

The Rise of Commons Based Economic Governance

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Abstract

This article looks at the rise of commons based economic governance. The last several hundred years has seen the rise and eventual triumph of capitalism, founded on positivist contractual law and the spirit of individualistic enterprise. Our contemporary sustainability crisis, however, puts the assumed trajectory of neo-liberal economic governance in question. As an alternative, the idea of commons based economic governance (CBEG) is put forward as one of a number of possible successors to neo-liberalism in the years to come. This article looks at the emergence of this economic orientation, considering history, trends, issues and possibilities in its unfolding.

Keywords: Commons, Positivist Law, Common Pool Resources, Natural Resources, Digital Commons, Social Commons, Peer-Production, Life Support Systems.

Introduction

Commons based economic governance (CBEG) is an emerging approach to economic development. Market based economic policy attempts to solve economic or distributive problems purely through private enterprise procurement, while state-based economic policy approaches focus on state-led and managed solutions. Public private partnerships create market-state solutions. Both market and state approaches, or a hybrid between the two, are currently the dominant approaches to economic problem solving. This article looks at emerging issues and trends that augur the emergence of CBEG as an alternative approach.

CBEG differs from both pure state-based and market formula for economic governance in that CBEG involves governance and management of common resources and common interests by communities that sit outside the market-state conceptual dualism. Community can be understood contextually, depending on the resource or social good that is in question. For a global commons such as Earth's atmosphere, the 'community' includes nations and people big and small, carbon emitting industries and the planets' citizens alike, while for a local commons such as a fishery, it may include a community of small scale fishermen who jointly manage their shared resource. Community is closely linked with commons economic governance.

Resources and goods that are both integral to the survival of a group of people and also governed by them are considered 'Common Pool Resources' (CPR). These differ considerably from Open Access Resources (OAR), where there are no community of actors/stakeholders that limit perpetual and unsustainable access. OARs can transition into CPRs, for example when a group of people decide a river system needs to be jointly

managed to maintain it as a shared commons. At the moment our oceans and atmosphere are shifting from OARs to CRPs/commons, as overfishing and ocean pollution has made shared management of oceans an imperative, and anthropogenic climate change requires atmospheric carbon levels to be jointly managed by a planetary polity. The shift from OARs to CPRs mirrors a shift from an implicit or non-active community to an explicit and activated community of governance.

CBEG is a challenge to Western neoclassical economics' primary assumption that the rational self-interested actor is the driver of all economic behavior. Standard economic analysis of Common Pool Resources assumed that 'the total of resource units withdrawn from the resource will be greater than the optimal economic level of withdrawal' (Ostrom, 1990, p.3). Elinor Ostrom's studies, for which she won a Nobel Prize in 2009, demonstrated how communities are able to cooperate, collaborate, and jointly manage and extend commons. The idea of CBEG and communities of economic governance draws from her analysis and other policies and projects from around the world documented by Bollier and Heilfrich (2012, 2015), and which were brought together in an international conference in 2013 to explore the emerging economics of the commons.¹ It should be emphasized up front, however, that this domain of inquiry is quite large and this article is not comprehensive nor necessarily indicative of the broad field in commons based economics. The ideas and insights here are not necessarily new - they stand on the shoulders of many others. I merely attempt to theorize and integrate four archetypal aspects of this emerging area, applied to commons economic governance, with the hope that such integrative work is useful in thinking about the future of economic governance. This article looks at four categories of commons which have become critical areas of economic governance, policy reformulation and innovation: Local Resources Commons, Public Social Commons, Peer-Produced Commons, and Planetary Life Support Commons.

Commons And Commoning

A simple definition of the commons is: that which we mutually depend on for our survival and well-being. The idea of the commons has experienced a special and profound resurgence over the past few decades. Scholar and advocate of the commons, David Bollier, provided this succinct definition for what a commons is:

- *A social system for the long-term stewardship of resources that preserves shared values and community identity.*
- *A self-organized system by which communities manage resources (both depletable and replenishable) with minimal or no reliance on the Market or State.*
- *The wealth that we inherit or create together and must pass on, undiminished or enhanced, to our children. Our collective wealth includes the gifts of nature, civic infrastructure, cultural works and traditions, and knowledge.*
- *A sector of the economy (and life!) that generates value in ways that are often taken for granted – and often jeopardized by the Market-State.²*

Peer to Peer and commons scholar Michel Bauwens has offered these four categories to explain some of the dimensions of the commons:

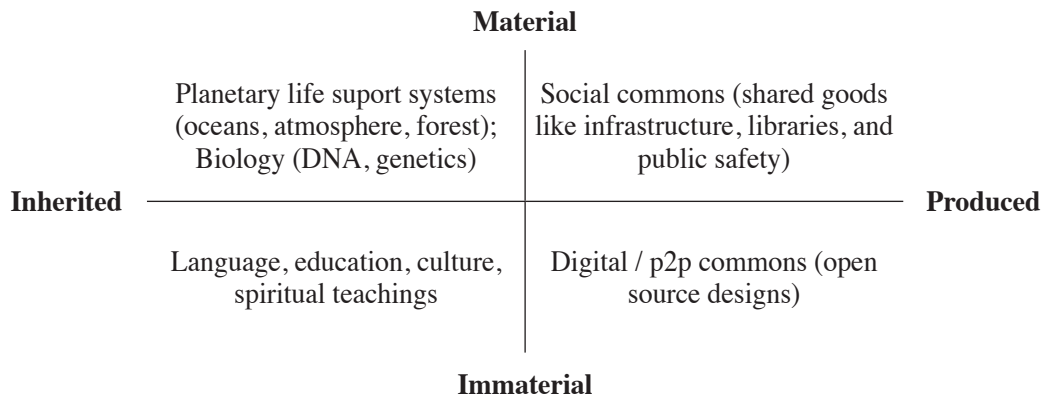


Diagram 1. Bauwens’ typology of commons

There are, I believe, four types of commons to distinguish ... The first type is the immaterial commons we inherit, such as language and culture. The second type is the immaterial commons we create. This is where the hugely important knowledge and digital commons come in (since it this digital commons that is currently exploding). The third type is the material commons we inherit, the oceans, the atmosphere, the forests, etc.; and the fourth type is the as yet underappreciated potential for the created material commons, i.e. productively manufactured resources.³

