

The Growth of the Commons Paradigm

By David Bollier

In introducing his then-novel economic theories, John Maynard Keynes was not concerned about the merits of his new ideas. What worried him was the dead hand of the past. “The ideas which are here expressed so laboriously are extremely simple and should be obvious,” he wrote. “The difficulties lies, not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds.”

So it is in talking about the commons. The commons is not such a difficult frame of analysis in itself. It is, in fact, a rather simple and obvious concept. But because our culture is so steeped in a standard economic narrative about “how things work,” the idea of the commons often seems exotic. American political culture is a dedicated champion of the “free market,” after all. It celebrates the heroic individual, the self-made man, not the community. Perhaps because the Cold War was directed against communism and its cousin, socialism, Americans tend to regard collective management regimes as morally problematic and destructive of freedom, at least in the abstract.

In the face of this cultural heritage, it can be a formidable challenge to explain that the commons is more pervasive than we may realize, and that it can be a highly effective way to create economic and social wealth. That is precisely what this book seeks to demonstrate and explain. A commons model is at work in the social systems for scholarly communication; in the work of research libraries as they gather and share knowledge; and in the behavior of scientific communities as they generate and disseminate their research. A commons model is at work in the new EconPort, which manages a large economics literature for its user community, and in the Conservation Commons, which is building a “global public domain” for literature about the environment and conservation.

Applying “the commons” to such intellectual and intangible endeavors may strike some people as odd, given the history of the term. The commons is traditionally associated with plots of land -- and the supposed tragedy that results from its over-exploitation by free-riders. But as Ostrom and Hess make clear in Chapter 1, there are significant differences between natural resource commons like land, which are depleteable and “rivalrous” (many people wish to use a resource to

the exclusion of others), and commons that manage non-depletable, non-rivalrous resources such as information and creative works.

What makes the term commons useful, nonetheless, is its ability to help us identify problems that affect *both* types of commons (e.g., congestion, overharvesting, pollution, inequities, other degradation) and to propose effective alternatives (e.g., social rules, appropriate property rights and management structures). To talk about the commons is to assume a more holistic vantage point for assessing how a resource may be best managed.

The commons has too many variations to be captured in a fixed, universal set of principles. Each commons has distinctive dynamics based on its participants, history, cultural values, the nature of the resource, and so forth. Still, there are some recurring themes evident in different commons. A key goal of this chapter is to showcase the many different sorts of commons operating in American life today and to illustrate how, despite significant differences, they embody certain general principles.

Recognizing the similarities is not difficult. In fact, a quiet revolution is going on right now as a growing number of activists, thinkers and practitioners adopt a commons vocabulary to describe and explain their respective fields. Librarians, scholars, scientists, environmentalists, software programmers, Internet users, biotech researchers, fisheries scholars, and many others share a dissatisfaction with the standard market narrative. They are skeptical that strict property rights and market exchange are the only way to manage a resource well, particularly in the context of the Internet, where it is supremely inexpensive and easy to copy and share information.

In addition, more people are expressing alarm at the market's tendency to regard everything as a commodity for sale.¹ Genetic information is now routinely patented, freshwater supplies are being bought by multinational companies, and entire towns have been offered for sale on eBay. Because market theory postulates that "wealth" is created when private property rights and prices are assigned to resources, it often has trouble respecting the actual value of *inalienable* resources. Economists tend to regard market activity and growth as inherently good, when in fact it is often a force for eroding valuable non-market resources such as family time, social life and ecosystems.

In this climate, the language of the commons serves a valuable purpose. It provides a coherent alternative model for bringing economic, social and ethical concerns into greater alignment. It is able to talk about the inalienability of certain

¹ See, e.g., James Ridgeway, *It's All for Sale: The Control of Global Resources* (Durham, NC: Duke University Press, 2004).

resources and the value of protecting community interests. The commons fills a theoretical void by explaining how significant value can be created and sustained outside of the market system. The commons paradigm does not look primarily to a system of property, contracts and markets, but to social norms and rules, and to legal mechanisms that enable people to share ownership and control of resources. The matrix for evaluating the public good is not a narrow economic index like Gross Domestic Product or a company's bottom line, but instead looks to a richer, more qualitative and humanistic set of criteria that are not easily measured, such as moral legitimacy, social consensus and equity, transparency in decisionmaking, and ecological sustainability, among other concerns.

