

The Commons, Political Transformation and Cities – David Bollier

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Thank you. In the next few minutes, I want to give you a brief introduction to *the commons* as a very old but also very new paradigm for human governance. In introducing the commons, I hope to persuade you that it is a potentially transformative idea for politics, economics and culture.

The commons is, at its core, a very old – and a very new, recently rediscovered – system of governance for managing resources. It has deep roots in history as a system of self-provisioning and mutual support. It is also a way of being a human being that goes beyond the selfish, rational, utility-maximizing model of *homo economicus* that economists say we are. The commons presumes that humans are more complex, and that more holistic, humane types of human behavior can be “designed into” our governance institutions.

In its largest sense, the commons is about stewardship of the things that we own in common as human beings. It’s about ensuring that we protect them and pass them on, undiminished, to future generations.

Let me add, the commons is also a growing trans-national movement that manifests itself in many different ways. The commons extends from cyberspace to the many commons of agro-ecological knowledge managed by indigenous peoples. It reaches from the world’s city squares and parks that are the cradles of community, to the vast repositories of information and creative works that must be shared if they are to be kept alive.

The commons can be seen in new local food production systems that farmers and households are inventing.... and in alternative local and digital currencies that are emerging all over....and in the subsistence commons of forests, fisheries and farming that meet the every day needs of an estimated *two billion* people in the world.

It is increasingly seen in cities, where commoners must struggle to preserve public spaces and historic landmarks, and where designing, planning and budgeting are dominated by elite commercial and political interests.

The strangest thing is, because commons-based forms of provisioning exist outside of both the State and the Market, they are essentially invisible. They are not seen as valuable because they are perceived to have little to do with private property rights, markets or geo-political power.

But below the radar screens of mainstream culture, the reality is that the commons is in fact a significant force in the world today. It always has been, of course, because the commons is arguably as old as humanity. But now it’s becoming more visible. The challenge for us today is to *see the commons* – and to find new ways to *support and protect it*.

The Commons Paradigm

For most people, any mention of the word “commons” immediately brings to mind the word “tragedy.” End of discussion. If you listen to most economists, the commons is always said to result in a tragedy. The classic example is – If you have a shared pasture upon which many herders can graze their cattle, no single herder will have a rational incentive to hold back – and so he will put as many cattle on the commons as possible, take as much as he can for himself. The pasture will inevitably be over-exploited and ruined: a “tragedy.

This dogma has held sway in the popular mind and among economists since 1968, when

biologist Garrett Hardin wrote a famous essay called “The tragedy of the commons.” It was a convenient parable because it implied that only a regime of private property rights and markets could solve the tragedy of the commons. If people had private ownership rights, they would be motivated to protect their grazing lands.

But Hardin was *not* in fact describing a commons. He was describing a scenario in which there were no boundaries to the grazing land, no rules for managing it, and no community of users. *But that’s not a commons.* That’s an open-access regime, a free-for-all. A commons has boundaries, rules, monitoring of usage, punishment of free-riders, and social norms. A commons requires that there be a community willing to act as a steward of a resource.

Hardin’s misrepresentation of the commons stuck in the public mind, however, and became an article of conventional wisdom, thanks to economists and conservative pundits. For the past two generations the commons has been widely regarded as a failed paradigm of governance. Two of the leading introductory economics textbooks in the U.S. fail to even mention the commons.

Professor Elinor Ostrom of Indiana University was the most prominent academic to rescue the commons and rebut Hardin. It took years of painstaking field research and innovative theorizing, but in her pathbreaking 1990 book, *Governing the Commons*, Ostrom identified some basic design principles of successful commons. Over the past several decades, she and many colleagues have shown in hundreds of studies that people can and do successfully manage their land and water and forests and fisheries as commons. Some have done so for hundreds of years, such as the Swiss villagers who manage high mountain meadows and the *huerta* irrigation institutions in Spain.

Ostrom’s great achievement has been to buck the established wisdom of mainstream economics while spawning a fertile field of study that combines political science, sociology and economic and other social sciences. She won the Nobel Prize in Economics in 2009 for this work.

