

Reclaiming the American Commons Remarks by David Bollier

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Welcome to the New America Foundation's conference on reclaiming the American commons.

Before getting underway, I want to thank a number of my friends and colleagues at the New America Foundation: Michael Calabrese, Director of the Public Assets Project, who helped bring off this conference and consulted with me on my report; Ted Halstead, president of the NAF, and Steve Demmons, vice president of New America, both strong supporters of this project. I am also grateful to the Surdna Foundation of New York City for its support of my report, and to the Turner Foundation and the Ford Foundation for its support of the Public Assets Project at the New America Foundation.

Thank you, also, to the participants on today's three panels, whom we will introduce individually soon. Some of you came from quite a distance. I am grateful for your participation.

I am pleased that so many people turned out for today's conference. Personally, I think there is a broad interest in the idea of "the commons" in America today - the idea that the American people must reclaim greater control over the assets that we already own ~ and reclaim the structures of governance that manage our lives and resources.

I also believe that there is a great deal of interest in the political sovereignty of "the people" - in the sense of "We the people" - as distinct from the categories of the market and economics. Thomas Frank's entertaining new book, *One Market Under God*, talks about "market populists" such as George Gilder, Bill Gates, *Wired Magazine* and *Fast Company*. They are among the cheerleaders saying that the market is a populist, egalitarian place that represents and defends the "little guy" more than our own government, not to mention nonprofit institutions.

This is perhaps an inevitable, seductive myth in these times of market triumphalism. But however empowering the new Internet marketplace, and however deficient our government is in many respects, I believe this proposition is just untrue. The problem is, people haven't yet found an overarching language for expressing our sovereign interests as a people beyond anything now represented by politicians, government or business. Happily, the idea of the commons allows us to do just that.

Today's conference is an attempt to build a rough scaffolding for understanding the many commons in American society. We will be looking chiefly at two things - one, a new analytic framework of the commons as applied to diverse areas of public policy and American life. And two, we will be looking at a number of specific commons that are being abused. Our nine panelists will talk about a number of areas in which business interests are appropriating our public assets ranging from public lands to the Internet to nature to public schools and cultural spaces.

In my remarks, I will focus chiefly on the first item, the overarching analysis, the framework for understanding this thing called the commons. Then, for the rest of the day, the three panels will focus on the dynamics of the specific commons about which they are knowledgeable.

Let's start by saying that there is a huge variety of commons in American life, even in a

nation with the most muscular market system in the world.

Not many Americans realize that they own nearly one-third of the surface area of the country as well as the mineral-rich outer continental shelf. Huge deposits of oil, uranium, natural gas and other mineral wealth can be found on public lands, along with rich supplies of timber, grazing lands, and fresh water. A great many of these resources are leased or sold for below-market rates, while being environmentally abused in the process. Anna Aurilio of U.S. PIRG and its Green Scissors Project will speak to these issues.

The American people also own incredibly valuable assets such as the electromagnetic spectrum, which broadcasters have used for free for decades, giving very little in return in terms of money or public-interest programming. In fact, political candidates spent between \$700 and \$1 billion in the 2000 elections simply to buy access to the airwaves we already own! Now the broadcast industry has captured another 6 megahertz of so-called digital spectrum - in addition to their existing spectrum - a spectrum grab worth as much as \$70 billion - an appropriation with serious consequences for American competitiveness as the robust wireless industry tries to compete with Japan and Europe.

The American people also own important types of federal R&D, much of which is simply given away for free or at discount prices. The pharmaceutical industry is one of the major beneficiaries of federal R&D. The drug companies let taxpayers shoulder the huge risks and costs of inventing most breakthrough drugs, including some of the AIDS drugs that we're hearing so much about these days. Then the government gives drug companies exclusive patent rights to the new drugs - and the companies graciously agree to sell them back to us, or to African countries, for exorbitant prices.

Many parts of the aerospace industry, the computer industry, and others, have also been built on the back of research, innovations and resources sponsored by the federal government - much of which is later privatized with modest or no returns on investment accruing to taxpayers.

The U.S. Government is one of the most important publishers of authoritative research, database collections, technical reports and court rulings. Here, too, valuable resources that our tax money has created are often given away on the cheap to information vendors who then re-sell them for high prices. Alternatively, many of these taxpayer-sponsored resources are locked up and not made readily available, notwithstanding the ease of publishing them on the World Wide Web. While most Members of Congress have managed to create their own websites to publicize their press releases, there is still no easily searchable database of Members' voting records based on a bill's name, subject or Member's name.

