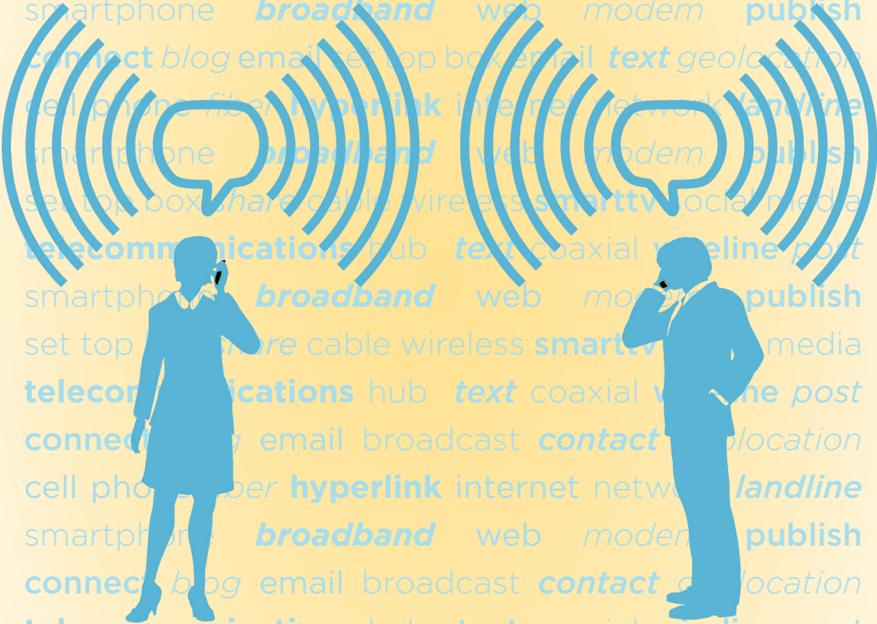


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Telecom Unplugged:

Ushering in a New Digital Era

By Deborah S. Collier
and Thomas A. Schatz

TELECOM UNPLUGGED: USHERING IN A NEW DIGITAL ERA

INTRODUCTION

In October 2007, Citizens Against Government Waste (CAGW) published *Telecom Regulation: Pulling the Plug on Government Interference*. The report noted that the rapid deployment of new technology was leaving a bevy of federal regulations over the telecommunications and cable industries in the dust. Today's converging communications and information technology (IT) environment has greatly enhanced and expanded how people around the world communicate and share information. The rapid adoption of Smartphone technology has enabled people to carry computers in the palms of their hands, and today's college freshmen are routinely equipped with laptops, cell phones, and tablets. The list of new mobile computing devices grows daily. This report, *Telecom Unplugged: Ushering in a New Digital Era*, updates CAGW's 2007 report.

Music and video are no longer limited to the living room but can be enjoyed through a wide range of options, including cable, fiber optic, satellite, and broadband, as well as wireless devices, anywhere at any time. Social media platforms including Facebook, Twitter, Pinterest, and others have become major sources of information sharing. At the 2013 Cable Show, cloud-based video platforms were introduced by Comcast and Time Warner Cable that would provide video programming and storage to consumers. Despite these innovations, the communications industry is still saddled with a regulatory regime that harkens back to the early 1930s and, for common carriers, back to the early days of the railroad industry in the late 1800s.

The Communications Act of 1934 was the first formal attempt to provide regulatory continuity to the growing telephone industry as it began to reach across the nation and connect people thousands of miles away from each other through a copper-wire line. In 1992, the Cable Act was passed in response to concerns that the broadcast industry needed protection when dealing with cable companies. The Telecommunications Act of 1996 further regulated both the telephone and cable industries following the breakup of the Bell companies.

None of those laws foresaw today's rapidly changing innovative marketplace, nor did they account for any future changes in technology that will greatly expand communications. While the communications industry continues to rapidly evolve, the federal government moves at a

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snail's pace to adapt, leaving in place old models governing technology and communications that should no longer apply to modern times. Unfortunately, these obsolete telecommunications regulations are stifling innovation and putting taxpayers and consumers at risk.

