and NR commons;
- Advancing open access
- Advocating for protection of traditional knowledge systems;
- Learning how to store, share and preserve big data
- Understanding the critical link between research, theory, and advocacy

While it took a few years for traditional commons scholars to embrace relevancy of all types of new commons,<sup>1</sup> clearly knowledge commons are now on the radar screen of anyone who cares about commons of any type. As well this should be, since information sharing has been recognized as a key success and sustainability factor is all types of commons. Fisheries, forests, grazing, irrigation systems—you name it and information sharing is a main ingredient in their operations. If you search the traditional commons papers on the Digital Library of the Commons<sup>2</sup> you will find the issue of knowledge sharing a frequent and sometimes urgent topic. A 2004 World Conservation Union paper states: “*Good information is critically important to good conservation of biodiversity and there is a recognition that we all need to share information far more regularly and openly than in the past.*” Ostrom et al. wrote in *Science* in 1999: “*...building from the lessons of past successes will require forms of communication, information, and trust that are broad and deep beyond precedent but not beyond possibility.*” (P. 282)

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1 (Based on my years of work with the International Association for the Study of the Commons [IASC])

2 At <http://dlc.dlib.indiana.edu>

Well-functioning commons *of any type* are dynamic social institutions. One of the reasons the Institutional Analysis and Development (IAD) framework has been so helpful as an analytical tool is that it guides the researcher through both the physical and institutional variables of the resource—i.e. bio—the physical characteristics along with the community of users and the rules in use. The glue that binds these elements of both traditional and new commons is **shared knowledge**. My point here is that knowledge commons exist within *all commons*—a point that has too often been undervalued or neglected.

## **2. Language matters if we are to communicate with each other and to understand how commons work**

The study and advocacy of new commons have steadily grown but so have the misunderstandings and false assumptions. One of the greatest accomplishments of Ostrom and IASC colleagues was the evolution of a common language to apply to the study of commons. A misconception about commons that seems to be becoming more frequent is that “commons belong to everyone.” In point of fact, however, this is only true with global commons. It is most often not the case with local and regional commons. Most commons are resources shared by a discreet group of people—this is particularly true of most successful commons. At some point, size usually affects the outcomes of physical commons and some kinds of exclusionary measures are often necessary.

Another frequent misconception is that “commons are always good things.” Now, commons as an alternative to the public/government – private dichotomy is always good to have as an option but commons are not always positive things. Types of pollution and disturbance, often labeled by economists as *externalities*, can also be considered types of commons. Email spam, noise, obstructions to landscape views have all been analyzed as commons problems. They are public bads as shared resources that, whether full-fledged or hybrid, deserve to be recognized in the commons arena.

The desire to “romance the commons” is not new but it can obfuscate the reality of the resource. Ostrom frequently and urgently was wont to point out: “there are no panaceas!” “There is no one answer!” Commons, as dynamic social institutions are extremely complex and, well, difficult. One of the most important contributions that Lin Ostrom as well and many members IASC is the emphasis on institutional diversity within every commons.

## **3. There is an important relationship between global commons and knowledge commons**

When Ostrom and interdisciplinary commons scholars first came together in 1985 at the first commons conference they began to compare notes and share knowledge about the commons they were working with. Many expressed dissatisfaction with the Hardin “Tragedy of the Commons” scenario. Hardin predicted ruin when people shared resources but researchers and practitioners on the ground were finding the opposite. A few years later Ostrom demonstrated through analyses of case studies in her seminal volume *Governing the Commons: the Evolution of Institutions for Collective Action*—that in small commons, given certain conditions, successful commons governance was very possible.

