



# NET GAINS OR NET LOSSES?

The Net Neutrality Debate and the Future of the Internet

K. Lloyd Billingsley



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# What Is Net Neutrality?

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Net neutrality has obvious relation to the Internet but beyond that it remains mysterious to many observers, even those with a need to know. Pete Sikora, for example, is a political coordinator for the Communications Workers of America, which opposes net neutrality language in a bill pending in New York state.

“Truth be told, ” Sikora says. “I don’t really know what people mean when they say ‘net neutrality’ anyway.”<sup>1</sup>

Even one of the high-profile popularizers of the concept, Tim Wu, who teaches communications, copyright, and international trade at Columbia Law School, admits: “Neutrality, as a concept, is finicky, and depends entirely on what set of subjects you choose to be neutral among.”<sup>2</sup>

“Neutrality,” then, is a term with an elastic definition and the potential for trap doors and escape hatches. But since there can be no doubt that the net-neutrality debate will shape the future of the Internet, policy makers, journalists, technology specialists, and consumers must understand what the term means for them in practice. Consider the explanation by a major proponent of net neutrality, Mark Cooper, director of research at the Consumer Federation of America (CFA).

“The remarkable success of the Internet,” Cooper says, “was based on two fundamental principles that were adopted as policy in the 1960s.” The first principle was “an open communication standard that allowed all networks adhering to the protocol to interconnect—to internetwork”—hence the name Internet.<sup>3</sup>

“The second principle,” Cooper continues, “was adopted by the Federal Communications Commission [FCC] in the first computer inquiries in 1968. It required the telephone companies, over whose networks data communications flowed, to operate their networks in a rigorously neutral manner, one of the brilliant decisions of the FCC, about which we don’t hear enough.” What this “neutrality principle” did in practice was that it “prevented the operators of communications networks from exercising market power and interfering with the free flow of communications, or discriminating against communications in any way.”

There can be no doubt that the net-neutrality debate will shape the future of the Internet.

In Cooper’s vision, government looms large; however, his key phrase is that the net-neutrality principle “prevented the operators of communications networks from exercising market power.” That is, it prevented them from offering goods and services for which people were willing to pay, according to their needs, in a

free marketplace. Advocates of net neutrality want it to be illegal for broadband service providers to charge their customers more for, say, downloading a movie or a television program than for grabbing information on Ulysses S. Grant or Angela Davis from Wikipedia. In contrast, the broadband companies maintain that others should not be able to use their property free of charge, and that their pricing policies should be flexible enough to meet the variety of consumer needs. For example, ISPs might see social benefits in giving streaming telemedicine video priority over online games.

Preventing the operation of market forces is a negative concept, one that seeks to turn back the clock.

At its heart, the debate is about price control, and net-neutrality advocates want government regulation, rather than the open market, to determine the rate structure.<sup>4</sup> In fact, preventing

the operation of market forces is a negative concept, one that seeks to turn back the clock. Such restrictions prevailed in the dial-up or “narrowband” era, but the FCC opted not to apply those structures to the world of broadband, with its wealth of information services and multiple applications carried by coaxial cable wirelines, upgraded copper digital subscriber lines, fiberoptic wirelines, wireless, satellite, and broadband over powerlines (BPLs). Lower courts opposed the FCC’s decision, but in June 2005 the U.S. Supreme Court sided with the FCC in *National Cable and Telecommunications Association v. Brand X Internet Services*. Since then, net-neutrality activists have sought to, in effect, reverse that decision and impose on cable broadband providers the obligations of common carriers in a monopoly era that no longer exists.

According to the common-carrier or public-utility model, the Internet ought to operate as simply a “dumb pipe”—a conduit through which all information flows evenly. This ignores the reality that the Internet does not exist for its own sake. Just as highways accommodate delivery of goods, travel, and even the pleasure of driving, the Internet provides a wide variety of information, entertainment, and communication services for consumers. Net neutrality may be compared to a regulatory regime that, with the intention of keeping highways open to all, forbade automobile and motorcycle companies to offer the options, power, and safety features that consumers wanted. A 1960s-vintage regulatory regime designed for a monopoly telephone system is ill-suited to a digital highway as dynamic as the Internet.

According to Adam Thierer, a senior fellow and director of the Center for Digital Media Freedom at the Progress & Freedom Foundation, net neutrality “is, at core, the forced commoditization of broadband. It is basically saying everybody has to be priced at some sort of flat, nondiscriminatory rate, and that’s for the FCC to decide.”<sup>5</sup>

The Internet is not, however, regulated only by the FCC. It also falls under the jurisdiction of the Federal Trade Commission (FTC), the Department of Justice (DOJ), and Congress. A June 2007 report from the FTC, *Broadband Connectivity Competition Policy*, sums up some of the concerns expressed by proponents of net-neutrality regulation. These include “blockage, degradation, and prioritization of content and applications; . . . vertical integration by ISPs and other network operators into content and applications; . . . lack of competition in ‘last-mile’ broadband Internet access markets; . . . the diminution of political and other expression on the Internet.”<sup>6</sup>

The FTC report then examines the other side of the debate:

“Principally, opponents of net neutrality regulation argue that: (1) neutrality regulations would set in stone the status quo, precluding further technical and business model innovation; (2) effective network management practices require some data prioritization and may require certain content, applications, or attached devices to be blocked altogether; (3) new content and applications are likely to require prioritization and other forms of network intelligence; (4) allowing network operators to innovate freely and differentiate their networks permits competition that is likely to promote enhanced service offerings; (5) prohibiting price differentiation would reduce incentives for network investment generally and may prevent pricing and service models more advantageous to marginal consumers; (6) vertical integration by network operators into content and applications and certain bundling practices may benefit consumers; and (7) there is insufficient evidence of either the likelihood or severity of potential harms to justify an entirely new regulatory regime, especially given that competition is robust and intensifying and the market generally is characterized by rapid technological change.”<sup>7</sup>

Some of the concepts in these FTC summations remain unknown or unclear to many observers, commentators, and even policy makers. Specifically, this paper will focus on whether a new regulatory regime, as proponents claim, would actually benefit consumers. As Mark Cooper noted, neutrality means government prevention of the exercise of market power. As such, it can be construed as a form of Internet rationing. The politically correct definition of net neutrality needs to be challenged, and so do the claims of what net neutrality would accomplish.

“We’re talking about net neutrality, which is just another nice name,” explains Randy May, senior fellow and president of the Free State Foundation. “I like ‘net neutering’ better, in terms of the actual impact of what happens.”<sup>8</sup>

# Who Wants Net Neutrality, and Who Doesn't?

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Defining net neutrality includes explaining what it is *not*. Likewise, it will prove helpful first to note who does not want net neutrality. Consider the list of organizations that recently opposed net-neutrality legislation in Maine: AT&T, the Central Maine Growth Council, Communications Workers of America/AFL-CIO, Maine Bankers Association, Maine Medical Association, Maine State Chamber of Commerce, New England Cable and Telecommunications Association, Time Warner, Verizon, and Hands Off The Internet, a group of ISPs, manufacturers, and users.

It is no surprise that the list includes ISPs and telecom heavyweights. But it also includes labor unions and business advocacy organizations. These groups are seldom on the same side of an issue, but they stand united in opposition to net neutrality. Note also the banking and medical organizations.