I should perhaps interject here that a commons is not a resource in itself. It’s a resource *plus* a social community *and* the social values, rules and norms that they used to manage the resource. They’re all an integrated package. Call it a socio-economic-biophysical package, sort of like a fish and a pond and aquatic vegetation: They all go together and don’t make sense as isolated parts.

That may be why conventional economics has so much trouble understanding the commons. It doesn’t understand how the community, rather than the individual, can be the framing term of reference. The commons looks at the whole and regards the individual and the collective as nested within each other. This is a very different metaphysics than that of market individualism.

The commons is also a threat to conventional economics because it asks us to entertain a broader definition of *value* than money. It asks us to entertain a larger conception of “the economy” than Gross Domestic Product. Needless to say, this doesn’t go down well with economists who like to boil everything down to numbers and bottom lines, and policymakers who may care more about measurable results than the complex human processes for getting us there.

The Worldview of Economics

Economics is about creating wealth. But only a certain kind of wealth – wealth that has a price attached to it and can be traded in the marketplace. Economic value is said to be created when two parties truck and barter in the marketplace and come to an agreement to trade cash for goods or services. This kind of wealth is usually encased in private property rights. The more market activity there is, the more “wealth” that is created and the happier we supposedly are.

The only problem with this standard economic narrative is that it doesn’t have much to say about the great stores of value that *don’t* have price tags. How much is the Earth’s atmosphere worth? What about the human genome? Fresh water supplies? Our inheritance of scientific knowledge and culture? Parks and open spaces? The Internet?

These are huge chunks of wealth that matter a great deal to our lives. Now, sometimes these

chunks of wealth are given the label of “public goods” and governments may decide to take care of them. Maybe. Sorta. But if they don’t make money for someone in the marketplace, well, they are likely to be neglected, the way that libraries and public education and public health are.

The lack of a price tag typically means that these things exist outside of the marketplace. Philosopher John Locke called such things *res nullius*. *Nullities*. They’re free for the taking because no one has any exclusive property rights in them and there is no price for them. All you have to do is “add your own labor” and you’re entitled to own them.

That’s basically the philosophical justification that conquerors and colonizers have used to claim ownership of native lands – and, in our time, to claim ownership of native people’s ethno-botanical knowledge, and of genes and lifeforms and synthetic nano-matter. It’s also the kind of logic used by industrial trawlers that vacuum up all marine life in vast stretches of the ocean.

The great unacknowledged scandal of our time is the large-scale privatization and abuse of dozens of resources that we collectively own – our commons. They are un-owned and “without price.” Priceless, you might say.

The contemporary enclosures of nature and culture and public infrastructure resemble the English enclosure movement. The commoners used to manage their shared farming plots and pastures and forests themselves, and every year would have a kind of party in which they walked the perimeter of the commons to make sure that no one was fencing it off for their own private purposes. This was called the “beating of the bounds.” The commoners would knock down any walls and dig up any hedges that anyone may have erected to enclose the commons. (This is how the “Diggers” and “Levelers” got their names – the diggers dug under the hedges, and the levelers leveled the fences.)

Over the course of several centuries, but especially in the 19th Century, the English aristocracy colluded with Parliament to privatize the village commons of England. The commons was essentially dismantled. Enclosure was a way for the landed gentry to make a lot of money and consolidate their political and economic power at the same time.

Today’s enclosure movement is an eerie replay of the English enclosure movement as international investors and national governments buy up farmlands and forests in Africa, Asia and Latin America on a massive scale, in collusion with host governments. Instead of commoners having local authority to grow and harvest their own food, they are being thrown off their lands that they have used for centuries -- so that large multinational corporations and investors can sell food to global markets, or make a speculative killing on their land investments.

