Dr. Dave: My state legislature (Florida) is considering a bill that would prohibit cities from providing high-speed internet services to residents or businesses. Is this happening in other states? Why are local governments building telecommunications networks? Isn't the private sector already doing this? Do we really want or need government involvement?

A. Everyone agrees on one thing. High-speed internet access is an essential element of competitive economies in the 21st century. In 2001, Federal Communications Commission Chair Michael Powell declared, "The widespread deployment of broadband infrastructure has become the central communications policy objective today."

Disagreement occurs when we talk about who should build or control or regulate these high-speed networks.

When Powell made his announcement, the United States was ranked third or fourth in the world in broadband deployment. Today we have fallen to 13th. This year we will undoubtedly drop even further.

Let's back up a minute to explain what broadband means in the context of this debate.

Anyone reading this has internet access. A surprising number of U.S. households (more than half 2004) still use a dial-up line that delivers information at about 56,000 bits per second (56 kbps). That is the rated speed. It is often much slower in rural areas. As anyone who uses such a system knows, it is SLOW. Using the Web is an exercise in saintly patience.

A DSL line is the most common next step up. It is called broadband, although many experts are concerned by the use of this term to describe what is, given today's technology, still a relatively slow link-up.

At a cost of $40-80 per month, DSL increases the line's capacity to 800kbps -1.5 Mbps. This is good for Web surfing, although when your friends send you photographs of their children you may feel like taking them off your Christmas card list. By 2008, it is expected that half of all US households will be using DSL.

At about 3.7Mbps we can download VHS quality video in a modest amount of time. At 20 Mbps we can download High Definition T.V. quality video.[1]

The vast majority of Americans, for at least the next 10 years, will be using broadband services with capacities of less than 1 Mbps. In Japan, and Japan is by no means unique,

[1] Another complication occurs when the downloading speeds are much higher than the uploading speeds. This occurs routinely in the U.S. The disparity gives a much higher priority to us as consumers than as producers. For example, in these types of systems, one can buy/download a video or book much more quickly than one can sell/upload a locally or home-created video or book.

$10 a month will buy consumers access at 8 Mbps. Many Japanese are now shifting to the next level -- fiber-based systems that send information at the speed of light and achieve speeds of 100+Mbps.

The slowness with which very high-speed broadband is coming to Americans, its high cost, and the lack of provisions for universal coverage (as was the case when telephone service went nation-wide) are all a result of a largely hands-off policy by the federal and state governments. And that hands-off policy is a function of fierce lobbying by telecommunications and cable companies that prefer to use their monopolies to gain a high income from their slower copper or coaxial cable based systems.

The business sections of the daily papers regularly carry headlines telling us that x telecommunications company is going to spend billions to build a high speed information infrastructure. Last June, for example, major regional telephone company SBC announced its intention to spend $4-6 billion in such an initiative. But read the fine print and you discover that SBC's fiber optic lines will extend only to neighborhood nodes of 300-500 homes. The last 500 feet of the line to the individual home itself is still copper. Since the system is only as fast as the speed of its slowest link, the copper lines eliminate most of the promise of the fiber optic systems.

Telecommunications and cable companies argue that Americans don't need very high-speed internet access, at least in the near and medium turn. Just two weeks after it issued its press release about its aggressive rollout of a fiber optic network, SBC announced that few people needed a fiber optic network: "Ninety percent of the users can live with the [DSL] speeds we offer…"

As more and more Americans try to download music and movies, or engage in video-conferencing, some experts worry that a copper-based system will become a burden. As the U.S. Department of Commerce report, *Understanding Broadband Demand* presciently observed, "Today's broadband will be tomorrow's traffic jam…"

Cities As Providers

Many cities, especially smaller ones that have been bypassed by the large telcos (telecommunications companies) or cable companies, have moved ahead to install their own high-speed internet access systems.

Many of these cities own their own electric utilities; a legacy of another era in American history when a new industry (electricity) was developing but large companies were delaying or refusing to serve less dense and sparsely populated towns and cities.[2]

[2] For an historical analysis, see David Morris, *Seeing the Light: Regaining Control of Our Electricity System*. ILSR. 2001.

Today, there are some 2,000 municipally owned electric utilities. Seventy-five percent are in towns of less than 10,000, although a couple dozen large cities also own their own electricity systems (e.g. Los Angeles, Seattle, Austin, TX, Orlando, FL).

In 1932, in a campaign speech in Portland, Oregon, Franklin Delano Roosevelt summed up the rationale for community-owned utilities: "The very fact that a community can, by vote of the electorate, create a utility of its own, will, in most cases, guarantee good service and low rates to its population. I might call the right of the people to own and operate their own utility a birch rod in the cupboard, to be taken out and used only when the child gets beyond the point where more scolding does any good."

