

Building the Electronic Commons:

A Project of the Democracy Collaborative

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(This report has been written by Peter Levine (<http://www.peterlevine.ws/>) on behalf of Harry Boyte, Lew Friedland, and Robert Wachbroit.)

Background

In January 2000, the University of Maryland's Civil Society Initiative (now the Democracy Collaborative) sponsored a meeting on "The New Information Commons" at Wingspread, which is the educational conference center of The Johnson Foundation in Racine, Wisconsin. This conference was funded by the Haas Foundation, the Annie E. Casey Foundation, and a grant from the Civil Society Initiative's core funds. It was organized by Harry Boyte (a University of Minnesota professor, former field secretary in the Civil Rights Movement, and director of the Center for Democracy and Citizenship) and Lew Friedland (a communications professor at the University of Wisconsin-Madison and the director of the University's Center for Communication and Democracy).

The conference brought a distinguished group of scholars and practitioners together to ask: How can new information technologies be used to build community, enrich public life, educate for citizenship, and revitalize democracy, rather than fragment community and erode the commonwealth?¹ Among their recommendations was the creation of a new national institution called the “Public Telecommunications Service” (PTS). Participants were aware that National Public Radio and the Public Television Service had been conceived at previous Wingspread conferences that had addressed the failings of telecommunications in earlier decades. Those who met at Wingspread in January 2000 believed that the new electronic media, especially the Internet, now required an equally bold intervention.

To begin exploring the creation of the PTS, the Civil Society Initiative was awarded a grant by the Ford Foundation to fund a set of PTS-related activities, among which were:

1. A series of consultations with leading information technology experts, scholars, and practitioners;
2. A conference at which the parameters of the proposed PTS would be developed;
3. An in-depth written “blueprint”/proposal for establishing the PTS;
4. A pilot project in St. Paul, Minnesota, and
5. A focused educational and advocacy effort aimed at policy makers in Washington, D.C. to begin to place the creation of the PTS on the federal agenda.

On the basis of the Wingspread meeting, Boyte and Friedland advised both the Al Gore and John McCain presidential campaigns. They also worked at the grassroots level. Boyte’s Center for Democracy and Citizenship organized kids in the West Side of St. Paul, Minnesota, to build an experimental “information commons” that can now be visited at

www.stpaulcommons.org. This is both a pilot project for the PTS and also an important building-block of the national organization.

Most of the St. Paul participants are young Hmong and Latino immigrants who call themselves the “Community Information Corps” and hope to join with people in other communities to make their Corps a national movement. In St. Paul, they are building a database of their neighborhood’s “learning opportunities”: everything from formal classes at the high school to an elderly Mexican immigrant in a retirement home who is willing to teach traditional Indian medicine. Perhaps using a computer in the public library, citizens can enter a word that describes their interests, and see the local learning resources displayed on a map.² The same Website also has a neighborhood history, news articles, and poetry—all produced by young people in the Corps. We are actively planning similar projects in Wisconsin and Prince George’s County, Maryland, working with the state universities in those jurisdictions.

Friedland and Boyte are guided by the distinctive philosophy of the Center for Democracy and Citizenship: the “public work” approach.³ They assume that:

1. Ordinary citizens have enormous capacity to create things of public value by working together. What they create is our “commonwealth”—a concept that dates back at least four hundred years.⁴ Contributing to the commonwealth is rewarding and productive, and people *want* to participate.
2. However, opportunities for ordinary citizens to do public work have been reduced over the last century. This is partly because professionals and experts have taken over many traditional duties of citizens, from managing towns to setting educational policy to lobbying. And it is partly because many civic functions have been privatized. For example, Americans often pay companies to provide neighborhood security or to watch their small children.

3. All that is left for citizens to do is to complain, vote, and volunteer. Volunteering can be valuable, but it is usually squeezed between work and family time. Moreover, conventional volunteering tends to mean direct, face-to-face service that does not change policies or institutions or grant much power to those who participate. At its best, public service is an aspect of our paid employment and our family life, not just an occasional act of charity.
4. Many people believe that all things of value are created either by companies and entrepreneurs or else (to a much lesser extent) by governments. They assume that markets and states produce a pool of goods, and all citizens can do is to fight over who gets what. Thus, in the prevailing view, “citizenship” equals political activity, and “politics” means nasty fights over scarce goods or privileges. In contrast, the public work approach begins with the assumption that citizens can *make* new goods through their collaborative efforts outside the market, for example by recycling, starting schools, or fighting crime. By creating new institutions and projects, people also gain political power that they can use to claim rights and benefits.
5. This win-win conception of politics is much more rewarding and sustainable than the zero-sum approach favored by people on both the Right and the Left; it causes less burnout, drives fewer people away, unites rather than divides communities, and inflicts less “collateral damage” on our civic institutions.⁵ Proponents of public work know that politics is always a tough business that generates controversy and bitterness, but they argue that it can also be creative.

The public work approach is not just a philosophy that guides some small-scale experiments; it’s also a profound challenge to the political Left and Right in America. Public

work rejects the common assumption of the Left that social problems normally result from the maldistribution of goods, which must be remedied by governments. But public work also rejects three common assumptions of the Right: that markets are the best arenas for human interaction; that the good life involves choosing and consuming private goods; and that intractable social problems are best addressed by volunteering and philanthropy. Instead, public work values the role of ordinary people in working together to create new goods and solve problems.

While Boyte, Friedland, and their colleagues were doing public work with the Internet and young people, there were some parallel developments in Washington, DC. A loose network of Ford-funded groups lobby or litigate for causes such as free speech, privacy, media diversity, universal Internet access, or educational television. In the 1990s, they came together as the Digital Media Forum (DMF) to compare notes and strategies. Many members felt that they were losing most of their battles before Congress, the federal courts, and the Federal Communications Commission. Part of the reason, they thought, was that their corporate opponents had a few big, powerful ideas about the virtues of unregulated commerce. Some DMF members hoped that perhaps the emerging idea of an “information commons” could be an intellectual counterweight. But many felt that they could not define a “commons” clearly themselves, let alone communicate the concept in a compelling way to citizens and policymakers.

A third development was deep concern about the seamy side of the Internet, felt by political leaders of all stripes. Pornography, computer viruses, gambling, and hate groups were evident online. The Internet raised subtler worries, too—such as the possibility that Net users might become isolated from their families and communities or that they might only talk to others just like themselves online (which would undermine broad public deliberation).⁶ For those reasons and others, public officials as diverse as Senator John McCain (R-AZ) and Senator Joseph Lieberman (D-CT), former Representative Vin Weber (R-MN), Representative Zoe

Lofgren (D-CA), and Bush advisor Steve Goldsmith (or their staff) have either helped with or expressed support for the work that Boyte and Friedland began.

Meanwhile, grassroots civic activists across the country were using the Internet to promote public discussion or to develop and strengthen their local communities. To varying degrees, they saw privacy violations, software monopolies, and corporate exploitation of the Internet as threats to their work. Many of the best experiments had succumbed altogether under these pressures.

For example, in Charlotte, NC, a community computer network called “Charlotte’s Web” once offered free email and Web access to at least 6,000 people, including residents of public housing projects and homeless men. Hundreds of local churches and civic groups created pages for the Charlotte’s Web site with help from volunteer Webmasters. But private companies soon offered the same basic services (free email and Website hosting), and the *Charlotte Observer* started its own Web site devoted to “community.” Local government agencies decided that they no longer needed to fund Charlotte’s Web, since residents could get email accounts and Web hosting free of charge from the private sector. (They overlooked the role of Charlotte’s Web as a community association with accountable leadership, strong social bonds, and the potential to develop *new* programs and functions.) When government grants vanished, the bank executives on Charlotte’s Web’s board decide that it was no longer viable. The *Observer* offered to join forces and was rebuffed by the volunteers at Charlotte’s Web, who were suspicious of a corporate enterprise. But when Charlotte’s Web ran out of funds, the *Observer* bought all of its assets and canceled the free Internet access program. Gradually, the community-oriented, civic, and political aspects of the new commercial site (www.charlotte.com) have vanished. Today, it has nothing to say about local nonprofits; and there is no space for citizens to describe their own work. It is a glitzy, professional site, full of advertising. The remaining community activists

across the country watched the demise of Charlotte's Web and many similar projects, and they were worried.

