Reinventing Law for the Commons

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Although it is customary for mainstream economists and politicians to consider the commons a failed management regime – the "tragedy of the commons" – it is in fact a pervasive and highly generative system for meeting people's needs. More: commons tend to function in more culturally satisfying, ecologically responsible ways, which is more than can be said for conventional markets and government systems. An estimated two billion people in the world depend upon various natural resource commons (water, forests, fisheries, farmland, wild game, etc.) to meet their everyday needs – and over the past twenty years, many people in modern, industrialized contexts have (re)discovered the commons as a new paradigm of self-provisioning. It is producing everything from software, textbooks and farm equipment, and providing valuable stewardship for urban spaces, indigenous knowledge, natural resources and cooperative finance.

Historically, most commons have not needed nor sought formal protections of law. Their self-organized customs, socially negotiated rules and relative isolation from outside capital and markets, were enough to sustain them. This has changed dramatically over the past 30-40 years, however, as global commerce, technology and conventional law have relentlessly expanded, superimposing the logic and values of markets on nearly every corner of the nature and social life. The resulting *enclosures of the commons* amount to seizures of common assets for private gain. They are also destroying culturally coherent, productive communities operating outside of the market/state order, forcing people to become consumers and employees in order to meet their needs.

As enclosures have taken control of common assets – paradoxically calling attention to the actual value of commons; "you don't know what you got till it's gone" – they have spurred new interest in using law to protect commons. This topic has a rich history going back to the Magna Carta and its companion document, the Charter of the Forest, which provided commoners with explicit legal rights to use their customary forests, pastures, rivers and other natural resources to meet their daily needs. In similar fashion today, commoners are increasingly devising new legal mechanisms to protect their access and use of shared resources from predatory market activity.

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This is, in fact, a burgeoning new arena of political innovation in subsistence commons of the global South, digital commons on the Internet, and knowledge and design commons for physical production. New legal regimes are being created to manage public spaces, water systems and education as urban commons; provide social services, and introduce credit and barter systems through co-operatives. A vanguard of commoners is proposing stakeholder trusts for large common-pool resources such as oil, minerals, water and the atmosphere. Others are developing new organizational structures such as "omni-commons," open value networks and community charters to provide legal stability and protection for commoning.

These efforts brashly embrace a paradox – to attempt build a new social order of commoning through creative hacks of laws that presume the sanctity of individual rights, private property, markets and state authority. Remarkably, there are now many successful adaptations of laws dealing with contracts, trusts, co-operatives, municipal government, copyright, patents, and other bodies of law, that aim to protect common assets and the social practices of commoning. One might say that this experimentation and exploration are producing a new, not-yet-recognized body of socio-legal-political innovation, "Law for the Commons." Taken together, the efforts described in Part II below represent a bold attempt to move beyond the confines of conventional law, governance and bureaucracy, and to invent new legal forms to sanction and enable commoning. (I decline to call it "Law of the Commons" because that term emphasizes *law* as the magical instrument of external coercion rather than on *commoning*, a set of self-organized, living social practices and norms, as the critical force of governance and "law." It is important to see that law is only *an enabling tool* for commoners – chiefly in dealing with the state and market enclosures – and not a substitute for commoning.)

Commoners see improvisations in commons-based law as expedient necessities – creative ways to thwart outside appropriation of their resources and to provide legal certainty for their social governance by negotiating a *modus vivendi* with a hostile state, which often sees commoning as a competing nexus of power and moral authority. Many commoners have embarked upon this journey to engage with conventional state law because of the alarming gap between *legality* and *legitimacy*. Law for the Commons seeks to bridge this gap between the formal strictures of state law and bureaucratic rules adopted by political and corporate elites – "legality" -- and the experiences and vernacular norms and practices of ordinary people. This "vernacular law," as I call it, consists of the "unofficial" social norms, procedures, and customary institutions that peer communities devise to manage their own resources. Vernacular law has a moral and social legitimacy that commoners are struggling to assert, not just through law but through political struggles and cultural expression.

So in this sense, commons-based legal innovation is an attempt to overcome the structural limitations of *legality*, the formal apparatus of market/state governance as now constituted. This struggle is a bit ambiguous or even paradoxical because commoners aspire to have the sanction of

state law (which is grounded in alien philosophical commitments and outlooks) while also developing a very different logic and ethic (of commoning).¹ Commons law seeks to validate different (mostly non-market), socially convivial ways of meeting needs and having meaningful self-governance. The culture spawned by the Internet over the past twenty years is in effect declaring that "representative" legislatures and centralized bureaucratic systems are simply not as responsive and effective as bottom-up, commons-based approaches on open network platforms. Significantly, citizens do not experience the former as transparent, legitimate and accountable.

One premise of this memo is that conventional politics and policymaking are suffering from a severe crisis of legitimacy and efficacy – an affliction that commons-based law can help remedy. The nation-state is suffering a decline in authority as global capital becomes even more powerful and as the scale and complexity of economic, social and ecological problems outstrip the intelligence and instruments of centralized bureaucracies, whether corporate or governmental. Noting the decline of state authority, Dutch political scientist Maarten Hajer writes: "The weakening of the state goes hand in hand with the international growth of civil society, the emergence of new citizen-actors and new forms of mobilization. In such cases, action takes place in an 'institutional void': *there are no clear rules and norms according to which politics is to be conducted and policy measures are to be agreed upon.* To be more precise, there are *no generally accepted* rules and norms according to which policymaking and politics are to be conducted." (emphasis in original)

I submit that commoners are attempting to fill the institutional void of politics with new sorts of commons-based law that have not yet been recognized as such. This shift of focus by citizens reflects dwindling confidence in state law as a way to achieve real change. It also reflects growing interest in technology platforms and social norms as better vehicles for "making law"; the latter are seen as more likely to be participatory, effective, respected and legitimate.

In this respect, I believe law for the commons can help rehabilitate and transform mainstream politics and public policy by enacting values that are structurally marginalized by the neoliberal policy consensus – participation, inclusiveness, fairness, non-instrumental human relationships, transparency, accountability. Commons-based law attempts to declare that certain human relationships and resources must be insulated from market exchange ("inalienability"). It honors the sovereignty of people to devise their own forms of hands-on governance to meet their needs, especially in a local context. It recognizes the importance of bottom-up initiatives and engagement. It provides a philosophically coherent framework – distinct from the governing ethos of the liberal market state – for meeting people's needs without bureaucracy (politically corrupted, paralyzed by formalities, dominated by lawyers and remote "experts"; indifferent to local complexities) or conventional markets (concentrated, predatory, often rigged and oligopolistic,

¹ Thus, commons sometimes aspire to work *with* a partner state (to the extent that the state can deal in good faith) and in other ways commons simply seek defensible legal work-arounds that require no active support from the state. This amounts to a "particle-and-wave" political choice that deserves further theoretical analysis.

ecologically harmful, winner-take-all). I like to think that Thomas Jefferson would endorse this project of developing law for the commons because, as he once said, "laws and institutions must go hand in hand with the progress of the human mind." The human mind and social circumstances have changed quite a bit in the last generation, not to mention the last 225 years.

It is worth adding: the economic logic and appeal of commoning – apart from any moral or political arguments – is rapidly increasing. As analysts such as Jeremy Rifkin, Paul Mason, Yochai Benkler, Michel Bauwens² and many others argue, the world economy is undergoing a profound shift. Twentieth-century economy of institutions based on strict, hierarchical systems of centralized control and mass production overseen by experts, are giving way to an economy based on open networks that honor self-organized, bottom-up participation in the manner of open source software. This fundamental re-ordering of economic relationships is releasing a great deal of social energies precisely because network infrastructures invite ordinary people to invent their own systems of provisioning based on local needs and niche preferences. Sharing and collaboration are becoming common-sense norms.

This shift in basic economic structures entails a move away from a logic of scarcity (e.g., the artificial constraints of copyright and patents on non-rival information) to a logic of abundance (where information, culture, research, etc. can be shared at virtually no cost). This shift is also making social, ethical and personal relationships more important in economic life, enabling us to escape from the prevailing fiction of *homo economicus* as the human template for policymaking, to more complex, humanistic and culture-specific concepts of economic behavior. As a socio-economic paradigm, the commons accurately depicts much of the collaborative activity now occurring digital networks: self-determination as the basis for a new political economy. However, prevailing (archaic) legal regimes tend to ignore or criminalize commoning, thwarting a faster, fuller transition to the next economy.

The Purpose of This Memo

This strategy memo is a first attempt to survey the more significant realms of commonsbased legal innovation occurring today. Besides providing a rough inventory of more than sixty projects and theaters of legal innovation, I wish to propose that these disparate initiatives be conceptualized as a new strategic framing, "Law for the Commons." The essential goal of this body of law is to develop novel legal forms that can incubate, maintain and defend commons. A related goal is to use the banner of "Commons Law" to help federate isolated players in this sprawling, emergent realm (commons-based social and political struggle) to strengthen their collective impact through the use of law. If we're serious about catalyzing systemic change, we need to start

² Jeremy Rifkin, *The Zero Marginal Cost Society* (Palgrave Macmillan, 2014); Paul Mason, *Post-Capitalism: A Guide to Our Future* (2015, UK); Michel Bauwens, *Network Society and Future Scenarios for a Collaborative Economy* (Palgrave Macmillan, 2014); and Yochai Benkler, *The Wealth of Networks* (Yale University Press, 2006).

articulating a coherent vision and provide specific legal and policy mechanisms for achieving it. In that respect, this memo complements the intentions of the P2P Foundation's Commons Transition website (www.commonstransition.org).

Declaring the existence of a new realm of inquiry known as Law for the Commons could also have important secondary effects. It could provide a clearer, more muscular vision of change for the many political movements seeking to create a "new economy." It could provide a shared focal point for the Solidarity Economy, co-operatives, the Transition Town movement, peer production, indigenous peoples, and many others to coordinate their post-capitalist activist strategies. By providing better forms of direct self-governance and access to resources for basic needs, Law for the Commons can also help advance the interests of women and marginalized minorities for whom access to state law, enforcement and support may be problematic.³ These movements all seek to achieve systemic changes in production, state policies, governance, the fetish of economic growth and the culture of consumerism, especially as they relate to the environment and the quality of everyday life. A new field of Law for the Commons could help consolidate and loosely coordinate the diverse initiatives now unfolding, and give them greater focus and visibility as kindred endeavors.

This memo therefore provides an introduction to commons-based law as a distinct field of policy research, legal innovation and activism. It seeks to show how such a body of law could catalyze new (transformational) types of dialogues, collaborations and cross-movement fertilization of ideas. It could also help jolt existing legal scholarship, advocacy and activism out of their well-worn ruts – i.e., their fixation on state policymaking structures and law as the primary engines of change – and challenge them to pursue a more ambitious, bottom-up agenda for change.

The many varieties of commons-based law described below are quite different from each other; some might consider them too disparate to be related at all. But I believe they all attempt to enable commoning and/or prevent market enclosures. A familiar concept in eighteenth century English commons was the idea of "beating the bounds." Every year the town's commoners would host a community festival that consisted of walking the perimeter of the shared forest or pasture, identifying any hedges or walls that had enclosed the land for private gain – and then knocking them down. The event was an effective but convivial way of asserting the community's identity and governance, and protecting the shared wealth, and identifying and punishing vandals and free riders.

³ As feminist historian of the commons Silvia Federici has written, "The social function of the commons was especially important for women, who, having less title to land and less social power, were more dependent on them for their subsistence, autonomy and sociality." Medieval witch-hunts were often directed at women who resisted enclosures of their commons. Jessica Gordon Nembhard's recent book, *Collective Courage: A History of African American Cooperative Economic Thought and Practice* describes the critical role that self-provisioning and -governance through cooperatives played in the emancipation of African Americans.

The strategic focus of many contemporary social movements is, in effect, to devise new methods (legal, technological, social) for beating the bounds. But the recurring patterns of this commons-based legal innovation goes largely unrecognized – perhaps because this work is seen through the lens of neoliberal economics and policy and therefore dismissed out of hand; or perhaps because so many American activists continue to have a blind faith in the efficacy of governance institutions created in the eighteenth century; or perhaps because a new commons-based political culture has not sufficiently coalesced and therefore many people cannot see its transformational potential.

The problem may also be that commons-based law is not seen as a philosophical or strategic departure from the status quo because it continues to "play ball" with established, state-based forms of law. But that is often both tactical feint and political necessity in the service of playing a "longer game." The whole point of instigating a new discourse of commons-based law is to reframe and reorient people's perspectives. It is to emphasize that new forms of self-governance – social, informal and evolving in character – point toward a different vision of political economy, law and culture. It is use a different language to showcase new approaches that can be more effective, trusted and dynamic than the (tired, less effective) solution-sets that the liberal polity is offering.

