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The Future of Internet Regulation

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Policymakers are at a precipice with regard to Internet regulation. The Federal Communications Commission's ("FCC") self-styled adjudication of a complaint that Comcast violated the agency's Internet policy principles (requiring reasonable network management, among other things) clarified that the era of the non-regulation of the Internet is over. Equally clear is that the agency has yet to develop a model of regulation for a new era. As explained in this Article, the old models of regulation — reliance on command-and-control regulation or market forces subject only to antitrust law — are doomed to fail in a dynamic environment where cooperation is necessary to promote effective competition and continued Internet connectivity. Thus, this Article calls for a new model of regulation built around the concept of "co-regulation" — a self-regulatory body subject to public agency oversight — as the best strategy for Internet regulation going forward.

This Article outlines a three-part strategy for the FCC, or any other authorized agency, to oversee Internet connectivity disputes such as those involving network management practices by broadband providers or Internet backbone interconnection. First, it calls on the FCC to act as a norm entrepreneur, identifying areas where cooperation is essential and setting forth the broad terms that should govern that cooperation. Second, it explains how the FCC could use a model of co-regulation, with a private

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sector collaborative body operating under its oversight. Third, it recommends that the FCC should exercise ex post adjudicative authority (rather than ex ante rulemaking authority), in tandem with the role played by the private body, to address breakdowns in cooperation and any departures from announced norms. This model, while of particular relevance to the future of Internet regulation, can be applied more broadly, thereby meriting the attention of policymakers and scholars interested in the future of the administrative state.

TABLE OF CONTENTS

INTRODUCTION

The Internet, which did not fully emerge beyond its roots as an academic and governmental network until the mid-1990s, developed outside the ambit of governmental oversight. Indeed, in regulating telecommunications networks, the Federal Communications Commission ("FCC") self-consciously adopted a policy of "non-regulation" toward the Internet during its emergence as an important commercial network.[1] This policy, however, is no longer appropriate for an era in which the Internet delivers information and communications critical to our social and economic well-being. Consequently, the era of non-regulation must give way to some form of government oversight to ensure that impasses resulting from private actors' disputes do not hamper critical communications.

The stakes of a non-regulation policy for the Internet were underscored during a week in the fall of 2008 when "major American and Canadian universities lost contact with each other, officials in Maine's state government found they could not link up with many town governments, and [m]illions of Sprint's wireless broadband customers found themselves cut off from thousands of Web sites."[2] If the affected Internet users contacted their Internet Service Provider ("ISP"), they discovered that the ISP was not the source of the problem. Rather, the issue stemmed from the lack of an "interconnection agreement" governing the terms and conditions of interconnection between Sprint and another Internet "backbone provider," Cogent. In particular, Sprint rejected Cogent's request to be treated as a "peer" of Sprint — i.e., Sprint refused to offer Cogent "settlement-free" interconnection. Instead, Sprint maintained that Cogent should pay for "transit" services.[3]

Although Cogent and Sprint settled the dispute after a week, the Internet outage affected millions of customers and emphasized the

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[1] *See generally* Jason Oxman, *The FCC and the Unregulation of the Internet*, (FCC Office of Plans & Policy, Working Paper No. 31, 1999), *available at* http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.txt (defending unregulation of Internet).

[2] Scott Wooley, *The Day the Web Went Dead*, FORBES, Dec. 2, 2008, http://www.forbes.com/technology/2008/12/01/cogent-sprint-regulation-tech-enter-cz_sw_1202cogent.html.

[3] In terms of exchanging traffic between Internet backbone providers, the two principal alternatives are "peering" — where traffic is handed off between networks without any charge — and "transit fees" — where the larger network charges the smaller network for the traffic carried on its network. *See* Michael Kende, *The Digital Handshake: Connecting Internet Backbones* 7 (FCC Office of Plans & Policy, Working Paper No. 32, 2000), *available at* www.fcc.gov/Bureaus/OPP/working_papers/oppwp32.pdf.

importance of the Internet backbone. In particular, Internet backbone providers carry traffic from one ISP (such as Comcast's cable modem service) to another (such as Verizon's DSL service), meaning that disputes between backbone providers can disrupt Internet service when their commercial agreements unravel. As the Sprint–Cogent dispute demonstrated, the lack of any regulatory oversight of the Internet backbone market leaves the public at the mercy of the commercial parties, while any dispute between them remains unsettled.

Once Sprint demanded payment from Cogent for interconnection, Cogent countered by threatening to end their commercial relationship. Sprint did not change its position, however, prompting Cogent to execute its threat. Consequently, millions of Internet users whose ISPs relied on Cogent to carry their traffic lost the ability to send e-mails to or access the websites of other Internet users whose ISPs relied on Sprint and vice versa. In short, private actors not subject to any form of government oversight compromised a core of the Internet as a communications network — i.e., the "network effect" created by its nature as an interconnected network of networks.[4] Ultimately, Sprint and Cogent resolved their dispute with a standstill agreement. Nonetheless, this dispute did not result in any established process to govern disputes about whether an Internet backbone provider should treat another provider as a peer or a paying customer, meaning that this situation could easily recur (as it had previously between Cogent and other backbone providers).[5] The lack of any assurance that providers could quickly redress such disputes to protect Internet users should distress policymakers because the breakdown may well recur on a larger scale or for a longer period of time. Thus, policymakers should subject private actors such as Sprint and Cogent to government oversight to prevent similar situations from recurring.

The Sprint–Cogent dispute is not the only type of breakdown in Internet connectivity that warrants attention from policymakers. Another notable event in Internet regulation took place in the fall of 2007. Here, a number of consumers using Comcast's cable modem

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[4] Economists have termed the value of a larger network as a "network effect." *See* Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479, 481 (1998) (discussing this concept and its legal implications).

[5] *See* Mikael Ricknäs, *Sprint Reconnects Cogent, But Differences Are Unresolved*, NETWORK WORLD, Nov. 3, 2008, http://www.networkworld.com/news/2008/110308-sprint-reconnects-cogent-but-differences.html?fsrc=netflash-rss. *See generally* Kevin Werbach, *The Centripetal Network: How the Internet Holds Itself Together, and the Forces Tearing It Apart*, 42 UC DAVIS L. REV. 343, 369-72 (2008) (discussing competitive concerns raised in Internet backbone context).

service to access the Internet could not use BitTorrent, a popular "peer-to-peer" ("P2P") application.[6] In that case, the ISP (Comcast) caused the degraded Internet functionality. Comcast claimed this impact on customers was necessary, however, because it resulted from its "reasonable network management" policies.[7] In particular, such policies encompassed its efforts to protect the network from harm and prevent select users from consuming large amounts of bandwidth at the expense of other customers. At the time of this incident, the FCC had not announced any formal rules or principles to govern network management practices, and had merely issued a policy statement stating that all network management techniques must be reasonable. Nonetheless, in the face of a complaint that Comcast had violated this policy, the FCC held a self-styled adjudication and concluded that Comcast's conduct was unlawful.[8]

The Sprint–Cogent Internet backbone issue and the Comcast–BitTorrent network management issue represent emerging regulatory challenges that do not fit comfortably within the FCC's traditional models of regulation. The FCC traditionally asks whether private actors are providing critical infrastructure — one affected with a "public interest"[9] — and, if so, imposes a regime of common carrier regulation. This tradition is a longstanding one, dating back to the Interstate Commerce Commission Act and its commitment against discrimination in rates, terms, and conditions by regulated providers. Traditionally, the FCC has enforced this commitment through prescriptive regulation adopted pursuant to "notice-and-comment" rulemakings.[10]

To date, the Internet has developed outside of the FCC's traditional regulatory model, enjoying freedom from regulatory oversight. The

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[6] A peer-to-peer architecture differs from a "client-server" architecture insofar as end user computers directly transfer files to one another without the aid of a central server that communicates directly with "clients" (like a Web browser). BitTorrent is a particularly popular peer-to-peer application because it efficiently carries large data files, such as movies and multimedia presentations. Brian M. Posey, *Understanding the Differences Between Client/Server and Peer-to-Peer Networks*, TECHREPUBLIC, May 26, 2000, http://articles.techrepublic.com.com/5100-10878_11-1055415.html.

[7] Memorandum & Order in the Matters of Formal Complaint of Free Press & Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, 23 F.C.C.R. 13,028, 13,028 (2008) [hereinafter *Comcast Decision*].

[8] *Id.* at 13,028-33.

[9] The phrase, which is long associated with utility regulation, dates back to *Munn v. Illinois*, 94 U.S. 113, 126 (1876).

[10] Such rulemakings are where the agency issues a notice of proposed rulemaking and adopts, after receiving comments from a number of parties, rules that restrict the behavior of the regulated parties.

Internet initially developed during a long period of U.S. government stewardship, including substantial financial support and coordination by key government officials.[11] Owing to a series of formative decisions in the early 1990s, however, the government privatized the Internet and it subsequently developed in an environment largely free of regulation.[12] During the onset of the privatization of the Internet in the mid-1990s, several commentators maintained that regulatory oversight over the Internet was unwarranted.[13] But over the last several years, culminating in the FCC's decision in the Comcast–BitTorrent dispute, it has become clear that the "hands off the Internet" era is over and is no longer sustainable. The end of this era reflects the fact that many of society's most treasured forms of information, communications, and entertainment now travel on Internet networks. Thus, the Internet will be subject to some form of government oversight to protect the delivery of information and communications critical to our economy and society. Scholars and policymakers have yet to develop a regulatory strategy tailored to this context and different from the traditional command-and-control regulatory model, which involves the use of ex ante rules that prescribe how parties can behave.

The reason that episodes like the Sprint–Cogent and Comcast–BitTorrent disputes are beginning to emerge in a more dramatic fashion is that a well-functioning Internet ecosystem depends on cooperation among an array of disparate entities. The absence of that cooperation, moreover, affects consumers in substantial ways when there is no system of institutional oversight to ensure that such cooperation continues. Originally, the Internet's open architecture and the social norms, which emerged from an era where only a select group of users set expectations for the Internet's operation, largely guaranteed such cooperation.[14] Over time, however, commercial providers entered the market and the demands of users changed, thereby threatening the established role of the Internet's historically open protocols and cooperative norms of behavior, as exemplified by the dispute about network management policies in the Comcast–BitTorrent dispute.[15] Consequently, a critical question for Internet stakeholders and consumers is how the commercial providers' terms

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[11] *See* Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM. L. REV. 534, 543-45 (2003) [hereinafter Weiser, *Intellectual Property Policy*] (discussing these decisions and Internet's early development).

[12] *Id.*

[13] *See* Oxman, *supra* note 1, at 25.

[14] *See* Weiser, *Intellectual Property Policy*, *supra* note 11, at 537-38.

[15] *See Comcast Decision*, 23 F.C.C.R. 13,028, 13,028 (2008).

of cooperation governing their operation — which broke down in the Sprint–Cogent and Comcast–BitTorrent cases — will be assured in a new technological era.

Internet policy debates have yet to catch up with the challenges of facilitating cooperation in the Internet ecosystem. At present, those debates often center on calls for or against "network neutrality" and generally feature different claims about what accounts for the Internet's success and whether regulating the Internet is prudent.[16] The most ardent supporters of network neutrality call for a model of regulation that would treat the Internet like an electricity grid, or as a "dumb pipe." Under this approach, the Internet would not provide differential quality of service ("QoS") assurances or provide any functional advantages for particular applications such as Voice over Internet Protocol ("VoIP") or BitTorrent. Advocates of this approach maintain that information infrastructure should be treated as a "commons" and subject to common carrier regulation just like the telephone network.[17]

Conversely, network neutrality opponents argue that this logic ignores how the traditional model of common carriage — premised on prescriptive rules, enforced by filings of tariffs, and often accompanied by rate regulation — is ill-suited to the Internet's dynamic and more competitive nature. Notably, while traditional telecommunications networks generally use static technology where restrictions on change without regulatory authorization are largely unproblematic, Internet networks generally operate in a very dynamic technological environment.

The arguments on both sides of the issue are flawed. As for the claim of network neutrality supporters that antitrust law can safeguard cooperation in the Internet ecosystem,[18] it overlooks the fact that generalist courts are limited in their ability to oversee terms of

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[16] *Compare* Tim Wu, *The Broadband Debate: A User's Guide*, 3 J. TELECOMM. & HIGH TECH. L. 69 (2004) (arguing for network neutrality oversight), *with* Christopher S. Yoo, *Network Neutrality and the Economics of Congestion*, 94 GEO. L.J. 1847 (2006) (arguing against it).

[17] *See* Brett M. Frischmann, *An Economic Theory of Infrastructure and Commons Management*, 89 MINN. L. REV. 917, 922-23, 925-26 (2005).

[18] *See, e.g.*, Jonathan Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate* 2 (Reg-Markets Ctr., Working Paper 08-07, 2008), *available at* http://www.aei-brookings.org/admin/authorpdfs/page.php?id=1444 (discussing antitrust law's advantages in network neutrality). *See generally* PETER HUBER, LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM 90-92 (1997) (criticizing FCC and praising capabilities of generalist courts).

cooperation that are highly technical in nature and that have appropriately been the province of expert agency oversight.[19] Moreover, the Internet's dynamism does not justify the claims of network neutrality opponents that no regulatory oversight is appropriate. After all, the idea of a private party advancing its own interests at the risk of halting our society's critical communications is untenable.

