

The Communications Crisis in America

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As the December 2010 blizzard blew through New York and Boston, dumping two feet of snow and wrecking the plans of hundreds of thousands of travelers, many residents practiced the survival skill they knew best: communicating electronically. Observing and creating bold, colorful digital images—cable television, online video, social networking sites—filled hours of holiday-time inactivity. Lulled and cheered, Americans survived. Inside.

Despite their growing reliance on communications technology, most Americans would have difficulty identifying a single relevant social welfare issue in this area. Sure, they hate their local cable company for its incremental price hikes every six months, but that's the way it goes. The tradeoff is that Americans get hundreds of digital channels, access to all the sports events they could ever want, and a single bill (on average, upwards of \$130/month) for TV, high-speed Internet access, and voice services.¹ You might be able to get an average American riled up about healthcare, education, or energy problems—at least they'd know there's a problem—but it would be difficult to hold a conversation about telecommunications. It's boring, and, apparently, everything's fine. Excuse me while I check my Facebook page.

This situation may be about to change, but it will take some forceful explanation to penetrate the media fog. Now or very soon, most Americans in metropolitan areas will have only a single provider of wired high-speed data (at data rates that people around the world increasingly demand) to their community; thus, in each metropolitan area, wired access to information, entertainment, news, and communication will be controlled by a single actor. That actor, the local cable monopoly, is, at the moment, unconstrained by real competition or oversight and benefits from overwhelming economies of scale. At the same time, 26 million Americans outside metropolitan areas have no access to high-speed Internet access at all and a third of Americans don't subscribe—mostly because it's too expensive.² (Foreshadowing: wireless access won't save us.)

You may have heard about recent “net neutrality” scuffles in Washington, D.C., which focused on the power of Internet access providers to differentiate among Internet communications.³ The net neutrality discussion takes

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¹ Comcast's average revenue per user was \$130/month at the end of the third quarter of 2010; Charter's was \$126/month and Cablevision's was \$149/month for the same period. Ryan Lawler, *Big Cable Is Bleeding: 500K+ Subscribers Lost In Q3*, GIGAOM.COM (Nov. 4, 2010), <http://gigaom.com/video/big-cable-is-bleeding-500k-subscribers-lost-last-quarter/>.

² FCC, *Seventh Broadband Progress Report and Order on Reconsideration*, rel. May 20, 2011, FCC 11-78.

³ On December 23, 2010, the Federal Communications Commission issued a Report and Order suggesting the adoption of rules aimed at ensuring that Internet access remains nondis-

the existing market structure of Internet access providers as a given, avoids discussion of price-regulation or separation-between-distribution-and-content remedies, and consists of tussles over what “network management” techniques are appropriate for traditional Internet access. That multi-year battle is just a small part of the much larger issue discussed in this brief piece. Where there is just one pipe for everything—Internet access, entertainment, culture, civic discourse, news, sports, and government information—all presented in digitized form and under the dominion of a single corporate actor in each large municipality, what (if any) government intervention is appropriate?

This piece aims to explain how the cable distributors’ natural monopoly has arisen, to raise the policy questions that are prompted by recognition of this problem, and to provide suggestions for next steps. For the last eight years or so, our country’s telecommunications policies have been based on the assumption that competition among different forms of communications-transmission providers (phone, cable, satellite, wireless, or broadband-over-powerline) would protect Americans from a wide range of abuses, rendering regulatory oversight unnecessary. The slow cultural enervation that can arise from continuous industry consolidation has become an untouchable third rail of discussion. Meanwhile, entire careers have been devoted to maintaining and supporting the heroic narrative of competition. What follows if, as seems to be the case, it turns out that this story is not true?

I. BACKGROUND

A. *The Phone Companies: Focused on Wireless*

The year 1984, when the Department of Justice and Judge Harold Green broke up the AT&T monopoly, was probably the last time the American public really paid attention to telecommunications issues.⁴ Since then, the telecommunications business has been characterized by an extraordinary amount of merger activity and deregulation. The telephone companies have reassembled and combined their traditional local phone services with long-distance and wireless services, with the result that seven Baby Bells have become three. AT&T (old SBC and BellSouth), Verizon (old MCI and Bell

criminary. *In re Preserving the Open Internet Broadband Industry Practices*, 25 F.C.C.R. 17905 (2010).

⁴ In 1984, as part of an anti-trust settlement, AT&T divested itself of its twenty-two local Bell Operating Companies (which were consolidated into seven Regional Bell Operating Companies, or RBOCs, also known as Baby Bells), but held onto its manufacturing facilities and long-distance network. The RBOCs were restrained from manufacturing devices or providing long distance services; AT&T was restrained from providing local phone service. *United States v. AT&T*, 552 F. Supp. 131, 139 (D.D.C. 1982), *aff’d sub nom.* *Maryland v. United States*, 460 U.S. 1001 (1983).

Atlantic), and, the smallest of the three by far, Qwest (whose merger with CenturyLink was completed on April 1, 2011).⁵

AT&T and Verizon are now massive companies selling video and data as well as traditional voice services, but they are losing ground rapidly to the cable companies when it comes to wired residential service.⁶ Because many Americans are dropping their landline phone service, eliminating second phone lines that once were devoted to Internet access, and turning to cable companies for both voice and data service, AT&T and Verizon have lost 45% of their wired access lines since 2000.⁷

The phone companies' old copper lines carry far less information than fiber and can't compete with DOCSIS 3.0 upgrades, the cable companies' upgraded cable modem speeds.⁸ As of December 2009, for Internet access service with advertised download speeds of at least 10 Mbps (speeds needed for high-quality video viewing) and upload speeds of at least 1.5 Mbps, nearly 60% of households in America lived in census tracts served by only one provider of wired services: their incumbent local cable monopoly.⁹ In March 2010, the FCC predicted that areas holding 75% of the population would soon only offer one wired service provider.¹⁰ In order for the phone companies (Verizon and AT&T) to compete head-to-head with cable in wired access, they would have to rip up streets and install fiber-optic cable to Americans' homes. Cable distributors, by contrast, merely have to upgrade the electronics installed in their existing hybrid fiber-coaxial cable lines in order to provide very high-speed communications. Verizon, to its credit, has tried in the past to install competitive fiber-optic services, and its FiOS service will eventually reach about 10-15% of Americans, about 40%

⁵ See Sami Lais, *Qwest, CenturyLink Finalize Merger, Become Fourth Largest Carrier*, WASH. TECH. (Apr. 4, 2011), available at <http://washingtontechnology.com/articles/2011/04/04/qwest-centurylink-deal-close.aspx>.

⁶ See CRAIG MOFFETT, REGINA POSSAVINO & NICHOLAS DEL DEO, BERNSTEIN RESEARCH, U.S. CABLE AND U.S. TELECOMMUNICATIONS: BROADBAND END GAME? 7 (2010) ("Cable's share of 2Q 2010 net broadband additions rose steeply, to 91.4%, versus 67% in the prior quarter and a mere 41% in the year-ago quarter.").