That's the primary reason that I have compiled here the many types of commons-based legal innovation now underway – to point to distinct patterns of legal innovation that offer promising strategic opportunities. More grandly, I like to think that the forms of commons-based law described below constitute a powerful (if underdeveloped) force for re-imagining governance, economics, politics and social practice in systemic ways.

II. Legal Innovations in Beating the Bounds: Nine Promising Fields of Action

Part II surveys the enormous amount of legal innovation going on in various commonsrelated fields of action. The point of this section is to identify specific initiatives that are trying to transform the legal paradigm or carve out new "protected zones" of enforceable rights within existing legal frameworks. I have identified nine major "clusters" of interesting experimentation and ferment:

	Page number
1. Indigenous Commons	8
2. Subsistence Commons in the Global South	10
3. Digital Commons	12
4. Stakeholder Trusts	17
5. Co-operative Law	19
6. Urban Commons	22
7. Localism	25
8. New Organizational Forms	26
9. Re-imagining State Policy to Empower Commons	29

Following this review of innovative theaters of action, this memo considers:

Part III: The Strategic Value of Developing Law for the Commons	34
Part IV: Next Steps	37
Appendix A: Some Notable People Developing Law for the Commons	40

The list of clusters and examples in Part II is not comprehensive. It is merely a first attempt to assemble the fragments of commons-based legal innovation into a new mosaic that makes key, unifying themes more visible. (I invite readers of this memo to inform me of any worthy additions by contacting me at david/at/bollier.org.) Some examples may belong in two or more clusters, which I've tried to indicate with cross-references. In Part III, I will reflect on the political and philosophical implications of the examples of Part II, followed by a discussion in Part IV of practical steps that might be taken to consolidate and extend Law for the Commons as a coherent body of legal activism.

Most of the examples in Part II are attempts to secure new legal recognition, support or protection for various sorts of commons through statutes, court rulings, public policies, municipal ordinances, or private law "hacks" of existing bodies of law. Some attempt to use digital

technologies and new organizational forms to reinvent governance and reliably enforce commonsbased rules. A separate class of projects is seeking to reinvent or realign state authority, an effort that is obviously a more visionary, mid-term proposition.

1. Indigenous Commons

The legal rights of the world's 300 million indigenous peoples⁴ is of particular interest to commoners because both face similar philosophical and strategic challenges in coming to terms with (unresponsive, sometimes hostile) national and international law. In that sense, the legal fights of indigenous peoples may be a bellwether for commoners and a source of guidance. In general, indigenous peoples are seeking to protect their own distinctive identities, collective resources, cultural commitments to collective law (both formal and informal) and to group stewardship of resources. Some of the more contested aspects of indigenous peoples law include conflicts with nation-states over self-determination (vs. state sovereignty); the preservation of cultural traditions (vs. western consumerism); the preservation of their languages and agroecological practices (vs. intellectual property rights); and compensation (or repatriation) for theft of collectively shared land and property (vs. conventional claims of individual property rights).⁵

Biocultural rights represent a new legal jurisprudence that aims to protect natural ecosystems and indigenous knowledge and ways of life, especially from the threats of trade treaties. The rights – based on the 1993 Convention on Biological Diversity, which has been ratified by 193 nations – have been developed by legal advocates such as Natural Justice in South Africa to give legal protection to a community's identity, culture, governance system, spirituality and way of life as embedded in a specific landscape. This bold departure in human rights law gained particular momentum during negotiations over the Nagoya Protocol, at which African countries supported the idea of "biocultural community protocols" as community-led instruments for recognizing and supporting "ways of life that are based on the sustainable use of biodiversity, according to customary, national and international laws and policies."

Kabir Sanjay Bavikatte, a cofounder of Natural Justice, writes: "The emergence of biocultural rights forces a rethink of the conventional understanding of property as private property. Instead biocultural rights make a case for the right to commons by arguing that property need not be perceived purely as a thing that one has absolute rights over, but can also be viewed as a network of use and stewarding relationships amongst a number of rights holders. Within a rights discourse, biocultural rights can be contextualized as a subset of the third-generation group solidarity rights. The notion of stewardship is critical for a discourse of biocultural rights, for it provides the ethical

⁴ Broadly defined as peoples whose societies and cultures predated the nation-states that have come to engulf them.

⁵ An extensive overview of indigenous peoples' law can be found in a web document by Steven C. Perkins, "Researching Indigenous Peoples' Rights Under International Law," at http://intelligent-internet.info/law/ipr2.html#Present%20Activities.

content for these rights – whereby rights to land, culture, traditional knowledge, self-governance, etc. are informed by a set of values that are not anthropocentric but biocentric."⁶ Bio-cultural rights are still a nascent legal concept, but variations on the idea have been incorporated into a number of international treaties and they have a solid grounding on many familiar legal principles.

A major international effort to facilitate "fair and equitable exchanges" of indigenous knowledge and culture is directed by the **Intellectual Property Issues in Cultural Heritage (IPinCH) research project**, an international collaboration of archaeologists, indigenous organizations, lawyers, anthropologists, ethicists, policy makers, and others.⁷ Based at Simon Fraser University in British Columbia, Canada, IPinCH explains that its focus is on "archaeology as a primary component of cultural heritage; however, this project is ultimately concerned with larger issues of the nature of knowledge and rights based on culture – how these are defined and used, who has control and access, and especially how fair and appropriate use and access can be achieved to the benefit of all stakeholders in the past." The project includes fifty researchers and twenty-five partnering organizations from Canada, Australia, United States, New Zealand, South Africa, Germany, England, and Switzerland.

The Potato Park is a *sui generis* legal regime that empowers indigenous Quechua indigenous peoples in an area near Cusco, Peru, to act as stewards of a rich biodiversity of more than 900 genetically distinct potatoes that they have managed for millennia. The Quechua joined with a nonprofit group ANDES in the 1990s to develop a legal regime to recognize the Indigenous Biocultural Heritage Area (IBCHA), 12,000 hectares of traditional lands that the Quechua regard as essential to the agrobiodiversity of the region and to conserve their traditional culture, knowledge and livelihoods. Besides assuring a community-led and rights-based approach to conservation (rather than market development), the Potato Park seeks to prevent biopiracy of genetic knowledge by agro-biotech corporations. Although the Potato Park does not have state recognition within either Peruvian national law of the International Union for the Conservation of Nature, the IBCHA agreement is legally compatible with existing systems of national and international law, and is seen as an inspiration for similar projects to protect agrobiodiversity in the Andes.⁸

⁶ "Biocultural community protocols and the Future of Conservation," September 14, 2014, at http://blog.oup.com/2014/09/biocultural-community-protocols-future-conservation. See also Kabir Sanjay Bavikatte and Tom Bennett, "Community Stewardship: The Foundation of Biocultural Rights," *Journal of Human Rights and the Environment* 6(1) March 2015, pp. 7-29.

⁷ http://www.sfu.ca/ipinch

⁸ Alejandro Argumedo, "The Potato Park, Peru: Conserving Agrobiodiversity in an Andean Indigenous Biocultural Heritage Area," in *Protected Landscapes and Agrobiodiversity Values*, ed. Thora Amend et al. (Gland, Switzerland: International Union for the Conservation of Nature, 2008), 45-58. The IBCHA agreement does empower the Quechua societies to control scientific studies in the region and the Potato Park database can be used to thwart patent applications for indigenous medicinal plants and knowledge.

The Traditional Knowledge Digital Library (TKDL) is an India-based database launched in 2001 that documents the knowledge and usage of traditional biomedical knowledge, plants and practices such as yoga, so that such knowledge cannot be patented.⁹ The goal of the project, as its website explains, is to "give legitimacy to existing traditional knowledge and enable protection of such information from getting patented by the fly-by-night inventors acquiring patents on India's traditional knowledge systems. It will prevent misappropriation of Indian traditional knowledge, mainly by breaking the format and language barrier and making it accessible to patent examiners at International Patent Offices for the purpose of carrying out search and examination."

Although defensive in character, aimed at preventing market enclosures of traditional knowledge, TKDL points toward more affirmative legal strategies for protecting useful agricultural or scientific knowledge as a commons. One example is the release of Open Source Seed Initiative (see section #5 below). Others include open-source-inspired technologies and licenses developed by the Australian nonprofit research institute CAMBIA and its BiOS project ("Biological Innovation for Open Society"),¹⁰ and the biohacking / DIY biology movement that is devising commons-based systems for the responsible, ethical and safe research in synthetic biology.¹¹

2. Subsistence Commons in the Global South

There are many subsistence commons (not necessarily managed by indigenous peoples) that rely upon self-governed access and use of forests, fisheries, farmlands, coastal lands, bodies of water, wild game, and other natural resources. As mentioned earlier, an estimated two billion people around the world depend on natural resource commons for their everyday (nonmarket) needs.¹² It is not only important to protect these vital subsistence commons from enclosure, but to improve their governance and functioning. This may require certain legal frameworks or selective, light-touch state support to help regularize self-governance; it may require new types of local dialogues and collaboration to get beyond entrenched corruption, patriarchy and adversarialism.

Subsistence commons in India may be the largest, most salient arena in which state law has formally recognized commons qua commons. This stems from a landmark ruling by the Indian Supreme Court in 2012 that legally recognized subsistence commons and ruled against a real estate developer whose buildings had enclosed a village pond functioning as a commons. The political and legal repercussions of this ruling are still reverberating in India, but it is symbolically

⁹ http://www.tkdl.res.in/tkdl/langdefault/Common/Abouttkdl.asp?GL=Eng

¹⁰ http://www.bios.net/daisy/bios/home.html

¹¹ Among the notable "participatory biology" networks and groups are DIYbio, BioBricks Foundation, Genspace, a community-based lab in Brooklyn, New York, and Bricobio, a biotech biohacker space in Montreal.

¹² "Securing the Commons: Securing Property, Securing Livelihoods," International Land Alliance website, http://www.landcoalition.org/global-initiatives/securing-commons. Since these commons do not generally involve market activity and do not contribute to GDP, they are ignored by conventional economists as insufficiently interesting or as a deficiency to be remedied by "development."

and perhaps substantively an important legal victory for commoners trying to protect their traditional, collective uses of forests, farm land, bodies of water and other "unowned" resources long regarded by conventional law as "wastelands." The Indian commons advocacy group, the Foundation for Ecological Security (Jagdeesh Rao, director), is actively tracking the dozens of judgments and orders about the commons that have since emerged from Indian courts and state governments. (See its biomonthly e-publication, "The Case for the Commons.")

The Forests Act in India (1997) is one of the more significant legislative acts authorizing commons-based management of forests. The Act explicitly empowers village panchayats to act as commons-based stewards of forests, an authority that has not been faithfully respected by the government's Forest Department. Still, many panchayats have mobilized to assert their authority to manage village forests as a more effective traditional method of conservation and stewardship.¹³ It is therefore a active "contested zone" that often pits conventional bureaucratic authority and expertise against participatory governance and local knowledge.

Land tenure systems that recognize subsistence commons could help stop the massive global land grab now underway in the global South (an estimated 8.54 million hectares), which is destroying tens of thousands of commons that people have relied upon for generations. There are, fortunately, some efforts to formally recognize customary rights to land use, which could be helpful in resisting the investor-privileged terms of national laws and international treaties. Liz Alden Wiley, a land reform expert and specialist based in Africa, reports: "In light of the fact that most allocations to investors are in the form of renewable medium-term leases of up to 99 years, it may be expected that loss of common properties will remove these lands from meaningful access, use and livelihood benefit for at least one generation and potentially up to four generations." This is a recipe for decades of famine, poverty, political turmoil and additional forms of fossil-fuel-intensive "development." Wiley and others are pushing for legal reforms of the sort adopted by some African and Latin America states, which do not require property rights in land to be fungible, based on individual ownership, or formally registered in order for land to be recognized as real property.¹⁴

Cooperative governance of public forests in Oregon. For decades the timber industry in the US did great harm to forest ecosystems through the clear-cutting of forests, re-seeding with tree monocultures, and the building of roads – all with the sanction of the US Forest Service. The political and legal hostilities between environmentalists and the timber industry reached a peak in the Pacific Northwest of the US in 1991, when a federal court shut down timber operations in the entire

¹³ See, e.g., Soma K P and Richa Audichya, "Our Ways of Knowing: Women Protect Common Forest Rights in Rajasthan," in *Patterns of Commoning* (Off the Common Books, 2015).