Thus, from a commons perspective, we are the oxygen generated by Amazonian rainforests, water that melted from the glaciers of the Himalaya, the ideas produced by thinkers of antiquity, the DNA code passed down to us through thousands of millions of years of evolution, and the open source design revolution reshaping our lives today. What binds these all as commons is their characteristic of being critical to our mutual wellbeing and survival, such that they require a collective effort and ethos to protect and extend them. They must, therefore, be collectively governed by the members of society that depend on them for their wellbeing and survival.

As we have witnessed, however, through the 20th century and through previous historical periods, the state does not always have the wellbeing of the community in mind. A state may be co-opted by moneyed interests, such that polluting industries dictate policies that allow them to continue to pollute and destroy river systems, lakes and other commons. And we have also seen that private interests via processes of capitalism are also not equipped to protect the commons – capitalism, almost by definition, produces vast social and ecological externalities (problems) as a by-product of the concern with immediate profit. Protecting and extending our commons is synonymous with active, shared and inclusive governance that does not (just) rely on the market and state, but which is based on the governance rights and practice of those that depend on such commons.

This activity and practice is what Bollier and Helfrich (2015) point to as the deeper dimension of the commons – creating, shaping and governing. Commons are not things, they argue, they are “an organic fabric of social structures and processes”. Thus the commons are not an object we can just point to, and say “there it is”, but rather becomes so through enacting it with others and that “thing”. As much as a recognition of common needs and mutual inter-dependence on some thing (water, safety, participation), it is also the creative enactment of bringing what is a “common good” into being through “the consciousness of thinking, learning and acting as a commoner” (Bollier & Helfrich, 2015, p.2-3).

Commons are thematically diverse, but they also transgress simple categories as the language and worldview from which the commons as an idea arises sees the world systemically,

interconnected and interdependent. It is because humans are interdependent with the Earth's atmosphere and climate that an atmosphere and climate that is threatened with radical change becomes a commons that must be governed for the common good. Commons are relationally active – they are embodied through the social practices of people interwoven into culture and geography. Arturo Escobar talks about this relational dynamic as a “pluriverse... made up of a multiplicity of mutually entangled and co-constituting but distinct worlds” (Escobar, 2015, p.355).

CBEG in the Historical Context of Capitalism

The development of capitalism and the end of feudal social relations in the West saw the large-scale enclosure of what was common land for grazing and herding pastoral animals and agroforestry. Starting in the 15th century but accelerating into the 18th century, the English parliament passed laws that enclosed communal commons to the benefit of lords or bourgeoisie.

In the late 18th and 19th century, economic development was largely guided by what we now refer to as classical economic thinking. These new economic theories coupled the liberalist values of laissez-faire market exchange with realist Mercantile approaches at a national level. In Europe wealth was to be obtained through comparative advantage in open markets, and was seen as a means of social development (Campbell, 1997). Abroad, wealth was gained through primitive accumulation, murder, theft and displacement on a massive scale (Harvey, 2005; Marks, 2002). In Europe, earlier modes of law based on common heritage were displaced by enlightenment-era systems of contractual agreement forming the politico-legal basis for contemporary capitalism. Institutions evolved around positivist legal frameworks arbitrating property and taxation, as well as promulgating classical economic doctrine. Positivist law positioned the individual as the fundamental property-owning unit, rather than ownership and control based on either lordship, the state, or common heritage use by a community (Buck, 1998). Communal use of land was the first commons to be impacted by capitalism's march, affecting both European peasants and those subjects abroad under colonial rule.

The effects of industrial development combined with liberalist economic policy generated profound productivity gains on the back of technological innovation. At the same time, industrial development also saw the stratification of wealth between an industrialist class and labor class (Braudel, 1993). Poor working conditions and low wages created urban economic ghettos of poor laborers. The development of natural and rent-seeking artificial monopolies (e.g. property and railways in 19th century US) enabled a small ‘rentier class’ to capture the value arising from monopoly and amass disproportionate wealth.

This in turn drove an impetus for new economic, social and political contracts, the emergence of the many variants of socialism (Manuel, 1979). The primary variants of these new social and economic contracts were, Keynesianism and social democracy in the West, communism in Russia, China and their spheres of influence, and dependency economics in former colonial states. Political upheaval and the great wars (1912-1945) coincided with the transformation of these aspirations into new realities, and new levels of equality in wealth (Piketty, 2013, p.13).