The future of Internet regulation depends on the ability of policymakers to embrace a new model of regulation that uses very different tools from the still dominant and traditional model of command-and-control regulation.[20] To its credit, the FCC has begun to move partially towards a new model of regulation and has resisted using the old model in the Internet context thus far. Nonetheless, neither the FCC nor commentators have developed an institutional strategy for how the FCC should operate in the Internet ecosystem. This Article aims to develop such a strategy.

This Article outlines a three-part strategy for the FCC, or any other authorized agency, to oversee Internet connectivity disputes. First, the FCC should act as a norm entrepreneur,[21] identifying areas where cooperation is essential and setting forth the broad terms that should govern such cooperation. Second, the FCC should use a model of co-regulation, whereby a private sector collaborative body operates under FCC oversight. Third, the FCC should exercise ex post adjudicative authority (rather than ex ante rulemaking authority) to address breakdowns in cooperation and departures from announced norms. Notably, although this Article's model of co-regulation focuses on how the FCC should address Internet policy challenges, policymakers could also use this model to govern other network industries, such as electric power transmission. Consequently, this model merits the

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[19] Moreover, as expressed in the recent *Trinko* decision, antitrust courts may refuse to entertain such cases altogether. *See* Verizon Commc'ns v. Law Offices of Curtis V. Trinko, 540 U.S. 398, 414-15 (2004).

[20] *See* Philip J. Weiser, *The Next Frontier for Network Neutrality*, 60 ADMIN. L. REV. 273, 274-76 (2008) [hereinafter Weiser, *Next Frontier*]; Philip J. Weiser, *Toward a Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41, 42-43 (2003) [hereinafter Weiser, *Toward a Next Generation*].

[21] The term appears to stem from Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021, 2030-31 (1996). For a notable use of the term in connection with a government agency, see generally Steven Hetcher, *The FTC as Internet Privacy Norm Entrepreneur*, 53 VAND. L. REV. 2041, 2044-46 (2000) (explaining how Federal Trade Commission ["FTC"] supported development and adoption of privacy policies by Internet companies).

attention of not only Internet policy scholars and policymakers, but also of those interested in the future of the administrative state.[22]

This Article proceeds in four parts. Part I outlines why cooperation among an array of players is both necessary and unlikely to occur without regulatory oversight. Part I also explains why the traditional model of regulation is ill-suited to the Internet context. Part II discusses how the FCC can act as a norm entrepreneur and use a model of co-regulation to develop and enforce those norms. Part III applies the co-regulation model to network management, discussing both the implementation challenges and potential objections to that model. Part IV explains how the FCC should move to the use of ex post adjudicative authority as a backstop for overseeing breakdowns in cooperation, and ensure that Internet providers adhere to applicable norms.

I. COORDINATION, STRATEGIC BEHAVIOR, AND COMMON CARRIAGE

The challenge for the FCC in the Internet age is to develop an institutional strategy for addressing policy disputes like the network management issue in the Comcast–BitTorrent case and the Internet backbone issue in the Sprint–Cogent dispute. Thus far, these issues have eluded regulatory scrutiny. For some time, the absence of high profile breakdowns in cooperation in the Internet environment led the FCC to adhere to a path of non-regulation. To be sure, the historical monopoly concerns that gave rise to the traditional use of common carriage regulation do not justify the imposition of ex ante regulation of Internet networks. Nonetheless, a different form of market failure

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[22] For an overall evaluation of the future of the administrative state, see generally ELINOR OSTROM, GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 136, 138-39 (1990) (noting how parties worked together, with backdrop of litigation, to institute system of water basin authorities to ensure that common resource was protected and used appropriately); Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 833 (2008) (noting unaddressed questions of how administrative agencies can, in general, contribute to collaborative problem-solving and, in particular, how they can "induce the regulated entities to engage in collaborative efforts"). For recent discussions of the challenges of the "coordination state" and how government should act in concert with private bodies, see generally Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029, 2030-31 (2005) (discussing how regulatory policy can achieve important goals outside the use of command-and-control regulation); Robert B. Ahdieh, The New Regulation: From Command to Coordination in the Modern Administrative State 8 (Mar. 9, 2009) (unpublished manuscript, *available at* http://works.bepress.com/cgi/viewcontent.cgi?article=1000&context=robert_ahdieh) (same). For an earlier such effort, see generally IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE 158-62 (1992) (same).

— high transaction costs and strategic behavior by firms in an industry where cooperation is necessary to facilitate competition — is not merely a theoretical problem, but a practical one that the FCC's traditional regulatory institutions are ill-equipped to handle.

A. The Multiparty Contracting Problem

From both the perspective of the affected companies' long-term best interests and public policy, the question is not whether there is a need for a regulatory framework to oversee issues like network management practices and Internet backbone connection, but rather, what type of framework can do so most effectively.[23] In particular, a central rationale for developing a regulatory framework to govern such matters is that it can assure all stakeholders of the ability to employ business strategies without negotiating a maze of private contracts with the affected parties. Viewed in this light, one important set of goals for Internet regulation — whether public or self-regulation — is to lower transaction costs, provide a principled structure to facilitate negotiations, and provide some measure of predictability and reliability as to the rules governing commercial relationships in this market.[24] In short, the regulatory structure advances these goals by channeling multiparty contracting problems into a framework that avoids the escalation and politicization of disputes and misunderstandings.

Without some oversight mechanism to assure all parties the opportunity to deal fairly with one another and build trust that a stable equilibrium will continue, the welfare of end users, applications developers, and broadband service providers remains at risk of being compromised. In particular, under high levels of uncertainty, a party may resist investing in certain opportunities or choose to engage in strategic behavior aimed at appropriating some (or all) of the value created by another party's investment.[25] In short, strategic behavior

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[23] As explained by Steven Shavell, in cases where parties are unable to anticipate and, sometimes, incapable of paying for the losses caused by their behavior, the argument for regulatory oversight — as opposed to merely relying on contract and tort law — is far more compelling. *See* Steven Shavell, *Liability for Harm Versus Regulation of Safety*, 13 J. LEGAL STUD. 357, 360-61 (1984).

[24] *Cf.* Oliver E. Williamson, *Franchise Bidding for Natural Monopolies — In General and With Respect to CATV*, 7 BELL J. ECON. 73, 91 (1976) ("[R]egulation may be described contractually as a highly incomplete form of long-term contracting.").

[25] For a poignant example of how the threat by a platform provider to appropriate the rents of an applications developer can undermine investment incentives, consider the challenges confronted by Dow Corning after the company invented fiber optic cable. As two commentators related:

can potentially leave all parties worse off, undermining the economic positions of the parties unable to reach an agreement and, in the process, substantially hurting end users like those left with limited Internet service in the Sprint–Cogent dispute.

One way to view the challenge of developing norms of cooperation in the Internet context, whether through regulatory oversight or some other means, is as a multiparty contracting problem. In short, forging a level of cooperation between the relevant actors — broadband providers, applications developers, and end users — requires that they develop a level of trust and understanding about how the other parties behave. Ultimately, cooperation between the relevant actors is essential because the Internet experience arises not from the efforts of any single actor, but rather through their collective contributions.[26] Consequently, the emergence of a cooperative norm to guide behavior is crucial because the relevant norm, if followed and enforced, can ensure that parties cooperate even when their narrow self-interest would otherwise dictate that they strategically withhold cooperation. Stated differently, if parties recognize a broader interest in cooperation, or are subject to an enforced norm of cooperation, they will be more willing to put aside short-term temptations to engage in strategic behavior that undermines cooperation overall.

The original Internet architecture provided an effective guarantee as to how parties could and would behave. In its original incarnation, the Internet operated under a "best efforts" model and Internet communications were generally not real-time or bandwidth-intensive.[27] Moreover, because no firm owned the core Internet

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> AT&T, which owned most of the telephone lines in America at the time [of the invention of fiber optic technology], said it would be 30 years before its telephone system would be ready for optical fiber. And when it was, AT&T planned to make its own fiber . . . . [After AT&T entered into a consent decree with the federal government allowing competition in long distance,] MCI took the risk [of ordering fiber optic technology] and placed a 100,000 kilometer order for a new generation of fiber . . . .

Willard K. Tom & Joshua A. Newberg, *Antitrust and Intellectual Property: From Separate Spheres to Unified Field*, 66 ANTITRUST L.J. 167, 202 (1997) (quoting Testimony of Timothy J. Regan, Division Vice President and Director of Public Policy, Corning, Inc., Before House Judiciary Comm. (May 9, 1995)).

[26] *See, e.g.*, Susan P. Crawford, *The Internet and the Project of Communications Law*, 55 UCLA L. REV. 359, 360 (2007) (noting that all of Internet's value is not created by nor should be captured by broadband providers).

[27] As Lawrence Lessig has put it:

> The original Internet achieved this architecture of competition unintentionally. The framers of the network's original design were not

standards (i.e., the TCP/IP protocol suite[28]), subjected such standards to licensing restrictions, or could change them without notice,[29] those standards provided a form of guaranteed open access as long as the firms universally adopted them. Also, strong social norms that encouraged cooperation and fair dealing among a relatively small and sophisticated group of users apart from individual firms, supported the open architecture.[30] Consequently, the use of core Internet standards like the TCP/IP, while voluntary, achieved sufficient acceptance as to constitute a kind of open contract. To facilitate this form of cooperation, the Internet Engineering Task Force ("IETF") — a private standard-setting body initially supported by the government — oversees the development of TCP/IP.[31] The IETF also provides a forum for discussion and famously hews to an Internet ethic of operating based on "rough consensus and running code."[32]

In today's highly commercialized Internet environment, a series of pressures exist that lead broadband providers to upgrade and manage their networks in ways that compromise the ethic of cooperation that characterized the traditional Internet environment. Consider, for example, that broadband providers have a number of rationales for engaging in network management, ranging from preventing congestion to identifying viruses and spam.[33] At the same time, opportunities exist for applications developers (as well as end users)

> economists. They were not focused on building an engine of economic growth. Yet that was the consequence of a technical design intended to facilitate development flexibility. A network designed to enable anyone to develop new applications to run was also a network designed to maximize competition among applications and content.

The Future of the Internet: Hearing Before the S. Comm. on Commerce, Science and Transportation, 110th Cong. 3 (2008) [hereinafter *Future of the Internet*] (statement of Lawrence Lessig, Professor, Stanford Law School) (citation omitted), *available at* http://commerce.senate.gov/public/_files/LessigTestimony.pdf.

[28] The TCP/IP protocol is discussed in Weiser, *Intellectual Property Policy*, *supra* note 11, at 541-44.

[29] Oxman, *supra* note 1, at 5.

[30] *See* Weiser, *Intellectual Property Policy*, *supra* note 11, at 537-38.

[31] *Id.*

[32] *See generally* A. Michael Froomkin, *Habermas@discourse.net: Toward a Critical Theory of Cyberspace*, 116 HARV. L. REV. 749, 794 (2003) [hereinafter Froomkin, *Critical Theory*] (discussing IETF and how it reaches decisions through "rough consensus"); Andrew L. Russell, *'Rough Consensus and Running Code' and the Internet-OSI Standards War*, IEEE ANNALS OF THE HISTORY OF COMPUTING, July-Sept. 2006, at 48, 50-52 (discussing history of IETF).

[33] *See* Paul Ohm, *The Rise and Fall of Invasive ISP Surveillance*, 2009 U. ILL. L. REV. 1417, 1466.

to take advantage of massive levels of bandwidth, sometimes in ways that challenge the ability of broadband networks to perform reliably.[34] Unfortunately, when those efforts — instituting network management techniques and developing applications that are bandwidth-intensive or depend on a guaranteed quality of service level — overlap, the relevant commercial actors (i.e., the broadband providers and applications developers) may seek to take advantage of one another's investments rather than cooperate. When such actors seek to take advantage of one another's investments, their actions can lead to a game of brinkmanship, with end users potentially suffering as innocent victims.

In evaluating the potential for breakdowns in cooperation, it is important to note at the outset that, contrary to some of the depictions of network neutrality advocates, broadband platform providers would not benefit generally from undermining the success of the applications that ride on their platforms. Indeed, under many circumstances, the economic incentives of a platform provider are to encourage and embrace the development of new applications that will make its platform more valuable.[35] To that end, for example, Comcast CEO Brian Roberts reported that "the increased demand for online video viewing was helping drive sales of cable modems," and stated that " '[v]ideo over the Internet is cable's friend[.]' "[36]

From the perspective of aspiring applications developers such as BitTorrent, the decision to trust a platform provider like Comcast is open to a number of questions. Even setting aside the concern that a platform provider will act in ways to prevent the applications developer from competing with the platform,[37] applications developers

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[34] *See* Stacey Higginbotham, *Why We Need Fat Pipes: The Top 5 Bandwidth-Hungry Apps*, GIGAOM, Aug. 12, 2008, http://gigaom.com/2008/08/12/why-we-need-fat-pipes-the-top-5-bandwidth-hungry-apps (discussing emerging bandwidth-intensive applications).