Conspicuously absent are groups that profess to work on behalf of the consumer, such as the Consumer Federation of America, whose Mark Cooper appears to know precisely what net neutrality involves and wants to make it happen. Common Cause, whose motto is “Holding power accountable,” is also absent. Common Cause is a major advocate of net neutrality for the wireless industry, a slightly different issue, which will be explored later in this paper. Also advocating neutrality is Moveon.org, a left-wing political group.<sup>9</sup>

With some exceptions, the forces favoring net neutrality tilt against private enterprise and the market, while those opposed favor the market and the private sector.

The alliance pushing for wireless net neutrality includes Lawrence Lessig, founder of the Center for Internet and Society; Michael Kieschnick of Working Assets Wireless; and Cory Doctorow of the Annenberg Center for Public Diplomacy at the University of Southern California. The cause is also supported by various union bosses, especially from unions heavily involved in the government sector,

such as the American Federation of State, County and Municipal Employees (AFSCME) and the Service Employees International Union (SEIU). Also on board are left-wing magazines such as *Mother Jones* and *In These Times*, and liberal-left religious groups such as the Interfaith Council for Social Justice.

With some exceptions, the forces favoring net neutrality tilt against private enterprise and the market, while those opposed favor the market and the private sector. Politicians pushing net neutrality are primarily Democrats with liberal inclinations, such as Senator Byron Dorgan of North Dakota; Maine Senator Olympia Snowe, a Republican but not exactly a conservative, is also on board. These alignments should prove instructive when attempting to make sense of this issue.

# Net Neutrality and the “Digital Divide”

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Net neutrality is the latest slogan in the battle over the “digital divide,” the notion that high technology in general, and the Internet in particular, automatically created a vast new division of haves and have-nots, which will persist unless politicians pass new laws and impose new regulations. In the digital-divide vision, the market is inadequate to bridge the gap, ever widening with each innovation. Indeed, in this view the market is the very cause of the divide and its inequities.

At the beginning of this decade, national spokesmen such as the Rev. Jesse Jackson adopted the digital divide as the civil-rights issue of our time. Jackson called it “classic apartheid,” while Kweisi Mfume of the National Association for the Advancement of Colored People (NAACP) called it “technological segregation.” President Bill Clinton urged a “national crusade” against it.<sup>10</sup>

The slogan, and some of the same rhetoric, duly arose in testimony on net neutrality before the FCC in 2007. Material submitted by the American Library Association charged that allowing ISPs or

broadband providers to discriminate against certain traffic would “exacerbate the digital divide and reduce consumer choice.”<sup>11</sup>

“Mr. Chairman, the only protection Internet consumers need is protection from unnecessary and damaging government intervention.”

Interestingly, though, not all those who ad-  
duce the digital divide advocate net neutrality. The NAACP urged the FCC to remove barriers to broadband deployment in underserved

areas—“Only then can the technological segregation formerly known as the Digital Divide be narrowed.” However, the NAACP did not specifically call for net neutrality as a way to boost broadband deployment.<sup>12</sup>

Neither did Jesse Jackson’s Rainbow/ PUSH (People United to Save Humanity) Coalition. In a statement to the FCC, Rainbow/PUSH called on broadband providers to continue “to invest in the development of the next-generation of the Internet for as many residents of our cities and towns as possible.” The Coalition “recognizes the need for broadband to enter all communities so everyone has the equitable opportunity to succeed in today’s digital economy.” Since the Internet is so entrenched, “we must do whatever is in our power to sustain its usage and deployment.”<sup>13</sup> But the Coalition makes no specific demand for net neutrality.

The Hispanic Technology & Telecommunications Partnership told the FCC that “policies that encourage competition between broadband providers will help a large segment of the Hispanic commu-

nity gain access to the Internet and narrow the digital divide for underserved communities.” But the Hispanic group said it believes “no compelling reason currently exists to establish new regulations” in addition to the FCC’s existing policies.<sup>14</sup>

The Independent Women’s Forum (IWF) also challenged the notion that more regulation is the answer. “Proponents of Internet regulation say they want to protect consumers,” the IWF told the FCC. “Protect them from whom?” The group specifically opposes net neutrality because it would amount to “inserting the government into previously free decision making.” If implemented, the IWF said, “barriers to entry will start to rise around certain sectors of the Internet economy.” The group’s statement concluded: “Mr. Chairman, the only protection Internet consumers need is protection from unnecessary and damaging government intervention.”<sup>15</sup>

In the current debate over net neutrality, we would do well to recall that the alarms of the digital-divide crusade proved unwarranted. Contrary to the claims about the widening gap between haves and have-nots, computers have become more affordable while also becoming more powerful. For those who don’t own a computer, Internet access is easily still attained—it’s even free in libraries. And in American cities, many of the homeless—also known as the indigent community—sport cell phones and other high-tech devices.<sup>16</sup>

Supporters and opponents of net neutrality both claim to represent the needs of the consumer. The crux of the issue is whether new regulations or the market will better serve those needs.

# Net Neutrality and the Consumer

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A key charge in the net-neutrality arsenal is that without regulation the various broadband providers will block content that is not to their political liking or commercial benefit, thus depriving consumers of their right to know or their ability to access certain programs and features. The neuters call this “discrimination,” a term with legitimate application in this case, when the issue is content, but loaded with overtones intended to seize the moral high ground. As net-neutrality supporters cast it, they are against discrimination and Big Broadband is for it.

Chellie Pingree, former president of Common Cause, has warned that ISPs would block web sites of political candidates they oppose. James Gattuso, senior research fellow at the Roe Institute for Economic Policy Studies at the Heritage Foundation, points out that this charge is “largely hypothetical.”<sup>17</sup> Blocking of web sites is actually almost non-existent. It has also escaped notice that many consumers want certain things blocked, such as spam, Nigerian financial scams, child porn, love letters from under-age Russian girls, and so on. But if a service provider or a search engine persistently blocked material that consumers wanted, those consumers are free to leave that company and seek better service with another.

“Google could easily block or bias certain search results to disadvantage rivals or to favor political causes,” Gattuso notes. “Google, however, does not engage in systematic bias for the same reason that network owners such as Verizon or Comcast do not: competition. Blocking web sites or impeding disfavored services would quickly send customers packing to another provider.”<sup>18</sup>

If a service provider or a search engine persistently blocked material that consumers wanted, those consumers are free to leave that company and seek better service with another.

Consumers can leave one provider for another because, as Thomas Lenard observes, “broadband is not a monopoly.” Lenard explains: “The market is really quite intensely competitive right now, and unless we mess it up by adopting policies that deter investment, it’s likely to be more competitive in the future.”<sup>19</sup>

The FTC, which investigated the acquisition of Adelphia Communications by Comcast and Time

Warner, agrees with that assessment. The FTC quotes an FCC estimate that “by 2006, broadband DSL [digital subscriber line] service was available to 79 percent of the households that were served by a telephone company, and cable modem service was available to 93 percent of the households to which cable companies could provide cable television service.”<sup>20</sup> The FTC continues: “There

is evidence that the broadband Internet access industry is moving in the direction of more, not less, competition, including fast growth, declining prices for higher-quality service, and the current market-leading technology (i.e., cable modem) losing share to the more recently deregulated major alternative (i.e., DSL).<sup>21</sup>

The FTC sees Internet growth as fueled by the World Wide Web, which was created in 1989. The number of web sites has grown from one in 1989 to 18,000 in 1995 to 50 million in 2004 and more than 100 million in 2006. This incredible growth is due to the increasing power of computers, the diminishing complexity of Web-site construction, and “the realization by businesses that they could use the Internet for commercial factors.”<sup>22</sup>

Along with Internet growth, Internet competition is also increasing, not decreasing.