Can you guess what happens to the millions of people who suddenly can’t survive because their commons have been enclosed? They become the characters of a Charles Dickens novel. They are forced into cities to search for a livelihood and end up becoming beggars, shanty-dwellers and exploited wage-slaves. A large number of Somali pirates who began attacking ships used to be fishermen in the coastal waters off Somalia until foreign industrial trawlers drove them from their fisheries – and destroyed their fishing commons.

Nowadays, it’s not just land and oceans being enclosed. Mathematical algorithms can now be owned if they are embedded in software and supposedly serve a novel commercial function. McDonald’s claims a trademark in the prefix “Mc,” so that you can’t name your restaurant McSushi or McVegan or your hotel McSleep. The American music licensing body ASCAP once demanded that hundreds of summer camps for boys and girls pay a blanket “performance license” for singing copyrighted songs around the campfire. These are not exceptional cases, mind you. I wrote a book about them in 2005, *Brand Name Bullies: The Quest to Own and Control Culture*.

One of the biggest commons around is the Internet. It is vulnerable precisely because it is a commons. As we see in authoritarian countries such as China, and Egypt – and in the Obama administration’s vendetta against WikiLeaks --governments don’t necessarily want the commoners

to have the freedom to communicate freely among each other. Telecom companies would prefer to convert the Internet into a proprietary shopping mall by doing away with net neutrality rules. Hollywood and the record industry would like to make peer production and sharing illegal by expanding the reach of copyright law.

I've barely ventured into the vast range of enclosures that are going on today, but here's a brief sampling: the atmosphere, the oceans, genes, taxpayer-funded research, public spaces in cities, public highways and airports that are becoming private property, groundwater supplies, and much else.

Market enclosure is about dispossession. It is a process by which the powerful convert a shared community resource into a market commodity, so that it can be privately owned and sold in the marketplace. Enclosure preys upon the *common wealth* by privatizing it, commodifying it and dispossessing the commoners of their autonomy and resources.

Enclosures sweep aside the social relationships and cultural traditions and sense of community that had previously existed. It requires the imposition of extreme individualism, the conversion of citizens into passive consumers, and greater social inequality. Money becomes the coin of social legitimacy and participation in a society.

Enclosures of Nature

The most serious and urgent problem may be the enclosures of nature. Markets have a propensity to treat Nature as either as a nullity or as a commodity that can be treated as a brute object – something that has no life in it, no dignity, no connection to God's creation.

Biotech companies and universities now own one-fifth of the human genome. The biotech company Myriad Genetics of Salt Lake City claims a patent on a "breast cancer susceptibility gene" that guarantees it monopoly control over certain types of research. This means that the patent is actually preventing other scientists from researching genetic sources of breast cancer lest it violate the patent.

One of the first attempted privatizations of water supplies came in Cochabamba, Bolivia, in 2002, when the Bechtel corporation and the government privatized the municipal water supply and even claimed ownership of rainwater. More recently, the billionaire T. Boone Pickens has spent more than \$100 million acquiring groundwater aquifers in the Texas High Plains, which could make it very expensive for many communities there to survive as water becomes a private, proprietary product.

The biggest enclosure of nature is arguably the manmade carbon pollution that is accelerating climate change. A complex topic unto itself. But it points up a core problem with modern-day economic theory – the inability of the economy to differentiate between growth in the volume of market activity and healthy, socially beneficial development that can be ecologically sustained. GDP confuses material "through-put" in the Market Machine as equivalent to human progress.

It's just not so! There are two reasons. First, GDP doesn't measure the common wealth – the stuff that is "off the books" and belongs to all of us, which is supposedly "free for the taking." And second, GDP never takes into account the incredible amounts of *illth* that the economy creates.

"Illth" is a term that John Ruskin coined to describe the opposite of wealth. It's the trash and pollution and disease and injuries and disruptions that the economy inflicts upon the commons. Economists have a nicer term for illth – they call it a "*market externality*."

Here's the problem: The economy *takes* from the commons – in the form of free or discounted access to our shared resources. And then, whatever can't be turned into private profit is *dumped back into* the commons, as illth.