The spread of the commons discourse in recent years has had a double effect: it has helped *identify* new commons and, in providing a new public discourse, it has helped *develop* these commons by enabling people to see them as commons.

In this sense, the commons is a new (i.e., newly recognized) cultural form that is unfolding in front of us. The discourse of the commons is at once descriptive, constitutive and expressive. It is descriptive because it identifies models of community governance that would otherwise go unexamined. It is constitutive because, by giving us a new language, it helps us to build new communities based on principles of the commons. And it is expressive because the language of the commons is a way for people to assert a personal connection to a set of resources and a social solidarity with each other.

The growth of the commons discourse, then, is one way that people are striving to develop more culturally satisfying "mental maps" for our time. Even though digital technologies have dramatically changed our economy and culture, our mental maps still tend to depict the landscape of the pre-Internet print era. For example, creative works and information used to be fixed in physical containers (paper, vinyl, film), which implied a whole set of social practices and market relationships that are now being challenged by digital networks. Many people see the commons as a useful template for making sense of the new social and market dynamics driving so much creativity and knowledge-creation.

The commons is also invoked to assert certain political claims. To talk about the airwaves, the Internet, wilderness areas and scientific literature as commons is to say, in effect, that these resources belong to the American people (or to distinct communities of interest) and that they therefore ought to have the legal authority to control those resources. To talk about the commons is to say that citizens (or user communities) are the primary stakeholders, over and above investors, and that these community interests are not necessarily for sale.

The growth of commons discourse is fundamentally a cultural phenomenon that bears many resemblances to the modern environmental movement. Duke law

professor James Boyle has compared our current confusion in talking about digital culture to the 1950s, when American society had no shared, overarching narrative for understanding that synthetic chemicals, dwindling bird populations and polluted waterways might be conceptually related. Few people had yet made *intellectual connections* among these isolated phenomena.² No analysis had yet been formulated or published that could explain how disparate and even adversarial constituencies such as birdwatchers and hunters might actually have common political interests.

The signal achievement of Rachel Carson, Aldo Leopold and other early environmentalists, argues Boyle, was to popularize a compelling critique that forged a new public understanding of the brewing ecological disaster. In a very real sense, the rise of environmentalism as a political and cultural movement was made possible by a new language. This new language allowed us to see diverse abuses of nature in a more unified way. It canonized them in the public mind as “the environment.” Over time, this cultural platform gave rise to a diversified social movement that spans from Greenpeace’s civil disobedience to the Environmental Defense Fund’s centrist, market-oriented advocacy to the Audubon Society’s focus on conservation.

The “information commons” may yet play a similar role in our time. It can help us name and mentally organize a set of novel, seemingly disconnected phenomena that are not yet understood as related to each other or to the health of our democratic polity.

Unlike toxic chemicals in the environment, however, abuses of the information commons do not generally result in death and injury. This places a greater burden on language to expose the dangers now facing creative expression, information flows and the experimental “white spaces” in our culture. As a discourse, the commons can help us begin to articulate these concerns and provide a public vernacular for talking about the politics of creativity and knowledge.

Articulating the case for the commons may not be enough to convince skeptics, of course. This was Keynes’ insight. Truly understanding the commons requires that we first escape from the prevailing (prejudicial) categories of thought. We must be willing to grapple anew with on-the-ground realities and “connect the dots” among diverse, specific examples. In that spirit, the following pages provide a brisk survey of the more prominent commons being established by various disciplines and communities.

The Commons as a New Language

² James Boyle, “A Politics of Intellectual Property: Environmentalism for the Net?” 44 *Duke Law Journal* 87 (1997)

The scholarly literature on the commons has been developing steadily since the early 1990s, particularly since Professor Elinor Ostrom's landmark 1990 book, *Governing the Commons*.³ Much of this work has been stimulated through such academic centers as the Workshop in Political Theory and Policy Analysis at Indiana University and the International Association for the Study of Common Property (IASCP), the sponsor of the Digital Library on the Commons website and *Common Property Resource Digest* newsletter.

