

RESPONSE

QUESTIONING CULTURAL COMMONS*

Lawrence B. Solum†

INTRODUCTION

In *Constructing Commons in the Cultural Environment*, Michael J. Madison, Brett M. Frischmann, and Katherine J. Strandburg offer an innovative and attractive vision of the future of cultural and scientific knowledge through the construction of “cultural commons,” which they define as “environments for developing and distributing cultural and scientific knowledge through institutions that support pooling and sharing that knowledge in a managed way.”¹ The kind of “commons” they have in mind is modeled on the complex arrangement of social norms that allocate lobstering rights among fishermen in Maine and extends to arrangements such as patent pools, open-source software development (e.g., Linux), and the modern research university.

In this Response, I will pose a series of questions about cultural commons. The first set of questions will interrogate the structure, boundaries, and coherence of the idea of “cultural commons”: that is, I will ask, “What is a cultural commons?” The second set of questions will explore the fundamental assumptions of the case for these institutions: I will ask, “What are the normative foundations for cultural commons?” The third set of questions will inquire into the feasibility of the proposal for cultural commons as a method for governing information: I will ask, “Are cultural commons possible?” These questions are intended to rigorously interrogate the foundational assumptions of the very intriguing proposal offered by Madison, Frischmann, and Strandburg.

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† John E. Cribbet Professor of Law and Professor of Philosophy, University of Illinois.

¹ Michael J. Madison, Brett M. Frischmann & Katherine J. Strandburg, *Constructing Commons in the Cultural Environment*, 95 CORNELL L. REV. 657, 659 (2010).

I

WHAT IS A CULTURAL COMMONS?

The idea of a “cultural commons” is offered as a novel framework for understanding nontraditional modes of governing information—a new way of slicing and dicing the possible forms in which informational resources can be organized, governed, and regulated. The claim is that this new category defines the essential structure of a wide variety of social and economic phenomena, including patent pools,² Linux development,³ Wikipedia,⁴ and communities that share recordings of jambands like the Grateful Dead and Phish.⁵ As the authors observe, “[a]t first glance, these examples may appear to be disparate and unrelated—like comparing apples to oranges to plums to pears, and so on.”⁶ But Madison, Frischmann, and Strandburg claim that these diverse phenomena can be united by “a systematic, comprehensive, and theoretically informed research framework.”⁷ My first task in this Response is to investigate that claim.

The task of investigating the idea of a cultural commons can begin by framing the subject matter. The authors emphasize the unity of “cultural production”⁸ and “cultural works,”⁹ but they seem to implicitly recognize that the cultural production that they are investigating can be characterized as “information goods”¹⁰ or, as I shall put it, simply “information.” By marking this distinction, I mean to exclude from our investigation phenomena and processes that might be labeled as “culture” but that are not usually described as information goods. For example, culture may encompass a system of social norms, language, webs of social relationships between kinship groups, and so forth. My focus (and I believe the focus of the authors) is on the production of information; that is, the information enabling useful inventions covered by patent pools, the software produced by open-source production methods, the content of open-access publications, and the recordings of live concerts by jambands like the Grateful Dead.

Madison, Frischmann, and Strandburg’s analysis is grounded on an analogy between commons as a strategy for the governance of the production of intangible informational goods and commons as a strat-

² See *id.* at 660–61.

³ See *id.* at 661.

⁴ See *id.* at 662.

⁵ See *id.* at 663.

⁶ *Id.* at 664.

⁷ *Id.*

⁸ See *id.* at 669.

⁹ See *id.* at 669 n.41.

¹⁰ See *id.*

egy for the production of tangible goods.¹¹ This analogy draws on the work of Nobel Laureate¹² Elinor Ostrom and her colleagues, who have studied commons in natural resources, including fisheries, grazing pastures, forests, and irrigation systems.¹³ Ostrom's work, in turn, is situated in the context of reactions to the influential essay by Garrett Hardin, *The Tragedy of the Commons*.¹⁴ Understanding the idea of a cultural commons requires that we grasp the essential insight contained in Hardin's essay and its relationship to fundamental ideas in economics. After completing this step, we can then proceed to Ostrom's investigations of resource commons, leading to a reconsideration of the notion of a "cultural commons."

A. Prisoner's Dilemmas and the Tragedy of the Commons

At this point, I am going to back up, leaving the notion of a commons to the side, and investigate the more foundational notion—familiar from game theory—of a prisoner's dilemma. That investigation will be followed by consideration of the tragedy of the commons itself.

1. *Game Theory and the Prisoner's Dilemma*

The idea of a prisoner's dilemma is best explicated via a simple example:

Ben and Alice have been arrested for robbing Fort Knox and placed in separate cells. The police make the following offer to each of them. "You may choose to confess or remain silent. If you confess and your accomplice remains silent I will drop all charges against you and use your testimony to ensure that your accomplice gets a heavy sentence. Likewise, if your accomplice confesses while you remain silent, he or she will go free while you get the heavy sentence. If you both confess I get two convictions, but I'll see to it that you both get light sentences. If you both remain silent, I'll have to settle for token sentences on firearms possession charges. If you wish to confess, you must leave a note with the jailer before my return tomorrow morning."¹⁵

¹¹ See *id.* at 659–60.

¹² Press Release, The Royal Swedish Academy of Sciences, The Prize in Economic Sciences 2009 (Oct. 12, 2009) [hereinafter Press Release], available at http://nobelprize.org/nobel_prizes/economics/laureates/2009/press.html.

¹³ See ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 58–87, 104–32, 144–78 (1990); see also JAMES M. ACHESON, THE LOBSTER GANGS OF MAINE (1988); Madison, Frischmann & Strandburg, *supra* note 1, at 675–77; Press Release, *supra* note 12.

¹⁴ See Garrett Hardin, *The Tragedy of the Commons*, 162 SCIENCE 1243 (1968).