The commons must also be understood as our democratic culture in its broadest sense. Our civic institutions, the broadcast airwaves, our public spaces, the public forums in which we can talk to each other as a democratic people - these, too, are under siege by market interests which are trying to privatize and commercialize them. This can be seen not just in the wall-to-wall commercialism of broadcast television, with hardly any airtime for serious public affairs journalism, local programming, or educational programming. We also see the commercialization of our culture in the many new initiatives to turn the Internet into a pay-per-use vending machine and extend intellectual property rights to unprecedented new extremes.

Some examples: At the Summer Olympics, the Olympics Committee claimed property rights in news of sporting events, raw tabulations of the results of competitions and even real-time diaries of Olympic athletes that hometown newspapers wanted to publish. Many information vendors are seeking to privatize the ownership of public facts, as contained in database compilations - a move that could privatize control over stock quotes, baseball box scores, and other collections of facts.

Disney may have made a lot of money privatizing folk stories from the public domain such as Snow White, Pinocchio and Br'er Rabbit — but that doesn't stop them from trying to extend the term of copyright protection so that Mickey Mouse won't enter the public domain in 2003, after 75 years of taxpayer-enforced copyright protection.

The market enclosure of the cultural commons can also be seen in the commercialization of the public schools - through the pseudo-educational Channel One, through brand name products in textbooks, and through school districts selling Coca-Cola and other junk food vendors exclusive access to captive audiences of school children. This, at a time when childhood obesity and diabetes are becoming serious public health problems.

The commercialization of culture is in fact reaching almost Lenin-esque proportions as sports stadia, parades, city festivals, the football bowls, subway stops and Broadway theaters are being renamed after corporations and bestrewn with ubiquitous corporate logos. The marketization of American culture is so far-reaching that thousands of citizens tried to sell their votes via websites in the 2000 elections, computer software can now slice out brief seconds of silence on the radio in order to save time and insert more ads per hour, and one of the most popular tattoos is the Nike swoosh - the branding of flesh. The latest rage is captive audience marketing which ambushes you at the gas pump, in the elevator, in the movie theater, and in the bathroom.

The enclosure of the commons, as these many examples suggest, is a wide-ranging political, economic and cultural phenomenon. Yet there are also a great many common underlying dynamics at work here. That, in fact, is why "the commons" is useful as an analytic framework. It helps organize and explain a wide diversity of phenomenon that otherwise are only seen in isolation - episodic outrages, not systemic problems.

So...What exactly do I mean by "the commons"?

The Vietnamese monk Thich Nhat Hanh has a nice phrase that encapsulates the idea of the commons. He said, "It takes thirty leaves to make the apple." It is our western conceit to focus on the apple. Many collective resources contribute to the creation of the apple — leaves, roots, the trunk, the orchard, the ecosystem. But we tend to overlook these. We fool ourselves into thinking that the collective resources that help create the apple are unimportant and expendable.

"The commons" is a concept that many Americans have trouble comprehending. We are so accustomed to thinking about the individual, and so focused on "property" as a tangible thing - this is mine! - that we have trouble understanding that some of the most important wealth we own is collective and social in character. We are so immersed in market categories and the almost theological catechism that it entails, that we fail to see the market as a social system that depends heavily, and inevitably, on the commons.

Learning to see and understand the dozens of commons in our midst maybe one of the preeminent challenges in our political culture. Even in high-tech America, home to the most robust market system in the world, the commons is everywhere - even if it is under-rated and much-ignored.

In many cases, the commons is barely defined as something of value, let alone as a resource with the kinds of legal definition and protection enjoyed by private property. Economic theory and public policy tend to take little notice of these neglected species of wealth, let alone mobilize aggressively to protect them. If anything, they regard the commons as "free resources" to be exploited as thoroughly as possible.

One reason that we don't really appreciate the commons as an important and viable arena for creating wealth and social stability is because of the famous metaphor - we've all heard it! - "the tragedy of the commons." A famous essay by Garrett Hardin published in Science

magazine in 1968 described how a scarce resource open to all comers would be depleted and left to ruin. He offered the example of herders sharing a common meadow. As long as every herder can enjoy direct benefits from over-exploiting the commons, while suffering only indirect costs, the commons will be destroyed by over-exploitation.