⁷ BERNSTEIN RESEARCH, U.S. TELECOMMUNICATIONS AND CABLE & SATELLITE: CAPITAL PUNISHMENT 26 (2010).

⁸ DOCSIS 3.0 combines several individual cable channels for two-way Internet connections, increasing bandwidth and speed. See DOCSIS 3.0, CABLELABS, available at http://www.cablelabs.com/cablemodem/downloads/docsis_30.pdf. With the availability of high data rates provided by cable systems using DOCSIS 3.0, DSL (Internet access provided over copper phone lines) is becoming irrelevant. See Dale N. Hatfield, *The Challenge of Increasing Broadband Capacity*, 63 FED. COMM. L.J. 43, 64 (2010).

⁹ FCC, INTERNET ACCESS SERVICES: STATUS AS OF DECEMBER 31, 2009 7 (2010), available at http://www.fcc.gov/Daily_Releases/Daily_Business/2010/db1208/DOC-303405A1.pdf.

¹⁰ FCC, NATIONAL BROADBAND PLAN 42 (2010), available at <http://download.broadband.gov/plan/national-broadband-plan.pdf> ("[I]n areas that include 75% of the population, consumers will likely have only one service provider (cable companies with DOCSIS 3.0-enabled infrastructure) that can offer very high peak download speeds."). Where Verizon FiOS service exists, there will be competition with cable Internet access service providers for high-speed Internet access at speeds that are necessary to carry out real-time videoconferencing or watch high-definition video. Where it doesn't, there won't be any competition, and consumers will have just one provider to choose from: their local cable monopoly. Most Americans—perhaps more than 75% of them—will fall into this category.

of whom will probably subscribe.¹¹ In March 2010, however, Verizon announced that it was backing off and would not be expanding its FiOS reach.¹² AT&T didn't try to build fiber to homes. Its U-verse service uses copper lines in neighborhoods plus fiber to those neighborhoods.¹³ As a result, AT&T's U-verse service can't compete effectively with cable's DOCSIS 3.0 data rates; AT&T avoided the cost burden of bringing fiber all the way to homes, but sacrificed speed and competitiveness.

It wasn't timidity that stopped these two companies from rising to cable's challenge. It was cost. Both Verizon and AT&T are stuck with the enormous up-front costs of building a second network (this time, a fiber network) to homes, replacing their old copper lines. At a time when their legacy voice landlines are becoming increasingly unpopular, the phone companies don't have the capital structure they would need to justify to Wall Street any further investments in fiber.¹⁴ It costs Verizon nearly \$4000 per subscriber to install FiOS; it costs AT&T about \$2100 per subscriber to install U-verse.¹⁵ The phone companies have high fixed costs, and they can't possibly cut their costs and keep profit margins stable while revenues from their existing copper lines shrink.

Given the tremendous economies of scale and cost advantages of the cable industry, being a wireline phone company is not a great business these days. To survive the hemorrhaging of their wireline businesses, Verizon and AT&T are emphasizing wireless, where margins are greater and where nearly all their operating income is made. These businesses have also been the focus of a great deal of consolidation; AT&T Wireless includes Cingular and AT&T Mobility and will likely soon include T-Mobile, and Verizon Wireless includes AirTouch and Alltel.¹⁶ Already, Verizon and AT&T account for 65% of the wireless industry's revenues, and Sprint is very far

¹¹ By the end of 2010, Verizon's FiOS service was available to 15.6 million homes. Nearly a third of the people offered these services actually subscribed to them, yielding Verizon a total of 4.1 million FiOS Internet customers and 3.5 million FiOS TV customers. Press Release, Verizon, Verizon Reports Strong 4Q and Year-End 2010 Results, Highlighted by Cash Flow, Wireless and FiOS Growth (Jan. 25, 2011), <http://newscenter.verizon.com/press-releases/verizon/2011/verizon-reports-strong-4q-and.html> (on file with the Harvard Law School Library).

¹² Peter Svensson, *Verizon Winds Down Expensive FiOS Expansion*, USA TODAY (Mar. 26, 2010) ("Verizon has faced skepticism from investors over the project because of the high costs."), available at http://www.usatoday.com/money/industries/telecom/2010-03-26-verizon-fios_N.htm.

¹³ For a comparison of Verizon's FiOS service and AT&T's U-verse, see *How is AT&T UVerse Different From Verizon FiOS?*, FIBER FOR ALL, <http://fiberforall.org/att-uverse-vs-verizon-fios/> (on file with the Harvard Law School Library).

¹⁴ For an analysis of the debate as of mid-2008, see Saul Hansell, *Verizon's FiOS: A Smart Bet or a Big Mistake?*, N.Y. TIMES, Aug. 19, 2008, at C1.

¹⁵ BERNSTEIN RESEARCH, *supra* note 7, at 28.

¹⁶ *Id.* at 63-64; see also David Sarno & Alex Pham, *AT&T to Buy T-Mobile, Creating Wireless Giant*, L.A. TIMES, Mar. 21, 2011, at A1.

behind; if AT&T successfully merges with T-Mobile, it will command 43% of the mobile market all by itself.¹⁷

Wireless access, for all the hoopla and acronyms, is limited by the laws of physics to carrying far less information than a wired connection—particularly a DOCSIS 3.0 hybrid fiber-coax wired connection—and so won't create direct competition to the cable companies' services either; it is, instead, a helpful mobile complement.¹⁸ This is why Verizon is doing everything it can to avoid net neutrality for wireless services. It is wholly focused on its wireless business and wants to avoid being disintermediated by a mass movement of wireless consumers toward cheap voice services that act like other Internet applications, such as e-mail, that any company can provide over a transmissions facility.¹⁹ Verizon Wireless is not competing with cable. Satellite Internet access is too hopelessly slow and expensive to serve as a substitute for wired cable service, and broadband over powerline has proven to be a pipe dream.

That leaves the cable companies.

B. The Cable Companies: The Digital Pipe for Everything

The new business of cable was a joy in the 1960s. Broadcast signals were available to be plucked out of the air by cable systems and brought by wire to towns that couldn't otherwise see television shows. Municipalities were happy to give permits for building cable systems to anyone who would risk the money to do it, and the money was remarkably easy: find a town in a valley in Pennsylvania that wasn't getting broadcast signals, put up an antenna on a hill, pick up a strong network signal, run the wire from the antenna down the hill through the trees, charge a household \$100 to hook up to the wire, take that \$100 to wire the next street, charge individual households \$3 a month, and keep the income because of the tax treatment of the cable system. Rates could go up regularly. As Ralph Roberts, founder of Comcast, has said, "[Y]ou keep your costs down and it's like chicken in a grocery store."²⁰ And Comcast co-founder Daniel Aaron once wrote, "It's the

¹⁷ BERNSTEIN RESEARCH, *supra* note 7, at 54; Diane Bartz & Jasmin Melvin, *AT&T Seen Selling Assets to Get Nod for Mega Deal*, REUTERS, Mar. 21, 2011, available at <http://www.reuters.com/article/2011/03/22/us-tmobile-att-idUSTRE72J3JE20110322>.