¹⁵ Lawrence B. Solum, Legal Theory Lexicon 007: The Prisoners' Dilemma (Apr. 19, 2009), http://lsolum.typepad.com/legal_theory_lexicon/2003/10/legal_theory_le.html; see also Steve Kuhn, *Prisoner's Dilemma*, in STANFORD ENCYCLOPEDIA OF PHILOSOPHY (rev. ed.

The structure of this choice situation is illustrated in the following table:

		Alice	
		Confess	Do Not Confess
Ben	Confess	1,1	0,5
	Do Not Confess	5,0	3,3

In analyzing the table, “Ben’s moves are read horizontally; Alice’s moves read vertically. Each numbered pair (e.g., 5, 0) represents the payoffs for the two players. Ben’s payoff is the first number in the pair, and Alice’s payoff is the second number.”¹⁶

In this example, it is “rational” for both Ben and Alice to defect and confess. Consider the choice situation from Alice’s perspective. If Ben confesses, then Alice is better off (her payoff is higher because she receives a shorter sentence) if she confesses ($5 > 1$). If Ben does not confess, again Alice is better off if she confesses ($3 > 0$). Ben’s choice situation is identical to Alice’s. As a result, it is individually rational for Alice and Ben to confess—resulting in a payoff to each of 1 and a combined payoff of 2. But if neither Ben nor Alice confesses, then the payoff to each is 3, and the combined payoff is 6. Thus, the action that is individually rational for each is collectively irrational.

So much for the prisoner’s dilemma: on to Hardin’s tragedy of the commons!

2. *The Tragedy of the Commons*

The tragedy of the commons can also be described via a simple example:

Carla, David, Eleanor, and Frank hold “commons” rights in a field: each has the legal right to graze livestock on the grass that grows in the field. If they hold the total amount of grazing below some threshold value, the field will continue to produce grass, but if they graze too much, the field will become almost barren and will yield much less grass in total. Each of the four “commoners” would benefit individually by grazing levels that would collectively exceed the threshold value of sustainability.

This choice situation has a similar structure to the prisoner’s dilemma: those who hold the rights might graze at unsustainable levels, reasoning that if they do not, then others will. Absent some mechanism for allocating grazing rights, this reasoning leads to the destruc-

2007), <http://plato.stanford.edu/entries/prisoner-dilemma/> (explaining the prisoner’s dilemma).

¹⁶ Solum, *supra* note 15.

tion of the field. As in the prisoner's dilemma, individual rationality leads to collective irrationality.¹⁷ Each member of the group is tempted to be a "free rider," but if everyone tries to ride free, no one can. If everyone fully exercises their grazing rights, then the field becomes barren.

Of the many lessons that might be gleaned from the tragedy of the commons, one is particularly salient in the current context: the possibility of solving the tragedy through privatization. The tragedy can be averted, it might be argued, if the field were private property rather than commons.¹⁸ If Frank owned the field, then he would sell grazing rights in a way that maximized his profits: since overgrazing would damage the value of the field and his future rents, he would sell that quantum of rights that put the resource to its highest and best use.

If this conclusion were fully generalizable to all resource consumption, it would suggest that the solution to a wide variety of resource-management problems is private ownership. The idea is that privatization of the resource's ownership would avoid conflicts between decisions that are individually rational, but collectively irrational. To show why this is not always so, I will introduce another idea—the distinction between public and private goods.

B. Public and Private Goods

The distinction between public and private goods is fundamental to understanding the economics of resource allocation. This distinction will be explored in three stages: (1) by providing a brief definition of the economist's notion of the difference between public and private goods, (2) by explicating the ideas of rivalrousness and excludability that underlie the distinction, and (3) by developing a more complete and rigorous set of distinctions that introduce the additional notions of a toll good and a common-pool good.

Public and private goods can be defined as follows:

Public goods have two characteristics—nonrivalrousness and nonexcludability. For example, consumption of national defense is nonrivalrous (my being protected by the U.S. armed forces doesn't diminish your protection). National defense is a nonexcludable

¹⁷ The full story is more complex. The tragedy of the commons is better described as a "volunteer dilemma" and not as a "prisoner's dilemma." In addition, the "tragedy of the commons" as described by Hardin could involve what are called threshold effects, and if information about these effects were available, then overuse of the commons at the threshold of damage might be both individually and collectively irrational. See Kuhn, *supra* note 15.

¹⁸ See, e.g., Hardin, *supra* note 14, at 1245.

good: the United States Army cannot say to Mexico, "Solum hasn't paid his national defense bill. Go ahead and attack him."¹⁹

Private goods are rivalrous and excludable. If I own a laptop computer, my use of it diminishes your ability to use it; therefore, my consumption of the laptop rivals yours. Moreover, I can exclude you from the use of my laptop (by locking it up when I am not using it).²⁰

One of the fundamental ideas of contemporary economics (in simplified form) is that markets can efficiently provide private goods (given certain conditions).²¹ In legal terms, this means that a regime of property and contract can create an efficient allocation of resources that are private goods.²² But public goods cannot be efficiently allocated in this way. For example, because private firms cannot efficiently provide national defense, it can only be provided by government (or something like government)—which has the ability to require all those who benefit from this service to pay for it (via the power to tax).