¹⁴ Liz Alden Wiley, "The Global Land Grab: The New Enclosures," in David Bollier and Silke Helfrich, *The Wealth of the Commons: A World Beyond Market and State* (Levellers Press, 2012), available at http://www.wealthofthecommons.org/essay/global-land-grab-new-enclosures. See also Wiley's report for the International Land Coalition, "The Tragedy of Public Lands: The Fate of the Commons Under Global Commercial Pressure," January 2011, at http://www.ibcperu.org/doc/isis/13585.pdf.

region. In the aftermath, the US Forest Service improbably initiated a remarkable experiment in collaborative governance for the Siuslaw National Forest. As told by the film "Seing the Forest,"¹⁵ the government abandoned its standard bureaucratic processes, which were generally driven by congressional politics, industry lobbying and divisive public posturing. Instead it convened a "watershed council" of the region's stakeholders and anyone who was interested in participating. The goal was to manage the forest through an informal process of open commoning, which included the all-but-formal power to allocate federal funds, with the Forest Service hovering in the background as the final arbiter. It took many years, but the informal dialogues and pragmatic, consensus-based decisionmaking resulted in a significant restoration of the forest ecosystems and a radically different mindset toward forest stewardship. This history raises an urgent socio-legal challenge: How to adapt formal state law and regulation to authorize new sorts of locally empowered decisionmaking and commoning?

The System of Rice Intensification (SRI) is an agro-ecological system for improving the productivity of irrigated rice by changing the mix of plants, soil, water, and nutrients. While SRI is not a system of law, it is a self-organized social network of farmers in several dozen countries that has been tremendously empowering and productive. SRI collaborations in cyberspace have helped farmers boost rice yields by 20 to 100%; reduce the seed required by 90%; and reduce water usage by up to 50%. The project is notable for blending the use of online platforms with physical resource management – a trend exemplified by other "eco-digital commons."¹⁶

3. Digital Commons

Open networks are a natural hosting infrastructure for commons. As augmented by commons-generating governance, rules, social practices, etc., open platforms have spurred a vast proliferation of rich and varied commons. The more notable ones include free and open source software, Wikipedia in dozens of languages, more than 10,000 open access scholarly journals, the open educational resources movement (OpenCourseWare, open textbooks, etc.), the open data movement, open design and manufacturing commons, and much else. A recurring challenge for people working on open networks is to find ways to prevent businesses from treating the shared resources of commoners – code, information, images, videos, product design, etc. – as "free" feedstock for their proprietary market machines. For-profit corporations can mobilize enormous capital and other resources to convert socially generated wealth into marketable products and service, essentially privatizing the shared community wealth or at least its market rewards.

¹⁵ The film was produced by produced by writer and filmmaker Alan Honick, with support from Forest Service Employees for Environmental Ethics .http://alanhonick.com/seeing-the-forest-2

¹⁶ System of Rice Intensification, at http://sri.ciifad.cornell.edu. See also Erika Styger, "The System of Rice Intensification and Its International Community of Practice," in *Patterns of Commoning* (Off the Common Press, 2015).

A variety of legal and technological innovations are now starting to address the structural limits of open platforms as vehicles for commoning. Among the more prominent initiatives: new types of copyright-based licenses to protect commons and new digital architectures and software systems that provide a "network-based polity" for consensual governance, production and allocating benefits. One example of the latter are new systems that democratize the ability of collectives to authenticate digital identity without having to rely on Google, Facebook, and other tech giants who use their power to data-mine people's personal information. Other examples include digital currencies that enable communities to capture and manage the value that its members create; "smart contracts" that enable self-executing contractual agreements on networks; a system of open-source modules of legal boilerplate that can be used on open platforms to minimize the need for expensive lawyers; and data-sharing commons that allow only stipulated usage of shared pools of data. Below, a brief review of these new commons-friendly legal innovations in digital spaces.

Copyright-based licenses have long and respected history in digital spaces, of course, starting with the General Public License that originally enabled free software (especially Linux), and moving on to the Creative Commons licenses in 2003, among dozens of variants. To deal with the corporate appropriation of work from open platforms, the P2P Foundation, working with Primavera De Filippi, Lionel Maurel and others, are seriously exploring the idea of "commons-based reciprocity licenses" that would allow no-cost sharing among members of a commons, but require payment by any commercial users of the community's work.¹⁷ Unlike the Creative Commons NonCommercial license, which absolutely stops commercial development of a line of information or creative work, the CopyFair license would allow commercialization, but on the basis of mandatory (monetized) reciprocity.

The **blockchain ledger**, a software innovation that lies at the heart of Bitcoin, is a breakthrough that could be of enormous importance to the future of commoning on open network platforms. Although Bitcoin itself has been designed to serve familiar capitalist functions (tax avoidance, private accumulation through speculation), the blockchain ledger is significant because it can enable highly reliable, versatile forms of collective action on open networks. It does this by validating the authenticity of a digital object (for now, a bitcoin) without the need for a third-party guarantor such as a bank or government body. This solves a particularly difficult collective-action problem in an open network context: How do you know that a given digital object -- a bitcoin, a legal document, digital certificate, dataset, a vote or digital identity asserted by an individual – is the "real thing" and not a forgery? Blockchain technology can help solve this problem by using a searchable online "ledger" that keeps track of all transactions (i.e., bitcoins). The ledger is updated about six times an hour, each time incorporating details of the latest transactions (the "block") into

¹⁷ http://p2pfoundation.net/Commons-Based_Reciprocity_Licenses. See also http://p2pfoundation.net/From_the_Communism_of_Capital_to_a_Capital_for_the_Commons.

the ledger – a record that is shared by everyone on the network using the Bitcoin software. The ledger acts as a kind of permanent record maintained by a vast distributed peer network, which makes it far more secure than data kept at a centralized location. The authenticity of a given bitcoin is assured because it's virtually impossible to corrupt a ledger that is spread across so many nodes in the network.

A recently released report suggests that blockchain technology could provide a critical infrastructure for building what are called **"distributed collaborative organizations"** (sometimes "distributed autonomous organizations").¹⁸ These are essentially self-organized online commons. A DCO could use blockchain technology to give its members specified rights within the organization, which could be managed and guaranteed by the blockchain. This set of rights, in turn, can be linked to the conventional legal system to make those rights legally cognizable.

One rudimentary example of how the blockchain might be used to facilitate a commons: former FCC Chairman Reed Hundt has proposed using blockchain technology to create **distributed networks of solar power on residential houses coordinated as commons.** The ledger would keep track of how much energy a given homeowner generates and shares with others, and consumes. In effect the system would enable the efficient organization of decentralized solar grids and a "green currency" that could serve as a medium of exchange within solar microgrids or networks, helping to propel adoption of solar panels.¹⁹ The blockchain amounts to a network-based architecture for enabling commons-based governance, which helps explain why the blockchain ledger was a topic of extreme interest at the Ouishare festival in Paris in May 2015.

A more generic aspect of this field of experimentation is **smart contracts**, which are dynamic software modules that may soon enable new types of group governance, decisionmaking and rules-enforcement on open network platforms. We are already familiar with rudimentary – and corporate-oriented versions – of this idea, such as Digital Rights Management (DRM), an encryption/authentication system that attempts to constrain how users may use their legally purchased technologies (DVDs, CDs, etc.). As the power of collaborative networks has become

¹⁸ See the report, "Distributed Collaborative Organizations: Distributed Networks & Regulatory Frameworks," written by people associated with Swarm, the Berkman Center for Internet and Society, New York Law School and the MIT Media Lab, in March 2015, available at http://bollier.org/distributed-networks-and-law. See also Rachel O'Dwyer, "The Revolution Will (Not) Be Decentralized," Commons Transition website, June 11, 2015, at http://commonstransition.org/the-revolution-will-not-be-decentralised-blockchains; and Morgen E. Peck, "The Future of the Web Looks a Lot Like Bitcoin, *IEEE Spectrum*, July 1, 2015, at http://spectrum.ieee.org/computing/networks/the-future-of-the-web-looks-a-lot-like-bitcoin. The blockchain and related legal issues are being actively discussed in a series of global workshops known as "Blockchain (R)evolution," convened by Primavera De Filippi, Constance Choi and John Clippinger. http://blockchainworkshops.org/?mc_cid= c156eab3de&mc_eid=8b6e25fdc0. For a broader introduction to this general topic, see John H. Clippinger and David Bollier, *From Bitcoin to Burning Man and Beyond: The Quest for Identity and Autonomy in a Digital Society* (ID3, 2014), available at https://idcubed.org/bitcoin-burning-man-beyond.

¹⁹ Reed E. Hundt, Jeffrey Schub and Joseph R. Schottenfeld, "Green Coins: Using Digital Currency to Build the New Power Platform," in Clippinger and Bollier, *From Bitcoin to Burning Man and* Beyond, available at https://idcubed.org/chapter-10green-coins-using-digital-currency-build-new-power-platform.

clear, some tech innovators have recognized that the real challenge is not how to lock up and privatize digital artifacts, but how to assure that they can be shared on open platforms in legally enforceable ways. Hence the many active efforts now underway to devise technical systems that would act as "smart" legal agents whose transactions would also be enforceable under conventional law. (The "transactions" could, of course, be used to invent new types of markets, but they also could be used to create new types of commons; ultimately, the two realms may bleed into each other and create social hybrids that conjoin community commitments and market activity.)

Another variation on this theme is a **Terms of Service contract for peer production** that would turn the one-sided "contracts of adhesion" customarily used by websites, into a contract among multiple users to legally authorize peer sharing among themselves. Thus instead of using a ToS to assert strict proprietary rights for business purposes, this envisioned ToS would assert legal terms for automatic access, use and sharing of collectively "owned" digital resources, perhaps with customizable options for specific needs. This peer production ToS is now being developed by Intrinsic, a startup company that is building an open-source architecture for online collaboration.²⁰

Yet another fascinating attempt to exploit open platforms to promote commons-based law is **Common Accord**, a fledgling project that is attempting to apply open source principles to the inefficiencies and costs of conventional lawyering.²¹ The goal is to decentralize the writing of legal documents and empower users by developing a massive global inventory of standard legal forms, libraries of legal clauses and specific use-cases in civil law. The many modular elements can then be mixed-and-matched by users to apply to their specific needs. Specific legal modules would be rated, annotated and commented up by recognized legal experts, in an open-source fashion, helping to provide a measure of credibility and trust in the legal draftsmanship of legal documents. While the system would not necessarily eliminate the need for a real lawyer in a given situation, it could automate, simplify and reduce the legal costs for many standard commercial and civil transactions.²² Common Accord is also involved in devising machine-readable legal consent forms for contributors to peer production projects, such as open source software projects, data sharing by municipalities, patients who share their genetic information with hospitals and pharmaceutical companies, and musicians eager to collaborate on collective pieces of music.²³ Such collaborations are often plagued

²⁰ This project is an outgrowth of work done by ID3, a Boston-based nonprofit headed by John H. Clippinger that was building an ambitious open-source program for authentication of digital identity and trustworthy sharing of resources on digital platforms.

²¹ The three active contributors to Common Accord are James Hazard, an American lawyer based in Paris; Primavera De Filippi of the Harvard Berkman Center and CERSA/CNRS; and Marc Dangeard of Be-Bound.com.

²² As described on the P2P Foundation wiki: "The goal is to make the documents so modular that much of the text disappears, leaving parties with only specific deal points and clear relationships. These relationships can be 'rendered' at any time into full legal documents, for verification and enforcement. Technically, this is a data-model for text, an extremely simple and expandable data-model that consists of a series of nested lists that render into texts. The texts can be improved, extended and forked by the community. As such, CommonAccord is expected to play the same role in facilitating and accelerating collaboration on legal texts as git has played for code." http://linkis.com/p2pfoundation.net/wZAFk

²³ See, e.g., a model contract http://my.commonaccord.org/index.php?action=doc&file=/License/CR/Harmony/

by legal terms that favor the data-using institutions and by incompatibilities among national legal systems and digital technical standards.

New software platforms to enable participatory online deliberation are experimenting with better ways to ascertain group opinion and critically discuss issues – a development that could have important implications for new types of governance. The more notable experiments include Loomio,²⁴ DemocracyOS²⁵ and LiquidFeedback.²⁶ The point of such systems is to enable direct, sustained and somewhat complicated discussions that can then clarify group sentiment and foster commitments that participants see as legitimate and meaningful.

Ubiquitous Commons, a project headed by Italians Salvatore Iasconesi and Oriana Persico, is attempting to overcome impediments to data-sharing in cities and develop better ways to use data to improve social research and governance.²⁷ Ubiquitous Commons is trying to develop new systems that can creatively use enormous flows of data on social networks and public databases for public purposes, especially via maps of urban spaces. The idea is to enable citizens, city governments, scientists, health researchers and others to use dynamic data flows to understand actual social behaviors and design appropriate services and policies, while protecting individual privacy rights. Prototypes have been launched in Rome, Sao Paulo, and New Haven, Connecticut. The project has obvious implications for improving the quality of self-governance and participation. Common Accord, mentioned above, is also involved in developing data-sharing agreements that are suitable for municipalities.²⁸

Faircoin is a recently founded project of Cooperativa Integrale Catalana (CIC), an "omnicommons" based in Barcelona (see section #8 below) that is attempting to build a new set of free economic tools that will "promote cooperation, ethics, solidarity and justice in our economic relations." FairCoin was founded by some CIC members (along with other partners), and it has developed a new cryptocurrency, Faircoin, a descendent of an earlier digital currency, Peercoin. The basic idea of Faircoin is "to hack the foreign exchange market" by developing a new currency that fosters cooperation over private competition. (Faircoin relies less on "mining" new coins than on "minting" them in more ecologically responsible ways and distributing them to those who want them.) The system aims to be "fractal" in character, meaning that "from the experience in the root platform, it can be moved and replicated at different regional and local scales around the globe, with interoperability at different levels for the entire fair.coop ecosystem....," as CIC founder Enric

Form/Combined.md; patient consent forms, http://ga4gh.commonaccord.org/index.php?action=list&file=Demo; municipal data sharing, http://datashare.commonaccord.org; and

²⁴ http://www.loomio.org

²⁵ http://democracy.os.org

²⁶ http://liquidfeedback.org

²⁷ http://www.ubiquitouscommons.org and http://www.humanecosystems.org.