The legacy of the social democratic model, bound into nation-states through the 20th century and still prevalent in Western Europe and a few other states (e.g. Japan) was critical in the development of what is described in this article as the “public social commons”. Critical institutional innovations, which were undergirded by states' and regions' capacity to raise and re-distribute taxes, provided the basis for this mode of creating commons social goods (commoning):

- The public health and hygiene revolutions in Western Europe, where medical science drove an understanding of the public and communicable nature of disease evolved over time into universal health systems in a variety of countries;

- Education came to be seen as necessary for an informed public and the foundation for democratic government, as well as a critical component in economic development, enterprise and wealth creation;
- Social security systems provided support with housing, income, disabilities and other means of easing hardship;
- Libraries enabled access to knowledge by the broad public.

The social and political contracts that upheld this public state commons (e.g. social democracy) were based on national and regional political communities – nation-states. These were challenged in the 1980s, first through the Thatcher-Reagan influence on the IMF and World Bank, which introduced structural adjustment approaches to developing countries, thereby undermining nascent public state commons in Latin America, Africa and South East Asia. The application of structural adjustment programs and loans became prevalent policy for supporting economic development (Stiglitz, 2002). American geopolitical and economic hegemony following the implosion of the Soviet Bloc and the conversion of China to the market economy system (Falk, 2004, pp.26-27) was trumpeted as evidence for the superiority of the US liberal-capitalist system - and as evidence that it should be adopted universally. The fall of communism saw orthodox US economists such as Jeffery Sachs, through institutions such as the IMF, introduce and impose ‘Shock Therapy’ policy on Eastern European economies (Broad, 2009, p.72), much of which led to mafia-led ‘anarcho-capitalism’ (Gray, 1998, pp.144-145) and to Russia’s market oligopolies (Yergin, 2002, p.298). The fall of the Berlin Wall coincided with the articulation of the suite of neoliberal policies known as the ‘Washington Consensus’ (Held, 2005, p.98). Fukuyama’s ‘End of History’ thesis argued that world historical development led inevitably to the US model of economic and democratic liberalism (Fukuyama, 1989).

The new potentials of electronic communication were harnessed to support global capital investment and industry. The 1990s saw the construction of a new global financial architecture that linked currency and stock markets around the world. The outsourcing and offshoring of industrial production from the Global North to developing countries accelerated the creation of the ‘global factory’ (Robinson, 2004). Bolstered by the successes of the dot.com era, the language of economic globalization was employed as a promotional strategy to legitimize the global neoliberal push.

As the failure of the IMF and World Bank’s use of structural adjustment was documented (Meltzer, 2000), and the contrary effects of neoliberal policy emerged, popular global dissent increased. The Asian Financial Crisis showed the vulnerability of developing countries within the newly developed global financial architecture. Wealth disparity increased dramatically from the 1980s to the present, despite dramatic productivity gains (Renner, 2013). For a time, protests against neo-liberalization gained media attention, but in the aftermath of the 9/11 terrorist attacks, the social climate for dissent was suppressed. The WTO, which had been successful in advancing a neo-liberalization agenda through the 1990s, struggled in the Doha trade round at Cancun to advance further multilateral liberalization. By 2008 the Global Financial Crisis had revealed the full extent of the effects of neoliberal financialization and severely deepened neoliberalism’s crisis of legitimacy. After 2008 faith in a US model of development waned. While China’s dramatic wealth gains and burgeoning middle class was initially seen to be a great example of neoliberalism’s success, China’s commitment to autocratic governance and state led investment revealed it as an exception. The Euro Zone sovereign debts crisis displayed weaknesses in the West’s (Europe’s) capacity to maintain a social contract for a public social commons within a highly financialized debt system. The major developing countries and BRIC continue to employ bilateral agreements, with elements of both South-South solidarity and mercantilism.

In the historical context of the rise of neoliberalism, the birth of the internet in the 1980’s and the open source movement gave rise to a new digital commons. Open source software projects such

as Mozilla, Linux and Apache gave rise to a new understanding of commoning, the peer production of the digital commons. The peer to peer (p2p) process that underpins this mode of economic generation can be seen as an emergent ‘contributive’ economy, in which new technological affordances create the possibility of open and transparent production systems that creates a new economic logic not based on labor creating capital, but on contributors creating commons. These shared knowledges, software and design resources create the double possibility of either an economy based on sustainable production and solidarity-based economic entities, or of the capture of such digital commons by private capital. Bauwens et al (2017) have focused on extirpating and making explicit the emancipatory potential of this techno-social domain. Peer producers, the newly precarious cognitive and affective working class, are engaged in the creation of common goods, but now also subject to a value capture crisis where “platform” capitalism has become dominant. Platform capitalism entails a value capture logic whereby the means of relationality and contribution is *de facto* privatized (in some cases with near monopolies) by companies, for example social networking by Facebook, ride service by Uber, hostelling by AirBnB, books by Amazon etc. The monopoly logic in such platforms is on one hand a consequence of network logic, where the value of a network increases by a particular power law – a 10% increase in the people in a network does not simply result in 10% more influence for that network, but much more, as users seek access to the greatest network. The logic of consolidation is further built in by the venture capitalist logic of Silicon Valley, in which competitors are bought out by or locked out of the dominant networks. The general trend from the turn of the millennium in 2000 until today has been a shift from an ecology of services to their consolidation into a handful of companies – a type of digital enclosure.