That is the gist of the distinction between private and public goods, but there is more to the story. The next step is to define the notions of rivalrousness and excludability that form the basis of the distinction:

"Rivalrousness" is a property of the consumption of a good. Consumption of a good is rivalrous if consumption by one individual X diminished the opportunity of other individuals, Y, Z, etc., to consume the good. Some goods are rivalrous because they are "used up." If I drink a glass of Heitz Martha's Vineyard, then you cannot drink that same glass of wine. If I set off a firecracker, you cannot set off the same firecracker. Other goods are rivalrous because of crowding effects. If I am using the free Internet terminal at the student lounge, then you cannot use the same time slice of the terminal—because only one person can sit in front of the screen at the same time.²³

"Excludability" is also a property of consumption of a good. It is helpful to distinguish two forms of excludability: (1) excludability through self help, and (2) excludability through law. If I want to exclude you from my land, I can build a fence—the exclusion results from self help. But if I want to exclude you from copying a

¹⁹ Lawrence B. Solum, Legal Theory Lexicon 029: Public and Private Goods (Sept. 9, 2009), http://lsolum.typepad.com/legal_theory_lexicon/2004/03/legal_theory_le.html; see also B. CURTIS EATON & DIANE F. EATON, MICROECONOMICS 563–64 (3d ed. 1995).

²⁰ Solum, *supra* note 19; see also RICHARD G. LIPSEY & K. ALEC CHRYSAL, ECONOMICS 278–80 (11th ed. 2007).

²¹ See, e.g., JOSEPH E. STIGLITZ, WHITHER SOCIALISM? 50–51 (1994).

²² Property rights and contract law enable economically efficient exchanges by creating the legal mechanism by which parties can exchange private goods.

²³ Solum, *supra* note 19.

novel that I've written and I want to make the novel generally available for sale, self help will not work. (It would be ridiculously expensive to hire a guard to monitor each copy or every photocopy machine.) Government, however, can make unauthorized copying a criminal offense or actionable civil wrong, thereby creating exclusion through law.²⁴

These two properties are logically independent of one another. That is, we can imagine goods where consumption is rivalrous, but nonexcludable or vice versa.²⁵ This means that there are four logical possibilities, as illustrated by the following table:

	Excludable	Nonexcludable
Rivalrous	Private Good	Common-pool good
Nonrivalrous	Toll Goods & Club Goods	Public Good

We can now see that public goods and private goods do not exhaust the logical space: there are three additional types or kinds of goods:

- Common-pool goods involve rivalrous consumption but nonexcludability.²⁶ For example, the stock of fish in the ocean might be a common-pool good. Consumption of fish is rivalrous—if I catch and eat a bluefin tuna, you cannot catch and eat the same tuna. But it may not be possible to exclude consumption of this good. The ocean cannot be fenced off, and if the ocean is outside the legal jurisdiction of any nation-state, then law may not be able to create exclusion through legal sanctions.
- Toll goods are excludable, but consumption of them is nonrivalrous.²⁷ Imagine a rural highway. Consumption is nonrivalrous (practically speaking) because the demand for use of the highway will never create congestion. But exclusion is possible: tollbooths could be used to exclude those who do not pay a fee to use the highway.
- Club goods are a special case of toll goods. The consumption of a club good is nonrivalrous up to some threshold, but beyond that

²⁴ *Id.*

²⁵ See E.S. SAVAS, *PRIVATIZATION AND PUBLIC-PRIVATE PARTNERSHIPS* 45–49 (2000); Tyler Cowen, *Public Goods*, in *THE CONCISE ENCYCLOPEDIA OF ECONOMICS* 431 (David R. Henderson ed., 2008), available at <http://www.econlib.org/library/Enc/PublicGoods.html>; Charlotte Hess & Elinor Ostrom, *Ideas, Artifacts, and Facilities: Information as a Common-Pool Resource*, 66 *LAW & CONTEMP. PROBS.* 111, 118–21 (2003); Vincent Ostrom & Elinor Ostrom, *Public Goods and Public Choices*, in *POLYCENTRICITY AND LOCAL PUBLIC ECONOMIES* 75, 76–79 (Michael D. McGinnis ed., 1999); Solum, *supra* note 19.

²⁶ See SAVAS, *supra* note 25, at 45, 51–53; Ostrom & Ostrom, *supra* note 25, at 78–79; Solum, *supra* note 19.

²⁷ See SAVAS, *supra* note 25, at 45, 50–51; Ostrom & Ostrom, *supra* note 25, at 78–79; Solum, *supra* note 19.

point additional consumption is rivalrous (for example, because of crowding effects).²⁸ Thus, patrons at a theatre do not interfere with one another up to a point—perhaps the point at which all the seats are filled—but after that threshold is met, consumption is rivalrous.

At this point, we can return to the story of the tragedy of the commons. Economic theory suggests that the field is a club good. Grazing is nonrivalrous up to a threshold, but consumption is rivalrous beyond that point. In the tragedy of the commons, this rivalrousness has a special feature—additional consumption beyond the threshold level actually reduces the total quantity of the good (by causing the field to become barren). If the law treats the field as a common-pool good, creating a legal regime of nonexcludability, then the resource will not be allocated efficiently. Another way of putting this point is to say that a commons arrangement will create a “dead-weight loss” in the form of the lost production of grass.

The general lesson is that there can be a mismatch between the legal regime that governs a particular resource and the ideal regime (as a matter of economic theory). If the law treats a private good or club good as a common-pool good, the result may be inefficient allocation of the resource. It might seem as if this were a general argument for treating common resources as private goods, but that is not the case. If the law treats a public good as private property, inefficiencies will result: for example, privatization of national defense or clean air would result in inefficient underproduction of these resources.

C. Lobstering, Commons, and Property

We can now return to the lobstering example. Lobstering could be a classic example of the tragedy of the commons. Each lobsterman²⁹ has an incentive to take as many lobsters as possible to maximize their income in each season (or period). But if every lobsterman pursues the individually rational strategy, the carrying capacity of the ecosystem may be reduced, resulting in fewer lobsters in the following seasons. It would be collectively rational to limit the total amount of lobster harvesting to the carrying capacity of the ecosystem, but absent some mechanism for the enforcement of quotas, this result may not be obtained.