¹⁸ Hatfield, *supra* note 8, at 65 (explaining that, due to material efficiency and protection from interference, fiber and fiber-coax offer far more bandwidth than that available through wireless); see also CTR. FOR SEC., SCI., DEF. R&D CAN., 700 MHz SPECTRUM REQUIREMENTS FOR CANADIAN PUBLIC SAFETY INTEROPERABLE MOBILE BROADBAND DATA COMMUNICATIONS (2011) (describing the limitations of proposed wireless communications protocols), available at [http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/smse-018-10-public-safety-sub2.pdf/\\$FILE/smse-018-10-public-safety-sub2.pdf](http://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/smse-018-10-public-safety-sub2.pdf/$FILE/smse-018-10-public-safety-sub2.pdf).

¹⁹ See *Verizon Sues Over Net Neutrality Rules*, CHRISTIAN SCI. MONITOR, Jan. 22, 2011, available at <http://www.csmonitor.com/Business/Latest-News-Wires/2011/0122/Verizon-sues-over-net-neutrality-rules>.

²⁰ JOSEPH N. DiSTEFANO, COMCASTED: HOW RALPH AND BRIAN ROBERTS TOOK OVER AMERICA'S TV, ONE DEAL AT A TIME 28 (2005).

greatest thing since stealing.”²¹ Cable companies collected these regular payments each month for carrying the signals of the Big Three broadcast networks—ABC, CBS, and NBC—into homes desperate for entertainment.

As time has gone on, distribution companies anxious to get a part of this business have rolled up these physically exclusive franchises into ever larger groups of systems. Comcast, for example, is the product of a long string of cable mergers, swaps, and acquisitions that have transformed the company from a patchwork of small cable holdings into several superclusters centered on major U.S. cities.²² Comcast assembled its Philadelphia cluster between 1998 and 2000 by closing nine separate transactions that together added more than 1.4 million subscribers in the Philadelphia area to its stable.²³ Nationally, Comcast’s acquisitions have helped it become the largest cable operator in the United States, with twenty-three million cable subscribers in 2010.²⁴ There are only a few other large cable operators.²⁵ These companies are also the products of many consolidating transactions.

Here is one of the key truths about the cable industry: the major cable providers in this country do not compete with one another.²⁶ The operators clustered all cable during the summer of 1997—the “Summer of Love,” according to Leo Hindery, then-President of Tele-Communications, Inc., and the architect of the effort—pursuing swaps and partnerships that put most markets in the U.S. in the hands of a single operator.²⁷ Clustering continued when Comcast and Time Warner Cable divided the assets of the bankrupt Adelphia Communications in 2006.²⁸

On the national level, the cable industry appears deceptively competitive. Comcast—the largest cable company by far—has about a 30% share of the nationwide market, and Time Warner Cable has about a 17% share.²⁹

²¹ *Id.*

²² *Comcast Corporation Company History*, FUNDING UNIVERSE, <http://www.fundinguniverse.com/company-histories/Comcast-Corporation-Company-History.html> (on file with the Harvard Law School Library); *see also* Competitive Impact Statement, 76 Fed. Reg. 5440, 5444 (Jan. 31, 2011).

²³ *See* Behrend v. Comcast Corp., 264 F.R.D. 150, 156 n.8 (E.D. Pa. 2010) (describing the acquisitions and including specific subscriber counts).

²⁴ Competitive Impact Statement, *supra* note 22, at 5447. Comcast is also the nation’s largest Internet service provider, with over sixteen million subscribers. *Id.*

²⁵ *See Top 25 Multichannel Video Programming Distributors as of Sept. 2010*, NAT’L CABLE & TELECOMM. ASS’N, <http://www.ncta.com/Stats/TopMSOs.aspx> (on file with the Harvard Law School Library).

²⁶ *See* Susan P. Crawford, *The Looming Cable Monopoly*, 29 YALE L. AND POL’Y REV. INTER ALIA 34, 37 (2010), available at http://yalelawandpolicy.org/sites/default/files/YLPRI_A29_Crawford.pdf.

²⁷ Sam Schechner & Elizabeth Holmes, *Daschle, Hindery Fates Interwoven*, WALL ST. J., Feb. 2, 2009, available at <http://blogs.wsj.com/washwire/2009/02/02/daschle-hindery-fates-interwoven/>.

²⁸ *Key Dates in the History of Comcast Corp.*, BUSINESSWEEK (2011), <http://www.businessweek.com/ap/financialnews/D9L1KA7G0.htm> (on file with the Harvard Law School Library).

²⁹ *See In Re Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Ann. Rep., 24 F.C.C.R. 542, 555 (2009). In June 2006, there were 65.3 million basic cable subscribers. Comcast subscribed 21.7 million (33%) and Time Warner 11.1 million (17%). *Id.*

But these figures obscure the fact that the big cable companies never enter each other's territories. This is a physical, geographically bound business of big pipe monopolies, and Comcast dominates in Boston, Philadelphia, Chicago, San Francisco, Atlanta, Washington, D.C., Houston, Seattle, and Detroit. Comcast has chosen its territories well: 94.4% of the U.S. population and 94.4% of U.S. households with an income of at least \$50,000 live in the thirty-nine states (plus D.C.) served by Comcast.³⁰ Brian Roberts, CEO of Comcast, has said that he would like to see Comcast increase its share of the high-speed data market from 33% to 90–100%—after all, Comcast has just one competitor: Verizon's FIOS service.³¹

Cable in general faced substantial up-front costs in upgrading its networks to enable two-way services in the late 1990s and early 2000s, but those upgrades are now complete. The industry is poised to reap the central reward for geographical clustering, upgrades, and *de facto* monopoly presence—unconstrained pricing ability and an unmatched high-speed communications service in a marketplace where consumers are agitating for higher-speed communications and the cable companies are making north of 90% margins on their data services.³²

II. WHERE WE ARE NOW

Instead of thinking of a cable system as a provider of broadcast television at higher resolution, it helps to envision a cable system like Comcast as a provider of a giant, singular pipe for communications. All the “channels” in that pipe are virtual—digital divisions, compressed and swappable at will. It's really just a massive conduit for whatever the cable system wants to present. Three or four of those digital channels are given over to high-speed Internet access. The rest of the pipe is filled with hundreds and hundreds of digital cable network channels.