²⁸ Common Accord is working with the City of Kansas City, the UMKC Law School, Code for America, and MIT Media Lab on model data sharing agreements for municipalities. http://datashare.commonaccord.org.

Duran has explained.²⁹ While the project is unabashedly ambitious, CIC correctly recognizes that the existing monetary system and private banks pose insuperable barriers to reducing inequality and ensuring productive work and wealth for all. The only "realistic" alternative to existing fiat currencies and foreign exchange is *to invent a new monetary system!* FairCoop intends to use Faircoin to help build a larger ecosystem of economic institutions, which will include Faircredit, a worldwide mutual credit system for exchanging goods and services via Faircoin; and Fairfunds, a group of Faircoin donation vehicles for various types of projects.

New state policies to enable digital commoning are emerging, fitfully (see section #9 for more on this topic), but they remain a bit on the margin of mainstream politics and policymaking. The most significant initiative in this area was the 2013-14 research project of the FLOK Society – Free/Libre Open Knowledge Society - in Ecuador, which sought to "envisage an economy that would no longer be dependent on limited material resources, but on infinite immaterial resources."³⁰ The project, headed by Michel Bauwens of the P2P Foundation, developed a policy framework to promote online commons-based peer production in its many diverse forms, resulting in more than eighteen legislative proposals including a dozen pilot projects, which were validated in the Buen Conocer Summit at the end of May 2014. The FLOK project's detailed research paper that addressed the challenges of building commons-oriented productive capacities (sustainable agriculture, distributed manufacturing and energy), social infrastructure and institutional innovation (the social economy, the partner state, open government), open technical infrastructures (free software, free hardware, cybersecurity), and policies to protect traditional and ancestral knowledge and biodiversity, among other topics. The general FLOK Society agenda, which has larger implications beyond Ecuador, is now continuing under the auspices of the Commons Transition Initiative, also headed by Bauwens.³¹

A notable new form of commons-based peer production, **open value networks**, is described below in #8, "New Organizational Forms."

4. Stakeholder Trusts

The stakeholder trust, inspired by the Alaska Permanent Fund, is a species of large-scale commons that distributes revenues from a shared asset, typically a natural resource, and distributes it to citizens with a recognized "stake" in the resource. The archetypical example is the **Alaska Permanent Fund,** a state-chartered trust that is authorized to collect, manage and distribute revenues from oil drilled on state land, on behalf of Alaska residents. Each household gets a

 ²⁹ https://fair-coin.org. See also http://blog.p2pfoundation.net /enric-duran-introduces-fair-coop/2014/09/18.
³⁰ http://en.wiki.floksociety.org/w/Main_Page

³¹ See the Commons Transition Plan website at http://www.commonstransition.org, and also Bauwens' assessment of post-FLOK priorities, at http://commonstransition.org/a-new-evaluation-of-the-flok-experience-in-ecuador-whats-next.

dividend of between \$1,000 to \$2,000 per year from corporations that extract oil on Alaska state lands. These revenues for individual citizens are praised by both progressives and conservatives as a welcome display of citizen sovereignty over "what we own" and a source of non-wage income for ordinary people that can reduce inequality. Stakeholder trusts are also touted as "common wealth trusts" that can safeguard natural and social resources that are our collective inheritance.

In his 2014 book, *Liberty and Dividends for All*,³² Peter Barnes has extended the idea of stakeholder trusts to wide variety of "common assets" that could be responsibly monetized and revenues shared via **common wealth trusts**. The trusts would act as trustees for revenues collected from various commercial users of common assets (where monetization is appropriate): industries that use the atmosphere for their wastes (and thus must buy air pollution rights to use that scarce resource); banks and stock sellers who must pay a financial transaction tax (in recognition of public support for the financial infrastructure); copyright-, trademark- and patent-based industries that rely on government-created property rights and enforcement systems; and broadcasters and other users of the public's electromagnetic spectrum.³³ Stakeholder trusts could be applied at the state or provincial level.

In Vermont, a 2008 report outlined the various state assets that could be managed via stakeholder trusts – forests, rocks and minerals, water used in bottling, broadcast spectrum, land, wind.³⁴ In 2011, a bill was introduced in the Vermont state legislature to establish a "Vermont Common Assets Trust" for a variety of natural resources; the bill was never enacted but the idea is still viable in Vermont and other legal jurisdictions. Versions of the stakeholder trust governance/management model have also been proposed the atmosphere ("Earth Atmospheric Trust"), oceans, and the human genome.³⁵

Working with Peter Barnes, the Sustainable Economies Law Center³⁶ (Janelle Orsi, director) is currently exploring ways to extend and adapt the stakeholder trust idea to different contexts. For

³² Peter Barnes, With Liberty and Dividends for All: How to Save Our Middle Class When Jobs Don't Pay Enough (Berrett-Koehler, 2014).

³³ Barnes recently published an essay on the Great Transition Initiative website, which includes numerous comments and criticisms: www.greattransition.org/publication/common-wealth-trusts.

³⁴ Vermont Green Tax and Common Assets Project [MPA Program and Gund Institute, University of Vermont], "Valuing Common Assets for Public Finance in Vermont," November 2008, available at http://communitywealth.org/content/valuing-common-assets-public-finance-vermont.

³⁵ Barnes et al., "Creating an Earth Atmospheric Trust: A System to Control Climate Change and Reduce Poverty," 319, no. 5864 (March 2008): 724; Peter H. Sand, "Public Trusteeship for the Oceans," in *Law of the Sea, Environmental Law and Settlement of Disputes*, eds. Tafsir Malic Ndiaye and Rudiger Wolfrum (Boston: Martinus Nijhoff, 2007), 521; David E. Winickoff and Richard N. Winickoff, "The Charitable Trust as a Model for Genomic Biobanks," *New England Journal of Medicine* 329 (September 2003): 1180; David Bollier, "The Vermont Common Assets Trust," *Bollier.org* (Blog), March 10, 2011, http://www.bollier.org/Vermont-common-assets-trust; and Peter Barnes, forthcoming book, 2014; See also Burns H. Weston and David Bollier, Green Governance: Ecological Survival, Human Rights and the Law of the Commons (New York: Cambridge University Press, 2012), 245-248.

³⁶ http://www.theselc.org

example, **local commons trusts** could serve as a steward of local forests, watersheds or open spaces (e.g., community forests or the cooperative management of a public forest described in section #2 above). Interested citizens and legislatures could use **model versions of government-chartered trusts** as standard organizational forms for creating commons-managed trusts.³⁷ SELC is currently exploring the **Agrarian Trust model** – the idea of putting farm land into trusts as a strategy to help retiring farmers sell their farms while preserving the land for agricultural uses.³⁸

SELC is also exploring new legal and financial structures to provide universal basic incomes and to create **"Baby Bonds"** – "child trust funds" in the UK³⁹ – which consist of assets that appreciate in value and pay dividends to children when they become 18 years old.⁴⁰ All of these trust forms seek to protect common wealth from marketization, especially over intergenerational periods of time, and promote greater social equity.

5. Co-operative Law

There are a number of legal and organizational innovations transforming co-operatives these days, making them more oriented to commoning and the common good than just marketplace success. However, these innovations are geographically dispersed and not necessarily widely known, even within the co-operative movement. One of the most notable new organizational forms is the **multistakeholder co-operative** (or "social and solidarity cooperative"), which has been rapidly proliferating in recent years. It got its start in Italy in 1963 when families in Italy joined forces with paid care workers to develop co-operatives to provide social care, healthcare and educational services. This new paradigm collectivizes and centralizes basic overhead services (administration, personnel, accounting, etc.) and in this way empowers smaller social economy ventures (similar to "omni-commons," see section #8 below). In a sense, multistakeholder co-ops regularize governance for co-stewardship of commons spaces and moves away from rigid bureaucratic methods that increasingly don't work.⁴¹ Multistakeholder co-ops now employ more than 360,000 in paid jobs, including the disabled, the formerly imprisoned and marginalized people, and more than

³⁷ In such a scheme, as Barnes explains, "Outwardly, the shells [of trusts] would be not-for-profit corporations with state charters, self-governance, perpetual life and legal personhood. Inwardly, they'd be coded to protect their assets for future generations and to share current income."

³⁸ http://agrariantrust.org

³⁹ https://en.wikipedia.org/wiki/Child_Trust_Fund

⁴⁰ See, e.g. Will Paxton and Stuart White, "Universal Capital Grants: The Issue of Responsible Use," in Will Paxton and Stuart White, with Dominic Maxwell, *The Citizen's Stake: Exploring the Future of Universal Asset Policies* (Bristol, UK: Policy Press, 2006), pp. 121-134.

⁴¹ Michel Bauwens on the Rise of Multistakeholder Cooperatives," *Shareable* magazine, November 5, 2014, at http://www.shareable.net/blog/michel-bauwens-on-the-rise-of-multi-stakeholder-cooperatives. See also Margaret Lund, "Solidarity as a Business Model: A Multistakeholders Cooperative Manual," (Kent State: Cooperative Development Center, 2011), at http://community-wealth.org/content/solidarity-business-model-multi-stakeholder-cooperatives-manual; and a listing of articles and reports about multistakeholder coops, at http://library.uniteddiversity.coop/Cooperatives/Multi-Stakeholder_Co-ops.

40,000 volunteers. Social co-operatives have spread to all regions of Italy and today number more than 14,000, making it a significant sector of the Italian economy that is neither market- nor state-based. Today there are multi-stakeholder co-operative movements in Quebec in Canada and in a wide number of countries in Europe including France, Spain, Poland, Hungary, Finland and Greece⁴².

In recent years, there have also been a number of new strategies for implementing **community land trusts** and **cooperative housing**. Since land values typically account for 25% to 75% of house prices, a community land trust (CLT) can serve to remove land from the market and thus drastically reduce housing prices and keep homes permanently affordable. There are now over 250 CLTs in the USA and about 50 established with more than 100 in the pipeline in the UK. The model is being developed in Canada and in Belgium, and interest is gaining in France and Portugal. CLTs are attractive because they are flexible models for a wide variety of urban commons development – not just housing but workspace development, community-owned energy generation, and new forms of urban agriculture and community gardens.

There are also some interesting legal innovations in the internal governance structures for co-operatives. The Sustainable Economies Law Center is currently developing an impressive set of new legal provisions for governance of co-operatives to assure a "true sharing economy." Among the goals: genuine sharing of the wealth by co-operatives with local communities; safeguard against market buy-outs such as the one orchestrated by Couchsurfing; assure fair and balanced wages and avoid large wage disparities within the co-op; shared capitalization to prevent disproportionate losses or harm to any single stakeholder; highly participatory governance structures instead of concentrated power based on capital ownership; and greater sharing of resources (food seeds, water, energy) rather than artificially limiting access; and prioritization of advancing the common good. Along these same lines, one can point to the ingenious legal scheme developed by a housing co-op, Mietshäuser Syndikat, in Germany, to assure that residents enjoy the right of self-management of their building while making any sell-off of the building in the future difficult.⁴³ How? The building is jointly owned by the not-for-profit residents' association of 300 members and by a limited liability corporation, each of which has one vote. Any fundamental changes require a "yes" vote by both partners, essentially giving each veto power. The associated corporation can act as a check upon a potential stampede by co-op members to sell the building.

Following a 2014 conference of garden cities in the UK, there has been renewed interest in the model of **citywide mutualization of infrastructure**, a model pioneered by the Letchworth Garden City. This city was built in 1903 on 5,000 acres of co-operatively owned land north of

⁴² This account comes from Pat Conaty and David Bollier, "Toward an Open Co-operativism: A New Social Economy Based on Open Platforms, Co-operative Models and the Commons," Commons Strategies Group, January 2015, available at http://www.boell.de/en/2015/01/21/toward-open-co-operativism.

⁴³ http://www.syndikat.org/en.

London; all utilities were municipally owned until 1945. The income and the economic rents paid by the businesses in the town made Letchworth economically resilient.