In his 1984 book, *Burning Money, The Waste of Your Tax Dollars*, that summarized the Grace Commission's findings, Peter Grace described the technological ignorance pervading the federal government. At the time of the book's publication, the average age of a government computer was 6.7 years; the average computer used by a U.S. business was three years old. Government computer systems were incompatible and required service technicians specifically trained to maintain the outdated equipment. The extra bodies added \$1 billion to the federal payroll over a three-year period. Meanwhile, in the private sector, IBM's General Systems Division updated its computer technology, saving \$360,000 in the first six months after installation, and the Boeing Military Airplane Company's new word processing system saved \$483,000 over a nine-month period.

In the 30 years since Mr. Grace published his book and co-founded CAGW with syndicated columnist Jack Anderson, the federal government's technological ineptitude has persisted. The current telecommunications debates and the federal government's attempts to regulate the industry are symptoms of larger problems.

From 1989 to 2000, 223 bills were introduced in Congress dealing with some portion of the telecommunications industry; 22 of them, including the Telecommunications Act of 1996, were signed into law. From 2001 to 2010, only 78 such bills were introduced, seven of which became law. The 2012 edition of Title 47, the chapter of the U.S. Code governing the telecommunications industry, now encompasses 3,668 pages. While the private sector speeds ahead with more innovation in response to consumer demand, the federal government lags behind trying to play catch up and fails to see the impact of its policies on taxpayers and consumers.

The telecommunications industry generates approximately \$347 billion annually or 2.4 percent of the GDP as measured by output, labor, input, investment and international trade;¹ and provides 2 million

¹ OECD (2013), "STAN Industry Rev. 4," STAN: OECD Structural Analysis Statistics (database), Doi: 10.1787/3151-00649-en, http://www.oecd-ilibrary.org/industry-and-services/data/stan-oecd-structural-analysis-statistics/stan-industry-rev-4_data-00649-en;jsessionid=h5cd4n3j3vr9.x-oecd-live-01?isPartOf=/content/datacollection/stan-data-en.

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direct and indirect jobs.² Yet this innovative and important sector of the economy remains hampered with antiquated laws and regulations.

This paper reviews several areas where government intervention or lack of intervention harms taxpayers and consumers. Topics include the implications of current and proposed Internet tax laws, federally funded broadband deployment, the provision of tools such as spectrum to enable improved communications across the nation, and Internet governance issues in the United States and around the world.

²“Industry Data,” National Cable and Telecommunications Association, <https://www.ncta.com/industry-data>.

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CHAPTER 4: WHO'S IN CHARGE?

Since its inception in the late 1960s,¹⁷⁷ and following its release for use by the Defense Advanced Research Projects Agency (DARPA) to the general public in 1992, the Internet has flourished and expanded around the world.

Formally defined in 1995 as the global information system,¹⁷⁸ the Internet has been governed by a multi-stakeholder approach, meaning that governments, users, academics, and many others provide input into the decisions that create global use standards. This hands-off approach to Internet governance has led to increased communications, the free flow of information, and all the other associated benefits of an open and lightly regulated Internet.

However, attempts are being made to change the flow of information and Internet governance both in the U.S. and abroad, and to increase regulations over ISPs.

THE UNITED NATIONS AND INTERNET GOVERNANCE

Efforts are currently underway to expand the jurisdiction of the UN's International Telecommunications Union (ITU) through a new international treaty that would give that body regulatory authority over the Internet. On December 3-14, 2012, 1,950 delegates from more than 160 nations met in Dubai, United Arab Emirates, at the World Conference on International Telecommunications (WCIT) to discuss the ITU, the International Telecommunications Regulations (ITRs) and other matters.¹⁷⁹ The provisions of the ITRs serve as a binding global treaty that facilitates international

¹⁷⁷ Barry M. Leiner, Vinton G. Cerf, David D. Clark, Robert E. Kahn, Leonard Kleinrock, Daniel C. Lynch, Jon Postel, Dr. Lawrence G. Roberts, and Stephen Wolff, "Brief History of the Internet," The Internet Society, 2013, <http://www.internetsociety.org/internet/what-internet/history-internet/brief-history-internet>.