Along with Internet growth, Internet competition is also increasing, not decreasing. Wi-Fi hot spots are becoming more common, backed by companies such as Earthlink and T-Mobile and by some municipalities. Deployment of Wi MAX and Broadband over Powerline has

already occurred in several areas, with projections of more than two million households on BPL by 2011. The effect of this expansion and competition has been to reduce prices without requiring a new regulatory regime of the kind that net-neutrality advocates seek to impose. In its June 15 comment to the FCC, AT&T pointed out that since 2003, when the neutrality debate began to escalate, the company lowered the monthly price of its 1.5 Mbps DSL service from \$49.95 to \$19.99.<sup>23</sup> The FTC notes that not every area enjoys vigorous broadband competition yet, but that such competition is on the rise. In many areas, 10 or more choices for broadband now exist. Broadband is available to a full 94 percent of all homes in the United States, and to 93 percent of households even in a largely rural state such as Kentucky.<sup>24</sup>

Consider this recent assessment by the FTC: “Specifically they [opponents of net neutrality] note that a substantial number of consumers now have access to high-speed service from satellite technologies, as well as other wireless technologies, such as Wi-Fi, Wi MAX, and 3G cellular services. Three companies have deployed infrastructure to provide satellite broadband service to most of the U.S. According to the FCC, there were over 400,000 satellite broadband customers by the end of 2005. Wi-Fi, which uses unlicensed spectrum, provides download speeds of up to 20 Mbps in over 40,000 hot spots across the country. A number of municipalities are exploring the deployment of Wi-Fi networks. Wi MAX technology is also being deployed, with over 150 pilot projects under way

by May 2006. Sprint, for example, is building a nationwide Wi MAX network and expects to reach 100 million customers by 2008. 3G cellular technology is already deployed, with speeds of up to 3 Mbps. Additionally, telephone companies are deploying fiber-optic broadband networks, and BPL technology is already deployed in a handful of local markets.”<sup>25</sup> That represents a major increase in broadband infrastructure, without a regime of net neutrality.

Net-neutrality advocates go hypothetical and base the need for a new regime not on actual cases but on what some companies might do in the future.

As James Gattuso pointed out, the blocking of web sites is extremely uncommon. But an existing case of blockage may prove instructive.

Out of the reams of material submitted to the FCC on net neutrality, the major case cited of an ISP tampering with the rights of consumers involved Madison River Communications. As of 2004, Madison River, based in Mebane, North Carolina, conduct-

ed nearly \$200 million of business from a customer base of more than 220,000, including nearly 40,000 DSL users. In 2004, one of Madison’s customers discovered he could not access his Vonage VoIP (Voice over Internet Protocol) account and complained about it. Vonage in turn complained to the FCC, which promptly investigated and found that Madison River was engaging in improper blockage. Madison River agreed to pay a \$15,000 fine and consented to desist from blocking such ports in the future.

FCC Chairman Michael Power said in a statement, “We saw a problem, and we acted swiftly to ensure that Internet voice service remains a viable option for consumers.” Vonage CEO Jeffrey Citron said his company was “very pleased that the Commission took very swift action to address the concerns that we had regarding an Internet service provider’s ability to block our customers’ communications with each other.”<sup>26</sup>

The Madison River case confirms that when a violation does occur, the FCC is able to deal with it—in this case, to the satisfaction of not only the consumer but also of the two private companies involved, all without the need for a new regulatory regime. So, as Gattuso put it, net-neutrality advocates go hypothetical and base the need for a new regime not on actual cases but on what some companies might do in the future.

Thus Data Foundry, Inc., a Texas-based provider of data-center services, told the FCC it was not true that there are no examples of violations. The company cited the Terms of Service and

Acceptable Use Policies (TOS/AUP) of broadband providers, which include the right to monitor content. These policies, said Data Foundry, are “dedicated to limiting customer choice with regard to applications and services.”<sup>27</sup> However, Data Foundry was not able to cite any actual violations based on these agreements.

The National Association of Telecommunications Officers and Advisors, the National Association of Counties, and the National League of Cities did bring an actual case to the FCC’s attention. It involved Telus, a Canadian company that in 2005 blocked access to a web site set up by some of its employees, and in the course of doing so blocked access to other web sites as well. However, the fact that net-neutrality advocates had to resort to a company outside the United States to make their point suggests that examples of U.S. violations are few indeed.

Meanwhile, the Consumer Federation of America told the FCC: “Current behavior does not in any way reflect the environment that will exist over time if the FCC fails to enact enforceable network neutrality or open access conditions. We would not expect to see rampant violations of neutral network practices at this time, but we would certainly predict that they will occur in the future and become the norm in the longer term.”<sup>28</sup>

The FTC, in its report on the controversy, sums up this line of reasoning: “Neutrality advocates argue that more concrete examples of alleged harms, beyond *Madison River*, do not exist primarily because network operators have been on their best behavior in the short time since recent legal and regulatory determinations were handed down, to avoid attracting further scrutiny. Proponents argue that without further regulation, however, network operators will likely engage in such practices in the future and that there will be no practical way to prevent or remedy the resulting harms without a comprehensive, *ex ante* regulatory regime.”<sup>29</sup>

Proponents of net neutrality portray the concept as the First Amendment of the Internet. “Nonsense,” says Adam Thierer. “The First Amendment is very clear. It says Congress shall make no

“You’re not going to make more money, if you’re a broadband provider, by screwing people over. It’s really that simple. You’re going to want to offer them more services, more things to access and therefore, you’re going to want to cut deals that are pro-consumer and offer them more choices.”

law. I'm not quite sure what part of that network neutrality proponents don't quite understand, but the fact is, when you create policies that allow the FCC or other agencies to regulate Internet infrastructure, you do potentially open the door to allowing regulators to meddle with the Internet and Internet speech in other ways."<sup>30</sup> And, though it is not evident in the writings of neutrality advocates, people at Internet companies also have free-speech rights under the First Amendment. As Randy May notes, many such providers are "in the business of delivering content they own." That means they have protection under the First Amendment.<sup>31</sup>

If net neutrality is not the Internet's First Amendment, neither is it "digital democracy."<sup>32</sup> But its advocates see the matter differently.

"We wouldn't let the government divide highways for private profit, so why would we let the telecom industry divide the Internet?" says an Action Alert by Common Cause, its fifth alert in the cause of net neutrality.<sup>33</sup> "We are fighting every day to make sure you don't end up in the slow lane. But battling fat-cat corporations and their buddies at the FCC is no cheap venture. That's why we really need your help on this campaign.

"Executives like AT&T CEO Randall Stephenson are determined to divide the Internet into a fast lane (reserved for their own companies and those who pay hefty fees) and a slow lane (for the rest of us) to boost their profits at our expense. If we don't stop the telecom industry's assault on accessibility, the Internet as we know it will not exist...

"We need your support now if we're going to win the fight for Net Neutrality, and every dollar counts. You can still help us build the resources we need to take on the telecom lobby, but time is running out." And so on, confirming that a scary slogan can prove a useful tool for fundraising.