In many ways, Comcast (and Time Warner) is functioning more like a provider of water or electricity to your home. Like water and electricity, the communications network was very expensive to build initially, but adding one additional customer doesn't add much cost. Like water and electricity, it wouldn't make sense to have two providers (and the failure of the telcos to compete reminds us how difficult that is). And like water and electricity, you don't really have a choice over who's going to bring that pipe to you. These are natural monopoly services.

³⁰ Memorandum from Keith Klovers to author (Apr. 7, 2010) (on file with author); *see also* Comcast: About Us, <http://business.comcast.com/about/index.aspx> (last visited Apr. 23, 2011).

³¹ Brian Roberts, Chairman and CEO, Comcast Corp., Address at Comcast Corporation at Morgan Stanley Technology, Media & Telecom Conference 4 (Mar. 2, 2011) (transcript available at http://files.shareholder.com/downloads/CMCSA/1217124787x0x447538/c20eba7d-049c-4dc7-a5cd-873f880b42bb/Comcast_MS_Transcript_3.3.11.pdf).

³² BERNSTEIN RESEARCH, DEC. 2010 BLACK BOOK 81 (2010).

But there are two key differences. First, unlike water and electricity, the cable industry is essentially unregulated. Yes, cable is obligated to provide a basic pay-TV service at a low cost³³—but it sells access this way to only the networks and C-SPAN, and very few Americans buy this service. And yes, cable is obligated to carry local broadcast signals.³⁴ Everything else—particularly, bundles of Internet access, pay-TV, and voice—is up for grabs pricing-wise.³⁵ Second, unlike water and electricity, the cable industry is now the arbiter of speech. Information as well as entertainment, Internet access as well as phone calls, interaction of all kinds—all of this, all of the wealth of apparent choices confronted by Americans, is coming from giant, cooperating, single sources with physical monopoly power in each major metropolitan neighborhood.

The Comcast/NBCU merger, which was approved in January 2011, drew all of these narrative threads together. In that transaction, the pipe-provider (Comcast) joined forces with one of the five media companies who together account for most of the viewing hours in America.³⁶ During all of those hours New Yorkers spent inside during the blizzard, Disney, Viacom, News Corp., Time Warner, and NBCU produced most of the lulling electronic sensations that kept them entertained. Now Comcast and NBCU are one.

Some argued that the addition of NBCU content to Comcast's market-powerful position would be contrary to the public interest,³⁷ but that position did not prevail. In a sense, it was too late for that argument—one that cabinet-level officials in the Nixon White House had made strenuously in 1974.³⁸ Cable distributors had long ago gotten into the content business, and both

³³ See FCC, CABLE TELEVISION INFORMATION BULLETIN (June 2000) (noting local franchise authority over basic cable rates as well as must-carry requirements), <http://www.fcc.gov/mb/facts/csngen.html> (on file with the Harvard Law School Library).

³⁴ *Id.*

³⁵ The December 2010 “net neutrality” rules promulgated by the FCC (*see supra* note 3) expressly did not apply to “specialized services,” which could include anything crossing over the cable wires and using the Internet Protocol and which may prove to be the exceptions that swallow the rule of neutrality. See Nate Anderson, *So Long, Broadband Duopoly? Cable's High-Speed Triumph*, ARS TECHNICA (Jan. 3, 2011), available at <http://arstechnica.com/tech-policy/news/2011/01/so-long-broadband-duopoly-cables-high-speed-triumph.ars>.

³⁶ *Competition in the Media and Entertainment Distribution Market: Hearing Before the H. Comm. on the Judiciary*, 111th Cong. 35 (2010) (testimony of Jean Prewitt, President and CEO, Indep. Film & Television Alliance) (“Five major conglomerates now own the national broadcast networks and 24 out of 30 of the top cable channels[,] . . . produce over 80% of all primetime programming, and control 85% of the primetime TV market share.”), available at http://judiciary.house.gov/hearings/printers/111th/111-121_55068.pdf.

³⁷ See, e.g., *The Comcast/NBC Universal Merger: What Does the Future Hold for Competition and Consumers?: Hearings Before the Subcomm. on Antitrust, Competition Policy & Consumer Rights of the S. Judiciary Comm.*, 111th Cong. 2–6 (2010) (testimony of Andrew Schwartzman, President & CEO, Media Access Project), available at <http://judiciary.senate.gov/pdf/10-02-04%20Schwartzman%20Testimony.pdf>.

³⁸ LELAND L. JOHNSON, THE CABINET COMMITTEE REPORT TO THE PRESIDENT ON CABLE COMMUNICATIONS I (1974), available at <http://www.rand.org/pubs/papers/2008/P5193.pdf>. A young Antonin Scalia was one of the White House staff members involved in preparing this report.

the markets for media content and media distribution were already highly concentrated. Thus, the merger-specific harms created by the deal were difficult to isolate, and both the Department of Justice Antitrust Division and the Federal Communications Commission were constrained to dealing with the particular transaction they were reviewing. A few time-limited non-market-structural conditions were applied to the merging company.³⁹ But Comcast successfully argued that anything beyond these conditions would be inappropriate.

The much more interesting question following the approval of the Comcast/NBCU merger is, “What now?” Now that we know that the cable companies are poised to reap the rewards of their unbridgeable comparative advantages, what should be done?

Competition won’t protect Americans. Yes, satellite companies may be able to sell you pay-TV services, but they won’t have high-speed Internet access to sell unless they resell cable or telephone Internet access services. Cable companies can charge the satellite companies whatever they want for the privilege of reselling their Internet access services, because there’s no real competition. Again, satellite can’t provide a competitive high-speed Internet access service on its own, because satellites are too high up—latency prevents those services from being anything other than frustrating and expensive. Competition from wireless won’t protect us; it’s not fast enough to substitute for these giant pipes. And, as we’re discovering, competition from phone companies won’t be meaningful for the vast majority of households in America. It’s just too expensive for Verizon and AT&T to do battle with cable for wired services.

III. POLICY PROBLEMS

Let’s assume that all communications across the cable-provided pipe are “just like” Internet transmissions, in that they take advantage of the efficiencies of the Internet Protocol.⁴⁰ Let’s further assume that all of the “channels” conveyed via that pipe are digital and thus virtual—making the capacity of cable’s DOCSIS 3.0 pipe almost unlimited.⁴¹ Let’s further assume that cable systems have adopted a services overlay that puts IP services into a common provisioning and management system, complete with elaborate digital rights management control; in other words, the cable industry will be able to perfectly charge for each thing you do “online,” invisibly,

³⁹ See *In re Applications of Comcast Corp., Gen. Elec. Co. & NBC Universal, Inc.*, No. 10-56, 2011 WL 194538 (F.C.C. Jan. 20, 2011) (approving Comcast/NBCU merger). Among other things, Comcast is obligated to provide standalone high-speed data service for three years at \$49.95 per month, *id.* at 27, and a low-income data service for \$9.95 for at least three years, *id.* at 102, and to provide programming to online video distributors if one of its peer media companies does so, *id.* at 2.