However, if we apply the Hardin scenario to global commons we seem to be awash in tragedy!<sup>3</sup> This is, of course, depressing as well as alarming. Almost every day one can read about an impending crisis of some resource upon which the entire planet depends! At the same time, we get queasy, knowing or suspecting the absolute depth of these problems that no one country or entity can solve. Here are some recent examples:

- The rapidly growing global **resistance to antibiotics**: Although microbiologists have been ringing the alarm bell for years, the threat of antibiotic resistance last month was declared by Britain's chief medical officer, a national emergency and an “apocalyptic scenario.” (The unnecessary use of antibiotics in the livestock industry is considered to be the key culprit).
- **Collapse of the honey bee population** –the losses this year were twice the those in 2011 (Culprit: pervasive and overuse of pesticides)
- In fact, all types of species extinctions on the headlines in the past month alone: bats, nautilus shells, iguanas, frogs –the list is long and depressing.
- Growing Water scarcity crisis, particularly in Asia-Pacific countries
- And of course global climate change; cybersecurity; biodiversity, coral reef destruction and so many others.

My concern is that these and most other global commons crises are usually not identified as commons at all. Consequently, the public is left with a feeling of helplessness and hopelessness, being at the mercy of god-knows-who. When global commons problems are not presented as *commons* the message is that the public is not involved; that solutions do not lie within our grasp; that “someone(s)” in state and/or corporate governments will, hopefully, solve the problem. At the same time, too often policymakers are not even aware that a commons solution is an important and viable option to the state/private scenario.

In 2011, during a Q&A after a keynote address at NYU, a student asked Lin Ostrom, what we can do about global climate change. Lin’s response was: “Well, don’t just sit there and wait for the big guys up there to do something!” In other words, we cannot wait for global solutions—even if they worked<sup>4</sup> solutions are found on the ground, through collective action. They also begin to reveal themselves in the collective sharing of local and scientific knowledge.

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<sup>3</sup> There are a few successes on the global commons front: the International Treaty for Plant Genetic Resources for Food and Agriculture comes to mind. It was actually designed and built to function as a global commons, [see the work of Michael Halewood et al]; and Free and Open Source Software, as all of us here is aware of are good examples of successful global commons governance models. [See the work of Charlie Schweik et al. among others] are two examples that come to mind.

<sup>4</sup> Ostrom, E. 2009. “A Polycentric Approach for Coping with Climate Change.” Background Paper to the 2010 World Development Report. [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1494833](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1494833)

Ostrom thought the time-worn slogan of “think globally, act locally” still as relevant today as it was in the 1960s. In Poteete, Janssen, and Ostrom’s 2010 book *Working Together* the authors examined a large number of empirical studies focusing on common-pool resource dilemmas. They wrote: “Instead of presuming that cooperation related to social dilemmas is impossibility, the presumption should be that cooperation will occur in settings with several broad characteristics. These include the following:

- Agreement by those affected on the need for changes and assumption of shared responsibility for future outcomes.
- Reliability and frequency of information about the phenomena of concern
- Knowledge about others working on the issue and that conformance is being monitored.
- Communication occurs among at least subsets of participants

*Shared responsibility - reliable and frequent information – knowledge about others – monitoring – communication*

Ostrom more and more frequently in her later years advocated polycentric systems of governance for global commons, nested arrangements with small and medium-scale units of governance... She wrote that “recommending a single governmental unit to solve global collective action problems—because of global impacts—needs to be seriously rethought and the important role of smaller-scale effects recognized (See FN1). In other words, she was advocating multiple levels of collective action and governance as a more viable system to deal with global commons.

#### **4. Addressing the enclosure of knowledge commons remains a daunting challenge**

Enclosure of knowledge commons is more pervasive than we think. In my earlier paper “Mapping New Commons” I identified a number of causes of enclosure of commons: privatization, commercialization, new legislation, neglect and so forth. I wrote “enclosure is particularly visible where new technologies have created the ability to capture recently uncapturable public goods.” We all know that we continue to lose many of the legislative battles as the recent Golan vs. Holder attests<sup>5</sup>. But a persistent question while combing the global commons literature has been: since we’ve known about these problems for such a long time, why are we (as humans) seemingly incapable of solving them? How can we move from frozen inaction to productive collaboration on the idea to seeing that something gets done? This is perhaps the number one critical challenge facing us today. We commoners need to give it more of our attention!