A final development was taking place within public broadcasting, which faced an enormous opportunity and also a huge problem. The problem was a small and shrinking audience and an even smaller group of active participants at the grassroots level. The opportunity was a new allocation of free broadcast spectrum, airwaves over which digital signals could be sent. Instead of just transmitting one imperfect broadcast at a time, each public TV and radio station could soon transmit high-definition video; or broadcast multiple channels including, video, sound, text and data; or create an interactive system that might look much like the Internet, except that it would reach everyone through their TV sets.⁷ Somehow public broadcasters wanted to use these new technologies to connect better with communities.

In June 2001, the Democracy Collaborative brought many of these stakeholders, plus foundation executives and academic experts, to Washington, DC to discuss the creation of the PTS, a new organization that would support citizens and communities in using the Internet for public purposes. In advance, Robert Wachbroit and I wrote and circulated a draft document describing one vision for this new institution (available at www.peterlevine.ws/pts.pdf). We proposed that the PTS would be a new, nongovernmental, nonprofit, democratically-organized, national association dedicated to building a cyber-commons. According to our draft document, the functions of the PTS would include:

- strengthening networks among existing grassroots groups;
- providing software, training, and financial support to these local affiliates;
- advocating favorable policies at the national and local level; and

- creating and managing a new public space online. This space would contain material generated by diverse nonprofit groups, which would run their own Websites, discussion groups, portals, channels, etc. But the whole space would be identified in some clear way (perhaps by means of a new top-level domain, .civ). Visitors would have confidence that the space conformed to public, democratically chosen norms and goals.

After reading the PTS draft, some of the invited stakeholders and experts sent written comments and criticisms. The draft and these comments formed the basis for a focused, two-day discussion. Participants were:

Michael Alexander Democratic Professional Staff Senate Government Affairs Committee	Moriba Karamoko Lead Organizer, Amos Network Jackson, Mississippi
Rob Atkinson Vice President, and Director Technology and New Economy Project Progressive Policy Institute	Fred Kent President Project for Public Spaces
Benjamin Barber Gershon and Carrol Kekst Professor of Civil Society at the University of Maryland and a principal of the Democracy Collaborative	Byron Knight Director Wisconsin Public TV
Bill Bonvillian Legislative Director Office of Senator Lieberman	Peter Levine Institute for Philosophy and Public Policy University of Maryland
Harry Boyte Co-Director, Center for Democracy and Citizenship Hubert H. Humphrey Institute of Public Affairs University of Minnesota	Karen Menichelli Executive Vice President Benton Foundation
John Bracken Program Associate Media Policy and Technology Team Ford Foundation	Kathryn Montgomery President Center for Media Education
	Beth Noveck Information Society Project, Yale Law School President, Bodies Electric LLC

Michael Calabrese
Director, Public Assets Program
New America Foundation

Jeff Chester
Executive Director
Center for Digital Democracy

Prof. Andrew Chin
University of North Carolina School of Law

Steven L. Clift
Online Strategist
[could not attend in person, but written
comments were circulated]

Prof. Steve Elkin
Department of Government & Politics
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John Flannery
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Rep. Zoe Lofgren (D-CA)

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Sociology
Director, Center for Communication and
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Professor William A. Galston
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Tom Kalil
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New America Foundation

Adam Clayton Powell III
Vice President of Technology and Programs
The Freedom Forum

Prof. Paul Resnick
The University of Michigan
School of Information

Lesli Rotenberg
Senior Vice President, Brand Management &
Promotion
Public Broadcasting Service

Andrew Shapiro
Founder and Chairman, GreenOrder,
Senior Advisor, Markle Foundation
Visiting Lecturer, Yale Law School
[could not attend in person, but written
comments were circulated]

Saundra Shirley
Telecommunications Specialist
American Library Association

David Silver
University of Washington
Resource Center for Cyberculture Studies

Sean Treglia
Public Policy Program Officer
The Pew Charitable Trusts

Prof. Ben Shneiderman
Computer Science Department
University of Maryland
[could not attend in person, but written
comments were circulated]

Gigi Sohn
Executive Director
Public Knowledge

Robert Wachbroit
Institute for Philosophy and Public Policy
University of Maryland

These participants reached a clear consensus in favor of creating a new institution roughly along the lines we had proposed. Some of the specific ideas described in the draft outline generated opposition, so they were tabled. (A revised plan is described below.) But something else emerged from the Washington meeting and subsequent conversations: a distinctive understanding of the “commons” that underlies and justifies our concrete plan.

The most prominent current theory of the Internet as a commons has been developed by law professors Yochai Benkler, Lawrence Lessig, and others. Theirs is a valuable argument that we endorse to a considerable extent. However, we also disagree with it in some important respects.⁸ In the next sections, I will describe their theory, note some important limitations, and then describe the alternative approach that we favor.

The Commons Debate

1. The Commons as an Un-Owned Resource

According to Benkler and Lessig, a “commons” is something valuable that is not possessed or controlled by anyone—not by individuals, companies, or the government. It is un-owned, and therefore free for all to use, borrow, imitate, or alter. For example, basic scientific facts cannot be copyrighted or patented, so they are “free” in the sense that no one possesses them. In other cases, the individual goods in a commons may be subject to ownership, but the commons itself is an un-owned and uncontrolled context, institution, home, or source of these valuable resources.⁹ In the middle ages, for instance, some peasants had a right to collect (and then to possess) firewood from the forest near their villages. Technically, the forest belonged to the king, but it operated as a commons because no one had to pay or ask permission to use it. Today, the fishes in the deep blue sea swim in a commons, since anyone can pluck them out and eat them up. They are ownable, but the ocean is not.

Instead of saying that medieval forests and modern seas are un-owned or free, proponents sometimes claim that these resources are the “common property” of some group. For instance, residents of a particular village may have exclusive rights to enter and collect firewood from a wood, but no rights to change the rules, to sell their privileges, or to turn the forest into something else. Thus the wood is their common property, although in a particular sense. On a much larger scale, Earthtrust and other environmentalist organizations assert that “the living resources of the oceans beyond the jurisdiction of States are property held in common and in trust by mankind, for mankind.”¹⁰ This is legitimate terminology as long as we remember that a commons—in the Benkler and Lessig sense—is not intensively managed by citizens, nor by government officials on their behalf. Rather, the public, the community, or all of humankind exercises common ownership by *not* controlling this kind of commons or allowing it to be controlled, by leaving it “open,” or “in the public domain,” or “free” (“as in ‘free speech,’ not as in ‘free beer.’”).¹¹

A successful commons is appealing because it is valuable good that is not controlled by bureaucrats, experts, or profit-seeking companies. These agents and institutions are useful for other purposes, but avoiding them allows a greater diversity of uses and more active participation by ordinary people. In a successful commons (unlike a state), participation and support are voluntary, but the benefits are broadly dispersed. As we will see later, a commons must rely on cooperation and ethical norms if it is to survive, so it both reflects and generates “social capital” (habits and networks of reciprocity).¹² Finally, according to Lessig, a commons is a superb platform for innovation, since anyone can experiment with it and no incumbent interests can stand in the way. One reason for the remarkable flourishing of Western science since the seventeenth century was a new norm that scientific techniques and discoveries belonged in a commons for all to use.