⁴⁰ See Susan P. Crawford, *The Internet and the Project of Communications Law*, 55 UCLA L. REV. 359 (2007) (describing Internet Protocol).

⁴¹ Hatfield, *supra* note 8, at 54.

just like the wireless carriers do. Let's further assume that that services overlay will allow for the personal targeting of advertisements across that pipe based on (and inserted into) your use of voice, video, Internet access, social networking, gaming, and location-based services.⁴² Let's assume, finally, that the device wars are lost and that only devices sold by the cable network provider are allowed to access all of this information and present it to consumers. Although the FCC keeps trying to ensure that you can choose your set-top box and that it can work with any data source, these efforts have been extremely difficult.

Let's also recall that television advertising is an approximately \$70 billion business, and that the cable operators would like to get a bigger piece of that pie. Personal targeting of ads based on use of the interactive IP pipe provided by cable operators will make that possible. After all, the cable operators will be able to promise advertisers that they know everything about the buying habits of their subscribers across this vast digital pipe. No other media advertiser can make this claim. For advertisers, knowing more about the targets of their ads is what the business is all about.

It's also important to understand that cable operators take in tens of billions a year in revenue for monthly cable bills and turn around and pay at least \$25 billion in fees to the cable networks owned by the other media conglomerates (and are beginning to pay more in real broadcast network fees as well).⁴³ The entire, consolidated, giant media system—the large, noncompeting cable distributors and the large media conglomerates that control content—is very rich and getting richer.

This money flow—the retirement plans of executives at all of these sister-oligopoly companies—depends on avoiding disruption of the cable pay-TV model by over-the-top (Internet only) subscription video services. To get more of the advertising pie, cable providers must ensure that all advertisable content is flowing through their conditional gates so that advertisers will (directly or indirectly) pay them.

Avoiding disruption, in turn, depends on making over-the-top services of all kinds—not just entertainment, but any interactive engagement that depends on reliably real-time high-bandwidth communication, like videoconferencing, news, and certainly sports—less attractive to consumers. Unless,

⁴² As noted by the FCC, Cisco expects online viewing to exert significant influence on future demand for broadband capacity, ranking as the top source of Internet traffic by the end of 2010 and accounting for 91% of global Internet traffic by 2014. See *In re Preserving the Open Broadband Industry Practices*, *supra* note 3, at 6 n.41; see also Press Release, Cisco, Annual Cisco Visual Networking Index Forecast Projects Global IP Traffic to Increase More Than Fourfold by 2014 (June 10, 2010), http://www.cisco.com/web/MT/news/10/news_100610.html (on file with the Harvard Law School Library).

⁴³ Fees paid by cable distributors to cable network programmers amounted to \$25 billion in 2009. Diane Mermigas, *Retransmission, Advertising Fees Transform TV*, SEEKING ALPHA (Apr. 26, 2010), available at <http://seekingalpha.com/article/200840-retransmission-advertising-fees-transform-tv>. The “retransmission consent” battles that captured the nation's attention in 2010 are about this issue—network broadcasters want to be paid for their content, just the way cable networks are.

of course, those over-the-top services are willing to do a deal with the cable companies on their terms by giving them a piece of their money flow, in which case the companies have every interest in prioritizing them and calling them “specialized services,” which are not subject to any net neutrality rules. The cable distribution industry is interested in having more people sign up for its high-speed Internet access services, because that’s where future growth lies.⁴⁴ The industry just wants to make sure that the services being accessed by consumers are in the right kind of commercial relationship with the cable distributors: providing a piece of equity, or paying for carriage.⁴⁵ Given all of these assumptions and predictions, the existence of a single, powerful pipe to many homes in America raises a number of troubling policy questions. We will be discussing these problems for years.

The cable system providers will have both the motive (maintaining the money flow) and the ability (physical control of the Internet Protocol pipe to the home) to ensure that competing pure Internet businesses dependent on high-capacity connections will not be a meaningful part of the media landscape unless they pay tribute to the cable operators. Because the cable operators will be providing both pay-TV distribution and high-speed Internet access distribution, they are well positioned to prevent the outbreak of competition and new business models made possible by the higher-speed Internet.

In very simple terms, the giant pipe owners will have an equally giant conflict of interest.⁴⁶

Net neutrality—that awful term that makes policymakers grab their foreheads in despair and exhaustion—is a tiny portion of the problem. (Net neutrality, again, is the idea that providers of “Internet access” should not unreasonably discriminate against Internet transmissions.) When there is only one pipe to most American homes, and when the pipe provider is essentially unconstrained in its power to label, price, slice, dice, monetize, and

⁴⁴ The growth area for Comcast and Time Warner is, in fact, high-speed Internet access. Almost 50% of their gross profits now derive from high-speed data and voice services—a big jump from 35% just four years ago. Profit margins for data and voice services exceed 90%. BERNSTEIN RESEARCH, *supra* note 7, at 81–82.

⁴⁵ Three levers in the hands of the cable distributors will be particularly useful along these lines: (1) charging for Internet access based on usage (so-called “usage based billing”), so that users accessing a great deal of online video will be driven towards the cable distributors’ own video on demand subscription services; (2) charging connecting carriers who want particular content to reach the last-mile cable distributor’s subscribers; (3) limiting access to programming so that online video distributors have to pay a great deal for it. A complete description of all of these angles is beyond the scope of this brief piece.

⁴⁶ Comcast CEO Brian Roberts’s March 2, 2011, statement makes Comcast’s strong gatekeeper position clear: “And as more and more applications require bandwidth, as the bits per home go up, the bet we’re making and the bet you’re making, if you own us, is that over the next 10 years, people will want more bits in their house over a wire than ever before. And whether that is called Xbox Live, whether that is Skype, whether that is Netflix, whether that is Comcast, Xfinity, streaming, whether that is some kid in the garage inventing an application that we all wish we’d thought of, Facebook Junior, next Google—I like that position.” Brian Roberts Address, *supra* note 31, at 4 (emphasis added).

prioritize services, Internet access across that pipe becomes little more than an amusing alleyway in a giant well-planned theme park—something like the Washington Mews in Greenwich Village: a narrow, unusual, old-fashioned, and eccentric byway built for another time and another purpose. Everything will “look” like Internet access from the perspective of the end-user, but most of it will be burdened with zero regulatory obligations.