Politicians and economists love to crow about how much wealth is being created – but they systematically ignore how much illth is being created in the process. They count only the market wealth.

So we have the perverse situation in which we need to create ever-rising amounts of illth just to create more wealth. And we are told that we can *never* solve our social problems – healthcare, education, social justice – unless we create more wealth. Call it the Red Queen’s Madness. As the Red Queen told Alice in the book *Alice in Wonderland*, she had to keep running faster and faster just to stay in the same place.

The Red Queen’s Madness is now the very basis for our global economy. We need to keep extracting more and more finite natural resources faster and faster just to maintain the same standard of living – while creating ever-increasing amounts of illth that no one wants to confront. Consider global warming: scientists warned twenty years ago that this would be a problem, and very little has been done to deal with this looming planetary catastrophe.

Of course, national governments always *aspire* to set limits – and corporations are always pledging to “go green” or at least market themselves as green. But let’s be frank: History has shown that neither the Market nor the State has been very successful at setting limits on market activity. The simple truth is, neither really wants to. Growth is what props up the economy and growth is what props up national governments. Setting limits on market exploitation of nature or culture or labor would only slow economic growth, diminish profits and reduce tax revenues.

Which is why the tragedy of the commons should really be renamed, “*the tragedy of the market.*” The Market/State is largely incapable of setting limits on itself or declaring that certain elements of nature or culture or community should remain inalienable.

The Value Proposition of the Commons

This brings me back to the commons. One reason that I am so attracted to the commons is it gives us a vocabulary for imagining a new sort of future. It lets us develop a richer narrative about *value* than the one sanctioned by neoliberal economics and policy.

The commons helps us see that we are actually richer than we thought we were. It’s just that our common wealth is not a private commodity or cash. It’s *socially created wealth* that’s embedded in distinct communities of interest who act as stewards of that wealth. Because the value is socially embedded, it can’t simply be bought and sold like a commodity. The commons can be *generative* in its own right – but the wealth it generates is usually *shared, non-monetized value*.

We can especially see the generativity of the commons on the Internet, which is a kind of hosting infrastructure for digital commons. A few years ago Harvard Law Professor Yochai Benkler wrote a landmark book, *The Wealth of Networks*, in which he wrote: “What we are seeing now is the emergence of more effective collective action practices that are decentralized but do not rely on either the price system or a managerial structure for coordination.”

Benkler’s term for this phenomenon is “commons-based peer production.” By that, he means systems that are collaborative and nonproprietary, and based on “sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other.”

Think of the hundreds of millions of photos on Flickr or the millions of Wikipedia entries in over 160 languages. Think of the more than 6,000 open-access academic journals that are bypassing expensive commercial journal publishers. Think of the Open Educational Resources movement that is making open textbooks and the OpenCourseWare movement started by M.I.T. Think of the hundreds of millions of online texts, videos and musical works that use Creative Commons licenses to enable easy sharing. Think of the vast free and open source software

community that is the basis for a rich and varied commercial software marketplace.

There are countless such digital commons based on peer production and sharing. In fact, the bestiary of commons is now so large and varied that there is what amounts to a Commons Sector for knowledge, culture and creativity.

Natural resource commons can also quite generative even though they are dealing with finite, depletable resources. There are all sorts of successful commons for managing fisheries and forests and irrigation. There are the acequias for water in New Mexico. The ejidos in Mexico. Native American lands and their sacred relationships with Nature.

The commons is exemplified by traditional seeds and farming methods that Indian farmers use to avoid expensive proprietary seeds that have been made artificially sterile and the require synthetic pesticides and fertilizers. The Indian activist Vandana Shiva has done heroic work in this area. The commons is exemplified by researchers who generate and share gene sequences for the human genome; and by the community gardens of New York City that feed people nutritious food and improve property values in the neighborhood; and by the Slow Food movement, Community Supported Agriculture movement, the Transition Town movement, and many others.

When we start to see the commons from this angle, we see that there is no tragedy of the commons. The commons offers a value-proposition that neither the Market nor the State can provide.