Another new co-op based model now being explored is **open co-operativism**, which consists of using familiar co-operative structures on open network platforms to carry out crowdfunding, crowdsourcing of knowledge and governance through online platforms. This idea was given focus at a gathering in Berlin in August 2014 that tried to "imagine a new sort of synthesis or synergy between the emerging peer production and commons movement on the one hand, and growing, innovative elements of the co-operative and solidarity economy movements on the other." (For more, see footnote #42.) The Enspiral open value network mentioned above might be considered an open co-operative; so might the FairCoop and multistakeholder co-operative models cited above. The point is to try to use the distinct capacities of open platforms – for self-selected participation, iterative innovation, knowledge-sharing and high-quality, low-cost self-provisioning – to avoid conventional market providers and become more self-directed.

To promote this new model by providing financial administrative and political support, UK academic and co-operative advocate Henry Tam has proposed the establishment of an **Open Cooperative Development Agency**.⁴⁴ Besides propagating new co-ops, the goal would be to promote an "open ethical economy" through which co-operative entrepreneurs could co-produce commons through coalitions of ethical entrepreneurs and a market sector comprised of collectively oriented enterprises. This topic is gained more relevance now that some venture capitalists are realizing that respect for online user communities – including meaningful voice and governance – may be the key to the success of investor-owned social media platforms.⁴⁵

Another new type of co-operative venture – which draws inspiration from the licenses created to protect open source software -- are **seed sharing licenses** to protect and promote the co-operative use of shared seeds. Sociologist Jack Kloppenberg at the University of Wisconsin has started the Open Source Seed Initiative to provide legally protection for non-proprietary seeds, making sure that the genes in at least some seeds will not be locked up by patents.⁴⁶ Launched in April 2014, the project asks breeders and stewards of crop varieties to sign to a pledge to make their seeds available without restrictions on use, and to ask recipients of those seeds to make the same commitment.

⁴⁴ http://p2pfoundation.net/Open_Coop_Development_Agency

⁴⁵ Union Square Venture Capital blog post, "Community Owned Applications": https://www.usv.com/topic/communityowned-applications. See also "Interviewed: Venture Capitalist Brad Burnham on Skinny Platforms," June 22, 2015, at http://www.shareable.net/blog/interviewed-venture-capitalist-brad-burnham-on-skinny-platforms See also Trebor Scholz, "The Platform Economy vs. the Sharing Economy," December 5, 2014, at https://medium.com/@trebors/platformcooperativism-vs-the-sharing-economy-2ea737f1b5ad.

⁴⁶ http://osseeds.org

6. Urban commons

In 2015, there was a big surge of interest in urban commons, many of which rely upon new legal frameworks or specific municipal ordinances. One of the most significant such experiments in urban commons is the **Bologna Regulation for the Care and Regeneration of Urban Commons.**⁴⁷ This one-year old project in Bologna, Italy, is attempting to remake local government and transform standard bureaucratic process by inviting ordinary citizens and neighborhoods to come up with their own urban commons ideas, and then work with the government to make them real. The city now has more than 90 "pacts of cooperation" with self-nominated citizen groups, each of which works with the city in three areas – "living together, growing together and making together." Examples include a neighborhood becoming a designated steward of certain public spaces or gardens; residents of a street removing graffiti with the city's help; parents who are managing a local kindergarten; and neighbors creating "social streets" that encourage socializing. Originally developed by the Laboratory for the Governance of Commons (LabGov; Professor Christian Iaione) and by Labsus (Laboratory for Subsidiarity; Professor Gregorio Arena), the Bologna Regulation is now being emulated by dozens of Italian cities.

A broader, US-based initiative is seeking to promote **"shareable cities."** Two Bay Area organizations – Shareable and the Sustainable Economies Law Center -- released an October 2013 report, "Policies for Shareable Cities: A Sharing Economy Policy Primer for Urban Leaders."⁴⁸ Ther report identifies "scores of innovative, high impact policies that US city governments have put in place to help citizens share resources, co-produce and creative their own jobs." Examples include carsharing, bikesharing and ridesharing, as well as changes in local taxes and other policies to promote them. Other "sharing policies" encourage urban agriculture on vacant lots, easier permitting to encourage home-based micro-enterprises, and city permission for the selling of homegrown vegetables in the neighborhood. A "sharing city" can also include city-supported co-working spaces, shared commercial kitchens, community-financed startups, and spaces for "pop-up" businesses. A number of cities have very aggressive sharing cities initiatives, including Seoul, Korea⁴⁹; Lille, France⁵⁰; and Barcelona, Spain⁵¹.

The field of urban commons is still nascent but rapidly growing, so it's difficult to predict how it will evolve. Among the upcoming developments: a major conference on urban commons in

⁴⁷ For an overview, see David Bollier's blog post, June 4, 2015, at http://bollier.org/blog/bologna-laboratory-urbancommoning. LabGov's webpage: http://www.labgov.it/bologna-regulation-on-public-collaboration-for-urban-commons. For the Regulation itself, see http://www.comune.bologna.it/media/files/bolognaregulation.pdf.

⁴⁸ Shareable and Sustainable Economies Law Center, Policies for Shareable Cities: A Sharing Economy Policy Primer for Urban Leaders (Oakland, CA: Sustainable Economies Law Center, 2013), available at http://www.shareable.net/downloadyour-copy-of-policies-for-shareable-cities.

⁴⁹ http://www.shareable.net/blog/sharing-city-seoul-a-model-for-the-world

⁵⁰ http://encommuns.org

⁵¹ http://blog.p2pfoundation.net/barcelona-metropolis/2015/06/26

Bologna, Italy in November 2015, co-hosted by LabGov and the International Association for the Study of the Commons; a strategy workshops and book anthology on the topic being organized by Shareable; and burgeoning interest in open data and cities (see "Ubiquitous Commons" above in section 3).

One notable socio-legal-ecological experiment for urban living is the **Charter of the Eco-Quartier of Lausanne** (Switzerland), a site of 30 hectares in the city, Plaines-du-Loup, that will be built in 2017 and ultimately have about 3,500 homes and more than 10,000 residents.⁵² This section of the city aims to create and implement new models of property and social norms that will facilitate more ecological forms of urban life. The neighborhood is envisioned as a living, self-governing community of commoners that will "negotiate" with the city government and undertake systemic social and design approaches to buildings, transportation, energy, waste and social activities. Apartments, for example, will be designed to accommodate adaptive changes during the life cycle of the inhabitants, such as adding rooms to accommodate new children and removing rooms as children leave home.

Participatory budgeting, a process pioneered in Porto Alegre Brazil in 1969, is continuing to gain in popularity, particularly in the US.⁵³ This procedure invites city residents to democratically determine how a (modest) portion of their city's budget is allocated. Since coming to the US in 2009, participatory budgeting has been used in Chicago, San Francisco, St. Louis, Boston, Vallejo, much of it promoted by the Brooklyn-based Participatory Budgeting organization.⁵⁴ Worldwide, there are now more than 1,500 participatory budgeting projects being carried out.

A number of cities have pioneered new sorts of **digital initiatives to improve cities** (beyond the open data efforts mentioned above). One of the more significant is the pioneering work of Linz, Austria, which launched the **Open Commons Linz initiative** to foster open information and digital access in many guises: free email and wifi for residents, public space server, use of open data, use of Creative Commons licenses, access to government information, geodata based complaint management, and more.⁵⁵ In a related vein, some cities recognize that **government procurement policies** could be an especially powerful force. The Evergreen Cooperatives of Cleveland, Ohio, are a pioneering example of leveraging the power of public monies to create green jobs at a living wage, and to boost local economies. In the digital context, government procurement

⁵² http://www.ecoquartier.ch/sites/default/files/Publication%20AE%202015%20La%20charte%20de%20 quartier_brochure.pdf. See also http://www.ecoquartier.ch/publications and http://www.lausanne.ch/en/ lausanne-enbref/lausanne-demain/projet-metamorphose/sites/les-plaines-du-loup.html.

⁵³ http://bollier.org/blog/participatory-budgeting-gets-some-traction-us

⁵⁴ http://www.participatorybudgeting.org

⁵⁵ See Open Commons Linz at http://opencommons.linz.at/cms; and Thomas Gegenhuber, Naumi Haque and Stefan Pawel, "From Blue Collar to Open Commons Region: How Linz, Austria, has Benefited from Committing to the Commons," in Bollier & Helfrich, *The Wealth of the Commons*, available at http://wealthofthecommons.org/essay/blue-collar-open-commonsregion-how-linz-austria-has-benefited-committing-commons.

can also be used to advance open technical standards, open source software, worker co-ops, open data, open educational resources, and the use of Creative Commons-licensed works. The Sustainable Economies Law Center has gone further, suggesting that perhaps city governments should develop open platforms for taxis, short-term housing and other resources as "municipal software cooperatives." This idea of an "open information commons" for cities has great potential in other cities, but it requires new legal authorizations and programs.

Newly available **Top Level Domains (Web URLs) for major cities** could be an unprecedented tool for urban planning and livelier cities. Ever since ICANN, the Internet domainname body, authorized cities to apply for their own Top Level Domains (e.g., .nyc, .paris, .berlin), major cities have had the opportunity to use electronic networks as part of their urban planning – something that has become highly appealing as smartphones become ubiquitous. The TLDs provide a way for people to have easy access to city resources via the Web. For example, New York City could in principle put all museums under the domain name www.museums.nyc, and a neighborhood could have its own domain name (www.jacksonheights.nyc). However, many cities appear more inclined to auction off the TLDs rather than use them as urban planning tools to make the city more lively and easier to navigate: another political contestation over digital space.⁵⁶

Timebanks and alternative regional currencies are another innovation that have great potential to help revive the social and economic fortunes of cities. The Helsinki Timebank, for example, is a robust barter-credit system that helps people without much money both provide and receive everyday services that might not be able to afford: dog-walking, lawn-moving, care-taking, rides to doctors, and so. In other cities, local currencies are attempting to relocalize economic activity, such as the successful effort of the Bangla-Pesa – in effect a currency, but officially "a credit-clearing system for multilateral reciprocal exchange" – that enables hundreds of poor residents in a poor neighborhood in Mombasa, Kenya, to meet their basic needs. But in the face of state fears about Bitcoin and other self-organized currencies, the legal complications in using and expanding such currencies are increasing. There are also sometimes tax and legal complications in using such currencies, and resistance by city governments to payment of taxes with them.

The Convention on the Use of Space⁵⁷ is a legal instrument developed by Adelita Husni-Bey to support the use value of housing and occupied space over vacancy and speculation. The document was written through a collaboration of lawyers, activists, squatters, researchers and cultural workers. Although not currently recognized by the legal system in the Netherlands (where it was first released) or by other national or municipal authorities, the Convention is intended to bring attention to the problem of unused spaces and financial speculation. It also gives squatters and

⁵⁶ Thomas Lowenhaupt of ConnectingNYC.org has been a long-time advocate for using the TLDs as a shared urban resource. For more, see http://bollier.org/blog/silent-giveaway-new-york-city%E2%80%99s-internet-domain-will-de-blasio-step.

⁵⁷ http://www.useofspaceconvention.org

other occupiers of vacant property a serious legal tool to assist them in their campaigns to reappropriate property for the common good when it is not being used.

7. Localism

A subset of work on urban commons is specifically directed at fostering relocalization of the economy and governance. Several of the items mentioned above have these effects indirectly – the Evergreen Cooperatives, Linz Open Commons, local currencies and timebanks, Top Level Domains – but there are many notable legal initiatives that are expressing attempting to expand the self-determination of local communities. Some of these initiatives are primarily economic in nature; others have broader goals of fortifying local culture and civil life. These initiatives include:

Community ordinances. This project run by CELDF, the Community Environmental Legal Defense Fund, in the US, seeks to empower local communities to resist fracking, the transport of hazardous materials, and other violations of local self-determination, especially on environmental matters.⁵⁸ The legality of such ordinances under state and federal law may be problematic, but in some ways that is the point – to dramatize how outsider investors, in collusion with state and federal governments, are riding roughshod over community sentiment, and to provoke test cases and political controversy about enclosures of local commons.