[35] *See generally* Joseph Farrell & Philip J. Weiser, *Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age*, 17 HARV. J.L. & TECH. 85, 97-104 (2003) (describing economic logic behind principle that platform provider welcomes complementary applications).

[36] Vishesh Kumar, *Comcast Reports Strong Results in Web Services*, WALL ST. J., July 31, 2008, at B8.

[37] One such case involved the blocking of Vonage's VoIP service by Madison River Communications. *See* Consent Decree in the Matter of Madison River Commc'ns, LLC & Affiliated Cos., 20 F.C.C.R. 4295, 4296 (2005) [hereinafter *Madison River*], *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf. There have been some examples abroad as well. *See, e.g.*, Cho Jin-seo, *Cable TV Operators Block HanaTV*, KOREA TIMES, Oct. 22, 2006, http://www.asiamedia.ucla.edu/article.asp?parentid=55961 (reporting that home Internet and cable television

will often worry about the temptation of platform providers to extract rents once the application has been developed and successfully deployed.[38] Indeed, if that fear is great enough, applications developers may decline to develop new applications or engage in wasteful cat-and-mouse strategies aimed at evading detection by the rent seeker.[39] On the other side of the equation, platform providers will suffer if applications developers use their bandwidth and offer QoS-hungry applications, but cannot be charged for guaranteeing a level of network performance.[40] In short, prohibitions on network operations could potentially interfere with platform providers' pursuit of legitimate business opportunities and bona fide efforts to enhance the performance of their networks (as opposed to degrading the performance of applications for anticompetitive purposes).

Hardcore free-marketers may suggest that the market can be trusted to develop institutional arrangements to anticipate and address the possibility of strategic behavior and to encourage ongoing innovation by both platform providers and applications developers. To be sure, firms may well be able to, under certain conditions, anticipate and address concerns related to "ex post opportunism."[41] Similarly, in some environments, such as the earlier era of the Internet, social norms develop and private actors effectively enforce them without government oversight. The ability of private actors to protect themselves, however, breaks down when they confront high levels of uncertainty as to the continuing force of those norms, and high transaction costs as to the ability to develop ongoing contractual protections. As noted commentator James DeLong has explained, "[T]he mantra of 'do it by contract' is [flawed insofar as] it requires

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operators blocked Internet television services). For a discussion of the possible reasons for such behavior, see Farrell & Weiser, *supra* note 35, at 105-19.

[38] For a discussion of the concerns related to rent-extraction, see C. Scott Hemphill, *Network Neutrality and the False Promise of Zero-Price Regulation*, 25 YALE J. ON REG. 135, 149-50 (2008).

[39] As Gawer and Henderson note, if the platform provider's "incentive to engage in *ex post* price 'squeezes' is sufficiently strong, complementors may have no *ex ante* incentive to engage in innovation at all." Annabelle Gawer & Rebecca Henderson, *Platform Owner Entry and Innovation in Complementary Markets: Evidence from Intel*, 16 J. ECON. & MGMT. STRATEGY 1, 5 (2007).

[40] For a development of this point, see Benjamin E. Hermalin & Michael L. Katz, *The Economics of Product-Line Restrictions with an Application to the Network Neutrality Debate* 1-2 (UC Berkeley Competition Policy Center, Working Paper, 2006), *available at* http://repositories.cdlib.org/iber/cpc/CPC06-059.

[41] Joshua D. Wright, *Benjamin Klein's Contributions to Law and Economics* 10 (George Mason Law & Econ. Research Paper Series, Working Paper No. 08-31, 2009), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1143568.

contract writers with an unlimited legal budget and a level of foresight that would be the envy of a psychic."[42] Moreover, at least in this context, "[W]e are talking long term investments under conditions of great uncertainty, and it is difficult to write the contracts that would be required."[43] Consequently, if protections against opportunistic behavior (either contractual or norm-based safeguards) do not emerge, the "fear of opportunism can dull the incentives of other parties — downstream firms, [applications developers], rival networks, or final customers — to make investments."[44]

The concern regarding opportunistic behavior is greatest where a set of parties needs to cooperate with one another to produce a service (e.g., Internet backbone interconnection) and where one party can threaten not to cooperate as a means of extracting greater rents from the other party.[45] In general, firms confronting such a scenario will try to avoid engaging in repeated bargaining for fear that their ability to bargain effectively will be compromised once they have made relationship-specific investments.[46] The study of such relationships and the effort to develop safeguards against ex post opportunism is a central project of new institutional economics ("NIE"). Thus, as NIE explains, firms search for contractual (or regulatory) guarantees against opportunistic behavior when entering into such relationships.[47] In some cases, reputational constraints and the power

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[42] James V. DeLong, *Avoiding a Tech Train Wreck*, AMERICAN, May-June 2008, *available at* http://www.american.com/archive/2008/may-june-magazine-contents/avoiding-a-tech-train-wreck; *see also* Paul L. Joskow, *Transaction Cost Economics, Antitrust Rules, and Remedies*, 18 J.L. ECON. & ORG. 95, 102 (2002) (noting that "[t]ransacting parties enter into relationships to mitigate [ex post opportunistic behavior] but cannot do so perfectly").

[43] DeLong, *supra* note 42.

[44] Carl Shapiro, Professor, UC Berkeley, Testimony on Exclusionary Conduct, Before the Antitrust Modernization Comm'n 16 (Sept. 29, 2005), *available at* http://faculty.haas.berkeley.edu/shapiro/amcexclusion.pdf.

[45] Paul L. Joskow, *Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets*, 77 AM. ECON. REV. 168, 169 (1987).

[46] *Id.*

[47] As Paul Joskow explained:

> According to [NIE], when exchange involves significant investments in relationship-specific capital, an exchange relationship that relies on repeated bargaining is unattractive. Once the investments are sunk in anticipation of performance, "hold up" or "opportunism" incentives are created ex post which, if mechanisms cannot be designed to mitigate the parties' ability to act on these incentives, could make a socially cost-minimizing transaction privately unattractive at the contract execution stage. A long-term contract that specifies the terms and conditions for some set of future transactions ex ante, provides a vehicle for guarding against ex post performance problems.

of social norms may be effective; in others, vertical integration may become a necessary step to mitigate against the hazards of ex post opportunism; and, in still other cases, parties may remain vulnerable to the possibility of hold-up, relying on imperfect contractual strategies as their best mode of protection.[48] And in yet other cases, such as the network management issue, some form of regulation may be necessary to enable these markets to function reliably and effectively.[49]

Given the challenges of developing private protections against opportunistic behavior,[50] it should not be surprising that, over the course of modern regulatory history, platform providers and

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Id. (citations omitted).

[48] As Joshua D. Wright has explained, reputational sanctions and contractual flexibility sometimes go hand-in-hand, but they do not prevent the possibility that "transactors 'hold up' their trading partners by taking advantage of unspecified elements of performance and attempting to appropriate the available quasi-rents resulting from relationship-specific investment." Wright, *supra* note 41, at 10.

[49] *See* OLIVER E. WILLIAMSON, THE MECHANISMS OF GOVERNANCE 268 (1996) ("[R]egulation can serve to infuse trading confidence into otherwise problematic trading relations."). In game theory terms, the issue can be described as whether the scenario poses a "prisoner's dilemma" problem, where the threat of strategic behavior (and defection) cannot be overcome, or a Herder Problem, where repeat players are interested in and open to cooperation if the appropriate institutional framework can make that possible. *See* Daniel H. Cole & Peter Z. Grossman, *Institutions Matter!: Why the Herder Problem Is Not a Prisoner's Dilemma*, THEORY & DECISION, Oct. 30, 2008, at 7-8, http://www.springerlink.com/content/j67083230788g657/?p=dc42deed9cc84fcfad54e7695d2bae24&pi=0; *see also* OSTROM, *supra* note 22, at 15-17 (explaining opportunity for cooperative behavior to emerge). Suggesting a similar concept, Amartya Sen once labeled this issue the "assurance problem," suggesting that where an institution can provide firms assurance that others are doing the "right thing" — e.g., respecting a cooperative norm — "then it is in one's own interest also to do the 'right' thing." *See* Amartya K. Sen, *Isolation, Assurance and the Social Rate of Discount*, 81 Q.J. ECON. 112, 122 (1967).

[50] A particular challenge is ensuring a credible commitment that other parties will adhere to the relevant norm. As Dan Kahan has explained, an institution can succeed in channeling disputes and maintaining adherence to social norms if it is regarded as effective:

> [If firms or individuals] perceive that others are contributing to the collective good in question, then honor, self-respect, honesty, and like dispositions motivate most individuals to contribute to that good as well, even if doing so is personally costly. If, in contrast, they perceive that most individuals are free riding, then pride and resentment will move most persons to withhold contributions — and even to retaliate, if they can, against perceived shirkers — notwithstanding significant material incentives to do otherwise.

Dan M. Kahan, *Reciprocity, Collective Action, and Community Policing*, 90 CAL. L. REV. 1513, 1514 (2002).

applications developers have often relied on the presence of regulatory oversight mechanisms to facilitate cooperation.[51] Consider, for example, the role played by the rules governing "retransmission consent" arrangements in the cable television context.[52] These rules effectively seek to limit the potential for a firm to engage in strategic behavior — either the platform provider (in this case, the cable or satellite company) or the applications developer (in this case, the broadcast network owning local television stations). The presence of such rules becomes part of the operating environment and is only visible on rare occasions, such as the high-profile dispute between Time Warner and Disney that resulted from an impasse in carriage negotiations between Disney's set of channels (including ABC, Disney, and ESPN) and Time Warner's cable systems.[53] In particular, Time Warner refused to meet Disney's demands and eventually ceased carrying all of its channels. This left Time Warner's customers without access to popular shows, including the then very popular "Who Wants to Be a Millionaire," which ABC carried. In this case, the FCC possessed the necessary regulatory oversight authority to act quickly and condemn Time Warner's conduct, thereby ensuring that Time Warner resumed carrying Disney's channels.[54] In announcing the ruling, then-FCC Chairman Bill Kennard warned that "no company should use consumers as pawns in a private contract dispute,"[55] and criticized the parties for their "game of brinkmanship."[56]

In an unregulated environment, such as the Internet backbone, concerns related to hold out tactics can arise when firms do not respect the prevailing norms of how to exchange traffic. Notably, the Sprint–Cogent episode discussed in the Introduction is hardly an

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[51] Given the transaction costs in developing cooperative norms, one important role that the law can play is to provide a focal point for facilitating cooperation. *See, e.g.*, Richard H. McAdams, *A Focal Point Theory of Expressive Law*, 86 VA. L. REV. 1649, 1651 (2000) ("When individuals have a common interest in coordinating, as frequently occurs, a legal rule may guide behavior merely by influencing expectations about how others will behave.").

[52] For a discussion of these rules, see JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS 359, 363-66 (2005).

[53] *Id.* at 365.

[54] *See* Time Warner Cable, Emergency Petition of ABC, Inc. for Declaratory Ruling and Enforcement Order, 15 F.C.C.R. 7882, 7882-84 (2000).

[55] Press Release, William E. Kennard, Chairman, FCC, Ruling in Time Warner-Disney Dispute (May 3, 2000), *available at* http://www.fcc.gov/Speeches/Kennard/Statements/2000/stwek036.html.

[56] Press Release, William E. Kennard, Chairman, FCC, Regarding Disney/ABC and Time Warner Dispute (May 2, 2000), *available at* http://www.fcc.gov/Speeches/Kennard/Statements/2000/stwek035.html.

isolated case. Over the last few years, Cogent has challenged the relevant norms (informal and uncodified as they are) on a number of occasions. As in the case with Sprint, when Cogent has played a game of chicken with other backbone operators as a negotiating tactic, it has sometimes left Internet users (both those connected to Cogent and those using the other affected networks) with degraded service as a result.[57] At present, however, there is no regulatory oversight, either private or public, to govern such negotiations, leaving users unprotected from the collateral damage that arises when parties engage in strategic and self-interested behavior.

In principle, private parties in the Internet ecosystem could agree on cooperative norms — whether on Internet backbone interconnection, network management, or other Internet policy issues — without any governmental involvement. Thus far, however, they have failed to do so. Moreover, the temptations for strategic behavior and the attendant transaction costs of developing and enforcing those norms constitute formidable hurdles. Thus, the contractual environment, the relevant norms, and the regulatory requirements in the Internet ecosystem are all in flux, meaning that businesses and policymakers need to develop a strategy for guarding against opportunism.