For CFA's Mark Cooper, "the Internet economy, unhindered by gatekeepers, thrives by producing abundance. The gatekeeper's economy thrives by allocating scarcity. We believe that the scarcity view, which has been imposed on Americans because of the unregulated duopoly we've had for the last couple years, is, in fact, a fundamental reason we are falling behind in broadband penetration."

Cooper continues, "Thousands of ISPs who were strangled by network operators, who forced consumers to pay twice, tens of billions of dollars of CLECs' [competitive local exchange companies'] money that couldn't get into the network, those are testimony to what the incumbents will do if they're given the chance."<sup>34</sup>

“So much of what he [Mark Cooper] says here is in the realm of fiction, I believe,” responds Adam Thierer, “because contrary to what Mark says, these things that he suggests, the neoconspiratorial atmosphere we have out there, with the big media and telco and cable guys trying to ‘screw over’ every little guy that’s on a broadband network today, just doesn’t make sense, and the facts aren’t there. Indeed, where is the consumer harmed?”

“The only imposed scarcity that I know of,” Thierer adds, “is a scarcity that was around before I even had broadband networks to choose from, and, frankly, right now, today, we’re getting more choices than ever before.”

He cites the lively competition where he lives, in McLean, Virginia, between Cox Communications and Verizon’s FiOS (Fiber-Optic Service), which provides up to 50 megabytes of service in many neighborhoods. As of June 2006, Thierer could already get 30 megabytes of service downstream. He uses it to download movie videos and television clips and to play games. He reports that when he switched from Cox to Verizon at one point, Cox offered him a big discount to return. Thierer finds this power and variety odd if companies were really out to “screw over” consumers.

“It just doesn’t make any sense in terms of network engineering and economics,” says Thierer, “because a very well-known rule, the first principle of network engineering and economics, is that the value of your network is heavily dependent upon the number of people subscribing to it, or using it.

“You’re not going to make more money, if you’re a broadband provider, by screwing people over. It’s really that simple. You’re going to want to offer them more services, more things to access and therefore, you’re going to want to cut deals that are pro-consumer and offer them more choices.”<sup>35</sup>

Access, price, and speech issues are important, but the way net neutrality would affect the technological side of the Internet cannot be ignored.

“Giving government the opportunity to muck in this arena frightens me, especially the passing of laws which, at least from my perspective as a technologist, are incredibly hazy, and every time hazy laws are passed, there’s an opening for, quite often, mischief.” That is the view of Dave Farber, professor of computer science and public policy at Carnegie Mellon University and former chief technology adviser to the FCC.

“The Internet is not only the little piece that comes to my home,” Farber explains. “It’s a lot of networks that are connected together, a lot of backbone supplies that are connected together. Those backbone supplies have always exercised non-neutral attitudes.”

Indeed, says Farber, “discriminatory routing . . . is necessary for the operation of the Internet. Without that, in fact, it would be very, very difficult to provide the smooth delivery of information in an economic fashion. So my bottom line is, life is not simple and we don’t know enough, right now, to go around passing hazy laws. We’re about to launch on a completely new step forward in Internet architecture, and you don’t want the government regulatory mechanisms interfering with that.”<sup>36</sup>

Whether we’re talking about the technology side or the business side, current delivery systems for broadband are not perfect, but perfection is not the issue in the neutrality debate. The important point is that the current system is not a monopoly, unlike the common carriers of the past. Current delivery systems are highly competitive and adaptable to change, both beneficial to consumers. Current regulatory and legal arrangements have proven sufficient to deal with consumer complaints and conflicts between companies, as in the Madison River case. “Over time,” the FTC explains, “competition produces the best results for consumers, providing them the lowest prices, the highest-quality products and services, and the most choices. Competition forces firms to lower their costs and prices and to improve quality, service, convenience, and other attributes that consumers value. Competition induces firms to produce the types and amounts of goods and services desired by consumers. Our freemarket system fosters innovation, creativity, and entrepreneurship that are unmatched around the world.

“Further, such regulatory schemes inevitably will have unintended consequences, some of which may not be known until far into the future. Once a regulatory regime is in place, moreover, it may be difficult or impossible to undo its effects.”

“While there is disagreement over the competitiveness of the broadband Internet access industry, there is evidence that it is moving in the right direction. Specifically, there is evidence at least on a national scale that: (1) consumer demand for broadband is growing quickly; (2) access speeds are increasing; (3) prices (particularly speed-adjusted or quality-adjusted prices) are falling; and (4) new entrants, deploying Wi-Fi, Wi MAX, and other broadband technologies, are poised to challenge the incumbent cable and telephone companies. Although this is merely a high-level snapshot of

a dynamic, evolving marketplace, such evidence challenges the claims by many proponents of network neutrality regulation that the broadband Internet access market is a cable-telephone duopoly that will exist for the foreseeable future and that the two primary broadband platforms do not compete meaningfully.”<sup>37</sup>

Although it is, like the FCC, a regulatory agency, the FTC does not see new regulation as necessarily a boon for consumers: “Policy makers also should carefully consider the potentially adverse and unintended effects of regulation in the area of broadband Internet access before enacting any such regulation. Industry-wide regulatory schemes—particularly those imposing general, one-size-fits-all restraints on business conduct—may well have adverse effects on consumer welfare, despite the good intentions of their proponents. Even if regulation does not have adverse effects on consumer welfare in the short term, it may nonetheless be welfare-reducing in the long term, particularly in terms of product and service innovation. Further, such regulatory schemes inevitably will have unintended consequences, some of which may not be known until far into the future. Once a regulatory regime is in place, moreover, it may be difficult or impossible to undo its effects.”<sup>38</sup>

In other words, regulation has consequences at odds with consumer welfare in the short term and the long term. But that does not deter advocates of net neutrality from seeking legislation to impose the regime they want.

# Neutrality on the Legislative Front

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On June 21, 2007, Maine Governor John Baldacci signed a measure hailed by some as the nation's first net-neutrality legislation, but cited by others as a rejection of net neutrality. The initial legislation, LD 1675, charted conditions under which ISPs could offer products, though the law allowed variable pricing for different speeds and bandwidths.

The prime mover of the measure was Jon Bartholomew, formerly of Seattle and now media organizer for Common Cause in Maine. He gathered signatures for a petition and delivered it to Republican Senator Susan Collins, hoping to affect the debate in the U.S. Congress. Bartholomew's petition drew the attention of State Senator Ethan Strimling, a Democrat, who introduced a bill based on Bartholomew's petition. The measure became a "resolve" that calls for Maine's Office of the Public Advocate to study net neutrality and FCC policy on the issue and produce a report by February 2008.<sup>39</sup> That falls far short of the kind of legislation Common Cause and other pro-regulatory groups have in mind, but Bartholomew told reporters it will play a role in the national debate.<sup>40</sup>

"This resolution will help re-establish the Internet as the free and open arena of democracy it was always intended to be," said a statement by Shenna Bellows, executive director of the Maine Civil Liberties Union.<sup>41</sup>

Other states have also been considering Internet-related legislation. Earlier in 2007 Maryland declined to take action on net neutrality after the state's attorney general raised questions about the legality of such a move. In California, union activists prevented net neutrality from becoming part of the Democratic Party platform. Likewise, concerns from unions played a role in the rejection of net neutrality by lawmakers in Michigan. In April 2007, Illinois State Representative John Fritchey, a Democrat, introduced House Resolution 307, requesting the U.S. Congress to refrain from legislation regulating the Internet. In the view of Rep. Fritchey, the competitive marketplace should drive development, and net neutrality could stunt the growth of the Illinois technology industry. The resolution is currently sitting in the House Committee on Computer Technology. Also at this writing, New York is reportedly considering a net-neutrality plan, attached to a measure, AB 3980, that would allow streamlined access to the video service market.<sup>42</sup>