²⁸ See Solum, *supra* note 19; cf. 7 LAWRENCE D. SMITH, FOOD AND AGRIC. ORG. OF THE U.N., REFORM AND DECENTRALIZATION OF AGRICULTURAL SERVICES: A POLICY FRAMEWORK 236 (2001) (discussing how club goods may be nonrivalrous between club members and non-members); Ostrom & Ostrom, *supra* note 25, at 78 (discussing theater use).

²⁹ I will use this gendered form throughout, reflecting usage among the community of lobster fishers. See, e.g., Maine Lobstermen’s Association, <http://www.maine lobstermen.org> (last visited Mar. 12, 2010).

So are lobsters a common-pool good? In the absence of a legal regime regulating lobster harvesting, it might appear that they are. Lobsters dwell on the ocean floor. It is neither practically feasible nor legally permissible to build fences around them. Consumption of lobsters is rivalrous and apparently nonexcludable, absent a change in legal regime. The law might step in and create artificial excludability: for example, the law could allow the acquisition of property rights in lobster beds, and enforce those rights with a combination of criminal law (fines or imprisonment) and civil law (tort actions for lobster conversion or trespass to lobster beds with remedies in the form of injunctions and damages). For the purposes of our story, however, let us assume that the law has not created a private-property regime for lobster grounds.

It is exactly at this point that the notion of a “constructed” commons enters the picture. Despite the lack of a property right or an effective mechanism for self-help, lobstermen regulate lobster harvesting via fencing and private policing:

To ensure an ongoing supply of lobster in the face of threats to the fishery from unregulated overfishing, over a period of years Maine lobster fishermen crafted a set of formal and informal rules to determine “who gets the lobster.” By design, the product of their efforts is a commons, a managed-access property regime that allows both lobsters and the lobster industry to flourish.³⁰

Various stories can be told about the nature of this regime, but Madison, Frischmann, and Strandburg do not fill in the details. One version of the story focuses on the creation and enforcement of “norms” or “social norms”—local customs that guide the behavior of lobstermen in ways that effectively limit the amount of lobstering that occurs in a given locality.³¹

The norms that govern lobstering have both an internal and external aspect. Externally, there are norms of exclusion—rules that exclude outsiders from access to the local lobster resource. These norms are enforced by “harbor gangs,” groups that “claim and defend fishing areas through intimidation tactics and vandalism of intruders [sic] fishing gear.”³² The lobstering community on Matinicus Island vividly illustrates such rules:

³⁰ Madison, Frischmann & Strandburg, *supra* note 1, at 659; *see also* JAMES M. ACHESON, CAPTURING THE COMMONS: DEVISING INSTITUTIONS TO MANAGE THE MAINE LOBSTER INDUSTRY 20–23 (2003) (describing tactics lobstermen use to self-regulate their industry).

³¹ *See* ACHESON, *supra* note 13, at 71–83; Ronald Salz, Alternative Marine Resource Conflict Management Through Social Norms, Exclusive Fishing Rights, and Territoriality 7–8 (Dec. 7, 1998), www.umass.edu/hd/research/adrSun.pdf.

³² Salz, *supra* note 31, at 7 (internal citation omitted); *see also* ACHESON, *supra* note 13, at 74–75.

Matinicus has more than its share of run-ins—from smelly bait hering dumped into a gasoline tank, disabling a boat, to raccoons, considered pests, dumped on the island, apparently by a man prevented from fishing there. A few years ago, two island fishermen were charged after one fired a shotgun across the bow of the other's boat when it crossed his wake at high speed.³³

In the summer of 2009, enforcement of the norms against outsider lobstering resulted in a shooting that caused serious injuries.³⁴

The internal aspect of lobstering norms includes informal social sanctions that limit the amount of lobstering activity by harbor gang members: “[T]here is significant peer pressure against setting too many traps and appearing greedy or selfish. Too much financial success by any individual lobsterman is viewed by the community as egocentric.”³⁵ One interpretation of the functioning of such norms is that they aim at ordering the preference structures (or affective attitudes) of community members so that excessive lobstering comes to be seen as undesirable by insiders. Formal rules governing either the location or the numbers of traps that may be set may supplement these mechanisms.

For the sake of argument, let us stipulate the following characterization of the norms created by Maine lobster gangs. Externally, these norms create excludability: they exclude outsiders from the local lobster resource by social norms that create incentives for gang members to engage in acts of sabotage and violence against outsiders. Internally, these norms realign preferences so that self-restraint in consumption of the resource becomes individually rational for community members.³⁶ Within the group, the lobster resource is a “commons,” but from the perspective of outsiders, the lobster resource is the de facto “property” of the group.³⁷

D. From Lobsters to Information

Elinor Ostrom has developed a very general framework for analyzing “commons” arrangements for the management of natural re-

³³ Clarke Canfield, *Lobster Dispute Turns Violent on Maine Island*, PHILADELPHIA INQUIRER, Sept.13, 2009, http://74.125.93.132/search?q=cache:Yq6FSArXLBEJ:www.philly.com/inquirer/world_us/20090913_Lobster_dispute_turns_violent_on_Maine_island.html+philadelphia+inquirer+maine+lobster&cd=1&hl=en&ct=clnk&gl=us&client=firefox-a.

³⁴ See *id.*

³⁵ Salz, *supra* note 31, at 8.

³⁶ When I say that self-restraint is rational, I mean to invoke a conception of rationality that includes preferences that are shaped by social norms. On this conception of rationality, behavior that is not profit maximizing may nonetheless be individually rational because each individual prefers conformance with the social norm to profit maximization.

³⁷ I have used scare quotes around the word “property” to indicate that the lobsters are not de jure (legally sanctioned) property.

sources.³⁸ One important feature of Ostrom's approach is the development of a taxonomy that categorizes the relevant features of such arrangements.³⁹ Such features include the characteristics of the resource, the nature of the social environment in which the commons arrangements are constructed, the rules or norms that are developed, and so forth. Madison, Frischmann, and Strandburg suggest that this framework can be utilized as the basis for investigation of cultural commons⁴⁰—which I have characterized as commons arrangements that manage or govern informational goods.⁴¹ One of the strengths of their analysis is its direct confrontation with an obvious difference between natural resources and information.

