

# The Net Neutrality Debate: The Basics

Despite early participation in the development and expansion of the original Internet, over time the higher education community acquiesced in the commercialization of the Internet, concentrating instead on further strengthening the Internet2 organization and its Abilene backbone. Meanwhile, the Telecommunications Act of 1996 encouraged competition and promoted deregulation, reconfirming the judicial repudiation of the historical compromise whereby the federal government granted a monopoly in telephone service in return for a system of universal service. As a result, only now are we beginning to understand what will happen to the original vision of the Internet when that monopoly guarantee is fully removed and deregulation rules without limit.

## The Definition

There is no single definition of *net neutrality*: the phrase means different things to different communities, companies, and individuals. The simple definition used by Common Cause states: "Network neutrality is the principle that Internet users should be able to access any web content they choose and use any applications they choose, without restrictions or limitations imposed by their Internet service provider."<sup>1</sup> But such simplicity can itself beget confusion. What does the phrase "Internet users" really mean: does it refer only to individual end-users or also to corporate users like eBay, Google, Sony, and other service and content providers? How are "restrictions or limitations" to be interpreted? Do these refer to bandwidth shaping? To mass e-mail and spam? Is

pricing considered a restriction on accessibility? And aren't Acceptable Use Policies (AUPs) full of restrictions and limitations on users?

On further examination, net neutrality soon seems related to everything involving the Internet: privacy, security, freedom to communicate, innovation, and above all, who controls the Internet.<sup>2</sup> Since the meaning of *net neutrality* shifts depending on who gives the definition, a quick introduction to the basic players and the vocabulary may help.

## The Players and the Vocabulary

The players can be loosely grouped into those who, for the most part, are *against* the articulation and enforcement of net neutrality principles (who are referred to below as *Deregulators*) and those who, largely, are *in favor of* enforceable net neutrality principles (who prefer to be called *Openists*, rather than the more obvious *Regulators*). Among the *Deregulators* are the incumbent telecommunications companies, or "telcos" (BellSouth/AT&T/SBC, Verizon/MCI); the cable companies and their associations (Cablevision, Charter Communications, Comcast, Cox, Time Warner Cable, the National Cable Television Association); and equipment vendors (Cisco, Juniper, Nortel, VeriSign). On the other side, the *Openists* include CLECs (Competitive Local Exchange Carriers) and their associations (such as COMTEL); content providers (Amazon.com, Disney, eBay, Google, Microsoft, Yahoo!); VoIP (Voice over Internet Protocol) companies (Skype, Vonage); and higher education organizations (ACE, EDUCAUSE, Internet2, National LambdaRail, gigapops, Regional Optical Networks). Public inter-

est groups (the American Civil Liberties Union, the Center for Digital Democracy, the Electronic Frontier Foundation, Public Knowledge) are also active in favoring the formalization of net neutrality principles.

A specialized vocabulary—a mixture of law, economics, information technology, marketing, and telecommunications jargon—informs and frequently confuses the net neutrality debate. General concepts like *access*, *attachments*, *blocking and impeding*, *quality of service*, and *tiering* are intermixed with the economic meanings of terms like *duopoly*, *oligarchy*, *innovation*, and *Schumpeterian creative destruction*! This mixture is then topped off with telecommunications acronyms and with paired concepts like *dumb/smart pipes*, *edge/core networks*, and *bundled/unbundled services*. Debaters frequently talk past each other, often deliberately so, using the same words but with their preferred meanings.

## The Origin of the Debate

The history of the net neutrality concept is extensively covered in the first chapters of Lawrence Lessig's book *The Future of Ideas* (2001), though he refers to it as "neutral platforms." The Federal Communications Commission (FCC) 2002 cable broadband services decision, which recognized the cable industry's media monopoly over its own networks, ignited interest in net neutrality because the decision was a significant blow to prior open-access practices. The decision was upheld in the Supreme Court's *Brand X* decision of June 2005. To level the playing field for the telcos, the FCC next decided that DSL providers could deny network access to third-party Internet service providers.

In November 2002, the Coalition of

Broadband Users and Innovators (CBUI) was formed to lobby the FCC against these actions. Original CBUI members included Amazon.com, Microsoft, and Yahoo!, in addition to the Consumer Electronics Association and the National Association of Manufacturers. An industry-subsidized think tank in Washington, D.C., the Progress and Freedom Foundation, highlighted net neutrality at a June 2003 net neutrality conference by inviting Assistant Secretary of Commerce Nancy Victory to speak. Later that year, Lessig and Tim Wu, two of the most active academics in the debate, addressed an important *ex parte* comment to the FCC.