Despite the fact that in many contexts parties would be better off if they cooperated, the lure of opportunistic behavior is often too strong to curtail without public oversight. Consider Professor Gary Libecap's finding that, when neighboring property owners are interested in drilling for oil, they rarely cooperate to develop a framework that leaves them all better off. Rather, at least as a historical matter, each neighbor tends to act opportunistically, drilling down to reach the same bed of oil and, in the process, all end up worse off.[58] Conversely, where parties do cooperate with one another, they are often able to do

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[57] *See, e.g.*, Alex Goldman, *The Cogent-Level 3 Dispute*, ISP-PLANET, Oct. 7, 2005, http://www.isp-planet.com/business/2005/cogent_level_3.html; Om Malik, *Cogent, Sprint Un-peer, May Cause Web Slowdown*, GIGAOM, Oct. 31, 2008, http://www.nytimes.com/external/gigaom/2008/10/31/31gigaom-cogent-sprint-un-peer-may-cause-web-slowdown-27495.html; Mikael Ricknäs, *Sprint-Cogent Dispute Puts Small Rip in Fabric of Internet*, PC WORLD, Oct. 31, 2008, http://www.pcworld.com/businesscenter/article/153123/sprintcogent_dispute_puts_small_rip_in_fabric_of_internet.html; Todd Underwood, *Wrestling with the Zombie: Sprint Depeers Cogent, Internet Partitioned*, RENESYS BLOG, Oct. 31, 2008, http://www.renesys.com/blog/2008/10/wrestling-with-the-zombie-spri.shtml.

[58] James Surowiecki, *The Permission Problem*, NEW YORKER, Aug. 11, 2008, *available at* http://www.newyorker.com/talk/financial/2008/08/11/080811ta_talk_surowiecki.

so because they operate within close-knit communities where, among other things, reputational sanctions are effective.[59]

Outside of close-knit communities, parties are generally able to cooperate with one another when an established institution that facilitates communication and cooperation exists. In some cases, such institutions have a quasi-public character to them.[60] In others, private companies, such as the different companies who owned the patents necessary to manufacture DVDs,[61] are able to forge a coalition to establish a framework that restricts the opportunities for hold-up behavior. Such scenarios, however, tend to emerge only when an industry leader exists or where the parties are not focused on (or even aware of) the potential market opportunities in this area. In such cases, the lure of opportunistic behavior is less appealing, and thus easier to overcome.[62] Moreover, private parties may encounter difficulty in reaching such solutions when the parties are both competitors and complementors, as is often the case in the Internet

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[59] ROBERT C. ELLICKSON, ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES 167 (1991) ("[M]embers of a close-knit group develop and maintain norms whose content serve to maximize the aggregate welfare that members obtain in their workaday affairs with one another." (footnote omitted)); *see also* Barak D. Richman, *Firms, Courts, and Reputation Mechanisms: Towards a Positive Theory of Private Ordering*, 104 COLUM. L. REV. 2328, 2363 (2004) (explaining that "free entry" is "antithetical to the realities of private ordering systems").

[60] One notable historical example was the creation of merchant guilds. *See* Avner Greif et al., *Coordination, Commitment, and Enforcement: The Case of the Merchant Guild*, *in* EXPLAINING SOCIAL INSTITUTIONS 27, 35 (Jack Knight & Itai Sened eds., 1998) ("The core of the merchant guild was an administrative body that supervised the overseas operations of merchant residents of a specific territorial area and held certain regulatory powers within that territorial area."). In that case, reputational sanctions failed and were replaced by this institution because they were undermined by contract ambiguities and asymmetric information, as well as selective discrimination. *Id.*

[61] For the antitrust business review letter approving the creation of this patent pool, see Letter from Joel J. Klein, Assistant Attorney Gen., U.S. Dep't of Justice, Antitrust Div., to Garrard R. Beeney, Attorney on Behalf of Koninklijke Philips Elecs., N.V., Sony Corp. of Japan & Pioneer Elec. Corp. of Japan, Sullivan & Cromwell 15 (Dec. 16, 1998), *available at* http://www.usdoj.gov/atr/public/busreview/2121.htm.

[62] In the network management context, for example, the establishment of an oversight regime would deal a blow to the respective unrealistic fantasies of both the broadband providers and applications developers. For the applications developers, there is a temptation to view the provision of bandwidth as endless, very cheap (or free), not their problem, and as a cost and responsibility that can be dumped on the broadband provider. For the broadband providers, there is a temptation to view the profits generated by the applications providers (or at least a piece of them) as properly theirs (although the risks, on this view, are not shared). In reality, both broadband providers and applications developers need to find a strategy for coordinating their behavior, working out differences of opinions, avoiding opportunistic behavior, and preventing misunderstandings from escalating.

ecosystem. But it is also true, as discussed in the next subpart, that the solutions of the twentieth century — a reliance on common carrier regulation or antitrust oversight — are unlikely to provide a successful strategy for facilitating effective cooperation in the Internet ecosystem by themselves.

B. The Limits of Common Carrier Regulation and Antitrust

The traditional regulatory model for telecommunications networks emerged in response to the Bell System's discrimination in interconnection, including the withholding of cooperation from certain users, as an anticompetitive tool in the late 1800s and early 1900s. In particular, such behavior ultimately led Congress to adopt Title II of the Communications Act of 1934 ("1934 Act"), which imposed common carrier regulation on all providers.[63] The 1934 Act clarified that the telecommunications industry was a network industry requiring cooperation in interconnection, and thus regulators could not treat it just like any other market. Notably, the 1934 Act underscored the conclusion that the government could not trust that telecommunications markets would produce competitive markets or provide access to networks without public regulatory oversight.[64]

The 1934 Act's antidiscrimination rule drew its language directly from the Interstate Commerce Commission Act, which responded to the competitive concerns raised by the rise of the railroads.[65] The antidiscrimination rule, enforced by preset and tariffed rates, terms, and conditions, emerged largely from the concern that firms would withhold cooperation as a means of extracting a rent from the other party. Farmers worried, for example, about the rates railroads would charge, and the common carrier regulatory solution offered a measure of stability and regularity.[66] Similarly, for the railroad companies

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[63] *See* Communications Act of 1934, ch. 652, § 201, 48 Stat. 1064, 1070 (1934) (codified as amended at 47 U.S.C. § 201 et. seq. (2006)).

[64] As Richard A. Epstein put it, "[T]he provision of telecommunications services is not like the production and sale of raisins. Even if pure competitive markets are possible in agriculture, they are not possible in telecommunications, notwithstanding the hype in support of this assertion." Richard A. Epstein, *The AT&T Consent Decree: In Praise of Interconnection Only*, 61 FED. COMM. L.J. 149, 153 (2008).

[65] *See* Joseph D. Kearney & Thomas W. Merrill, *The Great Transformation of Regulated Industries Law*, 98 COLUM. L. REV. 1323, 1331-32 (1998).

[66] *See* DeLong, *supra* note 42 (noting fears of farmers that railroads would charge price just high enough so that farmers would earn "a return that paid only marginal costs, forcing it to forgo much if any return on capital").

themselves, the regulatory solution provided a measure of stability that emerged from prices set by regulators.[67]

During the rise of the Internet, one question hanging over policymakers was whether to apply the traditional common carrier model to the Internet. Notably, the network neutrality debate echoed some of the earlier debates insofar as it also implicated the question of rent extraction.[68] In particular, many proponents of network neutrality championed a zero price, nondiscriminatory access rule on the ground that it would protect developers of applications (such as Google and Yahoo) that require access to broadband platforms.[69] The theory behind this rule, which bears some resemblance to the traditional common carrier requirement, is to treat all traffic equally, thereby enabling applications developers to "innovate without permission."[70]

Critics of a common carrier-like network neutrality rule highlight the point that limits on broadband providers' pricing strategies will invariably restrict their ability to recover their sunk costs, and thus undermine their incentives to invest in the network.[71] Stated differently, such critics suggest that any prescriptive rule runs the risk of being overbroad and discouraging investment and innovation in the network. At this point, neither party has clearly prevailed in the policy arena. In the absence of any established rule, it is likely that all affected parties will be tempted to engage in rent-seeking behavior — whether in terms of strategic behavior in the marketplace or efforts to obtain favorable regulatory treatment — and continue pressing for a resolution that favors their interests.

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[67] *See generally id.* (discussing issues that emerged from that era).

[68] To that end, some predict a similar result in the Internet context as took place in the railroad context. *See* Andrew Odlyzko, *Network Neutrality, Search Neutrality, and the Never-Ending Conflict Between Efficiency and Fairness in Markets* 12 (Digital Tech. Ctr., Univ. of Minn., Working Paper, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1095350 (predicting, in Internet context, that "some form of government intervention, to set the rules, is inevitable" and "may be welcomed by the players, just as government intervention was welcomed in the end by the railroads").

[69] *See* Susan P. Crawford, *Transporting Communications*, 89 B.U. L. REV. 871, 873, 887 (2009) ("[C]oncerns about private discrimination may have once again mounted towards the heights that drove this country to adopt the original paradigm of regulation in the telecommunications field: administrative oversight of an industry providing common carrier services."); *see also* Hemphill, *supra* note 38, at 149.

[70] *See* Posting of Tim Berners-Lee to DIG, http://dig.csail.mit.edu/breadcrumbs/node/132 (May 2, 2006, 15:22 EST) (explaining that "[a]nyone can build a new application on the Web, without asking me, or Vint Cerf [co-creator of the Internet Protocol], or their ISP, or their cable company, or their operating system provider, or their government, or their hardware vendor").

[71] *See* Hemphill, *supra* note 38, at 149.

The part of the network neutrality debate that has yet to generate much discussion is which institutional strategy policymakers should embrace for a broadband era. As incidents like the Comcast–BitTorrent and Sprint–Cogent disputes illustrate, broadband networks constitute the type of critical infrastructure that gave rise to the development of common carrier regulation in the early part of the twentieth century. This does not mean that common carrier regulation is necessarily warranted, but it does beg the question of what model of regulation is appropriate for the Internet era.[72] The application of common carrier regulation to the Internet faces three formidable criticisms: (1) concerns that the model is overly rigid and ill-suited to a more dynamic technological environment;[73] (2) unlike the era of the Bell System, there are now two rival networks (cable and telephone networks) that provide some measure of competitive balance vis-à-vis one another; and (3) FCC administration of command-and-control regulation invites and rewards rent-seeking behavior.[74] In any event, whether the FCC or another regulatory agency imposes traditional common carrier regulation on Internet networks, the FCC's decision in the Comcast–BitTorrent dispute — which adjudicated and developed a principle rather than enforced a pre-existing requirement — suggests both that some form of regulatory oversight is likely to emerge and that the ultimate form of oversight is yet to be determined.

For emerging competition policy issues, some suggest that Congress either should craft a new policy solution or that policymakers should rely on the general applicability of the antitrust laws.[75] Applying such

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[72] *See* Crawford, *Transporting Communications*, *supra* note 69, at 873 (noting challenge of developing "a model of regulation that maintains the essential nugget of basic, common carriage non-discrimination regulation without resurrecting the superstructure of heavy-handed rate-based government micromanagement that both regulator and regulated were happy to dismantle"); Epstein, *supra* note 64, at 161 ("The first point to recognize here is that once we leave the AT&T monopoly model, some form of regulation will prove necessary to deal with the question of interconnections between the parties.").

[73] *See* IP-Enabled Servs., Notice of Proposed Rulemaking, 19 F.C.C.R. 4863, 4864-68 (2004) ("[C]hanges wrought by the rise of [Internet Protocol]-enabled communications promise to be revolutionary," a source of technological dynamism, and a driver of innovation); Richard B. Stewart, *Administrative Law in the Twenty-First Century*, 78 N.Y.U. L. REV. 437, 446 (2003) (stating that command-and-control regulation, "especially when centralized through federal regulation, suffers from the inherent problems involved in attempting to dictate the conduct of millions of actors in a quickly changing and very complex economy and society throughout a large and diverse nation").

[74] For a classic discussion of this phenomenon, see generally Richard A. Posner, *Taxation by Regulation*, 3 BELL J. ECON. 22 (1971).

[75] *See* Nuechterlein, *supra* note 18, at 2; Thomas Hazlett, *FCC Should Leave Net*

advice to resolve questions, like what constitutes reasonable network management and other technical Internet policy issues, is highly questionable. For Congress, the challenge is whether it can legislate in a complex and dynamic area where the relevant concerns are "best confronted with a scalpel, not a sledgehammer."[76] As for the role of antitrust law, there are substantial questions about its effectiveness in the context of resolving Internet policy disputes. Commissioner Thomas Rosch of the Federal Trade Commission ("FTC") has suggested, for example, an antitrust court might well have not condemned the blocking of a rival application (as the FCC did in the *Madison River Communications* case).[77] Moreover, on the remedy front, as then-FTC Commissioner (and current Chairman) Jonathan Leibowitz has explained, antitrust institutions may well be ill-equipped to oversee more technical matters like interoperability and network management.[78] Finally, it remains to be seen whether antitrust oversight even applies in broadband markets.[79] In short, these limitations all point to the need to develop a new model of regulation for Internet policy, which is the subject of Part II.

Neutrality to Anti-Trust Courts, FIN. TIMES, Sept. 30, 2008, http://www.ft.com/cms/s/0/bac78ca4-8ee8-11dd-946c-0000779fd18c.html.

[76] *See* Weiser, *Next Frontier*, *supra* note 20, at 5.