Hardin used the metaphor of the tragedy of the commons to argue against over-population. But soon the phrase took on a life of its own in public policy circles, especially among economists and conservatives, who used it as an all-purpose metaphor to denigrate community-managed property and to champion the efficiencies of private property regimes.

This idea of the tragedy of the commons has become almost a cultural truism - something beyond question. No one seems to take seriously the idea that the commons can actually work.

The myth that individuals can never cooperate to achieve shared ends has been buttressed by a vast economic literature on the prisoner's dilemma, which is essentially a formal, highly abstract game-theory version of the tragedy of the commons. The prisoner's dilemma uses a model of two prisoners locked in separate rooms and unable to communicate, who must make choices to maximize their self-interest. The basic dilemma is that each prisoner can reap a greater long-term benefit if both cooperate - but each prisoner has powerful incentives to cheat.

Another widely accepted argument against the viability of the commons is made by economist Mancur Olson in his classic book, *The Logic of Collective Action*, which, like the tragedy of the commons and the prisoner's dilemma, calls for us to surrender any romantic or idealistic hopes of cooperation working on any significant scale.

All these economic-minded critiques argue that cooperation is irrational and unlikely to solve collective-action problems. Elinor Ostrom, an Indiana University political scientist who is one of the leading scholars of common-pool resources, notes how they are used "to invoke an image of helpless individuals caught in an inexorable process of destroying their own resources," as if this dynamic were self-evident and beyond argument.

But, in fact, the tragedy of the commons and the prisoner's dilemma models in many instances are mere myths that we tell each other - comfortable narratives that do not actually describe reality. The tragedy of the commons does not take into account academic disciplines where professors openly share their research results with trusted colleagues, or blood donation systems that actually produce higher quality, safer blood than market-based blood systems, or Internet communities where cooperation is the norm and private profiteering is seen as anti-social. The American system of self-governance - a commonwealth - is predicated on the assumption that a diverse people can work together for the common good and not degenerate into an atomistic, competitive free-for-all that market economists seem to favor.

Garrett Hardin's essay might better have been called "The Tragedy of Open Access" - not really as catchy, perhaps, as the tragedy of the commons, but certainly more accurate. An "open access" regime exists when anyone can exploit the common resource without restriction or social penalty. But in many commons, there are informal rules, boundaries and social norms that effectively restrict over-exploitation of the resource - rules that are not necessarily formal or legal in nature. That is why commons are so confounding to the western mind. They are too social and cultural and historical in nature to be defined by a clear, universal set of rules.

Not only do many commons work quite well, thank you, but many commons, especially on the Internet, exhibit a dynamic that is totally opposite to that of the tragedy of the commons. It has been called the comedy of the commons by Yale law professor Carol Rose — "comedy" in the classical sense of the term of a happy outcome. The greater the number

of users, the greater the wealth that is created. This is also sometimes known as "scale returns" or "network economics."

The more people that use the Windows operating system, for example, the greater its value. The same with telephone networks or the QWERTY typewriter keyboard format. The comedy of the commons is one of the reasons for the dot-com gold rush of the past five years. Entrepreneurs desperately want to gain a proprietary franchise and control over the surplus value created by the comedy of the commons. That is what has motivated AOL to develop its Instant Messenger software and why it has created a "walled garden" in the Internet space. These sorts of privatization of the Internet commons are so worrisome because they threaten to squeeze out all the creativity and robust energy that can only occur in a commons.

Part of the challenge of reclaiming the commons is getting beyond the deeply rooted cultural prejudices and narratives that tell us, falsely that the commons is necessarily a tragedy. Not true! I'm not saying these dynamics never apply or that there is no such thing as free riders - just that they are not necessarily the general rule. There are, in fact, lots of highly successful, functioning commons in the world — local fisheries and irrigation systems, scientific disciplines, the community gardens of New York City, the Internet, even our democratic polity, for all of its problems.

Commons are diverse. There is not likely to be a unified field theory of the commons any time soon because commons are versatile and flexible. Each is defined by the details of the specific resource, the local culture, historical developments, the legal regime and the scale of operation.