But a commons is also highly imperfect. Individuals can abuse the forests or seas by taking excessive resources out of the common pool. Even those who want to act responsibly may not be willing to limit themselves if they think that others are abusing the commons. So it can take just one selfish or foolish act to set off a disastrous chain reaction. In a famous article from 1968, Garrett Hardin called this scenario “The Tragedy of the Commons.”¹³

Overuse cannot ruin things like scientific facts, because *employing* knowledge does not *destroy* it. As Thomas Jefferson noticed, “He who received an idea from me, receives instruction himself without lessening mine; as he who lites [sic] his taper at mine, receives light without darkening me.”¹⁴ Despite this advantage, an intellectual commons also runs into a serious problem. No one is paid for giving knowledge away, so why should anyone contribute? True, some scientists become famous by discovering new laws of nature and giving them to humankind, and sometimes fame brings financial rewards. But people who do hard, serious, esoteric research need a way to pay their bills, and giving away their discoveries is not usually a good business model. Elinor Ostrom calls this the “provisioning problem”—the difficulty of persuading people to contribute to a free, un-owned, common resource.

Most of the important commons of the past fell into two categories: natural resources like fisheries and forests, and intellectual resources like science and folk culture. The natural commons were subject to Hardin’s Tragedy; the intellectual ones suffered from Ostrom’s provisioning problem. Another way to look at both dilemmas is to say that a commons is always subject to “free riding”: people will try to benefit without doing their fair share, and the open structure of the commons will let them do so until everyone is fed up and the system collapses.

Because of these difficulties, until recently most theorists believed that we must either divide any valuable un-owned resource among private property-holders, or else ask the government to manage it. There were a few examples of functioning commons—the open range

of the West, Native American hunting grounds, certain Alpine meadows in Switzerland—but they were considered quaint holdovers. In America, most of our goods were privately owned; the rest were mostly state property. Socialists and capitalists disagreed about which way to manage many valuable resources (by state or private ownership) but they agreed that a commons was not workable. Only anarchists dissented.

Then along came the Internet, which actually seemed to work as a serious, large-scale commons of enormous value. In fact, as Benkler, Lessig and others have argued, the early Net was a functioning commons on multiple levels:

1. *At the content level*, the Internet was a commons because most Web pages, email messages, and bulletin boards contained free material that could be forwarded to friends or copied merely by clicking the right button of a mouse—which doesn't harm the original in the slightest. Some of this copied material was owned, in a legal sense. For example, *Playboy* held copyright to a lot of the pictures that circulated on the early Internet. But no one exercised effective control over the network, so property rights were mostly imaginary (for better or worse). Above all, people freely copied the styles and methods of other Internet users. As soon as somebody thought of putting a set of links at the bottom of her Web page, or using punctuation marks to create a smiley-face, or building a “shrine” to a supermodel, everyone else could immediately do the same thing. There were no proprietary business models on the early Internet.
2. *At the software level*, the Internet was a commons because most of the really important programs and languages were free and un-owned. For example, HTML is a language for writing Web pages. No one owns it; anyone can use it. You can even *change* it, as long as you persuade other people to use software that understands your modifications. Likewise, HTTP is a set of rules for transferring information between computers. Tim Berners-Lee

wrote the first versions of these rules, but he gave them away. And the majority of Internet server computers—the machines that store Websites—use Apache, which is free software written collaboratively by volunteer programmers, who began from an early version that the federal government developed and released without charge.

Apache is called “open source” software, because anyone who has relevant skills can read the programming code, figure out how it works, borrow pieces of it, and fix problems. In contrast, Microsoft Windows is “closed” because it has been translated into machine code that no human being can read. Apache is not only open source; it is also “free” in the sense that you don’t have to pay to use it. Open source and free software are different things; indeed, there is a lot of free software available on the Net that is not open. For our purposes, it is the open-ness of software that matters, not its zero price. Because its code can be read by programmers, Apache is available as a source of ideas, just like scientific knowledge. Even if someone tried to patent this software, he would not be *able* to keep people from exploiting it, since they could just read it.

3. *At the structural level*, the Internet was a commons because no one owned or controlled access to the network as a whole, and no one ran it. Anyone had the right to receive a unique number for a computer or other machine that was attached to the Internet; this was called an “IP Address.” To join the Internet, you just needed an IP address and the technical capacity to send and receive strings of numbers. You could then communicate anything—whether it was a photograph of the Mona Lisa, a bill, or a piece of hate mail—and the other machines on the network would help it get to its destination. They would ask no questions and charge no fees. The wires and circuits belonged to people or institutions, but the network itself was no one’s property. Most importantly, anyone could invent an entirely new use for the network and put it into use without asking permission. Those who designed the very simple

structure of the Internet did not envision listservs and message boards, Web pages and browsers, instant-messaging and virtual worlds. But they left the commons open to innovation, and a million great (and stupid) ideas were born.

4. The deepest layer of all was the *physical level*: the copper wires, fiber-optic or cable lines, and airwaves over which Internet messages were transmitted. Most of us are familiar with hooking up a computer to a telephone line. The line is private property. However, communications companies have been required to allow anyone to connect to their networks and to send any message to anyone for a fee that has nothing to do with the content of the message. Customers are charged only for the time and distance of the call. This structure is called “common carrier,” and it makes the telephone lines highly compatible with a commons. Users do not have to ask anyone’s permission to invent and deploy new hardware or software or to communicate anything they like.¹⁵ Unfortunately, cable lines and broadcast spectrum have always been more controlled (more about this later).

2. The Internet Commons is Vanishing

In describing the Internet as a commons, I have used the past tense. Much of the global Internet commons has been brought under corporate control since the early 1990s. For instance, many people originally looked at Web pages by using Mosaic, which was free, open-source software. But the Netscape Corporation borrowed Mosaic’s technology, developed a new version that was incompatible with it, and copyrighted its version as Navigator.¹⁶ Now most people browse the Internet using such proprietary software.

On a much wider scale, Microsoft has adopted a policy of “embrace, extend, and extinguish” toward open-source software. The company adopts free and publicly accessible programs, adds wrinkles that allow it to copyright a new version of the program, and then makes only its copyrighted version compatible with its other products, such as Windows. It has used

this strategy to undermine HTML; Java, the versatile programming language; and multimedia applications such as RealAudio, and QuickTime.¹⁷

Most valuable software and even many corporate Web pages and emails are no longer “open source.” It is technically extremely difficult to see how sites and programs are constructed, and their design is covered by patents or copyrights that make imitation illegal. Even the “business methods” used by companies such as Amazon.com have been patented (in violation of longstanding legal principles).¹⁸ Most of us no longer look at other people’s files using free and open-source software like FTP; instead, we browse the Web using patented corporate products, such as Microsoft Explorer, that have deliberate biases built into their design. People who want their Web sites to be seen must make them compatible with such products.

Companies are now using cable-television lines and the broadcast spectrum to transmit huge amounts of data per second, thereby allowing the World Wide Web to evolve from a library of text and images into an arena full of moving pictures and sound. This development is exciting, but it threatens the commons for three reasons. First, cable lines and broadcast channels are controlled by specific companies that have rarely been required to operate as “common carriers.” They can choose what material to transmit over their networks and can discriminate financially in favor of their own products. Second, the broadcast spectrum can connect small, mobile devices such as cellular telephones to the Internet. Such devices are much less powerful than computers, so the software they use must often be stored on a mainframe computer. Since the same companies that provide the mobile devices also own these computers, they will be able to steer their customers to certain services and Web pages. Third, the transformation to moving pictures will give an enormous advantage to companies with big production budgets. The local kid with a Web page will not be able to compete.¹⁹

There are legal solutions to some of these problems. The government could break up monopolies, regulate cable and broadcast companies as common carriers, and restore traditional notions of “fair use,” thereby giving individuals rights to imitate other people’s innovations. But the cyber-commons is also threatened by problems that transcend legal solutions. Individuals and companies have always controlled individual pieces of the Internet: particular Websites, servers, mailing lists, and portals. Through no one’s fault, some of these elements have become extremely valuable gateways to the rest of cyberspace. It is as if one medieval peasant somehow came to own the only pathway into a public forest. He could charge admission or decide whom to let pass, and the woods would no longer be a commons.