[77] *See* J. Thomas Rosch, Comm'r, FTC, Address at the Broadband Policy Summit IV: Broadband Access Policy: The Role of Antitrust 6-7 (June 13, 2008), *available at* http://www.ftc.gov/speeches/rosch/080613broadbandaccess.pdf. Of course, the FCC concluded that such behavior violates the Communications Act. *See Madison River*, 20 F.C.C.R. 4295, 4297 (2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf.

[78] Jon Leibowitz, Comm'r, FCC, *Concurring Statement Regarding the Staff Report: "Broadband Connectivity Competition Policy"* 1 (2007), *available at* http://www.ftc.gov/speeches/leibowitz/V070000statement.pdf ("[W]hile antitrust may be a good way of *thinking* about [consumers' 'Internet Freedoms'], it is not necessarily well-suited to *protecting* them."); *see also* Philip J. Weiser, *Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond*, 76 ANTITRUST L.J. (forthcoming 2009) (manuscript at 2, on file with author).

[79] *See* Verizon v. Trinko, 540 U.S. 398, 399, 412 (2004); *see also* ANTITRUST MODERNIZATION COMMISSION, REPORT AND RECOMMENDATIONS 22, 340, 360 (2007), *available at* http://govinfo.library.unt.edu/amc/report_recommendation/amc_final_report.pdf (deeming *Trinko* merely refusal-to-deal case that "does not displace the role of antitrust laws in regulated industries"); Philip J. Weiser, *The Relationship of Antitrust and Regulation in a Deregulatory Era*, 50 ANTITRUST BULL. 549, 550 (2005) (evaluating impact of regulation on role of antitrust in wake of *Trinko*).

II. A MODEL OF CO-REGULATION FOR INTERNET POLICY

The legacy of the FCC is one of command-and-control regulation, with an attendant propensity to invite rent-seeking behavior.[80] By contrast, the Internet's culture is premised on cooperation, collaboration, and free-wheeling entrepreneurship. Thus, a principal challenge for the FCC in the twenty-first century — if not *the* principal challenge for the agency — is to forge a new model of regulation that can reign in the Internet's aspiration to exist as a law-free zone without using the agency's legacy *modus operandi*. To that end, the model of co-regulation — where a public regulatory body oversees a self-regulatory organization ("SRO") — shows considerable promise as a means of developing standards of conduct necessary to implement basic norms and enforcing compliance with those norms. To make the case for co-regulation, this Part first explains how the FCC has used self-regulatory strategies in the past, then discusses how the FTC has done so, and finally outlines how the FCC could effectively use such a model in the Internet context.

A. The FCC and Self-Regulation

Traditional administrative law accounts have yet to incorporate and explain the potential for co-regulation as a regulatory strategy.[81] This strategy, however, is starting to attract attention in selected areas outside securities law,[82] where, as experience has shown, the presence or absence of public monitoring is critical to the success of self-regulatory initiatives.[83] Part of the challenge for policymakers and

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[80] *See* Thomas W. Hazlett, *The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Auction Faux Pas, and the Punchline to Ronald Coase's "Big Joke:" An Essay on Airwave Allocation Policy*, 14 HARV. J.L. & TECH. 335, 399-400 (2001) (criticizing FCC).

[81] Notably, in a discussion of the institutional strategies that agencies can use to address policy issues — itself, an under-examined area in administrative law — Professor Magill declined to include a role for self-regulation as a tool available to regulators. *See* M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383, 1383, 1386 (2004); *see also* Solomon, *supra* note 22, at 836-37 (noting how new governance scholars have generally not studied self-regulatory models).

[82] Cynthia Estlund, *Rebuilding the Law of the Workplace in an Era of Self-Regulation*, 105 COLUM. L. REV. 319, 320-21 (2005) (discussing self-regulation in employment law context and concluding that "coordination of internal or self-regulatory compliance structures with the external law of the workplace has the potential to create new mechanisms for enforcement of employee rights and labor standards").

[83] *See* Onnig H. Dombalagian, *Self and Self-Regulation: Resolving the SRO Identity Crisis*, 1 BROOK. J. CORP. FIN. & COM. L. 317, 323 (2007) ("When the power of self-

commentators is that the related concept of self-regulation is susceptible to a number of interpretations.[84] As used in this Article, the concept of co-regulation involves industry self-policing through an independent and credible body subject to government accountability and oversight.[85]

For an example of co-regulation, consider the Better Business Bureau's National Advertising Division ("NAD"). In short, the NAD serves as a self-policing mechanism for deciding false advertising claims. In so doing, it operates under the FTC's informal oversight, as the FTC is able to hear cases after the NAD renders a decision in a particular case.[86] In this model, the SRO wields actual decision-making authority (as opposed to merely offering advice) and is accountable to a government agency (leading some to call this approach "audited self-regulation").[87] After discussing how the FCC and the FTC have used self-regulation in the past, this Part discusses how the FCC could use co-regulation in the context of network management and other Internet policy issues.

In his dissent in the Comcast decision, FCC Commissioner Robert McDowell called for an approach based on collaboration and not regulation.[88] In particular, McDowell pointed to existing Internet

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interest is harnessed to achieve common benefits, self-regulation (with the Commission's well-oiled shotgun behind the door) can be a very effective and affordable means of regulating the securities markets."); Stephen Labaton, *Agency's '04 Rule Let Banks Pile up New Debt*, N.Y. TIMES, Oct. 3, 2008, at A1, *available at* http://www.nytimes.com/2008/10/03/business/03sec.html?_r=1.

[84] *See* Margot Priest, *The Privatization of Regulation: Five Models of Self-Regulation*, 29 OTTAWA L. REV. 233, 238-39 (1997) (setting forth five versions of self-regulation).

[85] This definition is consistent with the one used by Ofcom. *See* OFCOM, IDENTIFYING APPROPRIATE REGULATORY SOLUTIONS: PRINCIPLES FOR ANALYSING SELF- AND CO-REGULATION § 2.14 (2008), *available at* http://www.ofcom.org.uk/consult/condocs/coregulation/statement/statement.pdf; OFCOM, INITIAL ASSESSMENTS OF WHEN TO ADOPT SELF- OR CO-REGULATION § 2.17 (2008), *available at* http://www.ofcom.org.uk/consult/condocs/coregulation/condoc.pdf.

[86] *See* Jeffrey S. Edelstein, *Self-Regulation of Advertising: An Alternative to Litigation and Government Action*, 43 IDEA 509, 527 (2003) (explaining regime and noting that only 5% of cases are referred to FTC and other government agencies); *see also* Andrew Strenio et al., *Self-Regulatory Techniques for Threading the Antitrust Needle*, 18-SUM ANTITRUST 57, 57 (calling NAD "notable example of successful self-regulation").

[87] *See* Douglas C. Michael, *Federal Agency Use of Audited Self-Regulation as a Regulatory Technique*, 47 ADMIN. L. REV. 171, 174-77 (1995). Ayres and Braithwaite call a version of this concept "enforced self-regulation." *See* AYRES & BRAITHWAITE, *supra* note 22, at 101-02 (applying concept at individual firm, rather than at industry, level).

[88] Formal Complaint of Free Press and Pub. Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications, 23 F.C.C.R. 13,028, 13,088-94 (2008) [hereinafter *McDowell Dissent*]. Commissioner Adelstein suggested a similar preference in his statement:

standard-setting bodies as the obvious starting place for a self-regulatory program.[89] This confidence, unfortunately, is likely misplaced, as it assumes a type of institutional competence that these existing bodies generally lack.[90] These existing bodies lack the ability to set and enforce standards of conduct because they are consensus-based organizations and not in the habit of determining compliance with pre-established principles.[91] McDowell suggests, moreover, that "[t]hese [bodies] have remained largely self-governing, self-funded and non-profit — with volunteers acting in their own capacities and not on behalf of their employers."[92] This depiction is also overly optimistic. Notably, corporate interests affect participants in these bodies, creating difficulty in reaching closure on contentious issues. The IETF, for example, wrestled for years on the appropriate means of ensuring interoperability between instant messaging services and never effectively resolved the issue due to conflicting corporate interests.[93]

> As providers craft their network management practices, the Order sends a strong signal about the importance of engaging industry standard-setting bodies, such as the Internet Engineering Task Force, the Internet Architecture Board, and the Internet Society, which offer the best forum for resolving network management issues. It is certainly preferable for facilities-based providers and applications providers to work collaboratively, in an open and transparent manner, without the need for government intervention. To the extent that engineers can work out these issues among themselves, it obviates the need for Commission action.

Comcast Decision, 23 F.C.C.R. 13,028, 13,081-82 (2008) (statement of Commissioner Adelstein).

[89] *McDowell Dissent*, 23 F.C.C.R. at 13,093.

[90] Philip J. Weiser, *Exploring Self Regulatory Strategies for Network Management* 20 (Flatirons Summit on Information Policy, Aug. 25, 2008), *available at* http://www.silicon-flatirons.org/documents/publications/summits/WeiserNetworkManagement.pdf. [hereinafter Weiser, *Network Management*] (discussing limits of IETF as potential adjudicative body).

[91] *See id.*

[92] *McDowell Dissent*, 23 F.C.C.R. at 13,093.

[93] As explained elsewhere:

> In 1995, before the Internet became big business, private standard-setting bodies like the IETF could focus on the technical merits of proposed standards without the distorting influence of private companies that would benefit depending on the ultimate outcome. As the stakeholders in the future of the Internet become more diverse and more concerned with the impact of the Internet's development on their profits, stable, open, and end-to-end-based standards may well become the exception, not the norm. Take the case of instant messaging, for example. Instant Messaging, or IM, relies on the Internet transport protocols and adds a Names and Presence

If the FCC opts for a model of co-regulation to resolve Internet policy disputes, turning to existing standard-setting bodies for guidance may not be feasible. Instead, the agency may need to oversee the establishment of a new SRO, as discussed below. To that end, the few existing self-regulatory initiatives that the FCC has overseen warrant examination. To be sure, these programs admittedly involve much smaller-scale activity than network management policies or Internet backbone interconnection, but they still provide valuable insight as to what type of institutional solution can be effective in the Internet context.

One notable self-regulatory program that the FCC has overseen is the use of frequency coordinators, which manage voluntary cooperation in the use of point-to-point microwave links and private land mobile radio systems.[94] In that context, the coordinator evaluates requests for new licenses and certifies that such new licenses will not cause undue interference to established users.[95] Consequently, while the FCC is the authority that grants or denies licenses as a formal matter, it routinely relies on and defers to the judgment of the frequency coordinator.[96] This deference to the frequency coordinator facilitates cooperation around the use of the relevant licenses. Dale Hatfield, a former Chief Engineer at the FCC, explained that a key reason why this system works so well is that it invites the engineers to "sit down together, solve these problems, and say let's figure out how to do it."[97]

In the radio frequency coordination context, the FCC calls upon the coordinator to avoid interference between competing users, leaving

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> Directory to facilitate real-time communication. Unlike email, IM providers have yet to agree on an open, interoperable protocol that enables all users of the service to reach one another. But with the high stakes in a battle to "win" this new network market, AOL has not been eager to share its network externality with others. AOL claims that its actions reflect legitimate concerns about privacy and security, but others, including the FCC, have concluded that AOL is "dragging its feet" to maintain a dominant position that might suffer in a world where IM was an interoperable service.

Philip J. Weiser, *Internet Governance, Standard Setting, and Self-Regulation*, 28 N. KY. L. REV. 822, 831 (2001).

[94] *See generally* John R. Williams, *Private Frequency Coordination in the Common Carrier Point-to-Point Microwave Service* (OPP Working Paper Series, Paper No. 21, 1986), *available at* http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp21.pdf (studying use of point-to-point microwave links and private land mobile radio systems).

[95] *See id.* at 1.

[96] *See id.* at 31.

[97] Weiser, *Network Management*, *supra* note 90, at 22.

the FCC to define the relevant standard of conduct (here, harmful interference). In the network management context, as well as in other Internet policy issues, the SRO would have a role both in defining a standard of conduct and in adjudicating compliance with it. In reality, however, the FCC's role in developing the applicable standard of conduct in the frequency coordination context is somewhat modest because the close-knit community is generally able to develop and enforce tractable social norms that limit the need for FCC involvement.[98]

For a different type of self-regulation used by the FCC in the spectrum area, consider the role played by the American Radio Relay League ("ARRL") in the amateur (or "ham") radio context. In particular, the ARRL has an understanding with the FCC that it will manage the enforcement activities related to the use of ham radio. Within the ARRL, particular individuals are appointed as observers and, as Hatfield stated, "[T]heir job is to actually monitor the behavior in the amateur bands and if they see something wrong, they send you a postcard that says you were observed operating illegally."[99] The ARRL will report only the most egregious cases to the FCC's Enforcement Bureau.[100] A second form of self-regulation that operates in this context is that amateur radio operators adhere to a basic social norm of attempting to minimize interference both among users and with consumer electronic equipment.[101]

B. The FTC and Self-Regulation

Unlike the FCC, the FTC has considerable experience working with models of self-regulation. Notably, once the issue of online privacy emerged as a concern, the FTC responded by urging service providers to disclose to their customers relevant terms of service that the FTC could enforce.[102] As part of its effort to address the issue, the FTC developed an influential annual study that detailed the quantity and quality of such policies, thereby creating pressure for companies to

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[98] The reason for this is that the relevant parties are generally engaged in repeat games. The implications of this point are developed in Philip J. Weiser & Dale Hatfield, *Spectrum Policy Reform and the Next Frontier of Property Rights*, 15 GEO. MASON L. REV. 549, 589-91 (2008).