¹⁷⁸ Ibid.

¹⁷⁹ "Global Technology Community Gathers for World Conference on International Telecommunications," International Telecommunications Union, December 3, 2012, http://www.itu.int/net/pressoffice/press_releases/2012/89.aspx#.UhuAnhvrzlg.

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interconnection and interoperability of communication services.

As a precursor to WCIT, and to address concerns raised by the Internet community and countries like the U.S. which believe the multi-stakeholder approach to Internet governance works, ITU Secretary General Hamadoun Touré assured member states that the treaty negotiations would not include the Internet. A new treaty would be adopted only by “unanimous consent” of the delegates and no votes would be taken during WCIT.¹⁸⁰ However, as the meeting progressed, a vote occurred that provided the ITU with authority over the economics and content of key aspects of the Internet, undermining the multi-stakeholder model of Internet governance.¹⁸¹

Led by China and Russia, 89 countries voted to add a new provision to the ITRs to give the ITU authority over the Internet by instructing the Secretary General to take the necessary steps for the ITU to engage in an active and constructive role in the development of broadband.¹⁸² The U.S. joined 54 other nations, including India, Japan, Kenya, and the United Kingdom in refusing to sign the new treaty provision, instead expressing support for the multi-stakeholder governance model. Some countries that signed the document were lured by the potential to raise revenues through tariffs on the Internet which would fund their own communications and non-communications objectives. Other supportive countries, many of which already censor or limit content, would like more control over the flow of information within their borders.¹⁸³

On February 5, 2013, the House Energy and Commerce Subcommittee on Communications and Technology; the House Foreign Affairs Subcommittee on Terrorism, Nonproliferation, and Trade; and, the Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations held a joint hearing to review the

¹⁸⁰ Larry Downes, “Russia Demands Broad UN role in Net Governance, Leak Reveals,” *CNet*, November 16, 2012, http://news.cnet.com/8301-13578_3-57551442-38/russia-demands-broad-un-role-in-net-governance-leak-reveals/.

¹⁸¹ Wayne Rash, “WCIT Treaty Talks End in Dubai with Walkout of U.S., Allies,” *eWeek*, December 15, 2012, <http://www.eweek.com/cloud/wcit-treaty-talks-end-in-dubai-with-walkout-of-us-allies/>.

¹⁸² “Final Acts, World Conference on International Telecommunications,” International Telecommunications Union, Dubai, December 3-14, 2012, <http://www.itu.int/en/wcit-12/Documents/final-acts-wcit-12.pdf>.

¹⁸³ Violet Blue, “WCIT-12 Leak Shows Russia, China, Others Seek to Define ‘Government-Controlled Internet,’” *ZDNet*, December 8, 2012, <http://www.zdnet.com/wcit-12-leak-shows-russia-china-others-seek-to-define-government-controlled-internet-7000008509/>.

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outcome of the WCIT conference.¹⁸⁴ The hearing included a discussion of draft legislation that later became H.R. 1580, which reaffirms America's commitment to a global Internet free from government control and calls for the preservation and advancement of the successful multi-stakeholder model under which the Internet is currently governed. On May 14, 2013, the House of Representatives approved H.R. 1580 by a vote of 413-0.

Eli Dourado, a research fellow at the Mercatus Center, offered five reasons why government entities such as the United Nations should refrain from controlling the Internet: concerns about censorship; the lack of technical expertise within government bureaucracies; the stifling of innovation; a unified global Internet that would charge not only content seekers for access, but also content providers for offering information; and the current success of the multi-stakeholder approach.¹⁸⁵

The U.S. must remain vigilant in any future ITU proceedings, and maintain its place at the forefront of promoting a free and open Internet. The changes to the ITRs agreed to by ITU members would radically alter Internet governance and adversely affect every aspect of the IT industry around the world.