An example of a gateway is a search engine. As the World Wide Web grew to gigantic size, it became necessary to find desired files, and companies began to provide automated search services. As Robert Wachbroit writes, “Some search engines are commercial ventures in which sites must pay for inclusion in their database. Even if inclusion in the database is not for sale or the search engine does not employ a proprietary database, the ranking of results may well be for sale.”²⁰ The best engines avoid such disreputable practices, but they can only index select portions of the World Wide Web. (None cover more than 16 percent of the whole).²¹ They often use secret methods for deciding what to index, because if they made their criteria public, rival companies would steal their methods, and Web designers would figure out ways to take advantage of their biases. And even if they could index everything, they would have to display search results in some kind of order. A site that appeared first or third on a list of results would have a huge advantage over a site that appeared a million entries down the list. The first ten results that appear when you search for an important word occupy very valuable and limited real estate.

Meanwhile, just one entity can control any given domain name, and some names are more prominent than others. If you search for “politics” on a search engine, you are very likely to see www.politics.com high on the list of results, because most search engines pay a great deal of attention to domain names. Some search engines ignore domain names, but there are other advantages to names like www.politics.com; simple titles are easier to remember, to retype, and to spread by word-of-mouth. Thus the owners of www.politics.com and www.freedom.org have claimed precious pieces of the commons.

Another problem is the sheer expense of building an exciting Web page that can draw an audience. Today, most people and even most small organizations cannot produce exciting content. According to Jeffrey Chester (of the Center for Digital Democracy), the top four “digital media properties (AOL Time Warner, Microsoft, Yahoo, and Lycos) ... attract more visitors than the next 14 combined. And the top 10 companies (which include NBC, Disney, and Amazon) attract more visitors than the rest of the top 50 combined.”²² These sites are all created by professionals in the employ of major institutions: governments and companies. They tightly control their visitors’ behavior. For example, AOL makes sure that it can communicate en masse with all its customers, but its discussion groups are limited to 26 people. Therefore, customers cannot organize themselves against AOL.²³ In general, the company tries to structure the whole experience of “the Internet” for its customers. An official from Microsoft complains that AOL Time Warner “has erected a walled garden of captive users, and their strategy is to feed them Time Warner content.” But AOL makes the same charge in return, predicting that “consumers will use Microsoft software to view Microsoft content on Microsoft networks.”²⁴ The emergence of two or three huge “walled gardens” does not mean the utter extinction of amateur Web sites, independent discussion groups, and open networks. It does mean that most of the audience, energy, and investment will be taken out of the commons.

A more troubling example than AOL's portal is a venture called Talk City (www.talkcity.com), which presents itself as a public forum for discussing politics, relationships, and many other topics. The company prominently quotes Howard Rheingold's words from his book *The Virtual Community*:

The Technology that makes virtual communities possible has the potential to bring enormous leverage to ordinary citizens at relatively little cost—intellectual leverage, social leverage, commercial leverage and most important political leverage. But the technology will not in itself fulfill that potential; this latent technical power must be used intelligently and deliberately by an informed population.²⁵

This all sounds very democratic and inspiring. However, a company press release explains that Talk City uses a “new time-based advertising format called Chat Intermercials” as well as “Infochats (the chat equivalent of Infomercials), online market research, and custom Community programming for advertisers who wish to build Community around their product.” In other words, a lot of the discussions on the site are either surreptitious advertising or market research tools. Visitors to this kind of site provide free content as a kind of public work. But their comments, ideas, and stories are mixed with commercial speech and transformed into an exploitable commodity.²⁶

Most Americans will soon be connected to something called the “Internet,” but it may not be a commons built by millions of citizens. It may instead be a venue for news, information, and entertainment provided by professional employees of a few companies. Most people will enter the Internet through some kind of portal (perhaps on their television screens or mobile phones) that will nudge them toward corporate material. Some citizens and small organizations will

continue to create material of their own, but it will be increasingly difficult to find, because the owners of portals and proprietary networks will have every incentive to downplay it.

3. Problems with an Anarchistic Commons Model

In *The Future of Ideas*, Lawrence Lessig argues that many wonderful products and services will never be produced because greedy incumbent corporations, such as Microsoft and AOL-Time Warner, are locking up the commons and blocking innovation. From an economist's perspective, it is as if they were destroying billions of dollars of wealth by forcing people to use their static and inferior products instead of the "killer applications" that could be.

This "enclosure" or privatization of the Internet should provoke outrage. Lessig and organizations like the New America Foundation, the Center for Digital Democracy, and Public Knowledge are trying to educate the public about the damage that is being done to consumers' interests. These groups are doing good work, but we would suggest that there are some important limitations to the idea of a commons as un-owned property—the libertarian or anarchist model that is explicit in Lessig's work.²⁷ If this model is flawed, then defending the original Internet commons should not be our main goal. We should not try to return to the relatively free and open network of 1995. Instead, we need to move toward a different model.

We believe that an anarchist commons is flawed for four main reasons:

First, it cannot defend itself. Companies and individuals will try to profit handsomely by destroying its open character. They will be able to replace free software with patented code, or gain control of cable lines and broadcast channels, or create search engines and portals that everyone must use. If the government tries to block them, they will spend large amounts of money influencing Congress and regulators. Hundreds of millions of people around the world will be slightly harmed as a result, but most will have more important things to worry about. Even those who really care about the cyber-commons may not want to carry a heavy burden for

everyone else, without any prospect of reward. After all, a commons benefits *everybody*, so the few who try to protect it by lobbying Washington, suing Microsoft, or writing free software will get no payment, even if they succeed (which is unlikely).

The weakness of a commons is beautifully illustrated by the story of the broadcast spectrum, the airwaves over which radio messages, television signals, cell-phone calls, and even some emails are transmitted. The airwaves began as a classic commons: a valuable un-owned resource. Periodically over the past hundred years, large new pieces of this resource have become usable, thanks to technical innovations. Each time, the government could have sold broadcast rights to the highest bidder and used the proceeds for public purposes, from tax cuts to children's health care. Or it could have given the spectrum to local nonprofit groups; or kept it for itself. In recent years, the government even had the option of preserving the un-owned nature of the airwaves by supporting new technology that would allow individuals to share the broadcast spectrum without conflicting with one another; then radio would function like the Internet, with millions of broadcasters.²⁸ Instead, every time new spectrum has become available, the government has always decided to give it to already powerful companies *at no cost* so that they can transmit programs of their choice for profit.²⁹ The last episode in this sorry story occurred between 1995 and 1997, when existing broadcast companies were given huge new allocations of spectrum, valued at up to \$70 billion,³⁰ in the expectation that they would switch from analog to digital television. They still have not made this switch, but they have kept the spectrum to themselves, therefore preventing anyone from competing with them.³¹

This history is outrageous, but it is also highly predictable. The Tragedy of the Commons is real; focussed special interests routinely trump diffuse public interests; and destructive behavior is inevitable. Therefore, in addition to making people angry about the give-away of our

common property, we also need to move toward a new model that can defend itself better than an anarchistic commons can. The system that Lawrence Lessig admires is wonderful, but doomed.

Second, an un-owned commons is not completely compatible with democratic values.³²

In a democracy, great numbers of people have the capacity to influence the social world by talking, protesting, mobilizing fellow citizens, and—ultimately—voting. Although popular sovereignty should be restrained to protect minorities (and for other reasons), we regard majority-rule as a valuable feature of democratic regimes; it generates comparatively just and sensible policies, and it respects the worth and capacities of citizens. A commons, however, can be impervious to popular sentiment, even when citizens demand policies that are completely constitutional and justifiable.