Attempts by state legislatures to regulate the Internet do not sit well with Scott Cleland, president of Precursor, a techcom research and consulting firm. "They don't seem to 'get' or care that the Internet is federal jurisdiction and federal policy makers at every official level have rejected calls for net neutrality legislation," said Cleland.<sup>43</sup>

Such calls, however, have been abundant and ongoing. According to a recent FTC report, at least eight bills addressing net neutrality were introduced in the 109th Congress, which ran from January 2005 to January 2007.<sup>44</sup> These include:

HR 5252, the Communications Opportunity, Promotion, and Enhancement Act of 2006, by Joe Barton, a Texas Republican and then-chairman of the House Commerce Committee. A major bill addressing a number of telecom issues, it included a provision that would leave in the FCC's hands the decision of how to enforce non-binding net-neutrality provisions.

HR 5273, by Rep. Edward Markey, Massachusetts Democrat. HR 5273 would have banned surcharges for priority service, banned networks from blocking content, applications, and equipment, and banned networks from favoring their own traffic.

HR 5417, the Internet Freedom and Nondiscrimination Act of 2006, sponsored by then-House Judiciary Committee Chairman James Sensenbrenner, Wisconsin Republican, and John Conyers, Michigan Democrat. The bill contained various interconnection and content-provision measures, along with a ban on blocking and a prohibition on charges for priority service.

Neutrality advocates have failed to get what they want on broadband regulation. Undeterred, they have taken the battle to another front.

S 2360, a bill by Oregon Democrat Ron Wyden. It would have completely banned charges to application and service providers and imposed price controls on broadband owners.

S 2917 by Senators Olympia Snowe (R-ME), Byron Dorgan (D-ND), and Daniel Inouye (D-

HI). S 2917 was similar to the Markey bill, but would have required Internet pricing to be not only "non-discriminatory" but also "reasonable"—raising, as James Gattuso pointed out, "the prospect of price regulation."<sup>45</sup> Backers included Democratic senators and presidential candidates Barack Obama and Hillary Clinton. The current version of the bill, the Internet Freedom Preservation Act, was re-introduced in the 110th Congress and, at this writing, is in the Senate Commerce Committee.<sup>46</sup>

On the 2008 presidential campaign scene, Republican Mike Huckabee appears inclined toward net neutrality, while fellow GOP hopefuls John McCain and Rudy Giuliani remain undecided, though leaning toward opposition. Mitt Romney is also undecided. Democrats Hillary Clinton, John Edwards, Barack Obama, and Bill Richardson all support the net-neutrality concept.

Hollywood has a huge stake in this debate, but net neutrality has not yet become a major cause in the dream factories. Perhaps the highest-profile actor to champion neutrality was Alyssa Milano of television's *Who's the Boss?* and *Charmed* and movies such as *Embrace of the Vampire* and *Confessions of Sorority Girls*. Milano also starred as Eva Savealot in television commercials for the 1-800-COLLECT service of MCI, which merged with Verizon in 2006.

Despite a party change in Congress favorable to their cause, neutrality advocates have failed to get what they want on broadband regulation. Undeterred, they have taken the battle to another front.

# Net Neutrality's Airborne Division

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The debate over wireless communication focuses not on issues of access, content, and pricing, but on usage limits for end users and on equipment, particularly requirements for purchasing a handset as part of a cell-phone contract. The issue actually goes back to the 1960s and to the question of what equipment consumers could use when dealing with a monopoly common carrier. The question then centered on the Carterfone, an acoustic coupler that allowed mobile radios to connect with a land-based telephone line. The Carterfone was named after inventor Thomas Carter and was used for communication with oil rigs and such. AT&T did not want to permit use of the Carterfone or other devices it described as “foreign” to its system. In 1968, the FCC ruled, in what became known as the *Carterfone* decision, that outside devices could be used as long as they caused no harm to the system. That opened the market for cordless phones, answering machines, fax machines, and modems. But once land-line services had been eclipsed by wireless, a new set of issues opened up.

Jump ahead to February 2007, when Skype, a provider of VoIP service, petitioned the FCC to apply *Carterfone* to wireless networks. In this quest, Skype cited *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice*, by the familiar Tim Wu. Wrote Wu:

“The wireless industry, over the last decade, has succeeded in bringing wireless telephony at competitive prices to the American public. Yet at the same time, we also find the wireless carriers aggressively controlling product design and innovation in the equipment and application markets, to the detriment of consumers. In the wired world, their policies would, in some cases, be considered simply misguided, and in other cases be considered outrageous and perhaps illegal.”<sup>27</sup>

For that reason, he does advocate applying the *Carterfone* rule to wireless, and also extending to wireless certain basic rules that already apply to broadband. However, he warns: “This paper is written to examine what carrier practices may be harmful for consumers or society. It is intended to shed light on practices that might, for one thing, be dissipated by consumer pressure and competition, and to raise questions for the carriers themselves. It is absolutely not a call for comprehensive regulation or nationalization of the wireless industry. The perspective is that regulation, if necessary, should be a last resort.”<sup>48</sup>

Note that in Wu’s mind, it remains unclear whether new regulation is even necessary; if so, it would be only as a last resort. Those who invoke Wu tend to exceed him in their push for regulation, which they demand as necessary and a first resort.

Others cite reasons why even the measures Wu does propose should not be applied to wireless. “The market and regulatory conditions that justified *Carterfone* regulation in the late 1960s do not exist in

the current U.S. wireless industry,” explain Robert W. Hahn, Robert E. Litan, and Hal J. Singer, in *The Economics of Wireless Net Neutrality*, a paper answering Professor Wu.

Most important, they write, “unlike AT&T’s control of the supply of wireline voice services nearly forty years ago, U.S. wireless operators today lack monopoly power in the downstream market for wireless services.”<sup>49</sup> Furthermore, the modern wireless industry has none of the vertical integration that characterized the telephone system of the 1960s. “None of the wireless operators,” Hahn, Litan, and Singer point out, “owns equity in any of the major handset manufacturers, including Blackberry, Kyocera, LG, Motorola, Nokia, Palm, Samsung, Sanyo, and Sony Ericsson. Thus, the wireless operators lack a financial interest in steering their customers to one handset maker over another. Similarly, the wireless operators have not significantly integrated into wireless applications markets. For example, none of the top content sites as ranked by visits, including Google, eBay, ESPN, and Amazon, are subsidiaries of the major wireless operators. The lack of vertical integration—a prerequisite for extending market power in an adjacent market—is a key ingredient that is missing from Wu’s case that *Carterfone* rules are needed here.”<sup>50</sup> Indeed, Apple’s new iPhone is an example of the fact that “the exclusive contracts are often imposed by handset makers, not the wireless operator, which undermines Wu’s central claim that wireless operators wield significant bargaining power vis-à-vis handset makers.”<sup>51</sup>

Hahn, Litan, and Singer conclude that there is no evidence of any market failure that would justify regulation. Indeed, they find an industry eager to satisfy consumers in a competitive market where customers enjoy diversity and innovation, both thriving.