The community charters movement. In a number of countries, people are drafting their own community charters to assert moral and legal right to control certain local resources. Inspired in part by CELDF's "Community Bill of Rights," community charters have been drafted to protect a wide variety of resources at different scales: neighborhoods in Dakar, Senegal; the entire city of Bologna, Italy (see section #6); the venerated Teatro Valle in Rome which the city government tried to sell to private investors⁵⁹; and the Great Lakes Commons Declaration.⁶⁰ There is a Felkirk City Charter in the UK,⁶¹ and a charter developed by the self-managed cultural space, the Aqua Bene Comune, in Milan. Remix The Commons has recently begun a project to compile a compendium of community charters and mapping tool – an "**Atlas of the Charters of Urban Commons**"⁶² – in concert with actors directly involved in the field, using collaborative and participatory methodologies. The goal is to promote more community charters through a process that Remix describes as "exploratory, pragmatic, pedagogical and political" as well "interdisciplinary and inter-

⁵⁸ http://www.celdf.org

⁵⁹ See Dario Gentili and Andrea Mura, "The Birth of a Theater Commons in Rome: Fondazione Teatro Valle Bene Comune," in David Bollier and Silke Helfrich, *Patterns of Commoning* (Amherst, MA: Off the Common Books, 2015). See also Ugo Mattei, "The Valle Theater Commons Foundation: How to Deploy the Law in Current and Future Struggles," in Peter Weibel, *Global Activism: Art and Conflict in the 21st Century* (MIT Press, 2014); and David Bollier's blog post, http://bollier.org/blog/teatro-valle-occupation-ends-and-new-theater-commons-begins

⁶⁰ http://www.greatlakescommons.org/charter-declaration/

⁶¹ http://www.communitychartering.org

⁶² https://hackpad.com/Atlas-des-chartes-des-communs-urbains-T7DJe0ftdRJ

cultural." The Remix database will include the players in each charter, the purpose of sharing, the goods and means being used, the fundamental rights asserted, the mechanisms for meeting user rights, etc., as well as the types of shareholder organizations.⁶³

The "Assets of Community Value" law⁶⁴ is a tool by which a local community in England can assert a legal interest in a pub, public library, community center, sports team or other resource that citizens regard as an "asset of community value."⁶⁵ Use of the law can give buildings, land and enterprises a degree of legal protection from development or relocation, and enable citizens to try to buy them. It can be quite difficult for the community to raise necessary funds, but the law has nonetheless resulted in more than 100 beloved pubs being declared assets of community value and many other facilities have been saved.

There are other interesting initiatives to empower neighborhoods, including David Sloan Wilson's **The Neighborhood Project**, which is attempting to apply evolutionary science and complexity theory principles to the challenge of stimulating neighborhood change.⁶⁶ **Relocalization** of production and governance is a key theme for such efforts as the Transition Town movement, Slow Food, Community Supported Agriculture, and the climate-change movement, among others.

8. New Organizational Forms

There is a great deal of experimentation going on with new organizational forms because old structures, whether for-profit or nonprofit, do not adequately recognize and support the types of commoning that people are doing or aspire to do. The old organizational structures, even in their variations (co-operatives, limited partnerships, charities, nonprofits) often reflect institutional orientations to markets and the economics of scarcity. How, then, to devise organizational forms that can both serve the interests of commons while being legally recognized by the state?

Perhaps the most salient American experiment in this regard is the **benefit corporation**, or B corporation, which has been approved by 28 states as of October 2014.⁶⁷ These state laws explicitly expand the definition of the fiduciary duty for corporate boards of directors, allowing enterprises to take non-financial interests – i.e., the public good, ecological concerns – into explicit

⁶³ http://wiki.remixthecommons.org/index.php/%C3%89bauche_de_cat%C3%A9gories_de_description_des_ chartes_%28et_r%C3%A8glements%29

⁶⁴ http://www.legislation.gov.uk/ukdsi/2012/9780111525791/contents

⁶⁵ Danny Hakim, "Saving an Endangered British Species, The Pub," *The New York Times,* February 16, 2014, at http://www.nytimes.com/2014/02/17/business/international/saving-an-endangered-british-species-the-pub.html?_r=0.

⁶⁶ Binghamton Neighborhood Project, at http://bnp.binghamton.edu; and book *The Neighborhood Project*, at http://www.amazon.com/The-Neighborhood-Project-Evolution-Improve-ebook/dp/B0047Y0FHS

⁶⁷ https://en.wikipedia.org/wiki/Benefit_corporation

account in their investment and management decisions. However, it is unclear how significant benefit corporations will be in actually fostering socially minded change, given the hierarchical, market-oriented and legalistic structures that remain, or indeed, whether the validity of B corporations will be challenged in court.

One of the more interesting new organizational forms is the **"omni-commons,"** which are enterprises that take on administrative, fiscal and legal tasks for collectives of small, artisanal enterprises with a commons orientation. The **Omni Commons of Oakland,** California, is one notable example. It is a large "collective space to share and commune" comprised of several Bay Area collectives that has a shared political vision of "equitable commoning of resources and meeting of human needs over private interests or corporate profit." In its large building, it hosts the Contemporary Art Museum of Oakland, a citizen-science and DIY bio space for open sourcing biology, a small book publisher, a food justice advocacy and support group, a radical film and video collective, a hackerspace, a worker-owned café, and a print shop.

There are other fascinating omni-commons elsewhere in the world, such as **Cooperativa Integrale Cataluna** (CIC) – mentioned earlier – which sees itself as a strategic intermediary for commoners in dealing with state taxes and regulations and with complex legal and bureaucratic issues. CIC also provides financial support to such enterprises.. Some CIC members and other partners are now launching FairCoop and FairCoin in an audacious attempt to invent a new global financial system (see section #3). Another impressive omni-commons is **Cecosesola** in the Venezuelan state of Lara.⁶⁸ Cecosesola is a network of about sixty cooperatives and grassroots organizations, with about 20,000 members. It provides healthcare to 200,000 patients every year, funeral services, produce selling in local markets, and a variety of co-ops that are run on the basis of consensus, trust and egalitarian principles.

It may be premature to declare the **Fresno Commons** an omni-commons, but this fledgling enterprise – legally a trust – certainly seems headed in that direction. This organization is attempting to integrate the major components of the food production system in the Fresno, California, region, so that the "surplus value" produced by member-organizations can be mutualized. This will allow it to lower costs; meet the needs of more poor people; improve working conditions and pay for agricultural workers; and adopt safer, more ecological agricultural practices. In New England, **50x60**, a consortium of New England local agriculture groups is attempting to develop a new organizational form for regional agriculture, distribution and retailing that can federate local agriculture in five or six states.⁶⁹ ("50x60" refers to the ambition of producing 50% of all food locally by 2060.) It is clear that the legal, administrative and financial challenges of omni-commons deserve much greater exploration.

⁶⁸ http://www.cecosesola.org. See also, "We Are One Big Conversation": Commoning in Venezuela," in Bollier and Helfrich, *Patterns of Commoning* (Amherst, MA: Off the Common Books, 2015).

⁶⁹ http://foodsolutionsne.org/vision

Digital platforms are also incubating some innovative new organizational forms. One of the most intriguing is the **Open Value Network**, which have been described as an "operating system for a new kind of organization" and a "pilot project for the new economy." OVNs consist of digital platforms that facilitate new modes of open, decentralized and self-organized social governance, production and livelihoods. Two of the leading OVN projects, Sensorica⁷⁰ and Enspiral,⁷¹ are organized in ways that let anyone to contribute to the project, and be rewarded based on their contributions, as measured by actual contributions, experience and other collectively determined criteria.⁷² Unlike "conventional commons" that tend to eschew market-based activity, open value networks have no reservations about engaging with markets; OVNs simply wish to maintain their organizational and cultural integrity as commons-based peer producers. This means open, horizontal and large-scale cooperation and coordination; responsible stewardship of the shared wealth and assets while allowing individual access, use, authorship and ownership of resources "where appropriate"; careful accounting of individual "inputs and outcomes" via a common ledger system; and the distribution of fair rewards based on individual contributions to the project. Some notable keywords for describing OVNs: equipotentiality, anti-credentialism, self-selection, communal validation and holoptism.

OVN stress that while they may be legally nonprofits or for-profits, they are not functionally either in that they have no retained earnings or fixed assets. They instead function as "a flow-through entity which is as formless as possible," but which functions as a trust for members, as outlined by a "nondominium" agreement.⁷³ While still fairly rudimentary, OVNs represent a new type of consensual governance/production regime, bound by contractual terms, that blends commons principles and market activity. Other OVNs include the projects iAGRI innovation portfolio, Greener Acres, metamaps and Guerrilla Translation.

Some digital communities with open-source commitments are developing **digital constitutions** as ways to govern their network-based community. In obvious ways these "constitutions" are not binding in the way that conventional constitutional law is. Yet they are serious attempts to give definition to the social and political structures that govern a networked community; the documents provide a moral basis for social sanctioning of violators – and in some cases, provide resort to conventional courts for enforcement. For example, the open design and production community Wikihouse has developed a constitution outlining how it functions as an

⁷⁰ http://www.sensorica.co

⁷¹ http://www.enspiral.com

⁷² For more, see the Value Network website, at http://valuenetwork.referata.com/wiki/Main_Page.

⁷³ A new form of common property governed, in the words of Chris Cook, by "a consensual legal framework agreement within which value may be created, shared and exchanged (P2P) on credit terms by reference to a unit of account (note that a unit of account is NOT a currency)." See http://p2pfoundation.net/Nondominium.

open community.⁷⁴ Officially a British nonprofit, Wikihouse invites users to submit design work and collaborate with others, and officially renounces intellectual property rights in the designs on its website (while disclaiming any legal responsibility for the uses of designs). However, Wikihouse does license its trademark to chapters that it approves, official partners, certified designers and manufacturers. Similarly, open source Linux groups like Debian (a community that produces a "Debian distribution" of GNU Linux) have a constitution.⁷⁵ One tool to make a digital constitution more enforceable is to embed it in the Terms of Service, thereby making it part of an enforceable contract if users opt in to the website. For more, see the Terms of Service contract for peer production mentioned in section #3 above.

9. Re-imagining State Policy to Empower Commons

The deficiencies of the nation-state as a form of governance are becoming increasingly clear, and often resented, largely because nation-states tend to be tightly aligned with large corporations and neoliberal economic policies, and thus hostile to initiatives to protect ecosystems, human rights and commons from market enclosure. In addition, beyond any matters of politics or ideology, the centralized bureaucratic state seeking to assert comprehensive territorial control is increasingly incompetent. Decentralized networks are proving to be faster, more innovative and more responsive to local circumstances than the conventional state apparatus.

This mismatch between archaic forms of national and international law on the one hand, and the unmet needs of people and ecological stewardship on the other, is causing new tensions – as well as new proposals seeking to re-imagine state policy and commoning. I will review some of the more prominent proposals, which range from the conceptually familiar to the daring, experimental and paradigm-shifting.

The most prosaic reform efforts are surely the **"Gov 2.0"** initiatives that are attempting to remake conventional bureaucracy. The basic goal is to engraft network functions on to existing government bodies through such add-ons as crowdsourcing, social media and citizen-science. For example, city government are implementing "smart cities" digital systems to improve traffic control, parking, street lighting and energy management. Regulatory agencies are open to citizen-science projects that submit ecological data and species sightings. The US Patent and Trademark Office's "Peer to Patent" website invites crowdsourcing of "prior art" (existing inventions that may invalidate a patent application).

 ⁷⁴ https://docs.google.com/document/d/1zoCTWKbz9UAMW5vwX-E4EhufqbsCNmCiabKzlhbJte0/edit?pli=1
⁷⁵ https://www.debian.org/devel/constitution

A fascinating tech-based proposal seeks to leverage the power of open networks to erect a new legal architecture for government regulation. The idea, offered by tech entrepreneur John Clippinger, is to use **open APIs as a portal for real-time, automatic reporting by regulated entities**. Much as Apple has open APIs (application programming interfaces) for app developers for the iPhone, government could provide an open API through which all regulated parties (e.g., financial services, polluters) could devise appropriate apps that would submit real-time data as they pertain to regulatory compliance. This could bypass the many cumbersome bureaucratic steps of conventional regulation and enable broader discretion for how enterprises meet performance standards (without the abuses that tend to come with regulatory flexibility). In Madrid, there is an effort underway by Medialab-Prado to facilitate access to public databases by creating an API that would let them use the data for their own purposes, including self-management of their enterprises or civic projects.⁷⁶

A more serious attempt to remake conventional government by introducing the commons paradigm can be seen in the newly formed task force of the European Parliament known as the **European Parliamentary Intergroup on Common Goods and Public Services**. It is one of 28 Intergroups established by the Parliament that has no official decisionmaking powers but that often affect law and regualtions, and stimulate important political and policy debates.⁷⁷ The group conjoins "common assets" with traditional public services, without really calling attention to how the commons entails a different logic and set of social practices and relationships than those of the modern liberal state. Still, the task force may be a useful forum for focusing the actual philosophical and operational differences between a liberal state and commons.