More than 70 years later, FDR's birch rod metaphor continues to resonate. A recent study by the Florida Municipal Power Association found that when municipalities offer broadband, the number of broadband providers increases. Before Kutztown, Pennsylvania built its network it couldn't interest anyone in providing services. Now they have offers from several companies.

Telecommunications networks are a natural add-on to electrical networks. Municipally owned electric utilities connect to every house and business. They have highly-trained technical staff. They have installed or begun to install high-speed data transmission networks for their internal operations (e.g. remote meter reading). If they are in the process of burying existing electrical wires, it is a very small additional cost to lay in fiber optic conduits.[3] And most recently, the FCC has issued standards for the transmission of broadband over power lines, meaning that everyone's home wiring system potentially becomes a high-speed distribution line.

Many cities are investing in high-speed internet access as a way to attract business and strengthen their local economies. There is concrete evidence that the strategy is valuable. A recent report by the Strategic Networks Group of Ottawa on the Township of South Dundas found that, for its $975,000 investment to build and maintain a fiber network, it has generated 62.5 new jobs, $2.1 million in commercial expansion, and $105,000 in increased regional revenues and cost-savings.

In the mid-1990s, the city of Cedar Falls, Iowa decided to install its own communications utility. Waterloo, a city right next door, shied away from doing so. The two cities are comparable in every way except that Cedar Falls has a municipal communications system and Waterloo does not. The result, according to attorney Jim Baller, a leading advocate of municipally owned communications systems, is that "economic development in Cedar

[3] In August, 2002, Glenwood Springs, Colorado became the first Colorado city to offer broadband services though its own network. The Glenwood Springs Electric Department utility ordered workers to lay extra conduit as part of a project to bury the city's electrical lines. Now the conduit contains fiber optic technology. Superintendent John Hines says he did this in the expectation that the city would lease this capacity or sell it to a private company. But private companies were uninterested in the city's broadband plan. The project cost $3 million. The investment will repay itself in 10 years, or less.

Falls has surged since the system was completed, even in the face of the economic downturn, while Waterloo's economy has languished."[4]

The FCC's most recent report, issued last fall, contains a lone comment about the spread of municipally owned, internet access networks. Commissioner Michael Copps counsels his colleagues, "We should study why numerous municipalities across America are floating bonds to develop their own broadband networks."[5]

The FCC is unlikely to heed that counsel. It is moving in the other direction. Unlike in FDR's time – when the courts allowed cities to build electricity networks and the federal government offered them long term, low-interest loans – today the courts and the federal and state governments are making it very difficult, if not impossible, for cities to build information networks.

Telcos and cable companies are vigorously, some would say viciously, battling to prevent community-created networks. As Karl Bode, a longtime observer of the telecommunications scene has remarked, "If you thought dirty tricks were reserved for presidential politics, you should try wiring your town with fiber optic cable."[6]

Bode recalls the effort of one community in Illinois to build a fiber network. The initiative was defeated in a referendum. SBC and Comcast spent considerable sums fighting the initiative. Part of their campaign used push polls with questions like, "Should tax money be allowed to provide pornographic movies for residents?"[7]

Bellsouth Corp. is suing a North Carolina town that is leasing space on its fiber optic network. The same corporation threatened to close its Cingular Wireless call center and lay off its 1300 employees if Lafayette, Louisiana went ahead with its initiative to establish a municipal communications network.[8]

Jim Baller notes, "Federal law encourages, but does not authorize, public entry into communications. Public entities need state/local authority for each activity." Telcos and cable companies have convinced more than a dozen state legislatures to either outright

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[4] Interview with Jim Baller, Broadbandreports.com. 2003. The Baller Herbst Law Group, Washington , D.C. jim@baller.com

[5] //hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-04-208A1.pdf. September 9, 2004

[6] Karl Bode, "Greed, Lies and 'Progress'". 2003

[7] *Ibid*.

[8] Bell South proposed a system that would bring fiber optic to within 500 feet of customers' homes. Bill Oliver, president of BellSouth Louisiana, said "But the city is almost totally focused on fiber-to-the-home. There's almost a mystique about it." Advocate, February 25, 2005

prohibit or impose very difficult conditions on municipalities establishing their own communications networks.[9]

In 1996, Congress enacted the Telecommunications Act. Its explicit goal was to increase competition in the industry. Section 253 of the act preempts state laws that prohibit "any entity' from providing any telecom service.

Lower court decisions by the U.S. Court of Appeals for the Eighth Circuit, the Nebraska Supreme Court and a federal district court in Bristol, Virginia took Congress at its word. The words "any entity" encompass public entities.