Two differences between natural resources and information are particularly salient. First, consumption of a natural resource, like lobsters, is rivalrous, but consumption of information is nonrivalrous.⁴² The theoretical importance of this difference cannot be overstated. Rivalrous resources must be rationed by some mechanism such as market prices, quotas, or queues. Because consumption of information is nonrivalrous, rationing is not required.⁴³ Second, some natural resources are consumed but not produced by human activity: nature produces lobsters,⁴⁴ but human activity produces information. Nature does not require market incentives to produce lobsters, but pharmaceutical researchers may require such incentives to produce the information that enables the production of new drugs and vaccines.

These differences between natural resources and information suggest that the key functional attributes of cultural commons and natural-resource commons may vary systematically. For example, a recurring pattern in natural-resource commons may be mechanisms (such as the internal and external norms of harbor gangs) that limit overconsumption of the tangible resource. A recurring pattern in cultural commons might be mechanisms that encourage the production

³⁸ Madison, Frischmann, and Strandburg describe the structure of Ostrom's framework in detail. See Madison, Frischmann & Strandburg, *supra* note 1, at 675–81.

³⁹ See Elinor Ostrom & Charlotte Hess, *A Framework for Analyzing the Knowledge Commons*, in UNDERSTANDING KNOWLEDGE AS A COMMONS: FROM THEORY TO PRACTICE 41–81 (Charlotte Hess & Elinor Ostrom eds., 2007).

⁴⁰ See Madison, Frischmann & Strandburg, *supra* note 1, at 681.

⁴¹ *Id.* at 675–83.

⁴² See *id.* at 666, 672–73, 694–95.

⁴³ This fact is one source of the slogan, “Information wants to be free.” Roger Clarke, “Information Wants to be Free . . .”, <http://www.rogerclarke.com/II/IWtbF.html> (last visited Jan. 30, 2009). The origin of the phrase is obscure. A precursor, “Information should be free,” has been attributed to Peter Samson, a member of the MIT Tech Model Railroad Club. *Id.* The slogan, “Information wants to be free,” is usually attributed to Stewart Brand. *Id.*

⁴⁴ To be more precise, wild lobsters are produced by nature. Farmed lobsters would be produced by human activity.

and thereby prevent the underconsumption of informational resources.

This same point might be articulated in terms of the difference between the problems posed by common-pool goods and toll goods. The characteristic problem associated with a natural-resource common-pool good is the lack of excludability.⁴⁵ Given nonexcludability, overconsumption can reduce the carrying capacity of a natural system that produces resources. For example, overfishing can result in the collapse of a population.

The characteristic problem with informational toll goods is the dead-weight loss that excludability creates: in a sense, this problem is the flip side of the common-pool problem. Charging a toll creates incentives for production of the informational good. For example, copyrights incentivize the creation of literature, music, and cinema. The very prices that create incentives also reduce consumption. Commons regimes for natural-resource common-pool goods attempt to ameliorate the problem of overconsumption by creating mechanisms or norms of exclusion. Commons regimes for informational toll goods attempt to overcome the problem of underconsumption by creating mechanisms that incentivize production without charging a toll.

This difference between the overconsumption and underconsumption problems ought to suggest that caution should be exercised in the transplantation of frameworks designed for the study of natural-resource commons to the quite different context of cultural commons. Ostrom's framework may be useful to the extent that it identifies features of commons regimes that are independent of the functions the regimes serve, but to the extent that the relevant features are dependent on the functions, it is at least possible that the framework for identifying such features will be different. Or to put the same point somewhat differently, it might be that understanding cultural commons requires systematic analysis of the ways they differ from natural-resource commons.

E. What is a Cultural Commons?

This brings the discussion back to the first question: "What is a cultural commons?" The most fundamental assumption that Madison, Frischmann, and Strandburg make is that the form of economic organization called "commons," which includes natural-resource commons, such as harbor gangs, and cultural commons, such as Linux development, Wikipedia, jamband-concert sharing, and modern research universities, share features or characteristics that make them a functional or natural kind. Perhaps they mean to assert

⁴⁵ See *supra* Part I.B.

that there are two kinds—cultural commons and natural-resource commons—each with its own essential structure and sharing only a family resemblance?⁴⁶ It is not clear that *Constructing Commons in the Cultural Environment* validates either version of the story.

By questioning the assumption that cultural commons constitute a true kind or type, the members of which share something essential (some underlying property or feature) with natural-resource commons, I do not mean to deny that the term “commons” as it has been used in some contexts does refer to a kind of resource allocation regime that is a true functional kind. Common ownership structures, including the structures identified by Hardin, are called “commons,” and these regimes share an important feature—roughly, common ownership by some group of a tangible resource accompanied by rights of use by group members and rights to exclude nonmembers.⁴⁷ But those features do not generalize to all of the arrangements that Madison, Frischmann, and Strandburg identify as exemplars of cultural commons.

Wikipedia requires cooperation in the production of information, but it is not a commons in the “common ownership” sense (nor do Madison, Frischmann, and Strandburg claim that it is). Wikipedia allows open access by the public, but the public does not own Wikipedia—rights in the domain name and the associated rights of control over the content are vested in the Wikipedia Foundation. Large numbers of contributors create the informational content of Wikipedia, but once again, they do not own that content in common. It may be the case that Wikipedia is nonetheless a token of a functional type that should be called a “commons,” but what is the essential structure or nature of that type? A similar set of questions could be asked about jamband communities: what characteristic makes them “commons”?