[99] Weiser, *Network Management*, *supra* note 90, at 23.

[100] *Id.*

[101] *Id.*

[102] *See generally* Steven Hetcher, *The FTC as Internet Privacy Norm Entrepreneur*, 53 VAND. L. REV. 2041, 2042-46 (2000) (discussing this initiative).

follow its exhortation.[103] As Peter Swire related, the FTC's annual study demonstrated a remarkable level of compliance with the self-regulatory initiative — the number of websites with posted privacy policies rose from 16% to 88% over the course of two years.[104] At that same time, Congress focused on the most compelling concern related to Internet privacy — the use of information that children provided — and crafted a law to address it.[105]

Consistent with its experience in the Internet privacy area, the FTC is much more comfortable with and inclined to consider the potential use of self-regulation than the FCC.[106] With respect to online

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[103] *See* FTC REPORT, PRIVACY ONLINE: FAIR INFORMATION PRACTICES IN THE ELECTRONIC MARKETPLACE 3-6 (May 2000), *available at* http://www.ftc.gov/reports/privacy2000/privacy2000.pdf.

[104] Weiser, *Network Management*, *supra* note 90, at 23.

[105] In evaluating the relative success of the FTC's and Congress' late 1990s Internet privacy protection strategies, it is important to appreciate that success cannot be measured in terms of 100% compliance. Notably, even a comprehensive privacy law would not be fully enforced, and thus the appropriate question is to what degree does a particular regulatory regime induce the most substantial and targeted compliance with the relevant policy goals. There is, on that score, some debate as to whether the regime of self-regulation overseen by the FTC has addressed privacy concerns effectively. *See, e.g.*, Chris Jay Hoofnagle, *Privacy Self Regulation: A Decade of Disappointment*, EPIC.ORG, Mar. 4, 2005, at 4, *available at* http://epic.org/reports/decadedisappoint.pdf ("Of the five Fair Information Practices endorsed by the FTC — notice, choice, access, security, and accountability — only notice can be said to be present as a result of privacy statements.").

[106] Former FTC Chairman Robert Pitofsky explained the agency's regard for the use of self-regulation as follows:

> From a public policy perspective, self-regulation can offer several advantages over government regulation or legislation. It often is more prompt, flexible, and effective than government regulation. Self-regulation can bring the accumulated judgment and experience of an industry to bear on issues that are sometimes difficult for the government to define with bright line rules. Finally, government resources are limited and unlikely to grow in the future. Thus, many government agencies, like the FTC, have sought to leverage their limited resources by promoting and encouraging self-regulation.

Robert Pitofsky, Chairman, Fed. Trade Comm'n, Address at the D.C. Bar Ass'n Symposium: Self Regulation and Antitrust (Feb. 18, 1998), *available at* http://www.ftc.gov/speeches/pitofsky/self4.shtm. Two other commentators offered a similar analysis:

> Self-regulatory arrangements are less formalized than public regulatory regimes and hence less rigid. Compared to the government, producers typically command greater knowledge of practices and opportunities for innovation. Information and implementation costs for the formulation and interpretation of new rules are therefore lower under self-regulation. Monitoring and enforcement costs are also reduced under self-regulation, as

behavioral marketing, the FTC's first instinct was to follow its precedent used in the Internet privacy realm. Thus, it suggested that legislation in this area was premature and that self-regulation was an appropriate initial strategy.[107] In the context of network neutrality, former FTC Chairman Deborah Majoras suggested that "self-regulation by broadband providers could be an effective complement to FTC enforcement of the consumer protection laws" and encouraged broadband providers to "consider such a model."[108] This suggestion flows naturally from the FTC's history of working with self-regulatory bodies, such as the NAD's policing of false advertising claims.[109] By contrast, the FCC has only experimented modestly with self-regulatory initiatives that it has overseen, such as in the frequency and ham radio contexts.

C. The FCC and Co-Regulation in the Internet Context

In devising a regime of co-regulation, a critical challenge is the "chicken-and-egg" question of whether the relevant stakeholders need first to form the SRO or whether the FCC needs first to call for the

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are the costs to the regulated of dealing with regulators.

Peter Grajzl & Peter Murrell, *Allocating Lawmaking Powers: Self-Regulation vs. Government Regulation*, 35 J. COMP. ECON. 520, 525 (2007). The perspective of the SEC is similar, with its commitment to self-regulation grounded in the (1) impracticality of extensive SEC regulation; and (2) recognition that businesses enjoy a greater practical knowledge of their own affairs. *See* Concept Release Concerning Self-Regulation, Exchange Act Release No. 50,700, 84 SEC Docket 619, 12, 43 (Nov. 18, 2004).

[107] As one report highlighted, Lydia Parnes, the FTC's Director of Consumer Protection, has called for self-regulation in the area of behavioral advertising, suggesting that the adoption of any binding regulations in this area would be premature. *See* Saul Hansell, *The F.T.C.'s Bully Pulpit on Privacy*, BITS.BLOGS, July 21, 2008, http://bits.blogs.nytimes.com/2008/07/21/the-ftcs-bully-pulpit-on-privacy/ ("With a market that is changing as quickly as Internet advertising, there is a danger . . . in 'taking a snapshot of the way the market works at a specific time.' " (quoting Lydia Parnes)); *see also* FTC, ONLINE BEHAVIORAL ADVERTISING: MOVING THE DISCUSSION FORWARD TO POSSIBLE SELF-REGULATORY PRINCIPLES 2-3 (2007), *available at* http://www.ftc.gov/os/2007/12/P859900stmt.pdf.

[108] Deborah Majoras, Chairwoman, Fed. Trade Comm'n, Keynote Address at the Federal Communications Bar Ass'n Annual Meeting, The FTC: Working for Consumers in the On-Line World 13 (June 27, 2007), *available at* http://www.ftc.gov/reports/broadband/v070000report.pdf; *see also* FTC STAFF REPORT, BROADBAND CONNECTIVITY, COMPETITION POLICY 136 (2007) [hereinafter BROADBAND CONNECTIVITY], *available at* http://www.ftc.gov/reports/broadband/v070000report.pdf (recognizing potential for such approach, noting that "the Commission applauds industry self-regulation").

[109] *See* Edelstein, *supra* note 86, at 527.

establishment of such a body. In the past, each model has worked under different circumstances, with frequency coordinators developing as an industry body before the FCC formally empowered them and with certification bodies stepping into the fray once the FCC called for their involvement to oversee its equipment attachment rules.[110] A critical difference between those two cases is that in the latter context, as with many of the Internet policy issues discussed herein, there were a large number of actors with disparate interests, which hampered their ability to organize an SRO without government leadership. Consequently, although the ability to leverage the accomplishments of an existing SRO would be ideal, the FCC will likely need to call for the creation of such a body for it to emerge.

In the past, when the FCC has sought to encourage industry leadership, it has not espoused the model of co-regulation urged here of explicit adoption of basic norms, recognition of a self-regulatory strategy, oversight of the self-regulatory effort, and the development of a parallel adjudicative regime. Rather, the agency has generally spurred action (with mixed success) through either implicit or explicit threats along the lines of "if you don't solve this problem, we will take action." This strategy, which some call regulation by "raised eyebrow" and others call "administrative arm twisting," is controversial insofar as it is runs counter to democratic legitimacy and transparency values that inhere in official agency action.[111] Administrative arm twisting is a familiar practice at the FCC, however, and was used by the agency when it wished to see a cooperative arrangement developed for connecting third-party set-top boxes to television sets used by cable customers. In that case, agency leaders explicitly told the relevant industries (the consumer electronics firms and the cable providers) to reach an agreement or else face FCC regulation, ultimately facilitating the development of such an arrangement.[112] Despite the success of administrative arm twisting in the set-top box context, it is a

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[110] *See* Williams, *supra* note 94, at 1 (discussing frequency coordination); *see also* Warren G. Lavey, *Telecom Globalization and Deregulation Encounter U.S. National Security and Labor Concerns*, 6 J. TELECOMM. & HIGH TECH. L. 121, 143-45 (2007) (discussing equipment certification regime).

[111] *See* Lars Noah, *Administrative Arm Twisting in the Shadow of Congressional Delegations of Authority*, 1997 WIS. L. REV. 873, 875, 877 n.10, 878 n.11. In describing the practice, former Commissioner Glen Robinson noted that it "convey[s] the sense of something vaguely illicit insofar as [it relies] on a surreptitious form of influence that draws its strength from an asymmetrical power relationship between the government and the citizen." Glen O. Robinson, *The Electronic First Amendment: An Essay for the New Age*, 47 DUKE L.J. 899, 923 n.85 (1995).

[112] *See* NUECHTERLEIN & WEISER, *supra* note 52, at 403.

dangerous model in that, if the parties fail to reach an agreement, the FCC may well lack the institutional capacity to forge one on its own.[113]

Administrative arm twisting as a strategy is qualitatively different from the co-regulation model urged here because administrative arm twisting often does not involve official agency action, although agency officials often use explicit or implicit threats to achieve a desired outcome. Indeed, former FCC Chairman Michael Powell used this very tactic in pushing broadband providers to adhere to certain network neutrality principles.[114] Under a model of co-regulation, by contrast, the agency self-consciously and formally identifies relevant norms of cooperation and provides for an institutional strategy to develop and enforce them.[115] In so doing, the agency first engages in a notice-and-comment rulemaking process both to establish the relevant administrative structure and empower an SRO to act within that structure.[116]

In short, if the FCC opts to use co-regulation in the Internet context (or in other contexts, for that matter), it should set up a regulatory architecture that welcomes the development of a credible and potentially effective SRO to operate under its oversight. Notably, co-regulation does not merely involve the development and operation of an SRO, but, as emphasized below, also relies on public agency oversight of that SRO and the ability of the agency to act if necessary to vindicate the relevant principles. Thus, without FCC leadership, it is unlikely that such an SRO will be established for contexts where a number of stakeholders with varied interests exist. Furthermore, even after an SRO is established, its effectiveness is likely to be compromised without FCC oversight.[117] To provide an example of

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[113] There is a potentially strong analogy between the FCC's role in this context and the government's role in facilitating the emergence of patent pools necessary to facilitate the rise of radio technology and aerospace technology. Both actions emerged in wartime based on a public necessity, but had the effect of facilitating commercially valuable cooperation. *See* Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 891-94 (1990) (discussing these cases). I am indebted to Rochelle Dreyfuss for suggesting this analogy.

[114] *See* Michael K. Powell, *Preserving Internet Freedom: Guiding Principles for the Industry*, 3 J. TELECOMM. & HIGH TECH. L. 5, 11-12 (2004).

[115] *See supra* notes 88-92 and accompanying text.

[116] *See supra* notes 88-92 and accompanying text.

[117] Ofcom, for example, cites the role of government encouragement as particularly important, stating:

> [T]he most likely case [for establishing an SRO] is in response to fear by industry that government or a regulatory [body] will intervene in the market

how such an SRO should operate, Part III discusses the FCC's regulation of network management and how a model of co-regulation provides an effective institutional solution for the FCC to use in addressing it.

III. TOWARD A STRATEGY OF CO-REGULATION FOR NETWORK MANAGEMENT

At this stage in the Internet's evolution, a vibrant debate exists over how to address a number of policy issues. Notably, two distinct basic types of challenges must be addressed: how to define the basic standard of conduct such as "reasonable network management," and how to determine compliance with that relevant standard of conduct. In short, the development of an effective Internet policy regime demands a fair, effective, and legitimate institutional strategy for addressing both issues.

Both the workload demands and dynamic nature of the Internet create difficulties for the FCC in providing guidance to affected parties in matters such as defining reasonable network management. At present, however, policymakers do not appreciate how the model of co-regulation offers a promising alternative to the traditional model of administrative regulation. This Part explains both how the FCC has addressed the network management issue to date, and how co-regulation provides an effective policy strategy going forward. In so doing, this Part also discusses the implementation challenges involved in such a model and the potential objections to its adoption.

A. The FCC's Regulation of Broadband

By the late 1990s, technological and market conditions had outpaced the premises that underpinned the Telecommunications Act of 1996. In particular, policymakers began to realize that the networks of the future were not designed to deliver "plain old telephone service," but instead were digital broadband networks capable of carrying Internet traffic of all kinds (voice, video, pictures, etc.).[118]

> place[,] curbing commercial activity and raising costs for companies. Ofcom's own research has found that most self-regulatory schemes have been established, at least in part, in response to a perceived threat of state intervention.

OFCOM, INITIAL ASSESSMENTS OF WHEN TO ADOPT SELF- OR CO-REGULATION, *supra* note 85, § 2.23.