Another attempt to use existing legal venues to protect the commons involves broader applications of the **public trust doctrine**, pursued through litigation.⁷⁸ The public trust doctrine is an ancient legal principle that affirmatively requires the sovereign or governments to protect resources that belong to the unorganized public and to future generations. Historically, courts have applied this legal principle mostly to coastal areas, rivers, lakes and other bodies of water, with modest extensions for other elements of nature. However, in 2013, law professor Christina Wood of the University of Oregon helped develop an ambitious set of lawsuits, **the Atmospheric Trust Litigation**, to attempt to get US courts to force governments to implement enforceable sciencebased Climate Recovery Plans, under the authority of the public trust doctrine. On behalf of children associated with an advocacy group, Our Children's Trust, lawsuits were filed in all fifty states and in federal court.⁷⁹ While the U.S. Supreme declined in October 2014 to rule on the

⁷⁶ http://comunidad.medialab-prado.es/es/node/1371?language=es

⁷⁷ For more on the EU Intergroup, see this blog post by German Sophie Bloemen of the Commons Network, http://www.euroalter.com/2015/what-we-share-a-commons-intergroup-takes-off-in-the-eu-parliament, and this blog post by Brit Dennis Postle, https://psycommons.wordpress.com.

⁷⁸ Mary Christina Wood, Nature's Trust (Cambridge University Press, 2014).

⁷⁹ http://www.ourchildrenstrust.org

lawsuit, five state lawsuits are now pending – in Oregon, Massachusetts, Colorado, Washington and North Carolina. Litigation efforts are also being pursued in nine nations around the world.

Can the public trust doctrine reinvigorate state trusteeship of common assets on a global scale? New Zealand law professor Klaus Bosselmann explores this theme in a forthcoming book, *Earth Governance: Trusteeship of the Global Commons*, which proposes a new international regime in which states are now "owners" of natural resources but trustees of Earth as an integrated whole.

Innovative international legal efforts to protect the atmosphere as a commons are also underway. One such lawsuit consisted of 886 Dutch citizens and the Dutch NGO *Urgenda* suing the Dutch state for neglecting its duty of care towards the citizenry and future generations by not reducing CO2 emissions quickly enough to avoid catastrophic climate change. As one plaintiff wrote, "We asked the judge to order the Dutch State to reduce its CO2 emissions with 25-40% in 2020, the percentage that science and international agreements tell us is needed if we want to stay below the 2 degrees threshold." The court relied on Dutch tort law; European human rights standards such as article 2 and 8 of the European Convention of Human Rights; the precautionary principle; the UN Framework Convention on Climate Change; among other legal provisions.⁸⁰ In June 2015, a Dutch court ruled in favor the plaintiffs.⁸¹ Given the reluctance of courts to be instigators of dramatic political or social change – however warranted by legal doctrines and case history – the Dutch ruling may end up as an aberration, with courts shifting the burden to legislatures and elected officials to take action.

Another ingenious legal strategy used by commoners has been the development of **a new legal doctrine guaranteeing access to commons goods as a fundamental human right.** This idea had its origins with Professor Stefano Rodotà of Rome, a prominent legal scholar and politician. The government-sanctioned Rodotà Commission in 2007 produced the first legal definition of the commons as assets to be managed in the interest of future generations.⁸² Commons were defined as "goods that provide utilities essential to the satisfaction of fundamental rights of the person," and access to such goods would be guaranteed no matter if the formal title of ownership were public or private; in all cases the asset must be protected in the "interest of future generations." This initiative did not succeed, but it did inspire a cultural movement to defend commons as a fundamental right, most conspicuously in a successful campaign against the privatization of Italian water systems and in a three-year occupation of the Teatro Valle in Rome when the city government threatened to sell it to investors (see section #7 above).

⁸⁰ Account by Femke Wijdekop at website for Global Network for the Study of Human Rights and the Environment, June 24, 2015, at http://gnhre.org/2015/04/15/unique-court-action-on-climate-change-failures/

⁸¹ http://gnhre.org/2015/04/15/unique-court-action-on-climate-change-failures/

⁸² http://iuccommonsproject.wikispaces.com/Italy

Another important attempt to link commons and human rights, and to advance fuller dimensions of both, is a **Universal Covenant Affirming a Human Right to Commons- and Rights-Based Governance of Earth's Natural Wealth and Resources**,⁸³ as outlined in by international human rights scholar Burns H. Weston and commons activist David Bollier in their 2013 book, *Green Governance: Ecological Survival, Human Rights and the Law of the Commons.* The Universal Covenant is a declaration for citizens, organizations and governments to affirm. It encapsulates many of the themes of *Green Governance* in calling for a legal framework for commons-based governance of large-scale common pool resources such as the atmosphere.⁸⁴

A failed (or at least dormant) effort to introduce the commons paradigm to European law deserves mention. In 2013, law scholar and charter organizer Ugo Mattei of International University College in Torino, and a number of organizations mounted an effort to secure an EU voter initiative for a **European Charter of the Commons.**⁸⁵ Pursued under the Lisbon Treaty Regulation No. 211/2011, the initiative sought to establish the legal status and protection of the commons within the European Union. The initiative was prompted by a wave of privatizations and demanded shifts of power from the centralized state and free market to local communities, and empowerment of bottom-up, local and direct democracy. The effort drew inspiration from legal scholar Bonaventura de Sousa Santos, who, writing in his book *Law and Globalization from Below*, created the term "subaltern cosmopolitan legality" to refer to "the plurality of efforts at counter-hegemonic globalization."

A similar effort to establish a new kind of "people's law" – separate from the legality of the state, and asserting greater legitimacy – is the **Permanent People's Tribunal Session on the Human Rights Impacts of Fracking**.⁸⁶ Based in Rome, the Permanent Peoples' Tribunal is an internationally recognized public opinion tribunal functioning independently of state authorities that applies human rights law and policy to cases brought before it. The Tribunal had its origins with the Bertrand Russell-Jean Paul Sartre Vietnam War Crimes Tribunal in 1967, and hears cases in which prima facie evidence suggests abridgement of basic rights of ordinary people.

⁸³ http://commonslawproject.org/sites/default/files/clp_universal_covenant.pdf

⁸⁴ Bollier and Weston, in collaboration with law scholar Anna Grear, Editor of the Journal of Human Rights and the Environment, will host a spring 2016 workshop that will seek to move this idea forward. Independently, Bollier is now preparing an essay exploring the role of new tech platforms in facilitating commons-based governance at larger scales.

⁸⁵ Participants included the International University College and its Institute for the Study of Political Economy and Law, the Municipality of Naples, and the *Institut international D'etudes et recherches sur les biens communs*. For the charter itself, see http://www.commonssense.it/emend/european-charter-of-the-commons-eng, For more on the effort, see http://www.commonssense.it/s1/?page_id=800#sthash.idsp1sRR.dpuf; http://www.euroalter.com/2013/towards-aeuropean-charter-of-the-commons; and http://www.commonssense.it/emend/european-charter-of-the-commons-eng.

⁸⁶ http://www.tribunalonfracking.org

As the above examples suggest, many activists and legal scholars are interested in expanding existing bodies of law to take cognizance of the commons. One focused effort in this regard was a one-day conference held in Paris in April 2015 on **"European juridical strategies for the commons."**⁸⁷ It was attended by an illustrious group of legal scholars, activists, NGOs and others, to explore practical ways to move this agenda forward.

One strain of legal innovation has been to give legal recognition to Nature itself, or "Nature's rights" – an idea that Ecuador and Bolivia have recognized in their constitutions, inspired in part by indigenous peoples in those nations. The idea of "Pachamama" or "Earth Jurisprudence" has spread beyond those nations, and Evo Morales, President of Bolivia, has urged the UN to recognize the "Inherent Rights of Mother Earth" – and to move away from the anthropocentric rights paradigm of environmental protection.⁸⁸ While these legal ideas may or may not become incorporated into conventional jurisprudence, they *are* having an effect on people's thinking and behavior. In New Zealand, after many clashes between Maori and the state over ecological governance, "some non-Maori New Zealanders now speak of themselves as *kai-tiaki* or guardians for rivers, beaches and endangered species." In a few cases, such as a settlement with an indigenous Whanganui *invi* (kin group), the Crown recognized the group's iconic river as a legal being.⁸⁹ These ideas are not being driven by law or politics alone, but by a deeper recognition (which manifests in politics and law) that the prevailing "cosmo-logic" of western capitalism, which clings to dichotomies of subject and object, mind and matter, culture and nature, is falling apart as the *relational thinking* inherent to commons comes to the fore.⁹⁰

Michel Bauwens of the P2P Foundation has been advancing the idea of the state acting as **a** "**Partner State**" in support of commons and peer production. (A prime example is the Bologna Regulation described in section #6). In a world with a flourishing commons sector, the role of the state changes. As Bauwens puts it, "One the one hand, market competition will be balanced by cooperation, the invisible hand will be combined with a visible handshake. On the other hand, the state is no longer the sovereignty authority. It becomes just one participant among other sin the pluralistic guidance systems and contributes its own distinctive resources to the negotiation process....official apparatuses remain at best first among equals. The state's involvement would become less hierarchical, less centralized and less directive in character. The exchange of information and moral suasion become key sources of legitimation and the state's influence depends as much on its role as a prime source and mediator of collective intelligence as on its command over

⁸⁷ http://cenj.ehess.fr/index.php?487

⁸⁸ See Burns H. Weston and David Bollier, *Green Governance: Ecological Survival, Human Rights and the Law of the Commons* (Cambridge, University Press, 2013), especially Chapter 3, "The Quest for a New Rights-Based Pathway," pp. 50-76.

⁸⁹ Anne Salmond, "The Fountain of Fish: Ontological Collisions at Sea," in Bollier & Helfrich, Patterns of Commoning (Amherst, MA: Off the Common Books, 2015).

⁹⁰ A forthcoming book may take this a step further: Ugo Mattei and Fritof Capra will publish *The Ecology of Law: Toward a Legal System in Tune with Nature and Community* (Berrett-Koehler), in fall 2015.

economic resources or legitimate coercion."⁹¹ The idea of the partner state is intriguing, but will require further theoretical elaboration and investigations in how it might be politically actualized.

III. The Strategic Value of Developing Law for the Commons

Some Legal and Philosophical Reflections

Having surveyed a rather remarkable array of commons-based law initiatives, it is worth pausing for a moment to reflect on their significance for law, governance and politics. These innovations in commons-based law challenge the tacit premise that the best, most natural system of governance and social order is the market/state, as dominated by transnational corporations and capital. Law for the Commons attempts to *open up new spaces* through which commoners can have greater freedom and autonomy to devise governance forms of their own making, consistent with overarching principles of democracy and human rights. It is perhaps risky to stipulate a specific set of principles that a Law for the Commons seeks to uphold, but there are clearly affinities among the diverse examples described above. In different ways, commons projects are attempting to use law to achieve these purposes:

- Provide structure for internal, participatory, bottom-up deliberation and governance (e.g., omni-commons, subsistence commons, Loomio, DemocracyOS);
- Protect shared assets that are threatened by market enclosure (e.g., stakeholder trusts, blockchain ledger, community charters);
- Provide a legal structure and identity to commons so that they can be legally cognizable to the state or international law (e.g., omni-commons, biocultural protocols for indigenous peoples, Terms of Service for peer production);
- Provide commoners with access to state law to enforce their practices and norms (e.g., General Public License, Creative Commons licenses, community land trusts);
- Secure state authority for commoning by modifying or extending state law through legal "work-arounds" (e.g., copyright-based licenses, stakeholder trusts, multistakeholder cooperatives, Bologna Regulation for urban commons);

⁹¹ Michel Bauwens, "Peer Governance as a Third Mode of Governance," P2P Foundation, Jun 9, 2010, available at http://blog.p2pfoundation.net/peer-governance-as-a-third-mode-of-governance/2010/06/09.

- Openly challenge recognized boundaries of law as a way to provoke a political debate or validate a particular commons (e.g., community ordinances; biocultural protocols; the commons-based foundation for Teatro Valle in Rome); and
- Use digital technologies to create superior functional alternatives to state law (e.g., open value networks, smart contracts, the blockchain ledger).

The very idea of Law for the Commons constitutes a profound philosophical challenge to the liberal capitalist polity. After all, many commons seek to enact different ideals of human flourishing and governance than the formal, universal and rational/utilitarian ones of the modern liberal state and neoliberal economics. In this sense, Law for the Commons as it expands could help propel a paradigm shift because it asserts *a different theory of value* than that of conventional economics and the (formally) neutral apparatus of the liberal state. Law for the Commons generally rejects capital accumulation and market exchange as the default engine of social and economic progress, and in this sense proposes a very different vision of human development.

To put this another way: Commons-based law is generally premised on some very different ontological premises of what human beings are and how they (could and should) relate to each other, the state and the Earth. Hence the *frisson* that tends to erupt when commoners try to enshrine these different ontological premises *in state law*. Such acts amount to a philosophical challenge. They breach our cultural narratives about the proper roles of markets and government, and our faith in technology-as-progress and economic growth. No wonder the commons paradigm does not readily fit into the familiar left/right ideological spectrum! It implicitly rejects the prevailing framework for conceptualizing political viewpoints. The commons paradigm rejects, for example, the ideal of *homo economicus* -- that humans are rational, utility-maximizing, self-interested materialists – which is the basis for so much economic and social policy. It also rejects the liberal faith that government can reliably and fairly apply universal principles to diverse local circumstances and that the formal guarantees of treating everyone as equal juridical persons is sufficient (even as the state grants legal recognition to fictional persons known as corporations!)