Since the Limits to Growth report by the Club of Rome (Meadows, 1972), concern for planetary life support systems has steadily increased (Daly & Cobb, 1994). Today the threat of climate change, human impacts on oceans and many other aspects of our planetary existence are now major issues. The Faustian bargain within the Keynesian compromise, macroeconomic growth at all costs to maintain close to full employment, is now in contradiction with the limits of our planet’s carrying capacity. Previous and existing contestations and debacles with resource commons, public social commons and digital peer produced commons have prefigured and clarified the nature of the challenges and the shifts we are undergoing in the protection of our planetary life support systems. In each area, the extractive logic of capitalism conflicts with a community. For resource commons it has conflicted with traditional owners, peasants and indigenous people. For public social commons, it is often in conflict with the implicit shared interests of a political community, be this of a state, municipality or federation. For digital peer produced commons, it conflicts with those using and contributing to peer to peer networks, through open knowledge, designs or other work. In the case of our planetary life support systems, capitalism is in conflict with the entire Earth community and our shared existential need for survival on this planet, to the extent that capitalism is wedded to the logic of infinite growth and corporate profit at all costs.

As the West struggles with the consequences of its own neoliberal project, the inevitable question is what next? BRIC+ countries have shown their willingness to blend the neoliberal/Bretton Woods architecture with their own indigenous priorities and development strategies. It may not be the end of capitalism, but it seems to be the end of capitalism with an excessively myopic, Western-biased, neo-liberal form. The discrepancy created between the promise of the neoliberal capitalist project and its real effects both in the West and among developing countries has led to an era of reflection, and space to propose new policy visions. Ecological and social crises have driven a demand for alternative policy approaches.

The West helped to invent the rational self interested economic actor. The Western project privileged the individual - ruptured from the constraints of community. They became free to invent, pioneer, extract, prospect and accumulate vast wealth. Capitalism created a safe haven for this personality type to pursue an extractive and exploitive logic. Within capitalism the individual with

wealth was unbounded by economic, political, even cultural constraints. This same individual, ruptured from and unaccountable to its social context / community (the source of his wealth), has now become a mortal threat to our very existence. When a small faction of fossil fuel billionaires can derail years of research and policy action on climate change, it shows how perverse this individualism-at-the-expense-of-community has become.

The core shift being augured into existence by these contractions is the emergence of a new approach to economic governance and policy-making where communities with an interest in shared commons are at the forefront of protecting and developing their shared commons. Governance based on communities embedded in various commons is therefore emerging as the new core organizing principle. The value generated from sound commons governance can then flow back into these shared commons – improving their use value over time. Generative approaches to protecting and building shared commons means that the value from such commons may become greater for all those participating – not just narrow and short term profits for the few. The more an individual enters into supporting a commons, the more benefit they gain for themselves. A “pluriverse” of commoning across these four categories is offered here as an ending for this section on history, and as a transition to a deeper conversation on each of these categories.

1. The governance of local resource by local communities in ways that are sustainable and generative long term. From individuals disproportionately owning local resources to communities governing shared resource commons as a principle of social and planetary stewardship;
2. Re-embedding the public social commons through a renewal of social democracy in the context of 21st century challenges (e.g. the need for post growth approaches to development / meaningful and sustaining work and livelihood, basic forms of support). From the private predation of state finances to a new public social commons model for 21st century political communities;
3. Recapturing the value of peer produced and digital commons for a fair distribution and to build the global / planetary knowledge commons. From an extractive platform capitalist logic of digital and relational value capture to new forms of digital, design and knowledge commoning;
4. Explication of the planetary commons and its communities of protection and extension. From a planet of hyper wealthy oligarchs influencing policy for their own interests to an Earth community governing our shared planetary life support systems for the benefit of all.

Four Emerging Domains For CBEG

Table 1. *Four Domains of Commons Based Economic Policy*

	Community	Mode of governance	Scale	Challenge
Local Resource Commons	Indigenous, traditional owners, local communities, impacted relevant stakeholders	Ostrom’s (1990) design principles	Local / Bio regional	Overcoming the dominance of the market state dualism – need to forge hybrid strategies

Public State Based Commons	Political community (municipal, state, federal) of voters	State policy process – monitory democracy (Keane, 2009) / Partner state (Orsi, 2009) / Bauwens)	Local to National - Political Boundaries	Co-optation of state by moneyed interests (e.g. USA) or elites (e.g. China) – need accountability
Digital and Peer Produced Commons	Peer producers and network contributors	Bauwens’ et al peer production	Global - Distributed	Value capture by platform / netarchical capitalism – need equity based p2p
Planetary Life Support Commons	Planetary polity – Earth Community	Cosmocracy (John Keane, 2005) + Nation states	Global – ad hoc – Global North with disproportionate power	Bottleneck of the nation-state as arbiter of global policy – need for distributed planetary policy-making

Local Resources Commons

Local resources commons are any natural resource which provide value to local communities or wider social value. Examples of natural resource commons include:

- Land Tenure
- Fisheries
- Forests
- Water systems
- Mineral deposits
- Electromagnetic Spectrum

Today most local resources are either managed by the state or by private interests. The use of resource commons is under increasing scrutiny, with pressure to both drive the internalization of costs of resource use (e.g. the impact from tailings from mining projects). Within a capitalist context, private interests will often take an exploit and plunder approach to resources, extracting value from it for short-term profits, and leaving problems for local people and ecosystems. For example the use of farmland for industrial agriculture uses soils this way, in effect “mining” soils to produce maximum short term value, rather than building soils up using a regenerative approach (e.g. using permaculture principles).