It might be the case that there can be a functional “commons” without the functional equivalent of “common ownership.” Of course, “ownership” is itself a fuzzy concept, but among the “bundle of sticks” that constitute property, rights of exclusion are surely key to understanding the difference between traditional property and property held in common. Commoners can exclude outsiders but not

⁴⁶ This interpretation of their core thesis—limiting the relationship of cultural commons and natural-resource commons to family resemblance—does not seem plausible. Although they acknowledge that they “adapt, extend, and distinguish [Ostrom’s work] to account for important differences between constructed cultural commons and natural resource commons,” that work would not even be relevant to their project if the relationship between the two types of commons were mere family resemblance. Madison, Frischmann & Strandburg, *supra* note 1, at 660.

⁴⁷ See Hardin, *supra* note 14, at 1244–45 (using the example of a group of herdsmen sharing a pasture to feed their respective cattle to illustrate the concept of the commons).

each other. Perhaps there is a story to tell about the way in which cultural commons create the functional equivalent of the type of exclusion norms that characterize traditional commons. In the case of the Maine lobstermen, there is a story to tell about social norms that create a regime of exclusion that is the functional equivalent of traditional commons property. How does that story go in the case of cultural commons? Do the stories that would be told about Wikipedia, jamband-tape sharing, and Linux all involve similar structures of exclusion?

It is very important that Madison, Frischmann, and Strandburg provide answers to these questions about the essential structure or functional construction of the category “commons” that satisfies both of the following two criteria. First, the characteristics that distinguish commons from noncommons must include all (or at least most) of the various arrangements that Madison, Frischmann, and Strandburg study: they must classify jambands, Wikipedia, Linux, and the rest as commons. Second, the definition (or theory) that they offer must exclude social arrangements that should not be classified as commons. This second criterion of the adequacy of a definition or theory of “commons” is crucial. It is easy to see similarities in the diverse phenomena that Madison, Frischmann, and Strandburg classify as “commons”: for example, they are all cooperative social activities. But this definition includes too much—language, factories, Four H Clubs, clapping at a musical performance, and sexual intercourse are all cooperative social activities. If the category denominated as “cultural commons” has this wide a sweep, it seems likely that it will lose its explanatory power.

At various points, Madison, Frischmann, and Strandburg say things that suggest that they do have a definition or theory of “commons,” “cultural commons,” or “constructed commons.” For example, they define “constructed commons” as

solutions to collective action or other transactions cost problems not arising from the character of intellectual property entitlements themselves, as solutions to problems that do arise from those entitlements, as solutions to boundary-spanning dilemmas, and as reactions to an “infrastructure”-type problem—the market’s inability to aggregate individual demand for standards or platform resources—that is the inverse of the standard tragedy-of-the-commons diagnosis.⁴⁸

It is not clear whether this definition is actually intended to provide the criteria for what counts as a “commons” in the context of informational goods. If this definition is meant to provide criteria, then it is

⁴⁸ See Madison, Frischmann & Strandburg, *supra* note 1, at 706.

an odd one, because it seems obvious that there can be solutions to these problems that are not describable as “commons.” For example, government provision of public goods might fit the criteria specified in the definition but would not be considered a “commons” in the sense in which that term has been used in the literature that begins with Hardin’s tragedy of the commons.⁴⁹

The authors also offer a somewhat different definition at another point in the essay:

The phrase “constructed cultural commons,” as we use it, refers to environments for developing and distributing cultural and scientific knowledge through institutions that support pooling and sharing that knowledge in a managed way, much as a natural resource commons refers to the type of managed sharing environment for natural resources that the Maine lobster fishery represents.⁵⁰

This definition seems to make “pooling” and “sharing” of information the criteria for a cultural commons, but once again, this definition does not quite seem to hit the mark. For example, a traditional property regime can facilitate pooling and sharing of various kinds of information in a variety of ways. Does this make traditional intellectual property regimes into “cultural commons”? It seems likely that Madison, Frischmann, and Strandburg would give a negative answer to that question, but that leaves the main question—what is a cultural commons?—without a clear answer.

In the context of natural-resource commons, the familiar economic notion of a common pool might provide the criteria by which “commons” are differentiated from other resource regimes, such as public goods, private goods, and toll goods. But information is not properly characterized in this way. If informational goods are not common pools, then in what sense are governance regimes for informational goods accurately characterized as “commons”?

Let me conclude by emphasizing the very modest intentions of my analysis of the what-is-a-cultural-commons question. I am not claiming that Madison, Frischmann, and Strandburg are not investigating a set of practices or institutions that share a common structure, nor am I claiming that this common structure does not identify a functional kind that can meaningfully be described as “cultural commons.” Rather, these remarks extend an invitation for further elaboration and clarification. What makes a cultural commons a “commons”? Do all commons share an essential structure or functional construction? If not, what does account for the use of the term “commons”? The answer to these questions may well be implicit in

⁴⁹ Government funding of research is usually understood as a public-good arrangement and not as a commons.

⁵⁰ *Id.* at 659.

the account that Madison, Frischmann, and Strandburg have already offered, and if so, an explicit account may clarify the fundamental nature of their project.

II

WHAT ARE THE NORMATIVE FOUNDATIONS FOR CULTURAL COMMONS?

One way of reading *Constructing Commons in the Cultural Environment* would characterize the fundamental aim of the essay as positive in nature. On one level, Madison, Frischmann, and Strandburg seem to be engaged in an enterprise that parallels Ostrom's social scientific investigation of natural-resource commons.⁵¹ In a rough-and-ready sort of way, we can characterize the aim of such investigations as explanatory. They answer questions like the following:⁵² (1) How do natural-resource commons work? (2) What accounts for the emergence of commons arrangements? (3) What functions do such arrangements perform? These questions are positive rather than normative. The answers to questions like these describe the world and the causal forces that shape it. Although the answers may have normative implications, the questions themselves seem to be questions about "facts" rather than questions about "values."⁵³

Nonetheless, another reading of *Constructing Commons in the Cultural Environment* is available. On that reading, Madison, Frischmann, and Strandburg have normative ambitions. In support of that reading consider the following passage:

The framework described in this Article provides a means to investigate the social role and significance of constructed commons institutions. This investigation is relevant to property law in particular and social ordering more generally. The conventional view of property scholars, particularly those with interests in intellectual property law, is that resource production and consumption are, and ought to be, characterized primarily by entitlements to individual resource units, held individually and allocated via market mechanisms. To the extent that those market mechanisms are inadequate to optimize the welfare of society—in other words, in the event of market failure—government intervention may be appropriate. Intellectual property rights themselves are generally justified on precisely this basis. Creative works and new inventions are characterized as public goods, whose intangibility prevents their

⁵¹ See Madison, Frischmann & Strandburg, *supra* note 1, at 690–91.