Before 2004, most of the net neutrality debate occurred within FCC proceedings and related litigation. Several academic and think tank pieces were published in 2004,<sup>3</sup> and the debate broadened in 2005 as newspaper and trade journal articles on net neutrality began to appear monthly. At the same time, congressional attempts to rewrite the 1996 Telecom Act proliferated, and the lack of any consensus on net neutrality soon came to be viewed as a major obstacle to comprehensive telecommunications legislation. House and Senate hearings on net neutrality were held to document—but not resolve—the issue.

## The Dilemma

Limited deregulation following decades of monopoly and quasi-monopoly policies and practices has resulted in a U.S. telecommunications environment in which the telcos and cable companies maintain a duopoly and minimize competition through mergers and acquisitions. For example, the remaining telcos now have their own cellular and fiber networks, and some have partnered with broadband satellite companies. Given that the remaining competition is between the three major modes of broadband service (cable, fiber, and satellite), the problem of intermodal collusion is increasingly important.

In economic terms, duopolists and oligarchists, those controlling the limited modes of production and delivery, have

had a history of fixing prices and stabilizing market share by jointly discouraging competition. This can happen naturally, without any direct communication or criminal intent. Within such a small group as two or three competitors, there may be more incentives *not* to compete than to compete, and new competitors faced with high market-entry costs have recourse only through time-consuming antitrust litigation. What this means for consumers is fewer provider choices and more product choices made for them by the dominant players.



The Openists argue that the duopolists “still don’t get it” with respect to the cooperative nature of the Internet and its historical end-to-end structure designed to give end-users both the freedom to choose and the freedom to innovate. Instead, having turned end-to-end on its head by vertically integrating their companies, the telcos and cable companies

argue that they are now free not only to assert their exclusive ownership over the limited number of consolidated networks but also to enforce end-to-end control over all products and services flowing through those networks. This is the familiar heavy-handed, “we know best” approach of Ma Bell, a claim that rings hollow since a dozen or more countries now offer greater bandwidth at lower prices to a larger percentage of their citizens.

## The Solutions

Today’s telcos seem to have little obligation to—and even less interest in—universal service. Instead, in pursuit of the best return on investment so that their proprietary broadband networks can be deployed quickly, the incumbent telcos are concentrating on who can pay and how much, tiering their services to saturate the market at the highest prices it will bear.

The Deregulators want to continue to deregulate because they believe there is no problem that their free market approach will not solve and that any abuses can be resolved after-the-fact through antitrust litigation. For the Deregulators, a compromise on net neutrality would be

to self-police—that is, to endorse a set of net neutrality principles in the form of a pledge that could be enforced by simple peer pressure and consumer choice. From the Openists’ viewpoint, the net neutrality debate and the threat of regulation through legislation must continue until strong net neutrality principles are codified and common carrier obligations reestablished. At the same time, Openists intend to pursue self-help in the form of community and municipal broadband networks and the use of unlicensed spectrum.

Reaching a national consensus on net neutrality soon is highly unlikely, given the two fundamentally different visions of the future: the Deregulators’ belief in a world of bandwidth scarcity, which justifies their tiered-pricing approach to services; and the Openists’ belief that a world of bandwidth surplus is upon us if we would but build it. Although it is also unlikely that the current administration and its FCC will support a strong legislative-enforcement mechanism for net neutrality principles, there is no reason to despair. Over time, monopolies tend to dig their own graves, and their demise, though long and painful for those living under their sway, eventually arrives. The Internet was created at least in part because of Ma Bell’s monopoly and failure to innovate, and Linux was created because of Microsoft’s market domination. Flawed U.S. telecommunications policies may cause the greatest short-term damage to the nation’s ability to innovate and to its global competitiveness, but it is this same urge to innovate that should prevail over the long run.

## Notes

1. “Keep the Internet Free and Open!” Common Cause Web site, <<http://www.commoncause.org/site/pp.asp?c=dkLNK1MQIwG&b=1234951>>.
2. FCC Commissioner Michael J. Copps framed the debate in these terms in 2003: Roy Mark, “Copps: FCC Following ‘Ill-Advised’ Internet Policy,” *internetnews.com*, October 10, 2003, <<http://www.internetnews.com/xSP/article.php/3090301>>. “Who Controls the Internet?” has been the title of several subsequent articles and of Jack Goldsmith and Tim Wu’s book published in March 2006.
3. See the EDUCAUSE net neutrality Web page for links to these documents: <<http://www.educause.edu/netneutrality>>.

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