THE STATUS OF NET NEUTRALITY

Network neutrality, a.k.a. net neutrality, is generally defined as a system that allows information on the Internet to move freely without regard to content, destination or source. In other words, every ISP would provide everything it makes available on the Internet without making any determination that one type of content is either more important or more expensive than any other content. Net neutrality has been a hot topic of debate among those interested in telecommunications policy since the Internet was opened up for public use in 1992.

The notion of equality on the Internet may sound reasonable, but net neutrality is instead an attack on private-sector business models. Proponents of net neutrality want the online world to be forced “open” at

¹⁸⁴ Grant Gross, “After WCIT, US Lawmakers Look for Ways to Advance Internet Freedom,” IDG News Service, *IT World*, February 5, 2013, <http://www.itworld.com/internet/340504/after-wcit-us-lawmakers-look-ways-advance-internet-freedom>.

¹⁸⁵ Eli Dourado, “Keep Your Government Hands Off the Internet,” *U.S. News and World Report*, May 13, 2013, <http://www.usnews.com/opinion/blogs/economic-intelligence/2013/05/13/5-reasons-to-keep-governments-out-of-internet-governance>.

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the expense of successful Internet providers, but fail to recognize the many tradeoffs to “openness,” such as increased spam, fewer privacy controls, slower service, and, perhaps most importantly, decreased incentives for investment and innovation.

Section 706 of the Telecommunications Act of 1996 included principles to encourage the deployment of telecommunications capability to all Americans, including the ability of an individual to access lawful Internet content, run applications, use desired services, and connect legal devices to the network; and promoting competition among network, application and service, and content providers.¹⁸⁶ Because these were guiding principles and not regulations, the Internet was able to continue in an open environment, free of government intervention, which permitted providers to grow and expand their offerings.

Several agencies of the federal government play a role in monitoring and regulating various aspects of the Internet, including the FCC, the Federal Trade Commission (FTC), and the DOJ. On September 6, 2007, the DOJ filed comments to the FCC on net neutrality, stating “Whether or not the same type of differentiated products and services will develop on the Internet should be determined by market forces, not regulatory intervention.” Furthermore, DOJ made it clear that it would continue to oversee and enforce any anticompetitive conduct to ensure a competitive marketplace.¹⁸⁷

However, the FCC ignored DOJ’s recommendations on regulating the Internet. Searching for a problem to make the case for net neutrality, the FCC determined that an ISP’s past attempt to combat network congestion by managing peer-to-peer traffic required the agency’s intervention.¹⁸⁸ In this instance, when the provider noticed that network demand by heavy users was impeding the ability of other subscribers to use its broadband service, the company’s engineers devised a way to intermittently hold traffic from peer-to-peer applications, preventing the vast majority of subscribers from suffering performance issues. In April 2010, the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court) vacated the FCC’s

¹⁸⁶ “S. 652, Enrolled, The Telecommunications Act of 1996, Section 706,” Federal Communications Commission, <http://transition.fcc.gov/Reports/tcom1996.pdf>.

¹⁸⁷ United States Department of Justice, “Department of Justice Comments On ‘Network Neutrality’ in Federal Communications Commission Proceeding,” September 6, 2007, http://www.justice.gov/att/public/press_releases/2007/225782.htm.

¹⁸⁸ Erika Morphy, “The FCC vs. Comcast: Who’s Got the Most Marbles?” *E-Commerce Times*, August 22, 2008, <http://www.ecommercetimes.com/story/64253.html>.

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attempt to sanction the provider.¹⁸⁹ Ultimately, the provider and the peer-to-peer community resolved the issue by developing alternative solutions that advanced traffic management techniques to everyone's benefit.¹⁹⁰ This agreement is a prime example of how conflicts on the Internet should be resolved.

Following its court defeat, the FCC began the process of promulgating new rules for net neutrality. First, the FCC determined that it could act without congressional authority and take control of the Internet by determining that broadband Internet access services should be considered a common carrier. Using Title II of the 1996 Communications Act, the FCC tried broadening its authority to regulate the Internet by deeming it the same as old-fashioned wireline telephone services. When Congress objected to this determination, the FCC backed away.