[118] In a speech before he assumed the position of Chairman of the FCC, Michael Powell highlighted this phenomenon and coined the term "the digital broadband

Thus, the first regulatory policy debate of this new era questioned whether traditional common carrier concepts — as enshrined in Title II of the Communications Act of 1934 — should apply to such networks.[119] The FCC initially deferred addressing the issue, allowing the Ninth Circuit to decide the matter before it did.[120] Ultimately, the FCC concluded that Title II (and the traditional common carrier obligations embodied therein) should not govern such networks.[121] Rather, the FCC decided to classify cable broadband networks as "information services" and subject to its "Title I" authority, which begins from the premise that no regulation is necessary.[122] In 2005, the Supreme Court affirmed this determination in the *National Cable & Telecommunications Ass'n v. Brand X Internet Services* case.[123]

The FCC's regulatory classification decision only begged — and did not decide — the relevant policy issues. Indeed, proponents of regulation have increasingly called for scrutiny of how broadband providers operate their networks, citing the concern that broadband providers might engage in anticompetitive discrimination absent a regulatory regime in place to check such conduct.[124] In the mid-2000s, Professor Tim Wu coined a name for the proposed solution to the concerns of anticompetitive discrimination: "network neutrality."[125] The concept of network neutrality gained momentum when then-FCC Chairman Michael Powell later embraced it in a speech as "Internet

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migration." *See* Michael Powell, The Great Digital Broadband Migration, Part II (Dec. 18, 2000), *available at* http://www.fcc.gov/Speeches/Powell/2000/spmkp003.html.

[119] *See* AT&T v. City of Portland, 216 F.3d 871, 873 (9th Cir. 2000); Brand X Internet Servs. v. FCC, 345 F.3d 1120 (9th Cir. 2003), *rev'd*, 545 U.S. 967 (2005).

[120] *See AT&T*, 216 F.3d at 873.

[121] *See* Declaratory Ruling and Notice of Proposed Rulemaking, Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, 17 F.C.C.R. 4798, 4802 (2002).

[122] *See id.* at 4841, 4847. It later extended the "information services" classification towards wireline broadband networks (e.g., DSL services). *See* Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities, Report and Order and Notice of Proposed Rulemaking, 20 F.C.C.R. 14,853, 14,864 (2005) [hereinafter *Appropriate Framework*] (classifying DSL connections as "information service").

[123] *See* Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 1002-03 (2005) (upholding classification of cable modem service as "information service").

[124] *See, e.g.*, Weiser, *Toward a Next Generation*, *supra* note 20, 41-43 (noting that new model of regulation will need to be developed to oversee broadband platforms); *see also* NUECHTERLEIN & WEISER, *supra* note 52, at 421; Farrell & Weiser, *supra* note 35, at 107.

[125] Tim Wu, *Network Neutrality, Broadband Discrimination*, 2 J. TELECOMM. & HIGH TECH. L. 141, 141 (2003).

Freedom."[126] In articulating what he viewed as the four essential Internet freedoms — (1) freedom to access content; (2) freedom to use applications; (3) freedom to attach personal devices; and (4) freedom to obtain service plan information — Powell also expressly reserved the right to broadband providers to manage their networks.[127] In particular, he recognized "that [network] operators have legitimate needs to manage their networks and ensure quality experiences, and reasonable limits sometimes must be placed in service contracts."[128]

The status of network neutrality as a policy principle remained uncertain given the Title I classification of cable modems and the lack of any established regulations over broadband networks. Nonetheless, the FCC demonstrated its concern regarding anticompetitive discrimination by broadband operators when it entered into a consent decree with Madison River Communications, fining the company and enjoining its blocking of VoIP traffic.[129] Pointing to that case, some opponents of network neutrality have maintained that no regulatory action is necessary because the FCC is able to remedy quickly and effectively anticompetitive conduct by broadband providers.[130] This claim, however, ignores three important facts: (1) Madison River was particularly receptive to settling this matter quickly, as it had a pending initial public offering;[131] (2) the FCC did not actually conduct any enforcement process that either found facts or made a binding legal determination; and (3) the FCC pointed to Title II (§ 201) of the 1934 Act (which governed wireline broadband providers until 2005) as the relevant legal principle that was violated.[132] Consequently, this precedent does not necessarily establish the view suggested by some network neutrality opponents that no regulation is necessary. Indeed,

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[126] *See* Powell, *supra* note 114, at 11-12.

[127] *Id.*

[128] *Id.* at 11.

[129] *See Madison River*, 20 F.C.C.R. 4295, 4296, para. 5 (2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf (mandating that "Madison River shall not block ports used for VoIP applications or otherwise prevent customers from using VoIP applications").

[130] *See* Christopher S. Yoo, *Beyond Network Neutrality*, 19 HARV. J.L. & TECH. 1, 67 (2005).

[131] *See* Scott Bradner, *The Internet: Unblocking Pipes*, NETWORK WORLD, Mar. 14, 2005, http://www.networkworld.com/columnists/2005/031405bradner.html (noting that "[t]here is no legal finding that blocking VoIP is wrong — that means a better-funded provider (and one that was not in the middle of an IPO) might just go ahead and test the precedent").

[132] In particular, the agency pointed to § 201(b) of the Communications Act, which requires the practices of common carriers to be "just and reasonable." *See Madison River*, 20 F.C.C.R. at 4296 (citing 47 U.S.C. § 201(b) (2000)).

that case is more open to question in the wake of the FCC's decision to classify wireline broadband as an "information service" regulated under Title I of the 1934 Act — as opposed to the Title II classification that supported the consent decree in the matter of *Madison River Communications*.[133]

The FCC's third major step after Powell's speech and the *Madison River Communications* decree was to adopt a policy statement that set forth a modified version of the four freedoms announced in Powell's speech. Notably, the policy statement did not seek to regulate broadband providers per se, but rather constituted a guide for the agency's "ongoing policymaking activities."[134] And like Powell's speech, the Internet Policy Statement made clear that the "principles we adopt are subject to reasonable network management."[135] Given the relatively concise nature of the statement (as opposed to providing prescriptive rules), it did not clarify what constitutes "reasonable network management." Indeed, this term is far from having a clear definition and merely suggests broadband providers have some right to control the operations of their network, but what "reasonable" means in this context remains open to debate.[136]

For broadband providers, managing the traffic on their networks addresses a series of concerns. In particular, broadband providers employ "network management techniques"[137] to protect customers from spam and denial-of-service attacks, protect the security of their

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[133] *See Appropriate Framework*, 20 F.C.C.R. 14,853, 14,864 (2005) (classifying DSL connections as "information service").

[134] Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Policy Statement, F.C.C.R. 05-151, at 3 (Aug. 5, 2005) [hereinafter *Policy Statement*], *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-151A1.doc. The agency did, however, subsequently ask merging companies to "voluntarily" agree to be bound by the principles. *See, e.g.*, Verizon Commc'ns Inc. & MCI, Inc., Memorandum Opinion and Order, F.C.C.R. 05-184, para. 215 (2005), *available at*, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-184A1.doc.

[135] *Policy Statement*, F.C.C.R. at 3 n.15.

[136] *See* Matthew Lasar, *Comcast, Net Neutrality Advocates Clash at FCC Hearing*, ARTS TECHNICA, Feb. 25, 2008, http://arstechnica.com/old/content/2008/02/comcast-and-net-neutrality-advocates-clash-at-fcc-hearing.ars.

[137] To be sure, the term "network management" is not self-evident. *See* ALEXANDER CLEMM, NETWORK MANAGEMENT FUNDAMENTALS 5 (Cisco Press 2006) ("As is the case with so many words, *network management* has many attached meanings."); DOUGLAS COMER, AUTOMATED NETWORK MANAGEMENT SYSTEMS 26 (Pearson Prentice Hall 2006) ("Unfortunately, network management covers such a broad range of networks and activities that no short definition can capture the task well."). For purposes of this Article, I use the term to denote "the activities, methods, procedures, and tools that pertain to the operation, administration, maintenance, and provisioning of networked systems." CLEMM, *supra*, at 44.

networks, avoid network congestion, and ensure QoS, among other goals.[138] Consequently, the reasonableness of a network management strategy may well depend on its particular objective — say, addressing congestion concerns as opposed to restricting access to child pornography.[139]

In the case of Comcast's network management strategies, the company took a particularly aggressive approach to conserving bandwidth by limiting uploads using P2P applications.[140] The public learned of Comcast's activities when the Associated Press reported difficulties in using BitTorrent to upload a copy of the King James Bible from a single PC equipped with a Comcast cable modem.[141] After the Electronic Frontier Foundation further investigated the matter, it concluded that Comcast was using a technique called "packet forgery" as a means of causing P2P connections to shut down.[142] In response, Comcast defended its actions as "reasonable network management" and maintained that the company did not block the use of P2P applications, but rather delayed P2P uploads based on session limits in its local service areas.[143] After a number of groups complained to the FCC, the agency opened a proceeding to examine Comcast's network management practices.

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[138] Ohm, *supra* note 33, at 1466-67.

[139] *See id.*

[140] *See Comcast Decision*, 23 F.C.C.R. 13,028 (2008).

[141] *See* Rob Beschizza, *Comcast Again Denies Targeting BitTorrent Following AP Sting*, WIRED, Oct. 20, 2007, http://www.wired.com/gadgetlab/2007/10/comcast-blockin/.

[142] PETER ECKERSLEY ET AL., PACKET FORGERY BY ISPS: A REPORT ON THE COMCAST AFFAIR 1 (2007), *available at* http://www.eff.org/files/eff_comcast_report2.pdf.

[143] *See* Grant Gross, *EFF: Comcast Continues to Block P-to-P*, WASH. POST, Nov. 30, 2007, at A1 (reporting on Comcast's response). In response, EFF suggested that the claim that Comcast's network management techniques did not block packets is "only true under special conditions, and is certainly not true in general." ECKERSLEY ET AL., *supra* note 142, at 5. In support of Comcast, another commentator explained:

> We can think of [Comcast's restrictions on peer-to-peer traffic] as a freeway onramp that has lights on it to rate limit the number of cars that may enter a freeway. Those lights aren't there to say people of a certain race can pass through or people of a certain race must wait longer in line; everyone must wait their turn. If you didn't have the lights and everyone tries to pile on to the freeway at the same time, everyone ends up with worse traffic. Comcast doesn't block you from using BitTorrent, it simply limits the number of simultaneous uploads you can perform at once.

George Ou, *A Rational Debate on Comcast Traffic Management*, ZDNET, Nov. 6, 2007, http://blogs.zdnet.com/Ou/?p=852&page=2.

In August 2008, the FCC concluded that Comcast's choice of techniques was not reasonable because "Comcast's network management practices discriminate among applications rather than treating all equally and are inconsistent with the concept of an open and accessible Internet."[144] The FCC's decision highlighted that Comcast's network management practices were not transparent and, in its view, completely deceptive.[145] Notably, Comcast did not disclose that it subjected P2P applications to any Internet management techniques, but simply warned consumers against "excess" uses of bandwidth.[146]

The FCC's decision in the Comcast case represents the beginning of what is likely to be a challenging effort to define "reasonable network management" and then structure a regulatory regime to enforce that definition. To be sure, policymakers often use network neutrality to connote a number of different issues, but the network management concern adjudicated in the Comcast case is now squarely up for debate. In its decision in the Comcast case, the FCC offered mixed signals as to how it would define reasonable network management, suggesting that Comcast's failing was that it engaged in discriminatory conduct and used deep packet inspection, which it labeled as unacceptable behavior.[147] At the same time, the FCC concluded that Comcast's network management techniques were unreasonable

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[144] Press Release, FCC, Commission Orders Comcast to End Discriminatory Network Management Practices 2 (Aug. 1, 2008), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-284286A1.pdf.

[145] The FCC's order excoriated Comcast on that score. *See Comcast Decision*, 23 F.C.C.R. at paras. 7-9.

[146] *See* Drew Clark, *Comcast and Freedom to Obtain Service Plan Information*, DREWCLARK.COM, Nov. 6, 2007, http://www.drewclark.com/comcast-and-freedom-to-obtain-service-plan-information; *see also Comcast Decision*, 23 F.C.C.R. at para. 53 ("Comcast's claim that it has always disclosed its network management practices to its customers is simply untrue.").

[147] The FCC elaborated on this point, explaining:

> While Comcast claimed that it was motivated by a desire to combat network congestion, the Commission concluded that the company's practices are ill-tailored to serve that goal for many reasons: they affect customers who are using little bandwidth simply because they are using a disfavored application; they are not employed only during times of the day when congestion is prevalent; the company's equipment does not target only those neighborhoods suffering from congestion; and a customer may use an extraordinary amount of bandwidth during periods of network congestion and will be totally unaffected so long as he does not utilize an application disfavored by Comcast.