⁵² See *id.* at 690–95.

⁵³ I use the fact-value distinction to mark the familiar dichotomy. By using scare quotes in the text, I mean to indicate that I do not endorse the claim that there cannot be "moral facts." See generally HILARY PUTNAM, *THE COLLAPSE OF THE FACT/VALUE DICHOTOMY AND OTHER ESSAYS* (2002) (discussing the fact-value distinction).

originators from excluding potential users and thus recouping their investments via pricing. Copyright and patent laws create artificial but legally sanctioned forms of exclusion, restoring a measure of market control to creators and innovators. Communal and collectivist institutions, particularly those that blend informal normative structures with formal government rules, are generally regarded as exceptional and dependent upon preexisting property entitlements.

The framework for collecting and analyzing case studies of constructed cultural commons across a wide range of domains that we describe below offers a method for assessing the validity of this property-focused narrative. We suspect that over time the constructed cultural commons framework will yield a far larger and richer set of commons cases in the cultural context than one might discover by focusing only on patent law or scientific research or software development. We anticipate that social ordering both depends on and generates a wide variety of formal and informal institutional arrangements, and that the logical and normative priority assigned to proprietary rights and government intervention may turn out to be misplaced.⁵⁴

This passage suggests that Madison, Frischmann, and Strandburg's central aims are normative rather than positive—the point is critique of a normative argument and not the explanation of social phenomena. Despite this passage, the normative side of *Constructing Commons in the Cultural Environment* is mostly implicit. Even if the ultimate aim is normative, the article does not reach any explicit normative conclusions.

Nonetheless, it may be possible to tease out the normative foundations of the argument. The passage quoted above is suggestive of a general type of normative argument, which I shall call a “false-necessity claim.” In contemporary legal theory, this type of claim is strongly associated with the work of Roberto Unger. Indeed, Volume One of his three volume *Politics* is titled “False Necessity,” and the subtitle is “Anti-Necessitarian Social Theory in the Service of Radical Democracy.”⁵⁵ False-necessity claims, as I define them, are critical in nature. They attack implicit or explicit normative claims that some aspects of existing social arrangements (the “status quo”) are insulated from criticism on the ground that these arrangements are necessary—there are no alternative arrangements that are within the feasible-choice set.⁵⁶

Because false-necessity claims are critical, they do not, by themselves, display their own foundational normative premises. This fea-

⁵⁴ Madison, Frischmann & Strandburg, *supra* note 1, at 664–65.

⁵⁵ See ROBERTO MANGABEIRA UNGER, FALSE NECESSITY: ANTI-NECESSITARIAN SOCIAL THEORY IN THE SERVICE OF RADICAL DEMOCRACY (1987).

⁵⁶ See *id.* at 5.

ture is fairly explicit in *Constructing Commons in the Cultural Environment*. On its surface, the passage quoted above seems to assume that the foundational normative premises of mainstream intellectual property theory are sound. There are various strands of normative theorizing about intellectual property, but it seems fair to characterize the mainstream of American theory as broadly welfarist or utilitarian in character.⁵⁷ Regimes for the management of information resources are assessed by reference to the consequences they produce, and the key question is whether a given regime is welfare- or utility-maximizing.⁵⁸ Welfare or utility can be understood in various ways, but the dominant approach identifies individual utility with preference satisfaction and social welfare as some function of individual utility.⁵⁹ (There are alternative approaches, including Lockean theories of intellectual property that emphasize the moral entitlement of authors and inventors to the fruits of their labors.⁶⁰)

But the critical nature of false-necessity claims may conceal their ultimate normative foundations. For example, it may be the case that an exploration of cultural commons as an alternative to intellectual property as regimes for the management of informational goods will expose possibilities for more equal distribution of both the resources and social power over their management. Thus, the implicit normative foundation of a false-necessity claim may be general normative theory that rivals welfarism or utilitarianism.

Again, these remarks are not intended as a criticism of *Constructing Commons in the Cultural Environment*. Instead, they should be viewed as an invitation to Madison, Frischmann, and Strandburg to lay their normative cards on the table. What are the normative goals of their research program, if any? What are the foundational normative assumptions that underlie those goals? Of course, it is possible that I have misread their intentions and that they will recharacterize the aim of *Constructing Commons in the Cultural Environment* as purely explanatory and descriptive.

III

ARE CULTURAL COMMONS POSSIBLE?

On the assumption that the fundamental agenda of *Constructing Commons in the Cultural Environment* is captured by the notion of a

⁵⁷ See Yochai Benkler, *Siren Songs and Amish Children: Autonomy, Information, and Law*, 76 N.Y.U. L. REV. 23, 59 (2001); William Fisher, *Theories of Intellectual Property*, in NEW ESSAYS IN THE LEGAL AND POLITICAL THEORY OF PROPERTY 168 (Stephen R. Munzer ed., 2001).

⁵⁸ See Madison, Frischmann & Strandburg, *supra* note 1, at 664–65.

⁵⁹ See, e.g., LOUIS KAPLOW & STEVEN SHAVELL, FAIRNESS VERSUS WELFARE 15–38 (2002).