Still, some general principles seem to apply in the most successful American commons. They include:

- * openness, feedback, and transparency. Think democracy and free software development;
- * shared decisionmaking;
- * a diversity of knowledge and perspectives within the commons;
- * a rough social equality among members of the commons;
- * environmental sustainability, a key goal of commons using natural resources; and
- * sociability in relations among members of a commons. Unlike the economic ideal of rational, acquisitive, utility-maximizing human beings, the commons sets forth a more humanistic, complex ideal of human nature.

A basic distinction needs to be made upfront - the two senses in which the commons can be understood. A commons can be understood as a tangible asset, but it can also be understood - indeed, often must be understood - as a social regime in which a defined community of stakeholders manage the resources they own directly.

This double meaning of the commons is confusing to some people because we don't normally conflate objects and property with social phenomena. But a review of a great many commons shows that they can in fact be both tangible assets and social regimes. Minerals and timber on public lands are physical assets - but those public lands are also the social assets of the American people. An academic community consists of both tangible property - buildings, labs, textbooks - but also of shared social values and commitments. The physical resources of online genealogical groups are virtually nonexistent, but its members nonetheless constitute a very robust and productive commons.

There is a third sense of the commons that I use, in which neither physicality nor social characteristics are key. What's important is the identity of the resource as separate and apart from markets. I call these commons frontier commons. These include the genetic structures of life, the folk knowledge that indigenous tribes have developed over centuries, the minerals and fish at the bottom of the ocean, and human consciousness itself -

basically, things that historically have flourished in an independent fashion, beyond the reach of markets.

Frontier commons include the human genome, which many companies are trying to "take private." They also include global water supplies, which some companies are seeking to commodify and sell on an open global market, just like coal or gold. Entrepreneurs are trying to lay claim to vast bodies of fresh water in Canada, Scotland, Alaska and elsewhere, and then shipping the water in tankers, pipelines and even floating plastic bags to Saudi Arabia, Spain, Morocco and other thirsty areas of the world. If widely implemented, not only will the natural ecology of the northern countries be disrupted, but the inequities that result when the market replaces a common right is also something to be alarmed at.

For centuries, frontier commons have not been regarded as even related to the market, but as domains unto themselves. But now, technological advances and market expansions are trying to annex these frontier commons and make them subdivisions of the productive apparatus of the global marketplace. This may or may not be good, but it's a conversion of the commons that at least ought to be discussed.

A golden thread that runs through much of my report - and any discussion of the commons - is: What should be propertized - and what should remain a commons? It is not always self-evident whether public forests, for example, should be open to market exploitation at all, or whether they ought to be set apart from the market in order to generate their own kind of wealth as a unique commons of nature - and not a fungible commodity. If they are to be sold to the market, public forests should at least command fair market prices. But there are also good reasons why forests and many other resources - say, global water supplies - or the human genome - or the names of Boston subway stations - should not be sold at all, even to the highest bidder.

Why? Well, that's a discussion we need to have - one that doesn't happen often enough. We need to realize that nature does, in fact, have its own sovereign needs - and that there are consequences for our democratic culture and identities when anything, including legislatures, can be marketized. We need to realize that the loss of the public domain has consequences for economic innovation, freedom of speech and artistic creativity.

Given our limited appreciation for the commons and its benefits — which are often intangible, social and long-term ~ the marketization of a commons is rarely a thoughtful, informed choice. It is often a coercive act pursued by those who stand to make money. The appeal of cold, hard cash always seems to trump the thirty leaves that it takes to make an apple.

I found a great deal of help from a book by law scholar Margaret Jane Radin called *Contested Commodities*, which explores what it means to commodify something. Why do we consider it unacceptable to sell sex, babies, body organs, legal rights and votes? Why are certain rights with which the Creator endowed us "inalienable rights," as Jefferson so memorably put it? According to Professor Radin, some things should not be alienated - converted into saleable property and put on the market - because they conflict with our shared visions of "human flourishing." To marketize them diminishes the resource and diminishes us, as people.

The problem is, nowadays the market itself is seen as the apogee of human aspiration. How else can we explain the Fox TV special, "Who Wants to Marry a Millionaire?" -- or the eagerness of some people to auction off the ova of some fashion models on eBay? Extreme cases, true, but revealing symbols of the Zeitgeist.

The idea of what should be alienable and inalienable is an important topic to bring up -- because we are in the midst of a great wave of market enclosures of the commons. The idea behind enclosure is that it is perfectly all right to alienate for market purposes whatever we choose. It's the idea that our deepest, most cherished and intimate values as

human beings - and nature, and space, and the human genome, and virtually anything else — can be strip-mined for commercial gain. In America, we have a name for this dynamic. It's called "progress."