The particular governance structures for generating this value differs from one class of commons to another. Subsistence commons do it differently than digital commons. The so-called gift economies such as blood banks, academic disciplines and Couchsurfing differ from urban commons such as community gardens and public squares. But what all commons have in common is an ability to manage shared resources and invite participation and inclusion. They rebuild a social fabric that neither the market nor the state is capable of rebuilding. This is the healing logic of the commons.

As a system of governance, the commons offers several critical capacities that are sorely missing from the neoliberal state and market system:

- the ability to set and enforce sustainable limits on markets;
- the ability to internalize the “externalities” that markets produce; and
- an ability to declare that certain resources are inalienable – that is, off-limits to markets.

Now I hasten to add that the commons is no panacea. Commons often fail because of bad leadership or inappropriate governance structures. Just look at the many failed fisheries and forest commons in poor countries. Commoners have plenty of disagreements and conflicts.

One key lesson to be learned from scholarship about commons is that their *context* matters a great deal. Their particular history, traditions, social practices, political circumstances, the specific resource, and much else, can make or break a commons. So please don't let me leave with you the impression that the commons is somehow a magic bullet that is somehow exempt from the frailties of humanity and history.

Unfortunately, commons are more vulnerable than they need to be -- because the Market/State often regards them as a competitive threat. After all, the commons gives commoners some measure of autonomy and control over their lives and resources. Corporations and governments don't always like that.

The commons lets people wean themselves away from an unhealthy dependency on volatile or predatory markets. It lets people escape the indignities of charity and government handouts. As a commoner, you don't necessarily need to *buy* seeds or software or books or water from a company. You can get them for free, or inexpensively, through your seed-saving collective....and

from your free software network.... and from the public library.... and from your water collective or municipal water system. Moreover, as a commoner, you are *entitled* to these things.

The Commons and Urban Life

Now, I have been asked to address what the commons might have to say about urban spaces and urban life. The short answer is, *a lot!*

First, the language of the commons helps us assert a moral entitlement to public spaces again. It lets us challenge the unholy alliance of politicians, developers and professional architects and planners, and insist that city spaces serve our needs as ordinary people. This means, first of all, that commercial considerations cannot crowd out vital common purposes – as we see when the market or authoritarians take over.

I like how Pulska Grupa, a group of architects and urban planners from Pula, Croatia, put it in their Kommunal Urbanism Social Charter. They write:

“We imagine city as a collective space which belongs to all those who live in it, who have the right to find there the conditions for their political, social, economic and ecological fulfillment at the same time assuming duties of solidarity. This concept of the city is blocked by capitalist dialectic based on difference in public and private good. From these two poles State and Market emerge as the only two subjects. We want to escape this dialectic, not to focus on eventually “third subject,” but on a group of collective subjectivities and the commons that they produce.”

Pulska Grupa calls for “a new concept of the city guided by four principles.” These consists of:

The right to mobility– meaning the right of access and use of spaces, and to create new spaces.

Flexibility of organizing– so that people can participate in shaping public spaces and rules, so that everything is not bureaucratically controlled at the expense of people’s natural social and political needs.

The re-appropriation of tools– so that people can use the tools for creating our own physical spaces.

And **a city of many ecologies** – which is the basic principle of promoting diversity so that there will be greater resilience and innovation.

The fight for the commons in cities is essentially a fight to reclaim democracy – and to re-imagine how city life is organized. There are many, many initiatives that are attempting to reclaim the “right to the city,” but they are highly fragmented and not necessarily connected. I like to think that the commons discourse could begin to knit these many projects together.

So how can the commons help make our cities more liveable, ecologically friendly places?

I argue that the very framing and language of the commons helps us assert our values. These values are:

- That cities must be human-scale, pedestrian-friendly, sociable, lively and fun.
- That planning and design of cities should be open and participatory.
- That our built landscape should be adaptable to changing circumstances, along the lines of open-source software. Why should future generations be cursed with the costly mistakes of the top-down, centralized planning of a bunch of idiots today?