⁶⁰ See Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533, 1549–52 (1993); Lior Zemer, *The Making of a New Copyright Lockean*, 29 HARV. J.L. & PUB. POL'Y 891, 892–93 (2006).

false-necessity claim, further questions arise for Madison, Frischmann, and Strandburg. False-necessity critiques are premised on claims about possibility. We might characterize the nature of these claims in terms of the notion of a feasible-choice set. The aim of a false-necessity critique is to establish that the available space for social choice includes options that are assumed to be “off the table” because they are infeasible, impracticable, or just plain impossible. For this aim to be realized, false-necessity claims must establish two things: (1) that the implicit or explicit justification for the status quo rests on the assumption that certain options are outside the feasible-choice set, and (2) that these options are in the feasible-choice set. False-necessity claims do not, by themselves, establish the further conclusion that these options are the best. Establishing that further conclusion requires the introduction of a normative theory and the evaluation of all the feasible options on the basis of that theory.

On the assumption that *Constructing Commons in the Cultural Environment* does, in fact, make a false-necessity claim, there are further questions that Madison, Frischmann, and Strandburg may need to address. Claims about necessity and possibility are rarely made fully explicit in legal scholarship. Normative legal scholarship rarely marks the important distinction between ideal and nonideal theory, but failure to explicitly consider this distinction can easily mask internal inconsistencies in normative arguments about the law. Most obviously, a normative argument that compares an ideal theory proposal with a nonideal theory version of the status quo is deeply confused. For example, if one were to compare ideal markets for information (with perfect rationality, perfect information, and so forth) with nonideal government provision of information as a public good (with corrupt officials who are able to evade detection), the conclusion that a private-goods approach is superior could only follow through a conceptual mistake.

The more general implication of this point is that false-necessity claims must be explicit about the criteria that define membership in the feasible-choice set. Or to put this point somewhat differently, scholars should be clear about what kinds of possibility and necessity are at stake.

In debates about the regimes for the governance of informational goods, there are two typical (or frequently encountered) sets of moves that are used to limit (or expand) the feasible-choice set. One set of moves takes individual motivations as fixed or variable. For example, classical economic theories may assume that individuals are motivated by a self-interested concern for their own welfare as a function of self-regarding preferences. Such assumptions may narrow the feasible-choice set in various ways. Thus, the prisoner’s dilemma simply disap-

pears if we assume that each prisoner cares as much for the welfare of the other as they care for their own welfare. Assumptions like these are directly relevant to some of the ways in which commons regimes solve problems in the production and consumption of resources. Harbor gangs may address the problem of overconsumption (in part) by changing the preference structures of gang members—so that they come to view the maximization of their own wealth as an evil rather than a good. The debate over the feasibility of commons solutions may well depend on the question whether we take the structure of individual motivations as fixed (and self-interested) or variable (and potentially other-regarding).

A second set of moves focuses on political feasibility. Some of the problems with the allocation of informational goods may be produced by political constraints. To take a familiar example, it may be the case that a reduction of copyright terms is outside the feasible-choice set in the United States because federal legislation must pass through a variety of “veto gates” (committee chairpersons, committee votes, majority passage in the House and Senate, a filibuster in the Senate, presidential veto, and so forth) that permit interested stakeholders (owners of copyrights) to prevent passage.⁶¹ But, if this argument is relied upon to establish the infeasibility of reductions in copyright terms, then any alternative solution to the problem of excessive terms must be judged by the same standard of political feasibility.

To the extent that Madison, Frischmann, and Strandburg are making an implicit false-necessity claim, their argument will not be complete until they specify the criteria by which they define the feasible-choice set. In particular, they would need to spell out their assumptions regarding the plasticity of motivations and politics. Until these aspects of the claim are made explicit, it will be difficult to discern whether the argument suggested by *Constructing Commons in the Cultural Environment* is sound.

Once again, I should make it clear that these questions about possibility are not offered as a criticism of the claims that Madison, Frischmann, and Strandburg make in this first essay on cultural commons. What they have offered so far is a research program that identifies an approach to a set of problems. The research program has not yet been implemented, and the questions that I have raised in these remarks about possibility would come into play at that stage of their

⁶¹ McNollgast, *Legislative Intent: The Use of Positive Political Theory in Statutory Interpretation*, 57 *LAW & CONTEMP. PROBS.* 3, 11, 16–21 (1994) (“McNollgast” is a hybrid pseudonym for Mathew D. McCubbins, Roger G. Noll, and Barry R. Weingast); see generally CHARLES M. CAMERON, *VETO BARGAINING: PRESIDENTS AND THE POLITICS OF NEGATIVE POWER* (2000) (presenting a study of vetoes in the federal system and analyzing how presidents use vetoes to prevent and alter legislation).

research agenda. It is precisely for that reason that I offer these questions before that effort begins in earnest.

CONCLUSION

Constructing Commons in the Cultural Environment is deeply interesting. Madison, Frischmann, and Strandburg suggest that we run with the already popular idea of “commons” in directions that are simultaneously more rigorous and less constrained than current debates about the fundamentals of information-resource law suggest. In these remarks, I have endeavored to raise a series of questions that might facilitate their research program in three ways. First, the central idea of a cultural commons can be clarified by the introduction of a theory or account that distinguishes commons from alternative arrangements. Second, the normative foundations of the argument can be made clear through explicit consideration of the question whether the enterprise is positive or normative: if Madison, Frischmann, and Strandburg have normative ambitions, then foundational assumptions of those ambitions ought to be disclosed. Third, to the extent that *Constructing Commons in the Cultural Environment* forms a first step towards the making of a false-necessity claim, the authors can offer us an explicit account of the criteria that define the feasible-choice set. In other words, these remarks invite Madison, Frischmann, and Strandburg to say more about the role of cultural commons in debates about the governance of informational goods.