Compare the traditional telephone network (which was centralized, corporate, and controlled) with the email system (which is a good example of an anarchist commons). The telephone network is often described as “undemocratic,” because tremendous power belonged to the few who owned the lines and switches. They had the capacity to eavesdrop on any conversation and could even cut off anyone for speaking in a way they disliked. However, the American telephone network was also eminently regulable, being owned by a few companies that were clearly subject to US law. Therefore, when Congress and the federal courts created rights to privacy and non-discrimination, these rights were enforced. Often, the mere threat of public opposition caused telephone companies to act in acceptable ways. By contrast, the government would have difficulty guaranteeing the privacy of emails, because no one can be held responsible for the passage of an electronic data-package across switches and lines that belong to hundreds of separate parties in several countries. If you invent software that allows you to snoop into other people’s business, no one can stop you in a pure anarchist commons.

Third (as the last example illustrates), an anarchist commons is not entirely beneficial. Lessig and his colleagues stress the many astonishing innovations that people have created on top of the simple, flexible, un-owned platform of the Internet: medical libraries, music-sharing networks, email love letters, online bookstores. But the cyber-commons also gave us viruses, cyberpredators, privacy violations, and hard-core pornography for twelve-year olds. We are not arguing for censorship. But it is hard to defend legal interventions that would create an economic commons *if* much of what we would get as a result is harmful. Corporate control might be preferable to no control at all.

Consider a subtler problem than pornography. Technological developments such as search engines have allowed Internet users to select what they read and see with ever greater precision. As a result, they can easily avoid encountering uncomfortable perspectives and stories that might shake their prejudices. At the same time, citizens are losing the ability to communicate their ideas to others who do not want to hear them. And the population may be fragmenting into ever smaller and more homogeneous groups—all thanks to the technologies of choice that have been built on the Internet.³³ These problems would worsen inexorably if it were not for huge companies such as Microsoft and AOL/Time Warner, which try to push people into mass Websites. As law professor Andrew Chin said at our June 2001 meeting, “The only gap in the march toward market efficiency is corporate monopoly.” Neither the anarchist commons nor a corporate walled garden looks very appealing as a way of enhancing free speech and public deliberation.

Fourth, the notion that the Internet was born as a free commons—as the product of individual, uncoordinated initiative; or as a gift of technology—is a myth. It was rather launched by Federal agencies working in close connection with professional organizations, universities, standard-setting bodies, and other disciplined (often exclusive) groups. Indeed, we can think of

no successful historical example of a commons that arose under conditions of total individual freedom—or as a gift of nature. Even oceans only work as common fisheries if fishing communities are highly organized and self-regulated. Commons are made possible by demanding moral norms and/or enforceable agreements, hammered out in groups, and then reinforced by hard, collaborative work.³⁴

4. The Commons as an Association

In place of the anarchist commons model, we propose an alternative. In the most general sense, a “commons” is something valuable (intrinsically or instrumentally) that a whole community owns and controls—jointly and not severally. There are at least three ways to achieve such common possession. Lessig and his colleagues favor one approach: leaving whole systems uncontrolled so that everyone can use their components. Although this model seems to have some potential for the Internet, we believe that it is utopian even in the relatively favorable domain of cyberspace. Another way to achieve common possession is via state ownership, as in democratic socialism and communism. This strategy is out of favor (although Americans still use it successfully to manage state parks, public schools, and the U.S. Congress—all of which can be called “commons” without stretching traditional usage). A third way to establish a commons is to organize important institutions and resources as nonprofit, nongovernmental associations or networks of associations.

On the Internet, we believe, a commons needs support from a voluntary organization that can demand something of its members and that has a formal decision-making process to handle issues such as privacy, pornography, the cost of access, and the prevalence of commercial advertising within its own domain. It should not try to absorb cyberspace as a whole, but it should seek to become a major presence online, an incubator of new ideas, and a refuge from the seamy side of cyberspace.

Associations are distinguished by voluntary membership; considerable autonomy from other institutions; internal deliberation; rules or norms to govern membership and conduct; and common ownership.³⁵ They differ from corporations because they do not sell shares of ownership and control; and they differ from states because they do not compel membership or claim sovereign powers.

Thus, for example, a house of worship may be a “commons,” belonging to the whole group that builds and uses it. Usually, new members are welcome, and the group sees itself as having a mission to the broader community. Whether individual congregants feel common ownership depends on various factors, including the degree to which distant church officials and/or major financial donors determine policies at the local level. (The question of who legally owns a church is often quite vexed.³⁶) But for many Americans, houses of worship are tangible and meaningful examples of goods that belong to them, not as individuals but as nonprofit groups. Millions experience deliberation and collective self-government within religious congregations, and those who are most active in churches are most likely to volunteer, to vote, to follow politics, to consider public service careers, to trust the government, and to contribute to charity. These correlations apply even for young people and people with low education levels; indeed, religious membership is the *only* large-scale American phenomenon that imparts political skills and commitment to those who lack advanced formal education.³⁷ A form of the “commons” is a foundation of American democracy.

Note that religious congregations are not anarchist commons, because there are *rules* about who can use their buildings and other resources, and for what purposes. People have to ask permission to join and to participate in some of a congregation’s activities. They may be required to contribute in various ways. But control is exercised by officials who owe some kind of accountability to the congregation as a whole: that is, to the commons.

This kind of organized commons can defend itself. It has leadership. It has a bank account. It can hire a lawyer. It can require that its members contribute money or time—on pain of expulsion. And its members can decide (through a process that may or may not be democratic) how to address all kinds of moral issues, such as which charities to support or whether to ordain gay ministers. Those who seek maximum individual liberty may not like formal associations, but they have many advantages (including practical ones) over anarchist commons.

Since the fifteenth century, monastic, collegiate, and municipal entities called “commons” have been electing officers, managing budgets, and even signing treaties.³⁸ In their paper on “The New Information Commons,” Friedland and Boyte list some other examples of associational commons: “newspapers, schools, libraries, settlement houses, business centers, union hiring halls, community festivals and fairs, bands and sports teams, [and] local political parties.” Indeed, most of what we call “civil society” can be analyzed as networks of associational commons, “in which people [have] participated, around which they [have] gathered, and through which they [have] developed a collective public signature for the larger world.”³⁹

People must exhibit mutual trust, habits and skills of collaboration, and public spirit in order to sustain a common resource against the tendency of individuals to abuse it. If their work succeeds, they may gain knowledge and inspiration that they can then transfer to other joint endeavors. In short, a successful commons relies on social capital—and generates more of it. Alexis de Tocqueville attributed the vitality of America’s democracy to citizens’ work in building free, local, public assets. “The Americans make associations to give entertainments, to found seminaries, to diffuse books, to build inns, to construct churches, to send missionaries to the antipodes; in this manner they found hospitals, prisons, and schools.”⁴⁰

We have criticized the anarchist commons for not being democratic, and we are aware that associations can be undemocratic, too. However, a successful association devoted to building an online commons would *have* to be democratically organized. It would be very easy for members to exit the PTS, or to withhold their dues and other kinds of contributions. Yet the association would need mass support. Therefore, leaders would be forced to offer accountability and transparency, or they would have no one to lead.

7. Local Roots

An association can be local and face-to-face or else dispersed, even global. This is particularly true on the Internet, which lowers the costs of identifying fellow-travelers in faraway places and communicating with them. Often the results are beneficial. For instance, people with shared stigmas are able to find one another at long distance and thereby escape the oppression of their hostile local communities.

Nevertheless, we believe that the associational commons should have roots in geographical communities. There are five major reasons for this premise:

1. Many people care deeply about their own localities, so a local or regional focus will encourage them to participate in the commons. At the June 2001 meeting, a major theme was skepticism about the potential *popularity* of a civic space online. Even if we helped to build a wonderful network of Websites, email lists, and databases for dialogue and public work, perhaps very few people would choose to use them. As a general rule, “if you build it, they will come” is poor advice in today’s Internet. However, we believe that there is a shortage of valuable online projects with local or regional orientations. This means that there is a market niche for Websites (and related activities) that take localities seriously. Moreover, this niche will probably *not* be filled by for-profit enterprises. People want the chance to do

collaborative public work, to represent and experience their distinctive local cultures, and to engage in sustained dialogue—but no one has found ways to make money from hosting such activities. Commercial sites that are intended for geographical communities are all heavy on advertising and generic news and entertainment, but light on public work.