One of the most prominent thinkers about cities and the commons is Nikos Salingaros, the founder of a network of architects, planners and designers known as P2P Urbanism, for Peer to Peer Urbanism. Salingaros is a fierce critic of most of 20th Century urban planning. He criticizes it for its “central planning that ignores local conditions and the complex needs of final users, and which tries to do away with the commons for monetary reasons.” His crusade is to help the commoners

reinvent cities, so that they can be more human-friendly, and not simply instruments of the Market and State.

“P2P Urbanism is all about letting people design and build their own environments using information and techniques that are shared freely,” says Salingaros. His network includes New Urbanists and traditional urbanists; planners who appreciate collaborative design and user participation; the followers of Christopher Alexander, the author of *A Pattern Language*; and urban activists. P2P Urbanism is also attracting permaculture advocates, biophilic designers and designers of low-cost, low-energy construction.

Needless to say, this is a radical vision in the context of contemporary urban planning. It provokes opposition from the political/commercial interests that control city governments. And yet there are signs of a budding movement around the world to reclaim the urban commons. The various efforts are terribly fragmented, and they haven’t really coalesced as a coordinated trans-national movement. But I think they show great promise. Let me review some of the more notable fronts in this emerging story.

Most of us are familiar with the important movements to encourage community gardens and farmers markets, and efforts to protect public parks and squares. I don’t want to dwell on these efforts alone, in part because they are so familiar. I would like to focus on the theme that all of these embody – the idea that cities belong to the people who live there, and that they – not the landlords, developers and politicians – must have the power to design and live in the city as they see fit.

Let’s remember that the availability of open, uncontrolled public spaces is directly related to the vitality of democratic culture. It was no accident that following Generalissimo Franco’s death in Spain, the City of Barcelona created all sorts of new public squares. These spaces are crucial to the ability of citizens to express themselves as a collective – and to challenge government abuses of power. More recently we have seen in Cairo how Tahrir Square was critical to the public protests that toppled President Mubarak.

The enclosure of public spaces, by the same reasoning, is anti-democratic. When shopping malls and office towers eliminate our public squares, our parks and our promenades, we lose our capacity to see each other, to socialize and speak publicly, to identify and empathize with each other, to BE commoners. Without these spaces, we are forced into playing roles dictated by the Market or the State.

The first steps that commoners must take to reclaim the city tend to be more symbolic than anything else, because commoners generally don’t have the power. They have to organize themselves into a whole and *see* themselves as a new force in politics. That’s okay: symbolism is an important place to start this new dialogue and express new aspirations.

I think of the wonderful street protests designed by the San Francisco activist studio known as Rebar. Rebar staged what it called PARK(ing) Day by creating a “pop-up park” in parking space on the street. They fed money into the parking meters while occupying the space. It was a great way to get the point across that 70% of the space in downtown San Francisco is designed for the exclusive use of vehicles, not people.

Andy Förster, an Austrian living in Graz, has pulled together a collection of protest initiatives under the name “Neighborgood.” They all aim to publicly express the right to the city over and against the corporate and government bureaucracies. For example, he profiles those who are trying to express the vitality and creativity of the individual in the context of a dehumanizing cityscape. How? By knitting mufflers for bicycle posts, and hats and scarves for statutes and monuments. It’s a kind of folk-art graffiti. He talks about “guerilla gardening,” the practice of planting small flower gardens in public spaces without permission, and then tending them.

It’s easy to dismiss these ideas as crazy stunts. But the starting point for reclaiming the

urban commons is to break the dreary institutional face of the cityscape, and express the spirit of the commons in fresh, attractive ways. Then people can begin to wake up to their own potential in creating the city themselves. Among the other ideas describe on Andy Förster's website, Neighborgood.net, are unauthorized screenings of films and videos, otherwise known as "Pirate Cinema"; the use of mobile phones to convene "flash mobs" to stage protests and celebrations; the playing of "Pervasive Games" such as using GPS systems to find "hidden treasures" located somewhere in the city; and "carrot mobs" – which are the opposite of boycotts; they are organized efforts to *support* businesses that actively help the community or the environment.