IV. PREDICTIONS

A. *High-Speed Internet Access Will Continue to Be Expensive*

The cable companies already charge a substantial premium to people who want to “break the bundle” by buying Internet access by itself.⁴⁷ Their incentive and ability to charge more for naked Internet access at speeds needed to carry out real-time videoconferencing or watch high-quality video (or do anything else requiring highspeed realtime communications) will continue. Why? Because cable distributors will continue to make “cutting the cord” less attractive to consumers; even if this move is inevitable, they can delay it. They need to avoid commoditization by over-the-top video so that they can migrate the pay-TV pay-for-play model into the IP-based world. Cutting the cord becomes much less attractive to consumers if the bundle of Internet access plus pay-TV service is more reasonably priced than Internet access alone.

B. *TV Everywhere Will Be a Dominant Model*

A key element of the cable systems’ plan for avoiding commoditization by over-the-top services, including online video, is the tie between pay-TV subscriptions and access to the major studios’ content online—the “TV Everywhere” model.⁴⁸ Time Warner’s CEO Jeffrey Bewkes is credited with initiating the TV Everywhere idea, which allows authenticated cable pay-TV subscribers to access cable channels for “free” online (or via iPads in their homes) as long as they are already paying for a traditional subscription. TV Everywhere is destined to be successful because the media conglomerates will prefer the steady stream of payments they get from the cable distribu-

⁴⁷ See Robert L. Mitchell, *Comcast Puts Squeeze on Competitors*, COMPUTERWORLD (Nov. 30, 2010) (“Basic Internet service from Comcast in my area can cost as little as \$33 per month when you buy cable TV, telephone and Internet services bundled together. Buy Internet access a la carte, however, and Comcast boosts the price to \$65 per month for up to 12 Mbps, and \$75 if you want up to 16 Mbps.”), available at http://blogs.computerworld.com/17446/comcast_puts_squeeze_on_nettflix_level_3_other_competitors.

⁴⁸ Press Release, Comcast Corp., Time Warner Inc. Announces Widespread Distribution of Cable TV Content Online (June 24, 2009) (announcing a partnership between Comcast and Time Warner to develop a “TV Everywhere” model for the MVPD industry), <http://www.comcast.com/About/PressRelease/PressReleaseDetail.aspx?PRID=883> (on file with the Harvard Law School Library).

tors—amounting to more than \$25 billion yearly⁴⁹—over payments generated by online-only distribution that is unlikely to be as immediately remunerative. So these media conglomerates will agree, tacitly or explicitly, not to make their content available online through any distribution channel other than the TV Everywhere online conduit.

Access to TV Everywhere in turn will be limited to authenticated subscribers of one of the pay-TV distributors—Time Warner Cable, Comcast, Cablevision, Cox—who will hang on to subscription revenue from their geographically-captive audiences. Because the physical monopolist pay-TV distributors generally do not compete with one another in any single city, this will be good for them (avoiding commoditization) at the same time that it is good for the programmers (assured payments).

The TV Everywhere concept is likely to continue to grow in strength and scope, because it will either be (1) a “specialized service” over Internet Protocol but distinguishable from high-speed Internet access and thus not subject to any net neutrality rules or (2) if provided online, it will be a pay-for-priority service or a service that is treated better as a matter of “reasonable network management.” Want access to easy-to-use videoconferencing services? You may prefer the cable company’s guaranteed delivery services—free to you as long as you’re also a pay-TV subscriber. Check your voicemail with Comcast. Games? Ditto. Movies? Easy. One can imagine a world in which all of these bundled TV Everywhere services will work better than independent services provided over the single large digital pipe will.

There is nothing wrong with charging for a service. The policy problem comes when there is one “delivery” actor (or one category of actors) in a position to work closely with a small stable of content/service providers. The problem is exacerbated when that same delivery actor is in a position to use its technical control over the delivery conduit to privilege its commercial relationships,⁵⁰ and to have all of it appear to be “free” to consumers as long as they are paying a monthly subscription for pay-TV content. Adding in the technical ability to charge for and deliver ads based on all of this activity, the single delivery actor becomes very powerful.

From a policy perspective, is it appropriate to have a conduit able to exert leverage over—and exact tribute from—all possible high-speed interactive communications? Should everything we do online trigger a payment to the pipe? If those questions seem too broad, consider this one. How will non-affiliated over-the-top video subscription services thrive to attract the

⁴⁹ Mermigas, *supra* note 43.

⁵⁰ According to the FCC, cable Internet access providers’ terms of service “commonly reserve to the provider sweeping rights to block, degrade, or favor traffic. For example, one major cable provider reserves the right to engage, ‘without limitation,’ in ‘port blocking, . . . traffic prioritization and protocol filtering.’” *In re Preserving the Open Internet Broadband Industry Practices*, *supra* note 3, at 17926 (citation omitted). The FCC order on Net Neutrality left open the idea that undefined “specialized” services would not be subject to any nondiscrimination obligation. *See id.* at 17928.

advertising and subscription fees that will allow them to compete with the pipe-provider services? Consumers will be accustomed to a “free” online access model for video and may be unwilling to pay even more for online subscriptions, particularly if the content they want is only available behind the TV Everywhere wall. Netflix is growing—more than twenty million subscribers as of early 2011—but its management is careful to make clear that Netflix does not compete head-to-head with live-action (sports, news) or current programming provided by the cable networks.⁵¹ Netflix has a strong interest in appearing complementary to the products provided by the cable gatekeepers who control its destiny.

C. Usage-Based Pricing Will Have a Real Effect

Usage-based pricing, under which end-users pay more to use more bandwidth (as some of us are used to doing with our cell phone minutes) is a powerful tool in the hands of the cable distributors. Like TV Everywhere, it allows them to drive users towards their own preferred products. AT&T has adopted usage-based pricing and Time Warner Cable has made its own trials of the concept.⁵² Comcast, most successfully, instituted a 250GB monthly cap following the BitTorrent scandal.⁵³

Now, the FCC has officially embraced usage-based pricing, which will “preserve . . . the economics of cable’s infrastructure,” according to Bernstein Research.⁵⁴ If consumers believe that accessing the real-time high-bandwidth services of others online will cost them more money, they won’t do it. As *The Economist* recently suggested, this will not only drive users to pay-TV offerings in which the pipe-provider participates, but may also “make life tough for dorm-room innovators and start-up firms in garages at the edge of the internet, with little money to compete against established enterprises at the centre of the web.”⁵⁵

⁵¹ Daniel Frankel, *The Grill: Sarandos Says Netflix Won’t Replace Basic Cable*, THE WRAP (Sept. 21, 2010), available at <http://www.thewrap.com/media/column-post/ted-sarandos-netflix-doesnt-replace-your-cable-service-21069>.

⁵² Sean Buckley, *Analyst: Cable Will Likely Mimic AT&T’s Usage-Based Broadband Pricing Plans*, FIERCE TELECOM (Mar. 16, 2011), available at <http://www.fiercetelecom.com/story/analyst-cable-will-likely-mimic-atts-usage-based-broadband-pricing-plans/2011-03-16>.