One of the key themes of my report is that markets are overrunning dozens of commons in American life, alienating things that should not be alienated for market use. I call this the enclosure of the commons, an idea drawn from the enclosure movement in English history, which occurred at various times from the late 1400s through the Industrial Revolution.

In the middle ages and at the dawn of industrialism, arable lands and forests were unfenced and communally managed. Peasants collectively owned rights to large portions of meadow, heath, moorland and forests. They used these commons to grow crops, feed geese, sheep and cows, collect firewood and peat and cultivate beehives and fruit trees.

As the landed classes of England began to realize that there was good money to be made by developing common lands, they began to press Parliament to allow them to seize the lands, justified by the need to "improve" them. New breeding methods for sheep were making wool production more profitable, and the export market for wool was booming. Throughout the 1700s and 1800s, Parliament passed some 4,000 acts that authorized the seizure of seven million acres of common lands - open fields and woodland that once belonged to commoners. Common resources that were once managed by the local community were converted into raw commodity feedstock for a vast export market.

The enclosure movement - along with other changes in the Industrial Revolution - ushered in a host of technologies that were miraculously productive. They also promoted the emancipations of liberal democracy and individual rights. But they also unleashed brutal social exploitation, neglect and inequity, contributing to the urban squalor documented with such skill by Charles Dickens. Peasants, laborers and poor were left to fend for themselves in a wage-based economy that had no place for them, even as the moral economy of the village was swept aside.

Enclosure irrevocably changed the character of the commons — and the stability of the communities that depended upon them. It also introduced gross inequalities, as the landed classes acquired more and more land. A great many of those great English mansions seen in "Brideshead Revisited" are monuments to the exploitation and inequality wrought by the enclosure movement.

Karl Polanyi, the economic historian, calls this the Great Transformation. "Instead of the economy being embedded in social relations," he wrote, "social relations are embedded in the economic system." In this sense, the British enclosure movement is a metaphor for our time. Marketplace values are increasingly supplanting our shared moral and social norms. While the result may be greater productivity and efficiency ~ at least in a short-term, privatized sense, as measured on someone's parochial bottom line -- it is often a very narrow gain at the expenses of the public good over the long term.

What's more, enclosure entails a profound conversion. Resources that were once shared, and social and democratic in character, become more exclusive, based on one's ability to pay. This can be seen, for example, in the publishers' trade association calling the public libraries copyright "pirates" - an attempt to wipe out a vehicle for free and open access and replace it with market-based price exclusion and discrimination.

When enclosure occurs, resources that were once seen as inalienable and enjoyed on their own terms are monetized and commodified. This transformation allows business actors from outside that commons to more readily appropriate common assets, make them "liquid," and convert them into private profits.

Domains of life that once operated according to ecological principles ~ or stable community values — or important democratic norms - are made to operate according to strict market principles. This frequently means the monetization of all values, a strict evaluation of "success" solely by financial terms - the famed bottom line ~ a more regimented kind of creativity, and shorter time horizons in planning and investment.

I'm reminded of a chilling headline from The New York Times - "Selling Evolution in Ways Darwin Never Imagined," which describes how scientists are experimenting with "directed evolution." Directed evolution seeks to achieve in weeks what previously took millennia. No reports yet on how the other species of the world or the ecology will respond to the laboratory mutants coming their way.

Enclosure has another impact: It can also impose new limits on citizen rights and public accountability, as private decisionmaking by corporate actors supplants the open procedures of our democratic polity.

Consider how ICANN - the Internet Corporation for Assigned Names and Numbers, which manages domain names - has essentially supplanted the open, democratic procedures of government. A nonprofit chartered in California now manages the domain name system that the U.S. Government created, which has tremendous implications for public policy - free speech and privacy, for example - as well as huge economic returns.

Or consider how fabulously complex technologies - bioengineering or desktop operating systems - allow companies like Microsoft and Monsanto to skip above the heads of government oversight and enclose markets that would otherwise remain open and innovative.

Enclosure can even harm business itself - which is why standing up for the commons is not tantamount to bashing business. The software industry now find itself grappling with so many patents on the basic building blocks of software design that it must engage in expensive and complex cross-patent licensing deals in order to move forward. Legal gamesmanship has supplanted engineering innovation. It's gotten so bad that the industry is reportedly considering establishing a patent pool - a commons - in order to stimulate greater innovation.