On December 21, 2010, the FCC voted along party lines to institute net neutrality rules in the Report and Order on Preserving the Open Internet without including any reference to Title II.¹⁹¹ The Democratic commissioners voted in favor and the Republican commissioners voted against the Report and Order.

The Report and Order included three rules for an open Internet: transparency, no blocking, and no unreasonable discrimination. According to the FCC,

The first rule requires transparency by broadband providers, who must disclose information regarding their network management practices, performance, and commercial terms of their broadband services so that their subscribers can make informed choices regarding those services, and so that edge providers can continue to develop content, applications, and services. The second rule provides that fixed broadband providers (such as DSL, cable modem,

¹⁸⁹ Comcast Corporation, Petitioner v. Federal Communications Commission and United States of America, Respondents, NBC Universal, et al., Intervenors, On Petition for Review of an Order of the Federal Communications Commission, Argued January 8, 2010, Decided April 6, 2010, United States Court of Appeals for the District of Columbia Circuit, [http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/\\$file/08-1291-1238302.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/EA10373FA9C20DEA85257807005BD63F/$file/08-1291-1238302.pdf).

¹⁹⁰ Cecilia Kang, "Court Rules for Comcast over FCC in 'Net Neutrality' Case," *The Washington Post*, April 7, 2010, <http://www.washingtonpost.com/wp-dyn/content/article/2010/04/06/AR2010040600742.html>.

¹⁹¹ Preserving the Open Internet; Broadband Industry Practices, Report and Order, 25 FCC red 17905, 17943, Section 66 (2010) [hereinafter "Open Internet Order"], Federal Communications Commission, December 21, 2010, <http://www.fcc.gov/openinternet#rules>.

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or fixed wireless providers) may not block lawful content, applications, services or non-harmful devices. Mobile broadband providers may not block lawful websites, or applications that compete with their voice or video telephony services. The third rule establishes that fixed broadband providers may not unreasonably discriminate in transmitting lawful network traffic over a consumer's broadband Internet access service. The Open Internet Rule and Order provides that consumers and edge providers may file a complaint regarding any perceived violation of the open Internet rules pursuant to Section 1.41 of the Commission's Rules.¹⁹²

While on the surface, these rules may sound reasonable, they only apply to the provision of broadband Internet access service. The FCC specifically exempted coffee shops, bookstores, airlines, and other entities offering Internet cafes from the Report and Order in order to allow them to better manage the network traffic on their premises. Yet, it bars ISPs from performing similar activities in order to provide improved service to their customers. The Report and Order is written in an open-ended manner, which could permit further restrictions over ISPs, including mobile broadband providers and wireless providers who are currently exempt, leading to uncertainty in the marketplace. The Report and Order also places pricing restrictions on ISPs by not allowing them to charge different prices to different types of users.

On September 30, 2011, Verizon Communications filed an appeal in the D.C. Circuit Court against the Report and Order. Verizon Senior Vice President and Deputy General Counsel Michael E. Glover stated, "Verizon is fully committed to an open Internet. We are deeply concerned by the FCC's assertion of broad authority to impose potentially sweeping and unneeded regulations on broadband networks and services and on the Internet itself. We believe this assertion of authority is inconsistent with the statute and will create uncertainty for the communications industry, innovators, investors and consumers."¹⁹³ On November 20, 2011, the Open Internet Order became final.

¹⁹² Ibid.

¹⁹³ Chloe Albanesius, "Verizon Appeals FCC Net Neutrality Suit," *PC Magazine*, September 30, 2011, <http://www.pcmag.com/article2/0,2817,2393956,00.asp>.

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On April 19, 2013, in a speech at George Mason University School of Law in Arlington, Virginia, Federal Trade Commissioner Joshua D. Wright provided reasons why he believed that the FTC's antitrust mandate is particularly well-suited to addressing the concerns that have been raised over the years in the debate surrounding net neutrality.¹⁹⁴ He said that the FCC's Open Internet order does a disservice to consumers by "employing an overly rigid, one size fits all, categorical ban on broadband providers' ability to enter into vertical contractual arrangements that are potentially—if not probably—efficiency enhancing." He further expounded on the FTC's experience in other areas that touch on net neutrality, including vertical arrangements similar to those falling under the net neutrality umbrella, and the FTC's consumer welfare mission.