Hahn, Litan, and Singer conclude that there is no evidence of any market failure that would justify regulation. Indeed, they find an industry eager to satisfy consumers in a competitive market where customers enjoy diversity and innovation, both thriving: “Since 1999 there have been more than 50 innovations in wireless application, and more than 150 handsets are now directly available from the five biggest operators. It is incumbent on proponents of regulation to explain why that seemingly high level of product diversity is not adequate.”

For Hahn, Litan, and Singer, Wu fails to connect his theory of competitor harm with consumer welfare: “Remarkably, Wu dodges the very issue that is critical in determining whether regulation would impose net benefits on society: ‘Whether the phone subsidies and other barriers to network

attachments are ultimately a pro- or anti-consumer practice we do not address in this paper.’ This admission is highly significant: It reveals that his analysis on its own cannot justify regulation of wireless operators.”<sup>53</sup>

Their conclusion is worthy of note: “Our principal conclusion is that the costs of implementing proposals to promote wireless net neutrality are likely to exceed the benefits. Given the lack of market power among wireless operators, the likelihood that any particular applications provider or equipment provider could be foreclosed by the conduct of a single wireless network owner is remote.

“Our analysis suggests that technological change occurs at a very rapid rate in the highly competitive market for wireless services. We believe that regulators should take particular care in regulating such markets. Regulation is typically a very crude instrument that could easily do more harm than good if, for example, it blunts the incentive for technological innovation. Given the rapid pace of innovation in the wireless industry, combined with the rapidly decreasing prices, it is hard to imagine that a regulatory elixir could actually improve on the status quo. For that reason, Wu’s calls for wireless regulation should be rejected.”<sup>54</sup>

The Cellular Telecommunications and Internet Association (known as CTIA—The Wireless Association) made similar arguments to the FCC in 2007, pointing out key technical differences between wireless and wireline. Wireless, for example, lacks a direct connection to the customer’s home and is thus a shared medium. This requires coordination of a number of variables, and radio transmission in a shared spectrum is susceptible to electromagnetic interference. For these reasons, “application of any net neutrality obligations designed for wireline communications [is] an ill-fit for wireless.”

In the view of the CTIA, the market is highly competitive and the FCC should keep it that way. “Ultimately, it should be up to consumers and the competitive market to determine what features they want and carriers should have the freedom to give them what they ask for.”<sup>55</sup>

The FTC’s warning about broadband regulation also applies in this case. Competition normally produces the best results for consumers, and regulation may have adverse consequences. That is particularly true of one-size-fits-all regulation of the type proposed by net-neutrality advocates, whose negative consequences may not be apparent for a long time. By then it may be too late to change. As the FTC noted, “Once a regulatory regime is in place, moreover, it may be difficult or impossible to undo its effects.”<sup>56</sup>

Advocates of regulation may or may not be aware of this dynamic, and of regulatory consequences in general. They claim to mount their campaign on behalf of the have-nots. Again, it should be noted that the homeless, the most destitute people in America, have not found it difficult to obtain cell phones in the current market, without a new regulatory regime.

Meanwhile, the neuters have found a new target-rich environment in the public airwaves.

# Net Neutrality's 700 Club

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By February 2009 broadcasting will be all digital all the time, and television stations must stop using part of the spectrum for analog broadcasts. That 700 MHz spectrum will be available for other purposes and will soon go up for auction. Tim Wu wants the government to attach *Carterfone*-type provisions to the auction rules.<sup>57</sup> Net-neutrality advocates warn that without stiff new regulations, the 700 MHz spectrum will “fall captive” to the fat-cat companies they view as monopolizing the Internet.

The Public Interest Spectrum Coalition (PISC) includes eight groups that pressed for neutrality legislation during the last session of Congress. On June 4, 2007, the PISC filed a set of comments with the FCC arguing that unless the agency takes action ‘to extend fundamental principles of consumer choice and openness to wireless services,’ the “consequences to the Internet, and to consumers, could be disastrous.”<sup>58</sup>

Also on June 4, Moveon.org submitted a letter to the FCC urging that the allocation of the 700 MHz spectrum was a “once-in-a-lifetime opportunity to revolutionize Internet access in our country. Used

correctly, these airwaves could beam high-speed Internet signals to every park bench, coffee shop, workplace, and home in America at more affordable rates than current Internet service. This would bridge the digital divide—bringing Internet access to many poor and rural families.”

Exactly how it would do so was not specified—but Moveon.org spotted trouble ahead: “But big phone and cable companies don’t want this new

competition to their Internet services—they want to cement their market dominance in place. If the FCC simply gives the highest bidder exclusive rights over the new airwaves, phone and cable companies could become permanent gatekeepers of the airwaves—continuing their record of keeping new competition and innovation out of the marketplace. Consumers would be hurt, technological progress would be slowed, and the economic benefits of bringing high-speed Internet to every American family would be lost.”

Why that might be so was not explained.

“By ushering competition into the marketplace, consumer-friendly practices like Net Neutrality and *Carterfone* principles would be promoted and reinforced by market forces—customers would be able to leave companies that didn’t abide by them for companies that did.”

The wireless industry that neutrality advocates seek to saddle with regulations is highly competitive and becoming more so with the advent of the iPhone and other products.

Market forces currently exist in this area, and customers can already leave one company for another that better meets their needs.

The letter closes: “In the end, the FCC has a choice: Use the public airwaves for the public good, or turn them over to companies that will stifle competition and innovation. We, the undersigned, urge you to allow wireless Internet to achieve its full potential—opening the door to affordable high-speed Internet for all, and bridging the digital divide.”<sup>59</sup>

Signatories include Stanford Law Professor Lawrence Lessig; Craig Newmark, founder of craigslist, an online classified-ad service; Wes Boyd, software entrepreneur and Moveon co-founder; Andy Stern, International President of the SEIU; Jeannie Moorman, president of AFSCME Local 1117 in California; Jay Harris, publisher of *Mother Jones*; Joel Bleifuss, editor of *In These Times*; Cory Doctorow of the Annenberg Center for Public Diplomacy; Matt Singer, founder of LeftInTheWest.com; and Drew McWeeny, a screenwriter and west coast editor of *Ain't It Cool News*. All told, an axis of techies, academics, and liberal-left activists.

Ostensibly, what they want is to seek equality in the auction process, but on examination some potential bidders turn out to be more equal than others. The politicization of the process amounts to a kind of set-aside program for those with business plans tailored to the sort of changes the activists want.

As Randy May notes, the new company Frontline Wireless was created specifically for the upcoming auction. One of Frontline's lead investors is Reed Hundt, chairman of the FCC during the Clinton Administration. Hundt's FCC imposed a regime of wholesale and retail unbundling rules that were finally dropped after the courts tossed them three times. May explains: “Recall the speculative telecom bubble of the late 1990s. Hundreds of newly created companies, without any network facilities of their own, rushed to take advantage of Mr. Hundt's unbundling rules that granted access to the wireline incumbents' networks at below-market FCC-controlled prices. Now recall the spectacular bursting of the telecom bubble in 2001 when it became clear, in the court's words, that the ‘completely synthetic competition’ created by the rules could not be sustained. As the court explained, ‘if parties who have not shared the risks are able to come in as equal partners on the successes, and to avoid payment for the losers, the incentive to invest plainly declines.’”<sup>60</sup>

Frontline now wants the FCC to turn back the clock and impose those rules again as part of the neutrality regime, which the company says will promote greater capital investment and risk taking. The history recounted by Randy May gives reason to believe that the reverse might be true.