In recent years, diverse citizen groups and professional constituencies have shown their own keen interest in the commons. Scholars, practitioners in various fields, public policy experts and activists have begun new conversations about the commons, which in turn has quickened interest in the subject and popularized the commons discourse.

Environmentalists and conservationists fighting a relentless expansion of market activity have been among the most enthusiastic “early adopters” of commons language. Books such as *The Global Commons*, Susan J. Buck⁴; *Whose Common Future? Reclaiming the Commons*, by The Ecologist magazine⁵; and *Who Owns the Sky*, by Peter Barnes,⁶ have helped popularize the idea that certain shared natural resources should be regarded as commons and managed accordingly. The atmosphere, oceans, fisheries, groundwater and other fresh water supplies, wilderness and local open spaces, and beaches are all increasingly regarded as commons – resources that everyone has a moral if not legal interest in, and which should be managed for the benefit of all.

Environmentalists' embrace of the commons has been matched by a renewed interest in debunking Garrett Hardin's “tragedy of the commons” parable.⁷ Hardin's powerful metaphor held that a commons that was not governed by individual property rights was likely to result in the over-exploitation and ruin of the resource – an analysis that property-rights conservatives have used to fight government management of public resources. A large literature now shows, however, that with the proper institutional design and social norms, a socially managed commons can be entirely sustainable over long periods of time. A “tragedy” is not inevitable at all.

³ Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (Cambridge, UK: Cambridge University Press, 1990).

⁴ Susan J. Buck, *The Global Commons: An Introduction* (Washington, D.C.: Island Press, 1998).

⁵ The Ecologist, *Whose Common Future? Reclaiming the Commons* (Philadelphia, PA: New Society Publishers, 1993).

⁶ Peter Barnes, *Who Owns the Sky? Our Common Assets and the Future of Capitalism* (Washington, D.C.: Island Press, 2001).

⁷ Garrett Hardin, “The Tragedy of the Commons,” 162 *Science*, December 13, 1968, pp. 1243-48.

A number of factions in the environmental movement now look to the commons as a philosophical framework to contextualize and support their advocacy.⁸ For example, environmentalists fighting the “Wise Use” and property-rights movements, especially in the West, have referenced the commons as a framework for helping to fight the private exploitation and abuse of public lands. They argue that forests, minerals, grasslands and water on public lands belong to the American people, and should not be surrendered to private economic interests. Carl Pope, the president of the Sierra Club, has written about the commons of nature, and Public Citizen talks about the global commons of water in its campaign to thwart privatization of drinking water systems.

Advocates of the public trust doctrine also call upon the commons for philosophical support for their work. The public trust doctrine declares that certain resources are inherently public in nature, and may not be owned by either private individuals or the government. The doctrine, which goes back to Roman law, holds that government is a trustee of the people’s interests, not the owner of the public’s property, and so it cannot sell or give away that property to private interests. In practice, the public trust doctrine is a legal tool for preserving public access to rivers, beaches and other publicly owned natural resources. It is a bulwark against market enclosures of the environmental commons.

Champions of the “precautionary principle” in environmental law have also situated their work within the commons framework.⁹ The precautionary principle holds that any proponents of new risks have a duty to take anticipatory action to prevent harm; it is neither ethical nor cost-effective to pay compensation for harm, after the fact, as many corporations prefer.

What unites these different invocations of the commons is their appeal to a fundamental social ethic that is morally binding on everyone. They are asserting the importance of ethical norms that may or may not yet be recognized in law. In the American polity, the will of the people *precedes* and *informs* the law. The sentiment of “we the people” is the preeminent source of moral authority and power, separate and apart from the interests of the market and the state. While the law is supreme, it is not synonymous with the will of the people, which is always struggling to express and codify itself.

Thus the commons is always a third force in political life, always struggling to express its interests over and against those of the market and the state. By the reckoning of commoners, individuals or companies who flout our society’s moral

⁸ These groups include the Georgetown Environmental Law and Policy, the Public Trust Alliance and Riverkeepers, among others.