2. We still conduct most important social and economic activities within the geographical communities where we live at any given time. Thanks to the Internet, people can have *enriched* social and economic opportunities locally, but only if there are online spaces created by and for geographical communities.
3. Geographical communities (especially whole counties and metropolitan areas) are economically, culturally, and ethically *diverse*, so they avoid the problem of narrowness that Cass Sunstein and others attribute to Internet discussions. In general, we can escape from people unlike ourselves by going online. However, a geographically defined commons will encourage us to interact with people who are different.
4. Local governments make important decisions, so we need a healthy democracy at the local level. Democracy requires not only good institutions, but also active publics that can deliberate, organize, and act. Public work with the Internet can help to form such geographically defined publics.
5. Much research suggests that online interactions are most meaningful and satisfying when they are accompanied (at least occasionally) by face-to-face contact. Furthermore, a useful form of discipline comes from being known by the people with whom one interacts online; this makes outrageous behavior embarrassing. However, adding face-to-face contact to an Internet group is very expensive, unless all the participants live nearby.
6. If a commons has local roots, people are more willing to make contributions in the hopes of reaping long-term benefits. Ostrom claims, on the basis of studies from around the world,

that communal ownership arrangements generally work best when “participants plan to live and work in the same area for a long time (and in some cases, expect their offspring to live there as well) and, thus, do not heavily discount the future.”⁴¹

7. When things go badly in a purely voluntary association, it is often easier to quit than to organize other members to improve things. So (using the terminology of Albert Hirschman) we see a lot of “exit” and not much “voice” or “loyalty” in many online groups.⁴² By contrast, in geographical communities, exit is relatively difficult and expensive, so citizens are more likely to try to work together. While exit has its place, voice and loyalty are important ingredients of public work.

6. Policy Issues

The PTS could coexist with corporate Websites and portals. However, to the extent that it was threatened—either by corporate domination, government policy, or unregulated individual behavior—it would fight back. Thus building such a commons is a *political strategy* that could help citizens to achieve valuable public policies. We believe that this approach would be much more effective than trying to drum up mass anger about violations of the commons. If people are actively involved in using the Internet for common purposes, then they will care about issues such as intellectual property, privacy, and broadband allocation. If they belong to an organization with members in many congressional districts, then they will have effective means to act.

We do not want to predetermine the PTS’s policy agenda, because it should arise from free, continuous, and democratic debate. We have our own suspicions about what threats an online commons will face in the near future. However, contrary to our expectations, participants may decide that Microsoft and AOL Time Warner are *not* really threats to their work. They may be more worried about lone hackers or government regulators, or they may not be worried at all.

We would tend to trust their collective judgment for three reasons: we favor deliberation and participation; we defer to people who have practical experience with technology and community development; and we realize that the main issues and challenges will change in unpredictable ways every year.

Nevertheless, we can emphasize the relevance of the PTS by describing some of the issues that its members might debate and decide to engage.

Example: On March 14, 2002, the Federal Communications Commission decided to classify cable-modem services as “information services,” and not as “communications services.” This apparently arcane decision has important implications. Communications services, such as telephone networks, are covered by “common carrier” rules, which prevent the owners of the lines from blocking any type of message or from charging extra for anyone’s content. There is a universal *right of access* to a common carrier. By contrast, cable-television companies have been permitted to choose a set of channels for their subscribers, including channels with which they have financial relationships. The issue before the FCC was whether cable companies that provided Internet access should be treated as communications services, in which case they would come under common carrier rules, or as information services, in which case they would operate in a “minimal regulatory environment.”⁴³ The FCC decided that common carrier rules imposed arbitrary and harmful disadvantages on cable companies, thereby keeping them out of the broadband business and delaying the “ubiquitous broadband deployment [that] will bring valuable new services to consumers, stimulate economic activity, improve national productivity, and advance economic opportunity for the American public.” The FCC argued that “broadband services should exist in a minimal regulatory environment that promotes investment and innovation in a competitive market.”⁴⁴ Critics, such as the Consumer Federation of America and the Center for Digital Democracy, charged that the ruling will lead to corporate walled gardens.⁴⁵

The PTS would have a direct stake in this issue. Once they are freed from common carrier rules, cable companies and other broadband Internet-service providers may make nonprofit Websites difficult to find, because they will earn more money from other kinds of sites. Broadband companies may also make it hard for people to *contribute* material to the commons. (Cable companies that provide Internet access already discourage their customers from uploading material.) On the other hand, if any existing regulations are genuinely arbitrary and costly, then they harm the commons, because they prevent companies from investing in high-speed Internet access. So we expect that the PTS would follow and analyze such issues closely, and would likely file comments as part of the rulemaking process. If the PTS disliked any decision of the FCC, it could intervene forcefully in Congress.

Example: Very short-range wireless connections (called “wireless fidelity” or wi-fi’s) represent a technological breakthrough, allowing people to move around a home, campus, airport terminal or coffee shop while constantly online. As Quentin Hardy recently wrote in *Forbes*, “The Wi-fi wave has already linked up an estimated 10 million laptops, Palm handhelds and other gadgets in hundreds of small, extremely local wireless networks.”⁴⁶ Computers that are near one another can also exchange messages wirelessly, and if Wi-fi nodes are built densely enough, then a whole network can develop—linked to the global Internet, but wireless and open at the local level. Such a network now covers most of Seattle, and it is a classic commons. John Markoff notes in *The New York Times*, “What begins to appear is a high-speed wireless data network built from the bottom up, rather than the top-down wireless cellular data networks now being established by giant telecommunications companies.”⁴⁷ And Hardy writes, “True to the best of high tech, [Wi-fi] comes from a labor of love, carried out by unsung heroes who wanted to build something cool. It’s the same impulse that gave us the Web browser and the PC and the Linux computer software now featured in the corporate strategies of IBM and Hewlett-Packard.”

The PTS might see a great deal of potential in Wi-fi networks, since they would be open, low-cost, and free of corporate control. Local governments would have the power to regulate Wi-fi's by controlling the placement of nodes. But PTS affiliates, organized at the grassroots level, could influence local governments, seeking beneficial rather than harmful regulations. The PTS could also help to build Wi-fi networks where they seemed valuable—for example, where a local cable franchise had created a walled garden for its Internet subscribers. And the PTS could defend Wi-fi networks against the economic interests that might try to destroy them: most obviously, the broadband Internet service providers.

Other examples of issues and policies on which the PTS might choose to intervene include:

- allegations of monopolistic behavior against major companies;
- the process by which Internet addresses (domain names) and top-level domains such as .org and .com are created and distributed;
- the use of the .us top-level domain (which is federal property, and mostly vacant);
- proposals to subsidize Internet access in schools or to support software development;
- laws governing privacy and exploitation of minors online;
- management of broadcast spectrum; and
- local cable franchise contracts that govern cable companies as Internet service providers.

The Public Telecommunication Service

The distinctive guiding principles of the PTS are: public work, associationalism, localism, and democratic deliberation about policy.

In more concrete terms, we envision a new, non-profit, non-governmental, democratically organized, membership association that would link local groups across the country that chose to join it. It would also seek to create *new* local groups, often at state universities. As Harry Boyte and Paul Resnick argued in a follow-up paper written after the June 2001 meeting, public educational institutions are a major resource because of their technical capacities, their public-service obligations and traditions, and their presence in every state.

Members of the PTS should decide its policies and priorities through a deliberative and democratic process. However, to stimulate discussion, we would suggest the following ideas.