⁵³ Jacqui Cheng, *It’s Official: Comcast Starts 250 GB Bandwidth Caps October 1*, ARS TECHNICA (Aug. 28, 2008), available at <http://arstechnica.com/old/content/2008/08/its-official-comcast-starts-250gb-bandwidth-caps-october-1.ars>. Comcast was the focus of regulatory attention in late 2007 and 2008 for throttling use of the BitTorrent protocol for file sharing across its networks. *See id.*

⁵⁴ *See In re Applications of Comcast Corp.*, *supra* note 39, at 85 (“This Condition does not restrict Comcast’s ability to impose byte caps or consumption-based billing, subject to the other Conditions in this Order.”); e-mail from Craig Moffett, Bernstein Research, to clients (Dec. 7, 2010) (“The importance of the FCC’s stance endorsing usage-based pricing, as articulated in their new Net Neutrality order, can’t be overstated. Usage-based pricing will preserve, and even enhance, the economics of cable’s infrastructure . . . even if consumers eventually get some, or even all, of their video content over the web.”) (on file with author).

⁵⁵ *The Difference Engine: Politics and the Web*, ECONOMIST (Dec. 24, 2010, 7:57 AM), available at http://www.economist.com/blogs/babbage/2010/12/net_neutrality.

What's particularly galling about usage-based pricing is that it builds in artificial scarcity that doesn't actually exist. As explained above, high-speed Internet access has been relegated *by the cable operators* to just four of hundreds and hundreds of virtual cable channels. Netflix suggests that it costs just a penny per gigabyte for carriers to transmit data.⁵⁶ If there are problems with congestion of cable data networks for residential customers, usage-based pricing is an extraordinarily blunt weapon for dealing with them; it doesn't address peak-time usage, which is the reason for congestion.

Even though a leading analyst has suggested that being a commodity pipe would be a better business model for the cable monopolists because it would allow them to hang onto high margins while sharply reducing their costs by the billions of dollars they currently pay in programming fees, the shock of changing roles is currently understandably unthinkable for these actors.⁵⁷ Why wreck a good thing? Instead, creating scarcity in the thing that consumers actually want most—high-speed Internet access—will allow the operators to delay commoditization for a very long time.

D. *Not Everyone Will Be Served*

The digital divide persists in America. Approximately 26 million Americans remain without Internet access at speeds that would allow 21st-century use of the Internet, let alone high-quality video speeds.⁵⁸ A substantial part of the reason for this non-adoption is cost.⁵⁹ Although the FCC has a broad scope of operation (“all interstate and foreign communication by wire or radio”),⁶⁰ and is charged with making available “to all the people of the United States . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service . . . at reasonable charges,”⁶¹ as well as the duty to “encourage the deployment on a reasonable and timely basis of advanced telecommunications communications capability,”⁶² the Commission's power to require cable operators to build out to hard-to-reach areas, open their expensive high up-front-cost facilities to competitors, and charge reasonable rates for high-speed Internet access is unclear.⁶³ Cable operators

⁵⁶ See Dan Frommer, *Netflix: Here's What We Think About ISPs And Net Neutrality*, YAHOO! FINANCE (Jan. 26, 2011), available at <http://finance.yahoo.com/news/Netflix-Heres-What-We-Think-siliconalley-2045228165.html?x=0&.v=3> (“The ISPs' costs . . . to deliver a marginal gigabyte, which is about an hour of viewing, from one of our regional interchange points over their last mile wired network to the consumer is less than a penny, and falling, so there is no reason that pay-per-gigabyte is economically necessary.”).

⁵⁷ BERNSTEIN RESEARCH, *THE DUMB PIPE PARADOX* (June 11, 2009).

⁵⁸ *In re Inquiry Concerning the Deployment of Advanced Telecomm. Capability to All Ams. in a Reasonable & Timely Fashion*, 25 F.C.C.R. 9556, 9557 (2010).

⁵⁹ See JOHN B. HERRIGAN, *BROADBAND ADOPTION & USE IN AMERICA: RESULTS FROM AN FCC SURVEY* (2010) (suggesting that a third reason is cost), available at <http://www.fcc.gov/DiversityFAC/032410/consumer-survey-herrigan.pdf>.

⁶⁰ 47 U.S.C. § 152(a) (2006).

⁶¹ 47 U.S.C. § 151 (2006) (emphasis added).

⁶² 47 U.S.C. § 1302(a) (2006).

⁶³ Basic telephone service buildout to hard-to-reach areas is subsidized by the Universal Service Fund, but that scheme is limited to supporting “telecommunications services.” 47

have successfully resisted any form of basic regulation. Even the initial careful steps taken by the Commission towards net neutrality will need to be sorted out by the courts, and we are a long way away from addressing the difficult questions of penetration, adoption, and pricing raised by the looming cable monopoly.

Other countries have chosen very different goals. The South Korean government recently announced its plan to install 1 gigabit per second of high-speed symmetric fiber data access in every home by 2012. Japan and Hong Kong are heading the same direction. Australia plans to get 93% of homes and businesses connected to fiber, ensuring download speeds of 100 MBps. In the UK, Fujitsu will provide gigabit fiber service to 5 million rural homes. Even some communities within the US (such as Chattanooga and Kansas City with Google) have made this leap of imagination. They are willing to believe that their citizens want and will need 1 gigabit symmetric connections at their homes.

E. The Effect on “Soft” Social Parameters Will Continue to be Felt

These are the policy problems that no one is willing to take on in a principled way. We are comfortable in adding up higher prices for Internet access and assessing the impact of particular levers of control on existing large media markets. We can have a civilized conversation about numbers and sales and devices. We can even, sometimes, talk about the effects on our country’s economic growth of a limited monopolistic group of electronic communications distributors with unlimited discretion to constrain the efforts of new entrepreneurs.

Cultural policy is much more difficult to address. How does it change our democracy or our sense of social well-being to have everything we do in terms of communication subject to a small but persistent fee? When “choices” of hundreds of digital channels on all possible devices are in reality being provided by a very small group of actors, what effect does this have on our sense of autonomy and self-worth as creative human beings? Can the un-measured and perhaps un-measurable effects of consolidation and control—the opposite of diversity—have an impact even if they can’t be counted?

There is zero appetite for this kind of discussion in Washington, unless the conversation is somehow made to be about further protection of intellectual property—in which case all involved can breathe a sigh of relief and feel on solid, “real” intellectual ground again. Very few people in D.C. policy circles appear to have taken piano lessons as children or believe that their current creative lives have anything at all to do with their policy lives. As a result, the artistic, the independent, and the cultural elements of us as

U.S.C. § 254. Cable operators have forcefully resisted being categorized as “telecommunications” providers. See *Nat’l Cable & Telecomm. Ass’n v. Brand X Internet Servs.*, 545 U.S. 967, 987 (2005).

individuals are not part of any policy discussion about public goods that serve all of us. Such thoughts are luxurious, or elitist, or socialist, and certainly irrelevant to the economic mindset that prevails.