The title of this conference is "Reclaiming the American Commons" - so let me talk for a minute about some of the strategies that can help fortify and protect the commons from market enclosure.

I see an important role for government to play, and important citizen strategies for creating new voluntary social institutions that can advocate for the commons, or even serves as a gift economy or commons.

Government is the steward of the public good, but that public good is not simply a matter of individual rights. It also entails the sovereign interests of "the people" as a whole. Certain resources actually have greater value when they belong to an entire community and not just a few individuals. The national parks, the Internet, the regulatory apparatus, government R&D and many other resources all yield greater returns from being public resources managed for all, not private resources catering to a few.

Here are a handful of ideas for how government can help protect and invigorate the commons:

1. Structure markets to allow a commons to emerge and flourish. Government policy has a great deal to do with defining who can compete in the marketplace and on what terms. This amounts to creating a social and ethical commons for market activity. Government in effect declares, "All transactions shall abide by certain minimal levels of safety, fair play,

information disclosure, etc." Some of the healthiest markets became that way because of extensive public sector involvement in setting rigorous ground rules and providing ongoing scrutiny. The financial markets are a prime example. Few sectors of the economy are more tightly regulated - or more healthy as a result.

Markets also flourish when government establishes a framework of fair and open standards for competition. When the proprietary standards of AT&T in the telephone industry, and IBM in the computer industry, were loosened and made open, competition surged. Or consider the generic drug market, in which commonly owned drug compounds are allowed to compete with proprietary versions once their patents have expired. Immense public benefits have resulted - with little net effect on the proprietary industry's R&D expenditures.

2. Create stakeholder trusts that pay dividends to all. One of the more imaginative and effective ways that government can build new commons is through stakeholder trusts that give all citizens a personal stake in public assets. Perhaps the most successful stakeholder trust has been the Alaska Permanent Trust, a state-run investment savings account that pays equal annual dividends to every Alaskan citizen. Created in 1976, the Fund is a public trust for oil revenues from drilling on the state's North Slope. With some \$27 billion in assets, the fund is among the 100 largest investment funds in the world. In 1999, it generated \$1 billion in dividends for the state's residents, or about \$1,770 per person.

Another intriguing idea is the Sky Trust proposal that would give all Americans a financial stake in the "scarcity rents" that polluters would pay for being allowed to emit carbon emissions into the atmosphere. Instead of the government just giving away emissions permits to polluters, the Sky Trust proposal would auction a limited number of pollution permits - and all Americans would receive dividends from the Trust in equal shares. Brian Dabson will have more to say about the Sky Trust on the first panel.

The idea of a stakeholder trust is also being explored for giving Americans some return on their ownership of the electromagnetic spectrum, which broadcasters and wireless companies are so eager to use. Michael Calabrese of the New America Foundation will have more to say about this on the third panel. Another stakeholder trust idea is the dot-us proposal that a number of public interest organizations are pushing. Brian Kahin, Director of the Center for Information Studies at the University of Maryland, will have more to say about that.

3. Stop the giveaway of taxpayer assets. This is a disarming simple idea, but one that requires significant changes in our corrupted political system. We need to stop the scandalous surrender of our mining rights, the logging of national forests for a fraction of its market value with huge taxpayer subsidies thrown in, to boot. We need to stop the cheap leasing for federal rangelands for cattle-grazing, which not only depletes the U.S. treasury but also the fragile environment of the West. We must root out the slippery accounting methods for oil leasing on federal lands.

Beyond such acts of government, the biggest challenge we face maybe building voluntary organizations that can help protect the commons. Commons usually don't just happen. They need well-designed organizational structures and legal and cultural support.

Some protections can come through innovations in private law. For example, one reason that Linux software was able to emerge out of nowhere and become one of the most popular server softwares around - more than 30% of the market right now - is because of the GPL, or General Public License, sometimes called "copyleft." The GPL is a contractual provision that requires that any new source code will remain free and available to anyone in perpetuity. The GPL guarantees that the creative energy committed to building Linux by thousands of programmers around the world, won't be dissipated or appropriated by private players

Professor Larry Lessig of Stanford Law School has proposed an Intellectual Property Conservancy, along the lines of a land trust, in which people will give their creative works to the Conservancy, stipulating that it remain in the public domain. I'm sure there are other legal innovations of this sort to explore.