The PTS could:

1. Work with existing entities (e.g., public and commercial television stations, newspapers, schools, universities, nonprofits) in various communities to organize projects at the local and regional level that are consistent with the PTS's overall mission. These groups would be asked to join, convene, assist, or form partnerships with the PTS.
2. Strengthen and expand the Community Information Corps, the cadre of young people who are building community Websites in St. Paul and (soon) in Wisconsin and in Maryland. These young people need support, training, and opportunities to communicate with each other across the country.
3. Develop free, open-source software and other material that could be used in many community sites across the country.
4. Sponsor a new public search engine or other methods of leading visitors to sites that have civic value.⁴⁸
5. Link technical experts (especially faculty at state universities) who want to work with communities in using the Internet. These people could come together to form a new

“Technology Extension Service for the 21st Century,” drawing their inspiration from the tradition of extension work before it became highly technical and expert-driven.

6. Deliberate about controversial issues such as intellectual property, online pornography, hate speech, and privacy. Should rules be needed, they would be formulated and imposed democratically.
7. Perhaps identify or endorse these Websites in some way. We originally proposed that the PTS should manage a whole new top-level domain called .civ (like the well-known .com, and .org domains). Those who wanted .civ domain names would have to join the PTS and abide by its rules, and the whole domain would become a safe and democratic place. This idea was tabled, but there are other ways to identify sites that obeyed democratically selected rules.

If it worked, the PTS would provide a safe place for people to do civic work with technology that furthered civic values. It would help disadvantaged citizens to participate in the new electronic media. It would support experimental search engines, browsers, and other software that could be imported into the rest of the Internet if they proved popular and successful. It would generate a focused, national debate about how the Internet should be used, involving people from many subcultures, demographic groups, and political movements. It would advocate policies chosen by its members after deliberation. And it would be the home of numerous valuable Web sites that would serve public purposes help to build the American commonwealth.

Next Steps

In St Paul: the Community Information Corps is growing and taking on new projects.

Their current work includes:

1. Community Mapping (summer 2001, and continuing)
2. E-journalism for youth (winter 2001, and to be repeated)
3. Public Achievement at Humboldt High School. In Public Achievement, students select a project that is legal; non-violent; and that contributes in some way to the public good. They then address the issue with guidance from experienced coaches. In 2000-1, students chose to focus on the fairness of the exam for U.S. citizenship. Among other things, they produced a video documentary featuring American citizens who were unable to pass the test.
4. Work with local organizations to enhance computer skills. For example, CIC offers training at local libraries, through the Boys and Girls Club, in Neighborhood House (the West Side settlement), and throughout the community. As a result of computer tutoring at the Riverview Library, local residents from Latin America have been able to stay in contact with people from their places of birth; a new mother has learned how to surf the Internet to find resources and information for her newborn child; factory workers have improved their skills; and several other adults who have varying degrees of computer and language literacy have discovered what a computer can do for them.

Future projects include:

1. A "Learning Directory," or searchable database of learning assets
2. Video production with the Saint Paul Neighborhood Network (SPNN), leading to public service announcements (begun in February 2002 and continuing).
3. A story and history project to highlight community diversity, culture and sense of time (planned for summer 2002).

In Madison, Wisconsin: Lew Friedland and others are working on a series of projects that advance the PTS. Much of this work has been funded by a separate grant from the Ford

Foundation:

1. Major telecommunications and civic organizations in Madison are jointly planning an ambitious project to map the civic networks and assets of that community. The coalition includes the United Way of Madison/Dane County; WISC-TV (the leading commercial television station); Wisconsin Public Television; The *Wisconsin State Journal* (the leading daily morning newspaper); Edgewood College (which has an ambitious, year-long service-learning program); the University of Wisconsin-Madison; and its Center for Communications and Democracy. The goal is not only to find and catalogue civic networks, but also to make the resulting knowledge usable for citizens. This work is not explicitly part of the PTS, but is an important pilot for projects elsewhere.
2. The Center for Communications and Democracy is developing software called “Community Knowledge Base” that will allow grassroots groups to map assets and networks within their community and to display the results in highly usable forms on the Internet. In particular, Community Knowledge Base addresses the challenge of depicting human networks along with geospatial information in revealing ways. The software will be very valuable in other PTS pilot sites, where asset-mapping is already underway.
3. Along with Professor David Williamson Shaffer (an education professor with a degree from MIT’s Media Lab), the Center for Communications and Democracy is developing software to help take youth through the stages of researching and writing news stories according to the ideals of public journalism. At the last stage, the software helps to generate Web-ready articles. Like asset-mapping software, this product will be valuable in the other PTS sites.

4. The Center for Communications and Democracy and its partners in Madison plan to bring the Community Information Corps idea to Wisconsin.

In Prince George's County, Maryland, we are planning an Information Commons as a follow-on to the PTS project funded by Ford. We are working in partnership with local stakeholders and citizens. In particular, we are collaborating with Northwestern High School in Hyattsville, Maryland (a large, comprehensive school with an African American majority and students born in 80 countries). In spring 2002 we plan to teach a class there, in conjunction with Margaret Morgan-Hubbard and Carrie Donovan of the National Civic League. (Donovan previously worked at the Jane Addams School in St. Paul, Minnesota, home of the St. Paul Information Commons.) Students will create an autonomous Prince George's County Website that can later be filled with content contributed by other local groups: churches, Community Development Corporations, libraries, etc. During the spring quarter, our students will begin the process of mapping their community's assets through a set of low-cost and manageable exercises.

We regard this as the beginning of an important experiment because Prince George's County—like many places where Americans live today—is sprawling, racially and economically divided, and notorious for its troubled public schools and distrust between the community and police. The County also contains many assets and resources that are often unfairly ignored, including a major public university, many other nonprofits and firms, and the nation's largest concentration of African American professionals. So there is great potential to strengthen our community by using the Internet to map and publicize our common assets and to develop representations of our shared identity for both internal and external consumption. An Information

Commons here will thus teach us important lessons. What's more, we will have strengthened a network that also includes the projects in Wisconsin and Minnesota.

In addition to these activities, we also envision a continued national discussion and outreach effort. The Corporation for Public Broadcasting and the Public Broadcasting Service, along with various stations (including Wisconsin Public Television, Maryland Public Television, and Twin Cities Public Television) are involved in a discussion about reconceiving their role to be more civic. CPB, PBS, and Wisconsin Public Television have also directly participated in our PTS discussions. We plan to work with these groups to develop links to the PTS.

We also hope to convene a face-to-face meeting of youth in our three pilot sites, so that they can share experiences and build a human network. And we intend to organize a conference of experienced practitioners who are attempting to organize community Websites or email services or who write software of civic value. We would ask these people to help us envision the PTS in more detail.