Yet neither does Law for the Commons reject liberal principles outright. A Law for the Commons is functionally compatible with the liberal polity in many respects because it admires and depends upon many core liberal principles such as human rights, individual conscience and initiative, transparency and democratic participation. It's just that the Law for the Commons seeks to actualize these principles in different ways than the modern industrial market/state, and it wishes to do so more effectively and equitably than the market/state system seems capable of doing.

The commons also aspires to *enlarge* many liberal principles by, for example, broadening the definitions of human rights and human flourishing, prioritizing the inalienability of natural resources,

and more effectively addressing the complexities of local circumstances and natural ecosystems. In many instances, the Law for the Commons seeks to create new juridical categories such as "common assets" and "rights of commoning," which refer to the pertinence of social relationships, custom and collective moral authority that have no standing in conventional market/state law. It is fascinating to see how many fruitful hybrids are emerging out of some conflicts between commoners and mainstream law and politics.⁹²

At a time when the systemic nature of our economic and political crises are widely acknowledged, the Law for the Commons is helpful for precisely these reasons: It can give us a new vocabulary to help us imagine and build a different legal foundation for new types of institutions, provisioning systems and social relationships. It provides a serious philosophical backbone for envisioning new systems of law, governance and politics. And withal, the Law for the Commons does not aspire to be a coercive, external imposition of governance, but rather to enable selforganized commoning as a living, evolving process.

The Political Value of Developing a Law for the Commons

A formative experience for me in my twenties was when corporate America deliberately invented the discipline of cost-benefit analysis as an expert discourse to challenge health, safety and environmental regulation in the late 1970s. This audacious gambit had the intended effect of neutralizing the impact of many landmark statutes enacted in the late 1960s and 1970s, in effect rewriting those laws over time. The lesson that I learned is that *discourse is ultimately law* – and that the formal apparatus of state law is vulnerable to any discourse that can sufficiently insinuate itself into the system and its practitioners.

Conversely, a failure to develop an alternative discourse means that one must attempt to argue one's own values and interests using the alien language and framings of one's adversary. The ethical and political limits of this approach can be seen in the spectacle of trying to protect nature by quantifying its cash value ("nature's services") or trying to protect human life by monetizing its notional cash value (cost-benefit analysis).

Law for the Commons, then, is valuable because it asserts a very different ethical and functional logic through a wide variety of thematically related projects and legal initiatives. Moreover, this is not a matter of "mere theory," but of actual, working projects with active social constituencies. I believe the discourse of the Law for the Commons could serve as a shared vehicle of "cultural equity" for hundreds of initiatives that would otherwise be seen as isolated and separate.

⁹² Anne Salmond documents some in her study of the Maori and their clashes with the New Zealand state (white New Zealanders adopting the stewardship traditions of Maori), in *Patterns of Commoning*; and Mary Wood describes novel collaborations between Native Americans and white leaders of land trusts, in *Nature's Trust*.

Bringing key players together from each of the nine clusters above could produce important synergies for activism and legal work. For example, imagine if lawyers dealing with free and open source software were to actively collaborate with the people who developed the Open Source Seed Initiative. Both are trying to use intellectual property laws to protect bodies of community-generated wealth. Or imagine if the lawyers who have developed biocultural protocols of indigenous peoples were to work closely with people from the community charters movement. Both are trying to find practical legal tools to defend local self-determination and customary ways of life. Or imagine if the US Forest Service and other parties who forged a new scheme for commons-based management of national forest land in Oregon, were to consult with Italian cities that are using the Bologna Regulation to host new types of public/commons partnerships.

Sometimes the convergence is new territory to both parties: digital commons trying to protect their shared resources are starting to engage with the co-operative movement in trying to develop new organizational models for cooperatives – "open co-operatives."⁹³ One can imagine many other productive hybrids arising if commoners from different realms were to be brought together.

More than a rich opportunity, these varied and rudimentary commons-law initiatives face real dangers if they are *not* brought together. If they are not consolidated and coordinated into a new and larger effort, it is quite likely that many of them will quietly disappear or be absorbed or coopted into the prevailing neoliberal order. Some will be conscripted into the "sharing economy," in the manner of Jeremy Rifkin's neo-capitalist "collaborative commons,"⁹⁴ and others will simply not be able to attract the funding, collegiality or critical attention to stay afloat. I think the examples in the nine clusters described above provide a rich opportunity for orchestrating a new paradigm of law, politics, governance, production and culture, all in the same stroke.

IV. Next Steps

But how might this be achieved? Developing a new Law for the Commons is obviously a significant challenge that is more of an open-ended, long-term adventure than a short, bounded project. Exploratory efforts to develop a Law for the Commons could take many forms depending upon the resources and institutional partners that could be secured – and thus the ambition and speed of work. However, some basic needs to be addressed include:

⁹³ See footnote #42.

⁹⁴ Jeremy Rifkin, The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons and the Eclipse of Capitalism Palgrave Macmillan, 2014).

- convening key thinkers and activists;
- clarifying strategic priorities for types of law to be developed further, and how;
- securing resources for a particular cluster to develop new initiatives;
- cross-cluster dialogues to expand the network of collaboration and shared legal insight;
- liaison with conventional legal scholarship, schools and policymakers; and
- collaboration with on-the-ground commoners in need of creative legal solutions.

Any number of projects could help advance these goals – and certainly new goals would emerge rapidly if law-oriented commoners were to convene and begin working together. For now, I think it would be particularly useful to consider the following steps as part of a larger (to-bediscussed) strategy:

Host strategy workshops. The Commons Strategies Group has found that Deep Dive workshops are a particularly effective way of convening key players, developing a shared vision, nurturing collegial relationships and imagining practical new projects. They create the core of a new social and activist "ecosystem" for advancing a new vision.

Host conferences. Larger gatherings such as conferences can be helpful, too, but at this early stage it is probably more important to get a critical mass of key players than to just have an open event. The point is to help consolidate and clarify the shared vision and agenda, and to knit together influential and thoughtful participants.

Convene key players in each cluster. Each of the clusters that I describe above deserves venues and opportunities to take stock of its activities and strategic opportunities, and to develop itself as a theater of action.

Commission action-oriented legal treatises. For many fields, it would be particularly helpful to have sophisticated legal treatises take stock of the state of commons-based law, and to build bridges among legal scholarship, politics and policymaking, and activist commoners and projects.

Enter into partnerships with forward-thinking law schools and colleges. A number of law schools, colleges and academic centers may be interested in serving as a host, convener and "network supernode" for advancing Law for the Commons. Some institutions that come to mind: Vermont Law School (US), Schumacher College (UK), the Political and Economic Research Institute at UMass Amherst (US), economist Benjamin Coriat's department at the University of Paris (France). Individual law scholars may also be interested in playing such a role.

Brief funders. There may be a set of funders, especially those associated with EDGE Funders Alliance (US) and the newly formed EDGE Europe, who may be interested in exploring these ideas

further. The most promising funders are likely to be smaller and family-managed philanthropies because I have found that the larger institutional philanthropies tend to be slow-moving, risk-averse and excessively concerned about their peer standing.

Assemble a consortium of law-oriented commoners to choose promising projects and serve as a re-grantor. Since many funders may not have a confident grasp of many on-the-ground developments or strategic priorities, it may be useful to assemble a consortium of recognized law-oriented commoners to help identify the most promising new projects, and to help those projects connect with funding, allies and other forms of support. The consortium could even serve as a re-grantor of funds from foundations.

Establish a new center or clearinghouse – perhaps within an existing organization – to catalyze new Law for the Commons projects. Many factors could influence how such a center would be organized and funded, but it could be very catalytic if there were a small center whose primary mission were to keep track of relevant developments, identify promising opportunities, and to actively help these developments move forward. Possible homes for such work (if they were interested) might include the Commons Transition Plan, the Sustainable Economics Law Center or the Heinrich Boell Foundation.

* * *

I consider this strategy memo as the catalyst for a new discussion – and, I hope, action. The vision is obviously too big for any one of us, or small group of us, to handle alone. But the push of a few dominos could start a chain-reaction of much greater scale – and as my review of commons-based legal initiatives suggests, there are a quite a few of us engaged in law-related commons advocacy. Can we take expand this work to a deeper, richer level?

Appendix A: Some Notable People Developing Law for the Commons An Incomplete and Evolving List

USA

057		
Janelle Orsi	Sustainable Economics Law Center	cooperative law
Burns Weston	University of Iowa College of Law	human rights
Mary Christina Wood	University of Oregon	public trust doctrine
Gus Speth	Vermont Law School	environmental law
Peter Barnes		stakeholder trusts
Sheila Foster	Fordham Law School	urban commons
John Clippinger	Intrinsic [startup company]	digital law
Thomas Linzey	Comm'ty Env'l Legal Defense Fund	local self-determination
James Quilligan	Kosmos; Global Commons Trust	community charters
Thomas Lowenhaupt	ConnectNYC.org	Top Level Domains
David Sloan Wilson	Binghamton	evolutionary science & c.
Neal Gorenflo	Shareable, San Francisco	urban commons
Peter Linebaugh	University of Toledo	history of commons law
Silvia Federici	Hofstra University (emerita)	history of commons law
Benjamin Mako Hill	U. of Washington	free software

UK

Anna Grear	Journal of Human Rights and the Env't human rights	
Duncan McLaren	Friends of the Earth UK	urban commons
Pat Conaty	Cooperatives UK	cooperatives
Jonny Gordon-Farleigh	STIR	cooperatives
Polly Higgins	Eradicating Ecocide	Ecocide treaty
Henry Tam	Cambridge University	co-operatives
Stuart White	Oxford University	common assets

France

Frédéric Sultan	Francophone Network of the C.	community charters
Benjamin Coriat	Economics professor U. of Paris	commons & law
Etienne Le Roy	University of Panthéon-Sorbonne	land rights & commons
Daniela Festa	CENJ & EHESS, Paris	commons & law
Paolo Napoli	EHESS, Paris	commons & law

Fabienne Orsi	U. of Aix Marseille & U. of Paris North property rights	
Melanie Dulong de Rosnay	Researcher at CNRS, ISCC	commons & law
Mikhail Xifaras	Sciences Po, Paris	commons & law
Aurore Chaigneau	U. of Picardie; CEPRISCA	commons, law & the firm
Judith Rochfeld	La Sorbonne, IRJS	electronic commerce
Herve Le Crosnier	Vecam, Paris	commons, IP & law
Valerie Peugeot	Vecam, Paris	commons, IP & law
Daniele Bourcier	CNRS, CERSA, Paris	open data; copyright
Irene Favero	Paris	community charters

Italy

Ugo Mattei	International College University, Turin commons & law	
Christopher Iaione	LUISS, Rome	urban commons
Stefano Rodota	La Sapienza University, Rome	human rights
Tommaso Fattori	Italian Forum of Water movement	commons & law
Juan-Carlos de Martin	NEXA Center for Internet & Society	copyright & commons
Alberto Lucarelli	University of Naples	commons & law
Gregorio Arena	Labsus	Bologna Regulation
Antonio Negri,	philosopher, University of Padua	commons, culture & polity
Benedetta Cappon	Fondation Teatro Valle Bene Comune commons-based foundation	
Salvatore Iaconesi	Human Ecosystem Project	open data & urban commons

Germany

Heike Loeschmann	Heinrich Boell Foundation, Berlin	commons & law
Silke Helfrich	Commons Strategies Group	commons & law
Frederike Habermann	economist, historian	commoning
Sophie Bloemen	Commons Network, Berlin	EU policy & commons
Joel Dietz	Swarm, Berlin	open value networks/
		smart contracts
Europe		
Michel Bauwens	Commons Transition Plan	peer production
Jean Rossiaud	Forum for a New World Governance	governance
Primavera De Filippi	Berkman Center, Harvard / Italy	digital law
EU Intergroup on Common (Goods and Public Services, Brussels	EU policy & commons

Africa

Sanjay Kabir Bavikatte	Natural Justice, South Africa	biocultural protocols
Thomas Bennett	U. of Cape Town, South Africa	biocultural protocols
Liz Alden Wily	Kenya	land rights & commons

India & Southeast Asia

Jagdeesh Rao	Foundation for Ecological Security	subsistence commons
Soma K P	advisor on Indian forest commons	community forests
Prue Taylor	New Zealand	global commons
Klaus Bosselmann	New Zealand	public trust doctrine
Latin America		

Gustavo EstevaU. de la Tierra, MexicoZapatistas; indigenous cultureAlberto AcostaEcuadorland rights; extractivism