⁹ The Science and Environmental Health Network is the leading champion of the precautionary principle. In cooperation with the Tomales Bay Institute and the Johnson Foundation, it held a conference on “The Commons, the Public Trust and the Precautionary Principle” on May 13-16, 2004.

consensus are essentially free-riders trying to avoid accountability to accepted social norms. When the tobacco industry suppressed information about the dangers of smoking in order to protect its market revenues, for example, it was violating a social ethic that had not yet been fully recognized by law. When the automobile industry tries to require that “acceptable” levels of safety design be determined by cost-benefit analysis, it is trying to preempt the public’s ethical expectations that foreseeable design hazards be abated.

As these examples suggest, the commons is often engaged with the market and state in struggles over fundamental rules of social governance. Many of these struggles involve issues of *alienability* – what resources should the state allow to be treated as private property? Should the law allow companies to control portions of the human genome? Should pharmaceutical companies be allowed to own the antibiotic capacities of proteins in human tears or genetic information about specific diseases?

Market discourse asserts that it is perfectly appropriate for the law to grant private property rights in such “living” matter. Proponents of the commons argue that such inherited elements of nature – seedlines, genetic information, wildlife, animal species, the atmosphere – are the common heritage of humankind. Ethically, such things belong to everyone (to the extent they should be controlled by humans at all), and should therefore be regarded as commons.

To be sure, property rights and market systems, properly constructed, can be useful approaches to conservation and pollution-abatement. But they are no substitute for a commons discourse. That’s because the language of markets and private property tends to see exchange value and price, not the thing-in-itself. The worldview embedded in economic discourse treats natural resources as essentially fungible, and scarcities as remediable through higher prices. Economics tends to regard nature as an objective resource to be exploited and governed by laws of supply and demand, not as an animate, beloved force that perhaps should be managed according to other criteria.

So however useful market-based policies may be in some arenas, the market system as a whole is not likely to conserve nature on its own accord. As essayist Wendell Berry has explained, “We know enough of our own history by now to be aware that people exploit what they have merely concluded to be of value, but they defend what they love. To defend what we love we need a particularizing language, for we love what we particularly know.”¹⁰ The commons is one way to assert a “particularizing language” declaring that certain natural resources are “not for sale.”

¹⁰ Wendell Berry, *Life Is a Miracle: An Essay Against Modern Superstition* (New York: Perseus Books, 2000), p. 40.

Varieties of Information Commons

If most natural commons are finite and depletable (forests can be clear-cut, groundwater can be drained), the commons featured in this book are quite different. The commons of science, academia and scholarly communications are chiefly social and informational. They tend to involve non-rival goods that many people can use and share without depleting the resource.

Indeed, many information commons exemplify what some commentators have called “the cornucopia of the commons,” in which more value is created as more people use the resource and join the social community.¹¹ The operative principle is “the more, the merrier.” The value of a telephone network, a scientific literature or an open source software program actually *increases* as more people come to participate in the enterprise – a phenomena that economists refer to as “network effects.”

As the Internet and various digital technologies have become pervasive in American life, enabling robust new forms of social communication and collaboration, the cornucopia of the commons has become a widespread phenomenon. We are migrating from a print culture of scarce supplies of fixed, canonical works to a digital culture of constantly evolving works that can be reproduced and distributed easily at virtually no cost. Our mass-media system of centralized production and one-to-many distribution is being eclipsed by a multimedia network of decentralized production and many-to-many distribution.

One major effect of this epochal shift is the creation of new online social structures that themselves have sweeping economic and technological consequences. Perhaps the most notable expression of this fact is open source software, a powerful new genre of non-proprietary type of software created by open communities of programmers. The most famous example of open source software is Linux, a computer operating system that has become a major rival of proprietary software.¹² The commons-based production system that builds and refines hundreds of open source programs is so powerful that major high-tech companies are building competitive strategies around open technical platforms. IBM and Sun Microsystems have gone so far as to make dozens of their software patents available on an open source basis as a strategic way to spur technological innovation in given areas. They also are supporting a new legal defense project, the Software Freedom Law Center, to protect open source software from lawsuits that would shut it down.

¹¹ See, e.g., Carol M. Rose, “The Comedy of the Commons: Custom, Commerce and Inherently Public Property,” a chapter in *Property and Persuasion: Essays on the History, Theory and Rhetoric of Ownership* (Boulder, CO: Westview Press, 1994), chapter 5.