One issue area that straddles the uncomfortable (cultural) and the measurable (economics) is local news. It can only barely be discussed, and indeed the Comcast merger was made contingent on a requirement that Comcast modestly support local nonprofit groups reporting on City Hall.⁶⁴ This issue can be seen as a first, tentative proxy for an enormous group of questions about the intangible effects of our incrementally-fusing communications landscape on our lives. More issues may come up, depending on the bravery of our policy leaders.

Urban studies have unearthed the unsurprising truth that the health of a city depends in significant part on density, diversity, and difference, and that healthy-city residents are more tolerant of their fellow human beings.⁶⁵ This kind of thinking can be expanded to communications ecosystems as well. Will this link to democracy have any traction in Washington? At the moment it does not. Raising this issue thrusts us into the firestorm of culture wars—government takeover of talk radio, the Fairness Doctrine, the specter of censorship—and is currently a third rail.

V. POLICY SOLUTIONS

The emergence of a *de facto* cable monopoly in high-speed wired Internet access in most of the country cannot stay a secret. At the least, affordability concerns will become salient at some point. Despite the best efforts of the National Cable & Telecommunications Association (NCTA) and the cable companies' lobbyists, legislators may begin to care about telecommunications policy because the American people may begin to care.

What tools are available to confront the looming cable monopoly? At some point, the Telecommunications Act of 1996, which required basic "telecommunications" providers to be subject to regulation but has been effectively avoided through litigation and regulatory legerdemain, will need to be re-written. A mosh pit of stakeholders will do their worst.

Although rewriting the Act to make clear that the cable monopolists are required to share their lines—thus unleashing competition, driving prices

⁶⁴ See *In re Applications of Comcast Corp.*, *supra* note 39, at 95–96 (requiring that at least half of NBC-owned broadcasting outlets "have in place cooperative arrangements with locally focused non-profit [online] news organizations that provide reporting on issues of particular concern to each such station's market and/or region . . . including, as appropriate: story development; sharing of news footage and other content resources; financial support; in-kind contributions; shared use of technical facilities and personnel; on-air opportunities; promotional assistance; and cross-linking/embedding of websites").

⁶⁵ JANE JACOBS, *THE DEATH AND LIFE OF GREAT AMERICAN CITIES* (1961) started the ball rolling; many research paradigms have served their time, including Smart Growth, Sustainable Cities, Healthy Cities, and Quality of Life Measures. Another recent entry is Richard Florida, *The Rise of the Creative Class*, *WASH. MONTHLY*, May 2002, at 15, available at <http://www.washingtonmonthly.com/features/2001/0205.florida.html>.

down, and fostering a healthier cultural ecosystem—would make economic sense,⁶⁶ the Commission so far has been unwilling to require this under existing law, and it will take an epic battle on Capitol Hill to get there. Something must be done to provide basic reasonably-priced nondiscriminatory very-high-speed communications facilities to Americans. Other countries have figured this out and we should be able to as well. At the moment, however, legislators who benefit from contributions from the telecommunications sector have no particular incentive to regulate these actors. The terrible fact is that a rewrite of the Telecommunications Act would be viewed by legislators, unconsciously or consciously, as an occasion for substantial fundraising from giant telecommunications carriers.

In the meantime, the Department of Justice and Congress both have substantial roles to play. Congress can hold hearings about the market power of the cable industry, which may lead to antitrust inquiries and, one hopes, to additional public interest in the role of the carriers generally. New investigations of the cable distributors are necessary—how is it that they were able to divide up the country among themselves?—and new efforts to protect independent programmers and consumers should be mounted.

An awakened Antitrust Division will play a central role in the next few acts of this drama, which should include a detailed examination of the economic facts behind TV Everywhere, usage-based billing, service that is prohibitively expensive for a large subset of Americans. It should also include the effects on device competition of the cable companies' insistence that standardized, self-certified devices should not be allowed to attach to their networks. Although this seems unthinkable at the moment, it may be time to separate distribution from content once and for all—just as Nixon's cabinet-level committee suggested—so that the inherent conflict of interest at the heart of the cable distribution business model is eliminated.

As we consider our nation's high-speed data access future, municipal, publicly funded, open high-speed networks will provide a fruitful source of information and should be encouraged.⁶⁷ Sharing facilities would likely make sense for dense areas. Government may need to subsidize high-capacity fiber links between medium-size cities and the "backbone" pipes that run across the country, to ensure that everyone receives a standard, nondiscrimi-

⁶⁶ See BERKMAN CTR., NEXT GENERATION CONNECTIVITY: A REVIEW OF BROADBAND INTERNET TRANSITIONS AND POLICY FROM AROUND THE WORLD (2010) (citing substantial comparative evidence from other developed nations), available at http://cyber.law.harvard.edu/sites/cyber.law.harvard.edu/files/Berkman_Center_Broadband_Final_Report_15Feb2010.pdf.

⁶⁷ See *Community Broadband Network Map*, COMMUNITY BROADBAND NETWORKS, <http://www.muninetworks.org/communitymap> (on file with the Harvard Law School Library). This is a map of municipal networks. Chattanooga, TN, for example, is providing, via its electrical utility operator's fiber, 1 Gbps symmetrical Internet service to all 170,000 homes and businesses in its area that spreads across 600 square miles. See Linda Hardesty, *Chattanooga Leads the Charge for Fast Internet*, THE CABLE360NET (Nov. 1, 2010), available at <http://www.cable360.net/features360/ct/43811.html>.

natory, very-high-speed data service. At the moment, the current distributors of data access are free to cherry-pick well-off areas and charge residents there whatever the market will bear, and aren't burdened with large-scale build-out requirements for shared "middle mile" access links. This leaves the state with the burden of providing second-rate service to the unserved at great expense to the nation as a whole.

It will take time, and hard work, but surely we are capable of taking on the overall question of data access without assuming that the current market structure is the right one for all of us.

CONCLUSION

The looming cable monopoly is prompting a crisis in American communications. As the big squeeze continues, the genuine economic and cultural problems created by this monopoly may become more obvious to all Americans. We could tell this story by comparing the market power of the major cable companies in this country to the worst days of the railroad and oil trusts of the early 20th century; we could do it by comparing our country's policies on high-speed Internet access—policies pushed relentlessly forward by the incumbent network operators—to the plans of our developed-country brethren; we could do it by gathering anonymous anecdotes from people who have tried to do transactions with the cable companies and are now afraid of retribution from them. Finally, we could take a deep breath and examine our country's approach to "culture"—once we had the courage to say the word—and the effect of these singular giant pipes on our shared future. However we decide to proceed, we should pay attention to these pipes.