I'd like to review a number of other commons-based efforts to reclaim the city. In Portland, Oregon, activist Mark Lakeman and the group City Repair has helped neighborhoods see the possibilities for themselves by creating new public spaces. The City Repair project engages in "placemaking" projects that plant gardens and fix intersections. The group has started a City Riparian project to plant trees and shrubs, and they operate a mobile tea house called the T-Horse.

In San Francisco and other American cities, there are "Critical Mass" bike rides in which thousands of bicyclists turn out for a ride through major city thoroughfares to show that the city belongs to bicyclists, too, and not just cars.

In Baltimore, the Community Greens project helps neighborhoods turns their back alleys into commons, by gating them and turning them into shared green spaces.

I love the story of how Sao Paulo, Brazil, a city of 11 million people, banned all outdoor advertising. An amazing idea. And in Porto Allego, Brazil, the city pioneered the process of "participatory budgeting," in which city residents play a direct role in setting priorities for city government spending.

Many of you may have heard about the Stuttgart 21 project and the public protests. Niombo Lomba from Stuttgart Greens will talk more about this remarkable protest of commoners that has actually propelled the Green Party into a major electoral victory, and the Greens now leads a coalition government for the first time in any German state.

I don't think we can ignore the promise and the threat of digital technology in how cities are designed and run. Adam Greenfield, the founder of a New York City consulting firm called Urbanscale, has warned about how public urban spaces are starting to get digital sensors that can invade our privacy and disrupt public life, mostly for private, commercial purposes. The steady advance of technology is starting to make billboards, buildings, traffic barriers and other urban infrastructure "declarative objects" – in the sense that they have digital sensors that are connected to electronic networks. Some of these can be benign, as in the Tower of London's Twitter account, which says, "I am opening at such-and-such a time...."

But other digitized objects are frankly anti-social. There are now subway billboards that use hidden cameras and software that claim to detect the age, gender and ethnicity of people walking underneath them, and even to assess – via light beams to eyeballs – whether people are looking at the billboard. The billboard draws value from off the street as people walk about the life, sucking up data for advertisers to analyze.

There are now "gendered vending machines" in Japan that have embedded cameras. Using software to guess the age and gender of the potential customer, the machine will change the list of beverage products on its hi-res touch-screen. It's all about on-the-fly customer profiling and market segmentation.

The point is, urban infrastructure is starting to generate data streams that are fed into networks controlled by advertisers, corporations and government. So who should own this data? The obvious answer is, the people. The data should be treated as public goods that everyone should have access to. Greenfield warns that "we have yet to develop etiquettes and protocols" for governing digitized public spaces.

Here's another digital/urban issue: There is a little-known struggle going on right now over how a new series of "top level domains" on the internet shall be used by cities of the world. TLDs are the suffixes at the end of Web addresses, such as .com, .org and .edu. The international body that oversees TLDs is expected to announce a new series of TLDs in 2012 that would give cities their own TLDs, as in .nyc and .paris. The new TLDs could make it easier for people in the same metropolitan areas to find each other and interconnect on the Internet and in physical spaces.

The question is, who shall have authority to manage the city-based TLDs, and under what terms? Very few people understand that the anticipated city TLDs represent a world-changing urban infrastructure that could well be squandered through short-sighted privatization. In New York City, for example, the city's IT department has control over the TLDs, and they are currently planning to sell them off. So, for example, the address www.restaurants.nyc or www.bronx.nyc could be privately owned by the highest bidder.

But imagine if these TLDs were used to promote the economic, social and cultural life of the city, and treated as critical infrastructure of the same order as roads and bridges. For example, what if neighborhoods or regions of a city could have their own name connected with the TLD, as in Brooklyn.nyc? Then that website, operated as a commons, could be a portal into the businesses and civic spaces and resources of that neighborhood. www.brooklynlibraries.nyc could give you a listing of all the libraries, and www.brooklynrestaurants.nyc could give you the restaurants, without your having to use Google and getting 50 million answers.