Another way to protect the commons is to try to create local commons for local resources. Just as fishermen in Maine, cattle ranchers in northern California, and users of the Edwards Aquifer in south central Texas have created local governance regimes for managing "community property," so other such models should be explored. The founder of the VISA system, Dee Hock, has in fact created a new organization called Terra Civitas, to foster the creation of new commons on a global basis.

It's also possible to develop new vehicles for shared ownership. The cooperative movement is a venerable example of this, but there are also examples such as ESOPs - employee stock ownership plans and community trusts - that allow ownership to be shared, with positive results. The Green Bay Packers are a stellar example of "participatory capitalism." Community ownership of the team has resulted in consistently sold-out games, a rousing community spirit, and no threats that the team will suddenly leave town or shake down the city government for tax breaks or subsidies.

Finally, for now, the Internet is making possible all sorts of new vehicles for sharing and collaborating. A commons of users can be created without them necessarily being owners. No one "owns" the Linux software in a strict sense; it is a collaborative creation owned by everyone. Online sharing not only fosters a greater sense of connection among people, it taps into a kind of deep community knowledge. That's why Linux is so powerful. In the free software community, there's a saying that "with enough eyes, all bugs are invisible." The Zagat restaurant guides are considered so reliable for precisely the same reason; a deep community wisdom is tapped into and made public. This dynamic is also why hundreds of online communities are so robust and vital - all without the mediations of the market, which asserts that financial rewards are essential for anything valuable to be created.

Our democratic culture and science are vigorous and creative for the same reasons. In general, they presume open and free sharing and collaboration. As Norbert Weiner, the greater computer scientist, put it, "The value of a piece of scientific work only appears to the full with its further application by many minds and with its free communication to other minds." Market interventions in the commons of academia are having many detrimental effects on this basic need of scientific inquiry, as Jennifer Washburn will explain in the second panel today.

Why is it useful to talk about the commons? Why should this conversation continue? At a time when Americans are beginning to believe that we have little in common and can accomplish little when we work together, talking about the commons is a way of resurrecting the idea of commonwealth - and the civic culture that our nation desperately needs. Numerous pundits, politicians and commentators across the political spectrum agree on this need.

Talking about the commons also helps us identify the assets that we collectively own - but which have slipped from our control. I find it astonishing that our government has not even compiled a comprehensive inventory of common assets - the prerequisite for any accounting of lost revenues, mismanagement, or lasting harm to the assets. Re-capturing control and rigorous stewardship of our public assets can yield huge new returns to the public treasury and serve all sorts of public purposes - without raising taxes!

Talking about the commons is also a new way of reasserting public control over public resources without triggering a false debate between the market - "good" - and government regulation - "bad." There are many more options in protecting the commons than regulation alone - stakeholder trusts, participatory ownership, voluntary institutions for

sharing and collaboration, new legal principles that allow people to maintain the commons in different policy arenas, etc.

Finally, talking about the commons helps us identify and describe the values that lie beyond the marketplace - the values that the neoclassical economic matrix fails to describe or appreciate. A language of the commons helps us develop a more textured appreciation for the importance of civic commitment, social equity, cultural and aesthetic concerns, and ecological needs. The commons insists that citizenship, humanistic values and democratic traditions be given an equal or superior footing vis-à-vis the economic categories of the market. This is a vital first step to rehabilitating public policy that is largely captured by market orthodoxies.

What's also attractive about a discourse of the commons is that it can cut across traditional political and ideological boundaries. There is some great potential for some new and interesting re-alignments in our political culture. I've seen folks like Phyllis Schlafly and Senator Shelby work with Ralph Nader and mainline liberals to fight commercialization in the public schools. Senator John McCain and columnist William Safire have been big critics of the giveaways of the public's electromagnetic spectrum to broadcasters - an issue that has galvanized many Democrats and media reformers for years.

America has a long history of innovation in the public stewardship of public resources - and in the fulfillment of the core ideals of democracy itself. Our constitutional system is unparalleled for allowing the common man and woman's energy, wisdom and sense of fair play to come to the fore - and, in time and after struggle, prevail. It is time to recognize ~ and resurrect ~ that spirit.

Welcome to our conference. I hope it is instructive, inspiring and catalytic.