There is another insidious type of enclosure that I am only recently aware of: the enclosure of the mind through emotional, psychic or ideological resistance to scientific information. Both of these are developed areas of research that we don’t have time to go into here, but I want to put them on the table. But both these areas of study are directly relevant how we communicate and market, if

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5 See Boyle and Jenkins. 2013. “Public by Sufferance Alone: The Worst of 2012.” [http://www.huffingtonpost.com/james-boyle/public-by-sufferance-alon\\_b\\_2443850.html](http://www.huffingtonpost.com/james-boyle/public-by-sufferance-alon_b_2443850.html)

you will, the commons: the research on the public resistance to scientific knowledge<sup>6</sup>; and the studies on psychic numbing.<sup>7</sup> These areas of study could prove to be helpful in advancing knowledge about global commons. They deal with the resistance to the acceptance of expert knowledge that lies outside our belief systems; and delve into the human resistance or inability to deal with mass tragedy. Now these two areas of research require careful analysis but I believe they can inform us in combatting invisible enclosures of the mind and possibly facilitate more effective public communication about commons .

#### **4. We need to expand our stewardship as well as the scope of our analyses of knowledge commons**

Coming back to knowledge commons: To date, most all of the attention given to knowledge commons has been on either the threats to knowledge access / enclosure or on the evolution of new institutions to share knowledge. But when we begin to look at the massive amount of global commons crises and the low visibility of the *knowledge about* these commons it is time to connect these dots. Our commons knowledge (knowledge about commons) is an essential component of the knowledge commons research agenda.

The commons activists are much better than the academics in articulating the commons to a wider audience. We can learn from them and can collaborate more closely. Next we need to figure out how to push this knowledge into action. Simply, today, I am also putting this on the table: the urgency of building a **commons-knowledge commons**—a commons built around the stewardship of our knowledge of the commons. I hope to begin a dialogue about this suggest some initiatives that may bring us closer in making that critical connection “between ideas and *what gets done*.” Some ideas I have been tossing around with colleagues are:

- Create a working/discussion group on a commons-knowledge commons
- Build networks of scholars, activists and practitioners to actively advance knowledge about commons in crises (Some already exist; let’s weave them together)
- Encourage detailed case studies (applying the IAD Framework), especially for new/constructed commons and global commons (this is in process)

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6 Kahan, D.M. et al. 2012. “The Polarizing Impact of Science Literacy and Numeracy on Perceived Climate Change Risks. *Nature Climate Change* 2. <http://ssrn.com/abstract=2193133>; Kahan, D. 2010. “Fixing the Communications Failure. *Nature* 463,7279:296 – 297; Munro, G.D. 2010. “The Scientific Impotence Excuse: Discounting Belief-Threatening Scientific Abstracts.” *Journal of Applied Social Psychology* 40:3:579-600. Bloom, P. and D. Skolnick Weisberg. 2012. “Why do some People Resist Science?” *Edge: the Third Culture*. [http://www.edge.org/3rd\\_culture/bloom07/bloom07\\_index.html](http://www.edge.org/3rd_culture/bloom07/bloom07_index.html)

7 Gregory, R.J. 2003. “Venturing Past Psychic Numbing: Facing the Issues.” *Journal for the Psychoanalysis of Culture and Society* 8:2 (Fall). Slovic, P. 2007. “‘If I look at the Mass I will Never Act.’ Psychic Numbing and Genocide.” *Judgment and Decision Making* 2:2:79-95. Slovic, P., [Västfjäll, D.](#), and Gregory, R. 2012. “Informing Decisions to Prevent Genocide.” *The SAIS Review of International Affairs* 32. 1 (Winter): 33-47. Fetherstonhaugh, D., Slovic, P., Johnson, S. M., & Friedrich, J. (1997). Insensitivity to the Value of Human Life: A Study of Psychophysical Numbing. *Journal of Risk and Uncertainty*, 14, 283–300. Batson, C. D. (1990). How Social an Animal? The Human Capacity for Caring. *American Psychologist*, 45, 336–346.

- Build a database of knowledge/new/global commons case studies for analysis and to discern design principles
- Create a network of websites that serve as knowledge centers for local regional and global/new/knowledge commons; what they are and why they are important. Include networking capabilities for collective action