In essence, localities could claim their identities and governance on the Internet, which would have enormous ramifications for the governance of real spaces in neighborhoods and cities. Fortunately, we have a great pioneer to emulate in this regard – the City of Linz, Austria, which has long been at the forefront of civic-minded uses of the Internet and digital technologies. It pioneered free wifi hotspots in dozens of places throughout the city, for example, and let everyone have free email service for non-commercial purposes.

A few months ago, Linz announced that it wanted to create a regional information commons. Linz Open Commons is an attempt to build a technological and policy infrastructure to enable easy, cheap sharing of information – from government-wide use of open source software to open street maps and open data platforms, to open educational resources and the use of Creative Commons licenses. The City sees this initiative not just as a civic initiative, but as an economic development initiative.

The Commons & Citizenship

This brings us to the healing logic of the commons for us as individuals. Cicero had a great line: "Freedom is participation in power." The commons decentralizes power and invites participation. People are invited to contribute their creativity on a decentralized, horizontal scale. They don't need to remain supplicants to the elites who manage centralized hierarchies and expert-driven institutions, whether of business or government or nonprofits.

Self-provisioning through the commons is empowering. It helps to reduce social and economic inequality. It helps promote more responsible stewardship of resources. People have a real stake in the future of their resources. They aren't just disengaged consumers or citizens looking to "someone else" to deal with a problem.

The commons doesn't try to roll everything up into standardized, commoditized, fungible units that can then be centrally controlled – the way that global markets and governments aspire to do. Rather, the commons is all about re-embedding market activity within a social community so that resource management can become socially responsive and accountable. It is about making the management of ecological resources more sustainable.

As I said, the commons is not a magic wand. It's simply an opening, a pathway, a scaffolding to build anew. Indeed, a commons works only if there are commoners participating in

it. Or as the great scholar of the commons historian Peter Linebaugh puts it, “There is no commons without *commoning*” – the social practices and ethics that sustain a commons. The commons is a verb, not just a noun. It is not something that we just hand off to politicians and bureaucrats. You could say that commoning is a new species of citizenship and a new ethic.

There are several reasons why we should not regard the commons as some utopian agenda or faddish political ideology.

First of all, it is not an ideology; it’s a *worldview and sensibility* that is ecumenical in spirit and analysis, if only because no two commons are alike.

Second, the commons has a *venerable legal history* that stretches back to the Roman Empire and the Magna Carta, which is highly instructive for our times...

Third, it is a serious *intellectual framework and discourse* for critiquing market culture and rediscovering human cooperation and community.

And fourth, it consists of a rich array of successful *working models* that in many instances are out-competing the Market and out-performing the State. (It’s notable that even the CIA has established its own Intellipedia for its internal purposes.)

As this suggests, the commons has a lot of promising things going for it in a time when the old models are clearly not working. It offers a powerful way to re-conceptualize governance, economics and policy at a time when the existing order has reached a dead-end. It offers a way to revitalize democratic practice at a time when conventional representative democracy is terribly dysfunctional, often corrupt and highly resistant to reform. It shows that societies can actually leverage cooperation, self-restraint and stewardship to help solve problems.

You might say that our basic challenge is to rediscover commoning. “The allure of commoning,” historian Peter Linebaugh has written, “arises from the mutualism of shared resources. Everything is used, nothing is wasted. Reciprocity, sense of self, willingness to argue, long memory, collective celebration and mutual aid are traits of the commoner.”

What I find reassuring is that this is not just an idle fantasy. It’s happening right now. Around the world. In countless different milieus. And with new convergences and open-ended synergies.

When theory needs to catch up with practice, you *know* that something powerful is going on. At a time when the old structures and narratives simply are not working, and exciting new models are spontaneously emerging like green sprouts through the concrete, the commons gives us a reason to be hopeful. And we very much need some good news and reasons for hope.