¹² Steven Weber, *The Success of Open Source Software* (Cambridge, Mass.: Harvard University Press, 2003).

Not surprisingly, such radical changes in the economic and social premises of knowledge-production and dissemination have created severe new tensions with copyright and trademark law, which originated, after all, in a more static technological and economic context. The radical efficiencies of “peer production” (open source software, collaborative websites, peer-to-peer knowledge sharing, etc.) are challenging some foundational assumptions about free-market theory, as least as they apply to the networked, digital environment.¹³ What was formerly taken for granted or minimized in free-market theory – the role of social and civic factors in economic production – is becoming a powerful variable in its own right.

The relevance of the commons paradigm, therefore, is only likely to grow as more and more commerce, academic research and ordinary social life migrate to Internet platforms. Venture capitalists are already recognizing that some of the richest opportunities for innovation lie in leveraging the social dynamics of networked environments. Hence the current boom in “social networking” software and new schemes for organizing and retrieving information through socially based “folksonomies” (folk taxonomies) and “meta-tagging”.¹⁴ The high-tech world has never been more interested in social norms and collaborative structures as the basis for technology design. This means, in effect, that the governance design of online commons is a matter of increasing practical concern.

Far from being just an obsession of techies, the general public is embracing a new network of “participatory media.” Here, too, the commons paradigm can help elucidate what is going on. Web logs, or blogs, were one of the first major expressions of participatory media, but now a variety of follow-on innovations are sprouting up to empower direct, individual communications. These innovations include “syndication feeds” of blog posts, “podcasting” syndication of music and talk, and “grassroots journalism” websites. It includes new web platforms for sharing photographs (Flickr), creative works of all types (Ourmedia.org), breaking news events (Publicnews.com), and favorite web bookmarks (del.icio.us). Wikipedia, an online encyclopedia open to anyone who wishes to contribute, is now one of the most popular sites on the Web, with 5.3 million unique visitors a month.

As high-tech innovations have fostered the growth of online communities – while, conversely, companies have sought to lock up more content through encryption and broader copyright protection – many besieged scientific, academic and creative communities have started to see the value of the commons model.

¹³ See, e.g., Yochai Benkler, “Coase’s Penguin, or Linux and the Nature of the Firm,” 112 *Yale Law Journal* 369 (2002), available at <http://www.benkler.org/CoasesPenguin.html>; and “Sharing Nicely: On Shareable Goods and the Emerging of Sharing as a Modality of Economic Production,” 114 *Yale Law Journal* 273 (2004), available at <http://benkler.org/Sharing.Nicely.html>.

¹⁴ Meta-tagging and social software were major themes at Esther Dyson’s PC Forum in 2005, and a topic of intense discussion on blogs run by social networking experts such as Howard Rheingold (www.smartmobs.com), Clay Shirky (www.shirky.com) and Corante’s Many 2 Many (<http://www.corante.com/many>).

From libraries to biotech researchers to musicians, many groups are coming to recognize the value of their own peer-based production and understandably wish to fortify and protect it.

In one sense, this is simply a rediscovery of the social foundations that have always supported science, academic research and creativity. The scientific research community has long honored the sharing of knowledge and resources, open dialogue and sanctions against fraudulent research. Academia has long flourished with the same ethic of sharing and openness among the members of a self-governing community. The creativity of jazz, the blues and hip-hop have always been rooted in musical communities and inter-generational traditions that encouraged borrowing, emulation and the referencing of works by other artists.

But in another sense, the new awareness of the commons in these fields is being provoked by alarming new incursions by the market.¹⁵ Customers are rebelling against the high prices companies are charging for scholarly journals, music CDs and online databases. They are objecting to “digital rights management” schemes that lock up content, limit the fair use rights of users and shrink the public domain. They are balking at the lengthening terms of copyright protection and attempts to override the “first sale doctrine” (which permits purchasers to rent or lend DVDs, books and other products). People are objecting to “shrink-wrap” and “click-through” licenses on software and websites, respectively, that diminish their consumer protections and legal rights.