A commons approach to local resources may follow Ostrom’s idea that communities are critical in sustainable long term management of resources. By virtue of their long term tenure, they have an interest in managing them for long term benefits. This entails re-embedding communities into local commons governance through state partnered / sanctioned / approved and culturally appropriate ways - as stewards, guardians and protectors of local commons. This may also take a bio-regional approach to governance, where communities can govern a region with greater sensitivity to its unique ecological properties and requirements (Sale, 1996). Where resource extraction is intensive (e.g. oil fields or mines), a commons approach would still enfranchise the local community as a critical part of the decision making in land stewardship, even if the land is held by the state or

privately. A commons based approach might also apply a resource rent taxation approach, such as Sovereign Wealth Funds established in Norway, UAE and Alaska, in which wealth acquired through such extraction is philosophically treated as if such land were collectively owned, with private interests participating in its shared use, rather than the pretense of perpetual ownership, dominion and entitlement.⁴

Public Social Commons

Public social commons are social goods developed by cities and states. Examples of public commons include:

- Public and private utilities
- Social services (health, education, disability)
- Infrastructure (roads, rail, bridges, parking, airports)

Public social commons have been proposed and delivered by municipalities or states, underpinned by public funds, paid for by taxes. For example creating safer roads and safer drivers provides a benefit to all people in a region if all people use these roads. As the neoliberal drive for privatization has unfolded, access to—and public funding for—these goods has become contested. The social democratic policies that emerged in the early part of the 20th century were formative in the development of a public social commons.

The global neoliberalization process has profoundly affected this mode of commoning. The sovereign debt crisis and the mobility of capital across borders has disciplined states to reduce / erode these state-based social commons (health, education, welfare, pensions). States that have relied on taxation linked to rising income levels have increasingly faced ‘value capture crises,’ as corporate tax contributions have decreased (via tax havens)⁵ and low-cost offshoring, automation and downsizing has eroded the labor tax base. Debt crises (experienced by developing countries first, and developed countries more recently) have been used as a means of engineering neoliberal privatization.

A variety of financial models for value capture may be innovated to address the value capture crisis faced by states and regions. A commons based approach might favor a review of value capture strategies, such as closing tax haven loopholes, land value taxes and resource rents, as well as design commons based governance systems for provisioning public goods (Frischmann, 2005). We might expect a “reterritorialization” of the tax base, if local communities and sub-polities (cities) are empowered as means of leveraging taxes. This may include location based levies that support hybrid state-commons governed public service and infrastructure development. The rising power of cities may be an important part of this story, as their need for political (jurisdictional) and economic (tax base) foundations grows, which may drive the development of land-based, relational and other value capture strategies, to support hard infrastructure and social development priorities.

We might also expect particular economic and political conflicts around existing speculative / rentier capital investors and creative productive-entrepreneurial citizens. Piketty’s (2013) study shows how, historically, dividends from large-scale investors are disproportionately higher than small-scale domestic investors. Under neo-liberal policy conditions, this will continue to support the stratification of wealth between the super-rich and ordinary people, even while entrepreneurial creatives / the precariat drive productivity gains in the 21st century’s.⁶ Struggles may coalesce around the burden and use of taxes applied to creative-productive labor as opposed to rentier value capture (investment funds, land owners, etc). A commons approach to taxation could see the burden of tax shift toward rentier categories and lessen for commons based p2p and creative industry. Where it is possible to convince economic elites that commons based economic policy can produce positive outcomes, economic transformation may be enabled by the acquiescence of capital interests, and

their reinvestment into productive-entrepreneurial class approaches. Where elites refuse to let go of regressive economic policies which protect monopoly and rentier incomes, economic stagnation and conflict may ensue.

There may be an important role for a “Partner State” model, as a form of re-invigorated Public Social Commoning for the 21st century. As Bauwen’s explains: “The Partner State... is a state form that enables and empowers the social creation of value by its citizens. It protects the infrastructure of cooperation that is the whole of society.”⁷ This partner state may bring hard power and institutional capacity together with commons based economic approaches. Where states are able to articulate a Partner State approach, opportunities for value capture and commons-based management will be enabled and accelerated. States which lack coherent policy direction will see approaches built *ad hoc* but fundamentally competing with the existing rentier based systems and classes who still dictate policy directions. The emerging space of the urban commons, such as the example or Bologna as an urban commons, is one such example of the Partner State approach.⁸ Another approach is the recent FLOK project in Ecuador, “to create a legal, economic and social framework for an entire country (Ecuador) that is consistent with principles that are the basic foundations of the Internet: peer-to-peer collaboration and shared knowledge”.⁹

Peer Produced Commons

Peer-produced commons are commons created by distributed peers who contribute to the construction of value for a particular domain. It results in resources which have become a critical source of common global value, as the benefits of decentralized and distributed collaboration from the internet and knowledge sharing has emerged (Bauwens, 2006). Peer-produced Commons entail the use, extension and control of knowledge based on non-scarce resources, for example:

- Open source technology (software)
- Open access knowledge resources (scientific discovery, journals)
- Genetics / biological knowledge (pharma / foldit)¹⁰
- Creative commons (Wikipedia / flickr)
- Relating and sharing platforms (Airbnb, Facebook, Uber)

The open source movement and the rise of free software programming platforms such as Linux and the Creative Commons licensing system developed by Lessig (2005) paved the way for this digital p2p commons. The peer production of knowledge and commons based value is one of the great stories of the early 21st century.¹¹

Such innovations in public science and the peer production of knowledge, however, have coincided with conflicts in the control and profit from this type of commons. The rise of companies such as Google, Facebook, Amazon, Apple, eBay and others has transformed the economic landscape of power, what Bauwen’s calls “netarchical capitalism”:

*“Netarchical capitalism is a hypothesis about the emergence of a new segment of the capitalist class (the owners of financial or other capital), which is no longer dependent on the ownership of intellectual property rights (hypothesis of cognitive capitalism), nor on the control of the media vectors (hypothesis of MacKenzie Wark in his book *The Hacker’s Manifesto*), but rather on the development and control of participatory platforms.”¹²*

Netarchical capitalism may be increasingly challenged by both citizens and states who see the flow of ideas, relationships and collaboration as part of a commons – something that should not be “value captured” by private interests on both practical and ethical grounds. We can expect to see an alternative range of platforms developed by both communities and states alike that will support

alternative worker or community controlled commons based platforms – for example the emergence of “platform cooperativism” as a micro-movement.¹³

The success of bitcoin and new blockchain innovations provide evidence for the possibility of commons-based credit and currency systems that have global reach with large scale communities of users. While bitcoin is anarcho-libertarian in orientation, nevertheless commons based credit systems are possible and may help create an internalized transnational economy for commons based enterprises. This may include, for example, a commons-based certification system that provides a way for the trading and exchange of goods and services between commons-based enterprises. Similar to the commitment of Islamic banking and some ethical investments funds, commons based investment strategies may compete with traditional business models, in certain situations competing by providing social outcomes preferred by states and communities through new modes of social procurement.

Planetary Life Support Commons

Planetary Life Support Commons are critical issues for current and future generations, such as the maintenance of a safe climate in the context of global warming. The potential disruption to life support commons, such as a safe atmosphere, ocean acidification and other ecological crises creates a strong impetus to apply costs on planetary life support damaging activities (for example through emissions trading), or incentives on more benign activity (for example through renewable energy feed in tariffs). Life support commons primarily entail the protection of basic ecological life support systems (which are not extractable resources in the traditional sense). These include:

- Safe global climate (e.g. reductions in carbon emissions to safe levels)
- Protection of the atmospheric ozone layer
- Ensuring drinking water quality (e.g. problem of electronic waste disposal)
- Protecting air quality
- Biodiversity (from species to preserving overall ecosystem health)
- Preserving the quality and quantity of arable soils
- Preventing ocean acidification

A number of international agreements build-in economic incentives and penalties which have the aim of ensuring the health of the ‘global commons’. The Montréal protocol provided one of the first examples of coordinated effort linked with economic policy to phase out ozone depleting chemicals (Buck, 1998). Other cap and trade systems have followed, with varying degrees of success.¹⁴ Emissions trading is being developed in dozens of countries, cities and regions around the world. Over the next two decades, experts suggest carbon trading systems will converge toward an international system of carbon abatement.¹⁵ The Paris Accord is the most recent attempt at enacting economic governance to protect planetary life support systems. Emission trading, however, should not be seen as a silver bullet. The broad approach should be to consider Planetary Life Support Commons as a whole category of commons governance. In the coming decades we can expect a variety of Life Support Commons strategies to be proposed and adopted for a variety of purposes.

The critical issue is to develop systems of governance that address humanity’s common challenges without this being undermined by regressive states and regressive business interests. This will require a new mode of planetary governance which might be described as ‘cosmocracy’ (Keane, 2005), planetary governance which is at once *ad hoc* and full of ‘clumsy institutions’ (Keane, 2005, pp.34-51), but which creates ‘transnational, common structures of political action’, ‘a global and divided authority system – a system of diverse and overlapping power centres shaped and delimited by democratic law’ (Held, 1995, p.234).

Together the world's states, many whose policies are held hostage by oligarchs and lobbies, have utterly failed to effectively address climate change. Global governance can no longer be just the domain of states and state approved representatives. Implicit in the idea of a Planetary Life Support Commons is the simple acknowledgment that the object of value (the commons as a thing) is co-constituted by "commoners" who have a stake in that which they value. Today this means anyone with a stake in the health of future Earth, who want their children or any child to inherit a world that nurtures them is thus an integral part of a community of commoners that must govern for their mutual self interest. The threat to our planetary life support systems has therefore made us all commoners such that we must collectively govern for our common good. A core dimension of this is the transformation of the Earth's people from those patronized by states to those learning to co-govern for the protection of their shared commons. It is a shift from a commons in itself (implicit and in-active) to a commons for itself (explicit and activated).

Toward New Political Contracts

The idea of community is thus central to any commons. A particular commons can only be as such because it is valued by a particular group of people. Because it is valued, that group tends to that commons - protecting it, extending it or creating it. In the case of a natural resource, it is usually local inhabitants who want to protect such localized commons for their own use. This can be by groups that govern commons that do not follow the market-state dualism. These are the examples that Ostrom (1990) studied and gained fame for. In the case of public social commons, these are created by political entities, such as municipalities, states and federal systems, which are meant to extend a common good to a whole political community. Universal healthcare is one such example of a public commons, where a public good that a political community cares for is created. Peer produced commons are created by networks of participants, such as with open source software or sharing networks. These are not pre-existing commons, but rather are created by that community from their own activity. Because a particular community, for example the Linux community, cares about this shared commons, they work to develop it and protect it. Finally, in the case of planetary life support systems, the value of this as a commons is fundamentally implicit, that is, it does not appear valuable to a community until it is activated by virtue of a contextual shift. When the ozone layer became threatened due to certain industrial pollutants, which in turn fundamentally threatened human well being, the ozone layer became a commons for collective governance, and an "object of commoning".

Just as community cannot be pulled apart from the idea of commoning as an act of governance, so too we cannot separate the idea of governance from the idea of new political contracts. In each of the four modes of CBEG, a new political contract is in the process of being developed and constructed, distinct from the status quo. All four modes of CBEG therefore entail the development of new political contracts.