Notes

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- ¹ A concept paper for that conference is available at: <http://www.publicwork.org/pdf/workingpapers/New%20information%20commons.pdf>. It is entitled “The New Information Commons: Community Information Partnerships and Civic Change,” and the authors are Lew Friedland and Harry Boyte.
- ² Source: author’s interview with Mitch Ogden, St. Paul, MN, June 27, 2001.
- ³ Harry C. Boyte and Nancy N. Kari, *Building America: The Democratic Promise of Public Work* (Philadelphia: Temple University Press, 1996).
- ⁴ In Morrison’s *A Remedy for Sedition* (1536), we are told that in a “true commonwealth,” each man would happily do “that which he sees shall be for the quietness of the realm, albeit his private profit bids him do the contrary.” Quoted by Mary Dewar in her introduction to Anon., *A Discourse of the Commonwealth of this Realm of England*, 1581 (Charlottesville, University of Virginia Press, 1969), p. xiii.
- ⁵ See Carmen Sirianni and Lewis Friedland, *Civic Innovation in America: Community Empowerment, Public Policy, and the Movement for Civic Renewal* (University of California Press, 2001).
- ⁶ Robert Kraut et al., “A social technology that reduces social involvement and psychological well-being?” *American Psychologist*, vol. 53 (1998), pp. 1017–1031; Cass Sunstein, *Republic.Com* (Princeton: Princeton University Press, 2001), especially pp. 51-103; Robert Wachbroit, “Reliance and Reliability: The Problem of Information on the Internet,” in Anton Vedder, ed., *Ethics and the Internet* (Oxford: Intersentia, 2001), pp. 133-142 [a shorter version appeared in *The Report from the Institute for Philosophy & Public Policy*, vol. 20, no. 4, Fall 2000 (<http://www.puaf.umd.edu/IPPP/reports/vol20fall00/Fall2000.pdf>)]; Peter Levine, “[The Internet and Civil Society.](#)” *Report from the Institute for Philosophy & Public Policy*, vol. 20, no. 4, Fall 2000.
- ⁷ See the *Current Online* briefing at: <http://www.current.org/dtv/#History>
- ⁸ The critique is already explicit in Friedland and Boyte, p. 5.
- ⁹ Yochai Benkler, “From Consumers to Users: Shifting the Deeper Structures of Regulation Toward Sustainable Commons and User Access,” *Federal Communications Law Journal*, vol. 52; Lawrence Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World* (New York: Random House, 2001), pp. 19-21. Cf. Elinor Ostrom, “Type of Good and Collective Action” (unpublished paper, 2002), p. 15: “Common-pool resources are composed of resource systems and a flow of resources or benefits from these systems.” Either the system or the benefits, or both, can be “free” (p. 31).
- ¹⁰ <http://www.earthtrust.org/dnpaper/majorpts.html>.
- ¹¹ “‘Free software’ is a matter of liberty, not price. To understand the concept, you should think of ‘free’ as in ‘free speech,’ not as in ‘free beer.’” The Free Software Foundation “Definition” at <http://www.gnu.org/philosophy/free-sw.html>. (NB: “Verbatim copying and distribution of this entire article is permitted in any medium, provided this notice is preserved.”)
- ¹² See Peter Levine “[Civic Renewal and the Commons of Cyberspace.](#)” *The National Civic Review*, vol. 90, no. 3 (Fall 2001), pp. 205-211; Ostrom, “Type of Good,” p. 26.
- ¹³ Hardin, “The Tragedy of the Commons,” *Science* 62 (1968), pp. 1243-1248
- ¹⁴ Letter of Jefferson to Isaac McPherson (August 13, 1813), quoted in Lessig, *The Future of Ideas*, p. 94.
- ¹⁵ Lessig *The Future of Ideas*, p. 45.
- ¹⁶ David Bollier, *Public Assets, Private Profits: Reclaiming the American Commons in an Age of Market Enclosure* (New America Foundation, 2001), pp. 51-2
- ¹⁷ Bollier, 2001, p. 52.
- ¹⁸ Bollier, p. 58.
- ¹⁹ Dale Hatfield, “A Look at the Promise and Policy Implications of New Wireless Technologies,” address at the Ford Foundation Digital Media Forum, May 30, 2001.

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- ²⁰ Wachbroit, p. 137. See also, Julie E. Cohen, "Information Rights and Intellectual Freedom," in Vedder, ed., pp. 18-23.
- ²¹ Lucas D. Inrona and Helen Nissenbaum, "Shaping the Web: Why the Politics of Search Engines Matters," *The Information Society*, vol. 16, no. 3 (2000), pp. 1-17.
- ²² Jeffrey Chester of the Center for Digital Democracy, comments on the PTS draft, 5/16/01.
- ²³ Lawrence Lessig, *Code and Other Laws of Cyberspace* (Basic Books, 1999), p. 68
- ²⁴ Alec Klein, "For AOL and Microsoft, It's High-Tech Noon," *The Washington Post*, June 8, 2001, p. A1.
- ²⁵ Linking to <http://www.well.com/user/hlr/vcbook/index.html>, where the book is online.
- ²⁶ Quoted by Chris Werry in "Imagined Electronic Community: Representations of Virtual Community in Contemporary Business Discourse." *FirstMonday*. See www.firstmonday.org/issues/issue4_9/werry.
- ²⁷ Lessig, *The Future of Ideas*, p. 121: "In this domain, at least, our presumption should be libertarian."
- ²⁸ Lessig, *The Future of Ideas*, pp. 76-84.
- ²⁹ Bollier, pp. 68-70.
- ³⁰ <http://www.nowfoundation.org/communications/tv/digital.html>.
- ³¹ Robert W. McChesney, *Rich Media, Poor Democracy* (University of Illinois Press, 1999), pp. 151-3.
- ³² See Peter Levine, "The Internet to the Rescue?" forthcoming in *Democracy's Moment: Reforming the American Political System for the 21st Century*, edited by Ron Hayduk and Kevin Mattson (Rowman and Littlefield, 2001).
- ³³ Sunstein; Wachbroit.
- ³⁴ Ostrom, "Type of Good," p. 20: "Groups of individuals are considered to share communal property rights when they have *formed an organization* that exercises at least the collective-choice rights of management and exclusion to some defined resource system and the resource units produced by that system. In other words, all communal groups have established some means of governing themselves in relationship to a resource" (italics added).
- ³⁵ This discussion of associations is indebted to Mark E. Warren, *Democracy and Association* (Princeton, 2001).
- ³⁶ Even in hierarchical denominations, legal title often belongs to a local group, organized as a nonprofit corporation. This means that if a congregation or religious order chooses to deny the authority of the Church, it may keep its building. See "Civil Incorporation of Church Property," in the *Catholic Encyclopedia*, at <http://www.newadvent.org/cathen/07719b.htm>. Compare the Canons of the Episcopal Church at <http://orders.anglican.org/osa/canons.html>.
- ³⁷ Sidney Verba, Kay Lehman Schlozman, and Henry E. Brady, *Voice and Equality: Civic Voluntarism in American Politics* (Cambridge: Harvard, 1995), pp. 18, 282-3, 327; Peter Levine, *The New Progressive Era: Toward a Fair and Deliberative Democracy* (Lanham, MD: Rowman & Littlefield, 2000), p. 78; and, on youth, the National Youth Survey conducted by CIRCLE and others in 2002, at www.civicyouth.org.
- ³⁸ See definition 1.b of "commons" in the *Oxford English Dictionary*: "The burghers of a town; the body of free citizens, bearing common burdens, and exercising common rights."
- ³⁹ Friedland and Boyte, p. 6.
- ⁴⁰ See Tocqueville, *Democracy in America*, translated by Henry Reeve and others (Vintage Books, 1954), Vol. II, Book II, chapter v, p. 114.
- ⁴¹ Ostrom, "Type of Good," p. 27.
- ⁴² Albert O. Hirschman, *Exit, Voice, and Loyalty* (Cambridge, MA: Harvard University Press, 1971).
- ⁴³ Press release, March 14, 2002, "FCC Classifies Cable Modem Service as "Information Service," http://www.fcc.gov/Bureaus/Cable/News_Releases/2002/nrcb0201.html.
- ⁴⁴ Notice of Proposed Rulemaking, FCC 02-4 (Adopted: February 14, 2002 Released: February 15, 2002), quoting from I.a.2 and I.a.5 (<http://www.fcc.gov>).

⁴⁵ Center for Digital Democracy, “FCC Action Threatens Openness of Internet and Communications Networks,” <http://www.democraticmedia.org/news/fccThreatensNet.html>.

⁴⁶ Quentin Hardy, “The Great Wi-Fi Hope,” FORBES.com, 03.18.02.

⁴⁷ John Markoff, “The Corner Internet Network vs. the Cellular Giants,” *The New York Times*, March 4, 2002, p. C1.

⁴⁸ For a public search engine and some related proposals, see Andrew Chin, “Making the World Wide Web Safe for Democracy: A Medium-Specific First Amendment Analysis,” *Hastings Communications & Entertainment Law Journal*, vol. 19 (1997), p. 329.