In response to such developments, many academic disciplines, universities, professional fields, creative sectors and user communities are eager to assert more sovereignty over the ways their work is developed and distributed. Developing one’s own information commons to bypass the market system is both technically attractive and financially feasible.¹⁶ Many disciplines, for example, have adopted “open access” principles for scholarly publishing as a way to ensure the widest access and distribution of their literature.¹⁷ The National Institutes of Health has sought to make all medical research that it funds available under open access rules within a year after publication in a commercial journal. (Commercial journal publishers in 2005 succeeded in weakening the rule by making it discretionary.) Individual universities

¹⁵ See, e.g., Jennifer Washburn, *University Inc.: The Corporate Corruption of Higher Education* (New York, NY: Basic Books, 2005); Seth Shulman, “Trouble on the ‘Endless Frontier’: Science, Invention and the Erosion of the Technological Commons” [report], (Washington, D.C.: New America Foundation and Public Knowledge, 2002); and David Bollier, *Brand Name Bullies: The Quest to Own and Control Culture* (New York, NY: John Wiley & Sons, 2005).

¹⁶ See, e.g., *The Common Property Resource Digest*, March 2005 (issue no. 72), available at <http://www.indiana.edu/~iascp/e-cpr.html>; and David Bollier and Tim Watts, “Saving the Information Commons: A New Public Interest Agenda in Digital Media” [report], (Washington, D.C.: New America Foundation and Public Knowledge, 2002).

¹⁷ An authoritative source for developments in this area is Open Access News, edited by Peter Suber, at <http://www.earlham.edu/~peters/fof/fofblog.html>.

are creating “institutional repositories” for the permanent archiving of preprints, dissertations, research data, and so forth.

In music, film and the visual arts, millions of creators internationally have used one or more of eleven Creative Commons licenses to signal the general public that their works can be shared with others for non-commercial purposes.¹⁸ It is often difficult for creators to use another artist’s work because of difficulties in locating the rights holder and negotiating a license. The Creative Commons licenses facilitate the easier sharing and distribution of works that might otherwise be impossible. The licenses – and a number of ambitious online hosting services such as Ourmedia.org, a site for the sharing of “grassroots media” – are greatly reinvigorating the flow of information and creativity.

The Future of the Commons

The great virtue of the commons as a school of thought is its ability to talk about the social organization of life that has some large measure of creative autonomy from the market or the state. The commons reclaims the sovereignty of this cultural activity. It names it as a separate economy that works in tandem with the market, performing its own significant work (and often the most important work). The commons is not a manifesto, an ideology or a buzzword, but rather a flexible template for talking about the rich productivity of social communities and the market enclosures that threaten them.

The breadth of interest in the commons is reaching new levels, which suggests that it is serving some very practical needs in culturally attractive ways. It enables a new set of values to be articulated in public policy discussions. It offers useful tools and a vocabulary that help various constituencies reassert control over their community resources. It helps name the phenomenon of market enclosure and identify legal and institution mechanisms for protecting shared resources.

While champions of the commons often differentiate the dynamics of the commons from those of the market, I do not believe that the commons and the market are adversaries. What is usually being sought is a more equitable balance between the two. Markets and commons are synergistic. They inter-penetrate each other and perform complementary tasks. Businesses can flourish only if there is a commons (think roadways, sidewalks and communications channels) that allow private property to be balanced against public needs. Privatize the commons and you begin to stifle commerce, competition and innovation as well as social and civic needs. To defend the commons is to recognize that human societies have collective needs and identities that the market cannot fulfill by itself.

¹⁸ More on the Creative Commons licenses can be found at <http://www.creativecommons.org>.

The rediscovery of the commons in so many diverse fields is a heartening development. It suggests the beginnings of a new movement to make property law and markets more compatible with a larger set of ethical, environmental and democratic values. At a more basic level, interest in the commons is leading to some practical new models for managing resources effectively and equitably.

I believe the future of the commons will depend a great deal on a dialectic conversation between practitioners who, on the one hand, are inventing new legal and institutional mechanisms to protect the commons, and scholars and thinkers who are developing the intellectual tools to foster better understanding, strategic innovation and public education. If the past decade is any indication, this dialogue is likely to produce many salutary results.

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