Table 2. *Transformation of Contemporary Political Contracts*

	Current political contract of neoliberal regime	Possible future political contract for commons governance
Local Resources	Global capital disproportionately powerful in relation to local stakeholders and communities Absolute perpetual ownership (freehold) Local policy synchronized to neoliberal state	Bio-regionalism Land as commons Local Stewardship Lease for Regeneration Communities to be enfranchised as guardians or stewards Localization
Public Social Goods	Oligarchy and the rule of lobbies - policy poverty (lack of influence) for most people	Partner state Basic support systems Post-rentier policies
Peer Produced Goods	Netarchical capitalism – platform capitalists control terms of relationality and peer production	Democratic control and worker enfranchisement in peer production Platform cooperativism
Planetary Life Support Systems	State based “muddling through” – contradictory / competitive dynamics between states in relation to planetary sustainment People / communities patronized by state levels	Cosmocracy for the commons Sub politics Global Democracy from below Trans national citizen movements for change Stigmergic global governance

In terms of local resource commons, the shift is from a situation in which local resources are simply an extension of the logic of global capitalism, to a situation in which local resource commons are governed for their regeneration and sustainment. This entails a new sensitivity to geography, ecology and land, with governance led by a logic of stewardship that aims to mutualize benefits across local, state and global commons.

In terms of public social commons, the shift is from the current state in which moneyed interests, lobbies and oligarchs determine public policy (creating policy poverty for the rest), to a state in which there is democratic accountability and wisdom nurturing institutions that allow national polities to re-imagine and construct new public social commons for the 21st century. This may include the partner state model charged with enabling citizen led creativity and commoning, as well as different types of basic support systems, and economic policies that wind down rentier class accumulation, but which rewards real innovation and innovators.

In terms of the peer production of the commons, the shift is from netarchical capitalism, where a handful of corporate giants extract unimaginable fortunes from our every day relating and contributing, to a situation in which there is democratic control and worker enfranchisement in the peer production of digital commons – a platform cooperativism. And where transnational coalitions of such commons based enterprises can create global sub economies of mutual value exchange and sustainment which can exert increasing influence.

Finally, in terms of our planetary life support systems, the shift is from the underperforming interstate system which is only barely muddling through in terms of addressing threats to our planetary commons, toward a multifaceted system of power where everyday people have the capacity to engage in issues of planetary governance and action, accelerating governance for transformation. Following the principle of “stigmergy”, emerging communities of governance across various commons can cohere and strategically construct participation which is both

distributed planet-wide, asynchronous and which overtime can co-construct new forms of network and institutional power and influence.

Conclusion

In this article I've argued that commons based economic governance will be increasingly employed to develop new strategies for addressing social and ecological concerns that communities and societies faces. Whether or not future economic governance will be predominantly commons-based is an open question and will of course depend on human will and decision making in the context of the challenges that we face. There are many varieties of alternative policy prescriptions being developed, which will inevitably blend old and new, and where types of liberalism will invariably have an important place and find a mix with a commons-based approach. I therefore do not wish to put forward a type of fundamentalism. The human tendency to see the future categorically, as either an "A" future or a "B" future is both part of our strength and weakness as a species. Among species, we have a gift for projecting and imagining future states and possibilities. But our human tendency to idealize a future categorically and project our ideologies, worldviews and cultural assumptions gets us into trouble when we seek a future of purity-without-contradiction. The "success" of neoliberalism and the endless growth industrial machine are cases in point that the categorically pure future leads to trouble. All futures are "mutant futures" in the sense that the future does not conform to our idealizations, and in post-normal times futures become hybrids between the preferred, the possible, the unwanted and the unimaginable. A fluid and adaptive hybridity of thinking and action is therefore an important resource in considering possible futures and strategic action. It is in this sense that commons based economic governance can play an important role in a broader economic policy design dialogue through the 21st Century. This paper is a modest effort to add to this conversation around a transitional strategy for transforming the global economic paradigm.

And yet it seems it may be impossible to avoid social and environmental collapse without creating an alternative (post-growth / post-industrial / post-capitalist) global political economy. While the structure of this political economy is still emerging, underpinning it appears to be an emerging worldview that supports mutually beneficial social and ecological relations and institutions deeply connected with the philosophy and practice of the commons and commoning. The contours of this rests on transcending dualism, the market-state dualism and the individual vs. community dualism - toward a vision of ourselves as a part of a bigger community, from the local to the national to the global. This worldview encourages us to see each other and all life as part of a family, a commons, and to choose approaches to development that govern in ways which protect and generate benefits for the whole human family and all kindred life forms.