The strategic picture is clear. Regulatory advocates have failed on one front and are now taking to the air with a high-profile campaign. That campaign leaves many uncertainties, including what open access means, exactly how it would work, and even why it is needed. The wireless industry that neutrality advocates seek to saddle with regulations is highly competitive and becoming more so with the advent of the iPhone and other products. Absent evidence of market failure and a coherent case for new regulation, the FCC should decline to encumber the 700 MHz auction with politics and regulations. As with broadband, existing rules are adequate to field complaints and adjudicate disputes between consumers and businesses, and between rival companies.

Opponents of new regulation have a strong case and should make it, perhaps turning up the volume as the auction approaches. It remains true, as the neuters say, that this issue affects everyone. And that is why we need to get behind the technological details and look into the heart of this debate.

# Beyond the Net-Neutrality Conspiracy

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The net-neutrality debate reveals that the true digital divide lies between those who see the market as the best guarantor of consumer welfare and those who look to government regulation to achieve that welfare. The rhetoric of the neutrality campaign betrays this view with the claim that democracy itself is at stake if consumers can choose to pay more for faster Internet service that meets their particular needs. One does not recall warnings of such threats to democracy when consumers were first offered the choice of paying extra to the U.S. Postal Service, a government monopoly, in order to send a letter by Express Mail.

Proponents of net neutrality doubtless avail themselves of the best high-speed Internet service available to them—something they and other consumers have come to expect and demand since the demise of dial-up as the default on-ramp to the Web. They have many options to choose from. It is their regulatory crusade that lacks bandwidth. Net neutrality is a narrow vision certain to have negative consequences for themselves and everyone else, a non-solution in search of a problem.

Material submitted to the FCC included the conspiratorial view that opposition to a neutrality regime amounts to powerful companies laying the groundwork for secret schemes they are panting to foist on an unsuspecting public, with collaboration from the federal authorities. The neuters see their activity as a pre-emptive strike on behalf of the powerless, who, without such noble advocacy, will languish forever in darkness. But consider the dynamic in play.

We have an existing system, not perfect but light years ahead of previous conditions. While not yet available to every American, this existing system provides good service and gives consumers a variety of choices in an open marketplace, with few or none of the access or discretion problems the neuters hold up as a kind of incantation. The neuters advocate new rules that would harm a functioning system, capable of creative and rapid change, based on what they *suspect* a few companies might be cooking up against the very customers they depend on for their livelihood.

It would be a long stretch to call that responsible advocacy. Net neutrality, in other words, would scrap what exists because of an unknown, a hypothetical that assumes the worst, without knowledge. This does not exhaust the ironies of this important debate, which will indeed affect the future of the Internet.

The net-neutrality debate reveals that the true digital divide lies between those who see the market as the best guarantor of consumer welfare and those who look to government regulation to achieve that welfare.

The “dumb pipes” of a bygone monopoly era are obviously inadequate for the world of streaming telemedicine, online games, and massive downloads of music, movies, television programs, and other features. It is entirely appropriate to frame this as a standoff between an old system that is admittedly stupid and a new, intelligent system that works well, attracts investors, and will remain capable of change provided the heavy hand of regulation does not come down on it.

# NNN: No to Net Neutrality

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In the dial-up era, there was not much to choose among the different Internet providers. That has changed dramatically over the past five years, with an explosion of service and fierce competition that benefits consumers. It makes no sense to abandon diversity and turn back the clock to the monolithic conditions of a monopoly era.

So it comes down to this: Net neutrality is an incantation based on fear of the unknown, as against recognition of what exists and works. Its advocates seek a paralyzing sameness based on the past, although they are now dealing with a medium that thrives on intelligence, innovation, and diversity. The net-neutrality issue will determine the future of that medium. The decision is a no-brainer.

Congress should not—nor should any state—make any law imposing a regulatory regime of net neutrality. That regime would yield negative consequences for consumers, quash innovation and investment, and—as the FTC warned—prove difficult or impossible to change in the future. Likewise, the FCC should not inject political and regulatory considerations into the auction of the 700 MHz spectrum.

A word about FCC decisions is in order. Mark Cooper referred to the 1968 decision to mandate neutrality for the monopoly common carrier of the day as “one of the brilliant decisions of the FCC, about which we don’t hear enough.”<sup>61</sup> It was also brilliant of the FCC thirty years later to act otherwise—to decline to impose monopoly-era regulation in the era of broadband, cable modems, fiber-optic systems, and the like. Developments since then have validated that decision. The U.S. Supreme Court also rendered a brilliant decision in *National Cable and Telecommunications Association v. Brand X Internet Services*. That decision, which supported the anti-regulatory position of the FCC, should stand.

Congress should not—nor should any state—make any law imposing a regulatory regime of net neutrality. That regime would yield negative consequences for consumers, quash innovation and investment, and—as the FTC warned—prove difficult or impossible to change in the future. Likewise, the FCC should not inject political and regulatory considerations into the auction of the 700 MHz spectrum.

# Toward Net Intelligence, Net Ubiquity, and Net Diversity

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At this writing Apple's iPhone has just been released, and the technological explosion continues. As the FTC noted, consumers can now avail themselves of wireless technologies such as Wi-Fi, Wi MAX, and 3G cellular services. Three companies have deployed infrastructure to provide satellite broadband service to most of the United States, which will add to the more than 400,000 satellite broadband customers already in place by the end of 2005. Telephone companies are deploying fiber-optic broadband networks, and broadband-over-power-lines technology is already deployed in a handful of local markets. Responsible public policy will welcome this explosion of technology and allow it to continue.

There is wisdom in the maxim that if something isn't broken, don't fix it. In this case, something isn't broken, so the FCC should not break it. Neither should Congress, the FTC, the DOJ, or any other agency. First, do no harm, which is what net neutrality would do.

Kept free from a new and onerous regulatory regime, high-tech companies large and small will continue to attract investment and roll out services that will promote Internet intelligence, Internet diversity, and Internet ubiquity, the true digital democracy of the next-generation Net.