The D.C. Circuit Court began hearing oral arguments in the case against the FCC's Open Internet Order on September 9, 2013, and on January 14, 2014, the court issued its ruling on the case.¹⁹⁵ The court's decision provides clarity to the scope of the FCC's authority over the Internet. While affirming that the FCC has some authority to regulate broadband services under certain sections of the Communications Act, the court found that the FCC overstepped its bounds when it subjected Internet providers to treatment as common carriers under the Open Internet Order through the anti-discrimination and anti-blocking rules on Internet services.

Prior to the Open Internet Order, the FCC had classified Internet access as an information service as opposed to a telecommunications service, the latter of which is regulated under the common carrier provisions of the Communications Act of 1934. The court affirmed that broadband is not subject to common carrier rules, and remanded the case back to the FCC for further proceedings. As FCC Commissioner Ajit Pai stated in response to the court's ruling, "Unless Congress acts, we should stay our hand and refrain from any further attempt to micromanage how broadband providers run their networks. We should focus on removing regulatory barriers to broadband deployment, not imposing unnecessary rules that chill

¹⁹⁴ Joshua D. Wright, "Broadband Policy & Consumer Welfare: The Case for an Antitrust Approach to Net Neutrality Issues," Speech at George Mason University School of Law, Arlington, Virginia, Federal Trade Commission, April 19, 2013, http://www.ftc.gov/speeches/wright/130423wright_nn_posting_final.pdf.

¹⁹⁵ *Verizon, Appellant v. Federal Communications Commission, Appellee, Independent Telephone & Telecommunications Alliance, et al., Intervenor*, Consolidated with 11-1356, On Petition for Review and Notice of Appeal of an Order of the Federal Communications Commission, United States Court of Appeals for the District of Columbia Circuit, decided January 14, 2014, [http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/\\$file/11-1355-1474943.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/3AF8B4D938CDEEA685257C6000532062/$file/11-1355-1474943.pdf).

infrastructure investment.”¹⁹⁶

In spite of Commissioner Pai’s cautionary comments, other commissioners remain dedicated to placing regulatory burdens over the Internet. FCC Chairman Tom Wheeler noted that the FCC “will consider all available options, including those for appeal, to ensure that these networks on which the Internet depends continue to provide a free and open platform for innovation and expression, and operate in the interest of all Americans.”¹⁹⁷

In addition to the actions cited in Chairman Wheeler’s remarks, there is the potential for legislation to be introduced to allow the FCC to redefine the Internet as a Title II telecommunications service regulated by common carrier rules under the Communications Act. If enacted, the bill would result in even stricter controls over Internet providers than would have been imposed by the Open Internet Order. All of these efforts should be opposed by those who support a truly free and open Internet.

Finally, consumers will continue to have all of the access to the World Wide Web that they need regardless of any future regulatory or legislative activity. AT&T, Comcast, Time Warner Cable, and Verizon all responded to the court’s decision restating their commitment to continuing to maintain an open Internet.¹⁹⁸

¹⁹⁶ “Statement of Commissioner Ajit Pai on D.C. Circuit’s Decision Striking Down Net Neutrality Rules,” Federal Communications Commission, January 14, 2014, http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0114/DOC-325111A1.pdf.

¹⁹⁷ “Statement by FCC Chairman Tom Wheeler Regarding DC Circuit Opinion on the FCC’s Open Internet Rules,” Federal Communications Commission, January 14, 2014, http://transition.fcc.gov/Daily_Releases/Daily_Business/2014/db0114/DOC-325106A1.pdf.

¹⁹⁸ Zach Epstein, “Net Neutrality’s Death Won’t Sting, ISPs argue,” Fox News, January 15, 2014, <http://www.foxnews.com/tech/2014/01/15/net-neutralitys-death-wont-sting-isps-argue/?intcmp=obnetwork>.