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Notes

1. See: <http://www.bollier.org/blog/report-economics-and-commons-conference-just-published>
2. See: <http://bollier.org/commons-short-and-sweet>
3. See: <http://futurism.com/interview-michel-bauwens-on-peer-to-peer-economics-and-its-role-in-reshaping-our-world/>
4. See <http://www.swfinstitute.org/fund-rankings/>
5. See: http://www.afr.com/p/technology/how_ireland_got_apple_bn_profit_erlmHONvoHJGixwLUpFckN
6. This can be analogized with the rise of the burgers / bourgeois in Europe, whose emerging power created conflicts with the rentier class of that time – Europe’s aristocracy.
7. See: <http://www.shareable.net/blog/blueprint-for-p2p-society-the-partner-state-ethical-economy>
8. See: <http://www.shareable.net/blog/bologna-celebrates-one-year-of-a-bold-experiment-in-urban-commoning>
9. See: http://p2pfoundation.net/FLOK_Society_Project
10. See for example the collaborative game ‘fold it’: <http://fold.it/portal/>
11. See: <http://p2pfoundation.net/>
12. From http://p2pfoundation.net/Netarchical_Capitalism
13. <https://ioo.coop>
14. See for example the US cap and trade system for reducing acid rain
15. <http://www.epa.gov/airmarkets/progsregs/arp/index.html>
16. See: <http://cleantechnica.com/2013/04/02/global-carbon-market-goes-truly-global/>

References

- Bauwens, M. (2006). The Political Economy of Peer Production. *Post-Autistic Economics Review*, 37.
- Bauwens, Michel. Kostakis, Vasilis. Troncoso, Stacco. Utratel, Ann Marie. (2017). *Commons Transition and P2P: a primer*. The Transnational Institute.
- Beck, U. (1999). *World Risk Society*. Oxford: Polity Press.
- Bollier, D., & Helfrich, S., ed al. (2012). *The Wealth of the Commons: A World Beyond Market and State*. Amherst, MA: Levellers Press.
- Bollier, D., & Helfrich, S. (2015). *Patterns of Commoning*, Mass: The Commons Strategy Group / Off the Commons Books.
- Braudel, F. (1993). *A History of Civilisations*. New York: New York Penguin.
- Broad, R., & Cavanagh, J. (2009). *Development Redefined*. Boulder: Paradigm Publishers.
- Buck, S. (1998). *The Global Commons: An Introduction*. Washington D.C.: Island Press.
- Campbell, D. (1997). Adam Smith: Self Love and Love of Others. In *Macrohistory and Macrohistorians*, edited by J. Galtung, Inayatullah, S. Westport: Praeger.
- Daly, H., & Cobb, J Jr. (1994). *For the Common Good: Redirecting the Economy toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Escobar, A. Commons in the Pluriverse, in Bollier, D., & Helfrich, S. (2015) *Patterns of Commoning*, Mass: The Commons Strategy Group / Off the Commons Books.
- Falk, R. (2004). *The Declining World Order: America’s Imperial Geo-Politics*. New York and London: Routledge.
- Frischmann, B. M. (2005). An Economic Theory of Infrastructure and Commons Management. *Minnesota Law Review*, 89, 917-1030.
- Fukuyama, F. (1989). The End of History? *The National Interest*.
- Gray, J. (1998). *False Dawn: the Delusions of Global Capitalism*. New York: Granta Books Hamil-

ton 2007

- Harvey, D. (2005). From Globalisation to the New Imperialism In P. Applebaum, Robinson, W. I. (Ed.), *Critical Globalisation Studies* (pp.91-100). New York: Routledge.
- Held, D. (1995). *Democracy and the Global Order: From the Modern State to Cosmopolitan Governance*. Stanford University Press.
- Held, D. (2005). At the Global Crossroads: The End of the Washington Consensus and the Rise of Global Social Democracy? *Globalizations*, 2(1), 95-113.
- Kaldor, M. (2003). *Global Civil Society: An Answer to War*. Cambridge: Polity Press.
- Keane, J. (2005). Cosmocracy and Global Civil Society. In D. Chandler, Baker, G. (Ed.), *Global Civil Society: Contested Futures* (pp.149-170). New York: Routledge.
- Keane, J. (2009). *The Life and Death of Democracy*: Simon & Schuster.
- Lessig, L. (2005). The People Own Ideas. *Technology Review*.
- Manuel, F, Manuel, F. (1979). *Utopian Thought in the Western World*. Cambridge Mass: The Belknap.
- Marks, R. (2002). *The Origins of the Modern World: A Global and Ecological Narrative*. Oxford: Rowman and Littlefield.
- Meadows, D., & Meadows, D. (1972). *The Limits to Growth*. London: Pan Books. Harvard Press.
- Meltzer, A. (2000). Report of the International Financial Institution Advisory Commission. Washington D.C.: Congress of the United States of America.
- Orsi C. (2009). Knowledge-based Society, Peer Production and the Common Good. *Capital Class* 33(1), 31–51.
- Ostrom, E. (1990). *Governing the Commons*. New York: Cambridge University Press.
- Piketty, T. (2013). *Capital in the Twenty-First Century*. Mass: Harvard University Press.
- Ramos, J. (2010). Alternative Futures of Globalisation: A socio-ecological study of the World Social Forum Process, Department of Research and Commercialisation, Brisbane: Queensland University of Technology.
- Ramos, J. (2013). The Futures of Power in The Network Era. *Journal of Futures Studies*. 17(4): 71-92.
- Renner, M. (2011). Wage Gap Widens as Wages Fail to Keep Pace with Productivity. In *Vital Signs*, edited by L. Starke. Worldwatch Institute.
- Robinson, W. (2004). *A Theory of Global Capitalism*. London: John Hopkins University Press.
- Sale, K. (1996). Principles of Bioregionalism. In J. Mander, Goldsmith, E. (Ed.), *The Case Against the Global Economy* (pp.471-484). San Francisco: Sierra Club Books.
- Shiva, V. (2000). *Stolen Harvest: The Hijacking of the Global Food Supply*. Cambridge, Mass.: South End Press.
- Stiglitz, J. (2002). *Globalisation and its Discontents*. New York: WW Norton.
- Yergin, D., & Stanislaw, J. (2002). *The Commanding Heights*. New York: Simon and Schuster.