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- <sup>2</sup> Tim Wu, “Network Neutrality, Broadband Discrimination,” *Journal of Telecommunications and High Technology Law*, Vol. 2, 2003, p. 149. Wu is also a writer for *Slate* magazine, and co-author with Jack Goldsmith of *Who Controls the Internet?*
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- <sup>4</sup> See Larry F. Darby, *Paying for Next Generation Broadband Networks*, American Consumer Institute, June 6, 2006, p. 5. <http://www.theamericanconsumer.org/Net%20Neutrality%20Study.pdf>
- <sup>5</sup> Adam Thierer in “Progress on Point,” p. 11. See also Thierer, “Are ‘Dumb Pipe’ Mandates Smart Public Policy? Vertical Integration, Net Neutrality, and the Network Layers Model,” in *Net Neutrality or Net Neutering: Should Broadband Internet Services be Regulated?* Thomas M. Lenard and Randolph J. May, eds., Progress & Freedom Foundation, 2006.
- <sup>6</sup> *Broadband Connectivity Competition Policy*, FTC Staff Report, June 2007, p. 5.
- <sup>7</sup> *Ibid.*, p. 6.
- <sup>8</sup> Randolph J. May in “Progress on Point,” p. 4. See also *Net Neutrality or Net Neutering*, Lenard and May, eds.
- <sup>9</sup> The name derives from the controversies surrounding the White House dalliances of President Bill Clinton, a condensation of “it’s time to move on.”
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- <sup>21</sup> *Ibid.*, p. 10.
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- <sup>29</sup> *Broadband Connectivity Competition Policy*, p. 59.
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- <sup>37</sup> *Broadband Connectivity Competition Policy*, pp. 155, 156.
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- <sup>44</sup> *Broadband Connectivity Competition Policy*, p. 145.
- <sup>45</sup> See Gattuso, "Broadband Regulation."
- <sup>46</sup> The blog at <http://www.netcompetition.org/> often includes material on neutrality legislation.
- <sup>47</sup> Wu, *Wireless Net Neutrality: Cellular Carterfone and Consumer Choice in Mobile Broadband*, New America Foundation: Wireless Future Program, Working Paper #17, February 2007.
- <sup>48</sup> *Ibid.*
- <sup>49</sup> Robert W. Hahn, Robert E. Litan, and Hal H. Singer, *The Economics of "Wireless Net Neutrality"*, AEI-Brookings Joint Center Working Paper No. RP07-10, April 2007, p. 8. Available at SSRN: <http://ssrn.com/abstract=983111>
- <sup>50</sup> *Ibid.*, p. 31.
- <sup>51</sup> *Ibid.*, p. 23.
- <sup>52</sup> *Ibid.*, p. 7.
- <sup>53</sup> *Ibid.*, p. 24.
- <sup>54</sup> *Ibid.*, p. 48.
- <sup>55</sup> CTIA comment to FCC, June 15, 2007, [http://svartifoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6519529475](http://svartifoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6519529475)
- <sup>56</sup> *Broadband Connectivity Competition Policy*, p. 11.
- <sup>57</sup> Wu, "Hooking Up," *Forbes Magazine*, May 18, 2007.
- <sup>58</sup> Ann Veigle, "Net Neutrality Groups Set Sights on 700 MHz Auction," *Communications Daily*, June 6, 2007.
- <sup>59</sup> "Technology leaders urge FCC: Use public airwaves for the public good," June 4, 2007, <http://civic.moveon.org/airwaves/fccletter.html>

<sup>60</sup> May, *Don't Let Neutrality Go Airborne*, the Free State Foundation, Perspectives of FSF Scholars, Vol. 2007, No. 17, June 14, 2007. See also May, "Net Neutrality Overreach," *The Washington Times*, June 23, 2007.

<sup>61</sup> Cooper in "Progress on Point," p. 7.

# About the Author

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## **K. LLOYD BILLINGSLEY**

### **Editorial Director**

Editorial director Lloyd Billingsley has been widely published on topics including popular culture, defense policy, education reform, and many other current policy issues. He has written a number of PRI education studies, including *California's Charter Schools: Empowering Parents, Students and Teachers* and *Expanding the Charter Idea*, and was editor of the Institute's *Voices on Choice: The Education Reform Debate*. Mr. Billingsley is also the author of *Hollywood Party: How Communism Seduced the American Film Industry in the 1930s and 1940s* and *From Mainline to Sideline: The Social Witness of the National Council of Churches*.

His articles have appeared in the *Washington Post*, *Wall Street Journal*, *USA Today*, and many other publications. Before joining PRI, Mr. Billingsley was a journalism fellow at the Center for the Study of Popular Culture in Los Angeles and served as a correspondent for the *Spectator* and the *Washington Times*.

# About the Pacific Research Institute

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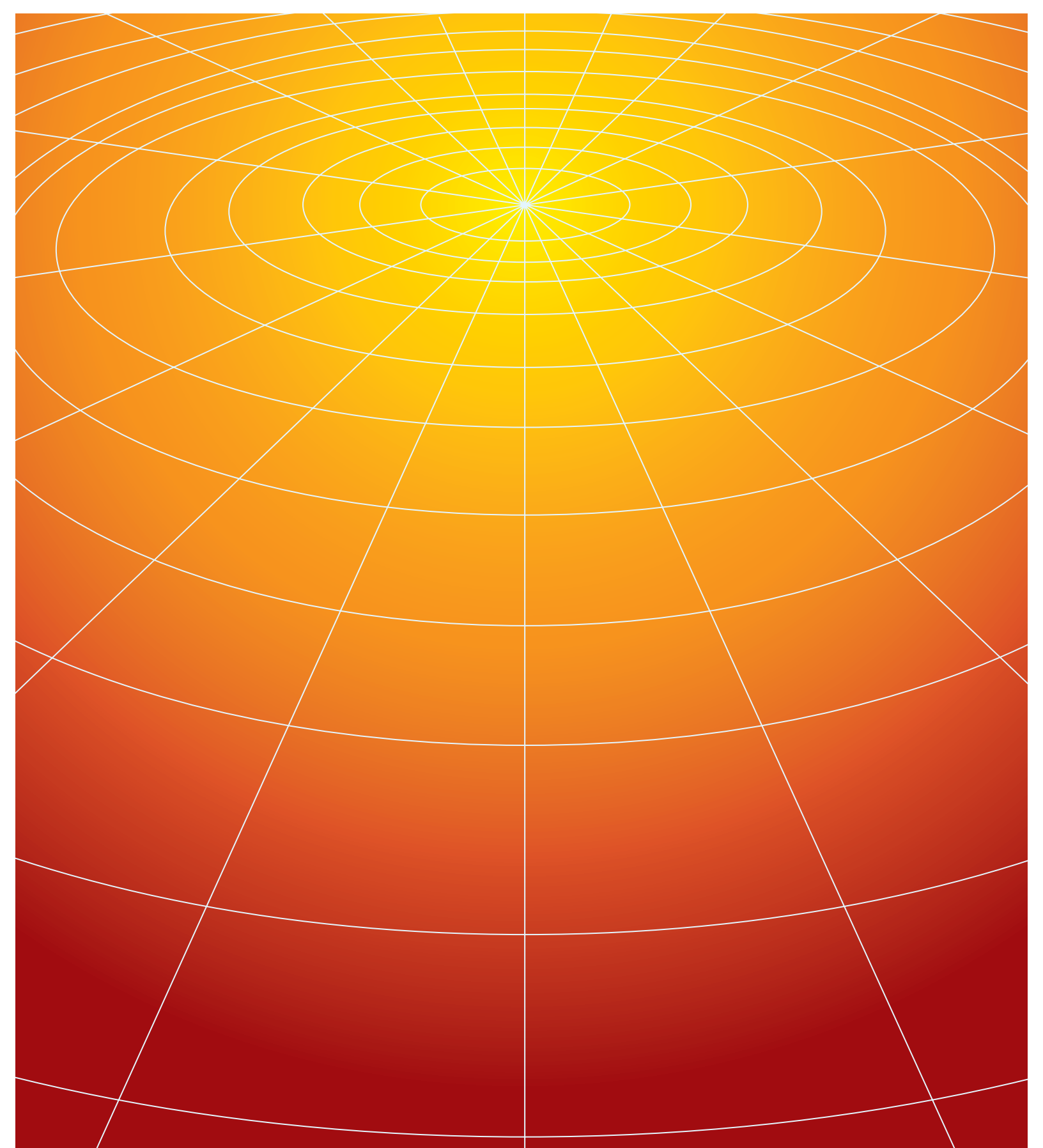
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