The United States Supreme Court, in mid-2004, overturned the lower court decisions. It held that the term "any entity" was not clear enough to cover public entities.[10]

Many of the states banning municipal involvement in communications networks have relied on a model law disseminated by a conservative organization, the American Legislative Exchange Council (ALEC). The model law requires that any city that wants to provide retail communications services must first obtain an independent feasibility study, for which it cannot use public funds. The study must show that, for both the first year and for the first five years of operation, for each service on a stand-alone basis, revenues will exceed costs by amounts sufficient to cover debt service. Says Baller, "No provider—public or private—has ever met such a requirement and no one will ever do so."

In Louisiana, when Bellsouth and other companies tried to enact an ALEC model law in the state legislature, the governor of Louisiana ordered the different parties to sit down and hash out a legislative compromise.

SB 877 was the result.[11] Baller emphasizes that SB 877 is not a good law, but it is a compromise that reflects "as good an outcome as all concerned could have achieved under the circumstances."[12]

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[9] For a good recent survey, see Marc Levy, Associated Press, February 27, 2005. The American Public Power Association maintains a state-by-state list of State Barriers to Community Broadband Services.

[10] FCC v. Missouri Municipal League. 124 S.Ct. 1555. 2004. The lone dissenter, Justice John Paul Stevens, wrote: "The assertion that Congress could have used the term 'any entity' to include utilities generally, but not municipally owned utilities, must rest on one of two assumptions: Either Congress was unaware that such utilities exist, or it deliberately ignored their existence when drafting [the act]... Both propositions are manifestly implausible, given the sheer number of public utilities in the United States."

[11] Louisiana SB 877, signed into law as Louisiana Act 736. A comparison of the ALEC model and the ultimate compromise legislation can be found at: Side by side comparison of ALEC model and SB 877.

[12] Broadband Reports interview. *Op. cit.*

In mid-2004, the city of Philadelphia announced an initiative to invest $10 million to offer free wireless access in public areas, using Wi-Fi. The system would cover 135 square miles and provide service to some 1.5 million people. The system would not be government run.

In November 2004, Verizon got through a state law to stop future Philadelphia-like efforts.[13] Under the new law, municipal utilities wanting to sell their own internet service will be required to first give their local telephone company the option of providing that service within 14 months. Verizon operates 6 million of Pennsylvania's 8 million land lines.

Who Makes the Rules?

Even while legislatures, the courts and the FCC make it difficult for communities to establish their own communications networks, the courts and the FCC are restricting the regulatory authority of cities over privately owned communications networks. This is true even when the company has a franchise agreement with the city.

A few years ago Portland, Oregon required as part of its franchise agreement renewal that its local cable company allow cable subscribers to choose an internet service provider other than that company's own subsidiary. The company appealed to the FCC, which found that the city lacked the authority to make that demand. In October 2003 the Ninth Circuit Court of Appeals overturned the FCC's decision.[14] In December 2004 the U.S. Supreme Court announced it will hear the case in late-March 2005.[15]

More recently, the FCC has ruled that telephone companies also do not have to share space on their new fiber optics lines. The new communications lines, according to the FCC, are not common carriers.[16] Companies that own them do not have to allow competitors to use them.

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[13] At the last minute, the legislature included an amendment that exempted Philadelphia from its provisions. However, other cities are not exempt. Kutztown, for example, had hoped to add wireless internet services to its system but now expects it will have to defer to Verizon.

[14] Portland's authority was upheld by the Ninth Circuit Court of Appeals in Brand X. vs. FCC (345 F.3d 1120). The FCC's order is at 17 FCC Rcd 4798. See Democratic Media for link to all the briefs to the Supreme Court and decisions.

[15] Both the FCC and the National Cable and Telecommunications Association filed appeals (FCC v. Brand X Internet and NCTA v. Brand X Internet). The Supreme Court will hear oral arguments for both appeals on March 29, with a decision expected in June.

[16] Other telecommunications services, such as telephone lines, are considered common carriers, as are electric systems. Cable television networks are an example of private carriers.

Given that communities and customers will have virtually no control over the high-speed internet lines of the future, many communities have redoubled their effort to launch their own networks.

Some of these efforts are neighborhood based. The first national Community Wireless Summit took place last August in Champaign-Urbana Illinois.[17]

The first step in allowing the debate about the role of local government to take place is to defeat existing efforts to eliminate the possibility of such a role. A number of organizations are tracking developments in this area.[18]

For more information, see Expanding Municipal Telecommunications Systems in our Information Sector.

[17] See Making the Connection. Also see Champaign-Urbana Community Wireless Network

[18] One of the best is Community Internet a site run by freepress.net. It has a national map highlighting states where legislation is pending and links to local and state campaigns. The American Public Power Association maintains a state-by-state list of State Barriers to Community Broadband Services. There are many other good sources, such as Media Access, MuniWireless.com, the United Power Line Council, and the National Telecommunications Cooperative Service.