Press Release, *supra* note 144, at 2.

because they were "not minimally intrusive" and seemed to condone the use of network management techniques — including, presumably, deep packet inspection — when used to block "unlawful content such as child pornography or pirated music or video."[148] Moreover, the FCC claimed that it tailored its analysis "to the particulars of the dispute at issue" and did not call for "broad, prophylactic rules."[149] Nonetheless, as Commissioner McDowell stated in his dissent, the Comcast decision "generate[s] more questions than it" answers.[150] After all, it is far from clear which network management techniques are "minimally invasive"[151] or "reflect a tight fit between its chosen practices and a significant goal."[152]

The FCC's Comcast Order is vulnerable on two grounds. First, on the procedural front, the FCC's proceeding lacked most — if not all — of the characteristics associated with traditional fact-finding. Highlighting this very point, Commissioner McDowell criticized the FCC's institutional processes, suggesting that "[t]he truth is, the FCC does not know what Comcast did or did not do."[153] This characterization is compelling given that the FCC did not receive any evidence under oath, held no cross-examination, and merely evaluated filings where parties advanced self-serving claims.[154] In short, the process used by the FCC in the Comcast case lends itself more to political bargaining than judicial-like dispute resolution because it invites self-serving claims and lobbying as opposed to the development of a factual record based on the adversarial process.[155]

Second, on the legal front, the FCC's determination that Comcast violated its Internet Policy Statement is vulnerable because the agency

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[148] *Id.* at 2-3.

[149] *Comcast Decision*, 23 F.C.C.R. at para. 36. The opinion also stated that it did not institute "an inflexible framework micromanaging providers' network management practices." *Id.* at para. 50.

[150] *McDowell Dissent*, 23 F.C.C.R. 13,028, 13,094 (2008).

[151] *Comcast Decision*, 23 F.C.C.R. at para. 42.

[152] *Id.* at para. 47.

[153] *McDowell Dissent*, 23 F.C.C.R. at 13,091.

[154] *See* Philip J. Weiser, *Institutional Design, FCC Reform, and the Hidden Side of the Administrative State*, 61 ADMIN. L. REV. (forthcoming 2009) (manuscript at 31, 33, on file with author) [hereinafter Weiser, *Institutional Design*] (detailing manner in which FCC operates).

[155] Highlighting this fact, some commentators criticized the level of discourse during the proceeding. Ed Felten, for example, highlighted that, in seeking to defend its network management techniques before the FCC, Comcast invoked Congresswoman Mary Bono as an expert and, in so doing, incorrectly stated how P2P technology operates. Ed Felten, *Comcast's Disappointing Defense*, FREEDOM TO TINKER, Feb. 18, 2008, http://www.freedom-to-tinker.com/?p=1256.

enforced a policy statement that did not emerge from notice-and-comment rulemaking or explicitly warn parties that it would be enforced.[156] The agency is free to act by adjudication rather than rulemaking, but adjudications generally must develop and enforce previously announced principles or rules, as the *Madison River Communications* decision did with § 201(b) of the 1934 Act.[157] To that end, Justice Scalia has explained that "[a]djudication *deals* with what the law was; rulemaking deals with what the law will be."[158] Moreover, whether the Title I classification itself is antithetical to imposing regulations on network management is open to debate.[159] In any event, regardless of whether a court remands the case to the FCC, the agency will have the opportunity — and, indeed, the imperative — of

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[156] Nina A. Mendelson, *Regulatory Beneficiaries and Informal Agency Policymaking*, 92 CORNELL L. REV. 397, 407 (2007) (noting that "agency cannot base an enforcement action solely on a regulated entity's noncompliance with a guidance document"); *see also* Appalachian Power Co. v. EPA, 208 F.3d 1015, 1020-21 (D.C. Cir. 2000); Pac. Gas & Elec. Co. v. FPC, 506 F.2d 33, 38 (D.C. Cir. 1974) ("The agency cannot apply or rely on [a non-binding policy statement] as law because a general statement of policy only announces what the agency seeks to establish as policy."); Robert A. Anthony, *Interpretive Rules, Policy Statements, Guidances, Manuals, and the Like — Should Federal Agencies Use Them To Bind the Public?*, 41 DUKE L.J. 1311, 1328-29 (1992); Ronald M. Levin, *Nonlegislative Rules and the Administrative Open Mind*, 41 DUKE L.J. 1497, 1498-99 (1992). Indeed, Chairman Martin had earlier suggested that the policy statement was unenforceable. *See* News Release of Kevin J. Martin, Chairman, FCC, Comments on Commission Policy Statement, (Aug. 5, 2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-260435A2.pdf ("While policy statements do not establish rules nor are they enforceable documents, today's statement does reflect core beliefs that each member of this Commission holds regarding how broadband Internet access should function."). Had the Policy Statement been presented as setting forth binding and to-be-enforced rules (or principles), it would have been subject to judicial review at that time. *See, e.g.*, Gen. Elec. Co. v. EPA, 290 F.3d 377, 384 (D.C. Cir. 2002).

[157] The reason for requiring a previously announced rule or statutory standard is that it affords those affected by the regulation some right to challenge it. *See* Mendelson, *supra* note 156, at 421 ("[W]hen an agency enunciates its approach to enforcing regulatory standards in a guidance rather than a rule, it will likely deny a regulatory beneficiary the opportunity for review that is eventually afforded to a regulated entity."). Consequently, even if the Internet Policy Statement would be considered sufficiently binding as to be enforced by the FCC, the lack of an opportunity for parties to comment on the Policy Statement before it went into effect is a potential basis for resisting its applicability in the Comcast case. *See* McLouth Steel Prods. Corp. v. Thomas, 838 F.2d 1317, 1320-23 (D.C. Cir. 1988).

[158] Bowen v. Georgetown Univ. Hosp., 488 U.S. 204, 221 (1988).

[159] For a version of this debate, compare Weiser, *Toward a Next Generation*, *supra* note 20, at 51-54 (arguing that FCC can use its Title I authority to regulate broadband networks) with James B. Speta, *FCC Authority To Regulate the Internet: Creating It and Limiting It*, 35 LOY. U. CHI. L.J. 15 (2003) (arguing that FCC lacks any such authority).

developing an institutional strategy for addressing reasonable network management and other Internet policy disputes. The next subpart explains how a model of co-regulation would operate in the network management context.

B. *Co-Regulation as Applied to Network Management*

Of the most promising policy strategies available to address Internet policy issues in general and network management in particular, the strategy of using co-regulation is relatively undeveloped. To explain how such a model would work, this subpart evaluates how a co-regulatory strategy built around a new SRO would address the network management issue, as well as other Internet policy issues. In short, the effectiveness of this strategy will depend on the identification or development of an SRO that is independent, engages the affected stakeholders, implements norms adopted by a public authority, and is backed by a credible threat of public enforcement.

A fundamental challenge for any newly chartered SRO is whether it will be viewed as legitimate. Five strategies can help overcome this challenge. First, any newly chartered SRO must be subject to government oversight. In the self-regulatory models discussed in Part II, for example, this type of relationship was both standard and important.[160] Second, the SRO must cooperate and be compatible with the existing institutional environment. In particular, as to the Internet context, the SRO will have to cooperate with established institutions like the IETF.[161] Third, the SRO must draw upon the expertise and knowledge in the Internet community, possibly by developing a Technical Advisory Council, so that it is able to render credible judgments. Fourth, the SRO must build up its legitimacy by operating in a transparent, effective, timely, and fair manner. Finally, once it is established, the SRO must be successful in its assigned mission from the outset — lest it fail to build the necessary respect and confidence among the key stakeholders.

The goals of a newly created SRO in an initial charter would be to oversee and help develop how network management practices would evolve, how broadband networks would provide access to application developers (i.e., interface standards and design rules), and how applications developers would be expected to use broadband connectivity. To do so, the SRO would need to establish enforceable standards of conduct providing broadband operators, applications

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[160] *See supra* notes 81-101 and accompanying text.

[161] For a discussion of the IETF, see *supra* Part I.A.

developers, and end users with a sustainable basis for understanding how broadband networks would operate and cooperate with Internet applications and end users. Developing such standards, however, would require a high level of information sharing and cooperation among its participants involving considerable effort, and may well be difficult to achieve among parties with different parochial objectives.[162] Assuming the SRO could address these challenges, the development process could play an invaluable role in providing parties with "a continuous iterative interpretive loop designed to assure coincidence between stated norms and evolving practices."[163]

The ability of the SRO to develop standards of conduct for broadband providers and broadband connectivity expectations for applications developers would initially lift the burden from the FCC to define and update what constitutes "reasonable network management." To be sure, the FCC would need to initiate the process and continue acting as a norm entrepreneur by actively developing principles to guide industry action and periodically updating its Internet policy principles through rulemaking. This process, however, would necessarily and self-consciously establish broader principles (such as limiting network management techniques to reasonable approaches), leaving the SRO in the first instance (or, as discussed in Part IV, agency adjudication) to specify the relevant standards of conduct that would implement the relevant norm.[164]

In the parlance of industrial strategy, the SRO would oversee standards of conduct that specify how broadband platforms could evolve in a manner that keeps the interfaces and design rules stable.[165]

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[162] *See* Jane Svetiev, *Antitrust Governance: The New Wave of Antitrust*, 38 LOY. U. CHI. L.J. 593, 652 (2007) ("In setting interface standards and design rules, [SROs] must obtain information from their members, but they do not necessarily have the mechanisms to align the individual interests of the members either with the interests of the collective or the public interest."). *See generally* Cary Coglianese et al., *Seeking Truth for Power: Information Strategy and Regulatory Policymaking*, 89 MINN. L. REV. 277, 277-80 (2004) (discussing how oversight bodies should evaluate opportunities to gather such information).

[163] Janet Koren Levit, *Bottom-Up Lawmaking Through a Pluralist Lens: The ICC Banking Commission and the Transnational Regulation of Letters of Credit*, 57 EMORY L.J. 1147, 1151 (2008).

[164] This model is consistent with how the FCC operates in a number of other contexts. *See* Stacy Baird, *The Government at the Standards Bazaar*, 18 STAN. L. & POL'Y REV. 35, 92 (2007) (listing examples of E-911, Emergency Alert System, and broadcast flag).

[165] *See* Carliss Y. Baldwin & C. Jason Woodard, *The Architectures of Platforms: A Unified View* 17 (Harvard Bus. Sch. Fin., Working Paper No. 09-034, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1265155 ("Even core components

As compared to an FCC effort to oversee the relevant technical specifications itself, an SRO-managed process would have the advantage of being more flexible, sensitive to the relevant technical considerations, and able to adapt to change.[166] Moreover, the administrative burden of developing the resources necessary to oversee and adjudicate all Internet policy disputes would shift from the FCC to the SRO. Finally, even if it relied on the SRO, the FCC would retain its authority in this area and, if it disagreed with any of the standards of conduct developed by the SRO, it would be free to conclude so and either remand the relevant issue back to the SRO or address the matter directly.

Finally, the agreement of the relevant parties to adjudicate claims that broadband providers failed to comply with the relevant conduct standards should be included as an SRO responsibility in its charter. The FCC could also act as an adjudicator of competing factual claims, but, in practice, its capabilities to do so are underdeveloped. In the FCC's Comcast decision, for example, the agency conducted the proceeding by using a "paper record" and had only a limited means of evaluating competing claims.[167] By contrast, an arbitration type mechanism used by the SRO could act under specified time periods with technically knowledgeable, independent, and non-political decision-makers. In contrast to the FCC, such individuals would be relatively insulated from political pressures and could focus on ascertaining the relevant factual issues through an effective adjudicative process.[168] As explained in Part IV, the FCC could

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[of platform architectures] can evolve — only the interfaces need to be stable.").

[166] For examples of the concerns raised about government standard-setting, see Baird, *supra* note 164, at 35 ("[T]he risk of government failure is significant, and indeed greatest where the market is young and dynamic, as is the case with regard to the current market affected by information technology standards."); *see also* Implementation of Section 304 of the Telecommunications Act of 1996, 13 F.C.C.R. 14,775, 14781 para. 15 (June 24, 1998) (noting government regulation of standards most perilous when "consumer demands, business plans, and technologies remain unknown, uninformed or incomplete"); STEPHEN G. BREYER, REGULATION AND ITS REFORM 131-55 (1982) (noting hazards posed by command-and-control standard-setting efforts that, at least in some cases, produce "scientifically irrational distinctions").

[167] For a discussion of the FCC's conduct in this manner, see Weiser, *Institutional Design*, *supra* note 154, at 33.

[168] *See* OFCOM, INITIAL ASSESSMENTS OF WHEN TO ADOPT SELF- OR CO-REGULATION, *supra* note 85, § 4.3(g) (noting that "[i]t is desirable for there to be a genuinely independent appeals mechanism that can ensure that complaints are resolved quickly and effectively, and their outcome disclosed").

theoretically, and should, commit to operate in this fashion, but has thus far failed to do so.[169]

Taken together, the two principal responsibilities of a newly chartered SRO — to establish standards of conduct and adjudicate disputes about compliance with the relevant standards — would provide a framework for providing guidance to key stakeholders as to what forms of network management are reasonable. Unlike a framework implemented by the FCC under its usual model of regulation, a model of co-regulation would allow for greater levels of flexibility and adaptability. Because the empowered SRO would operate as a collaborative effort among relevant stakeholders, it would also have the opportunity to follow the cooperative spirit that has traditionally prevailed in Internet standard-setting bodies. In this respect, the SRO could adopt a true "problem solving ethos" — like the self-regulatory efforts in the ham radio and frequency coordinator contexts — rather than the more self-serving and politicized advocacy at the FCC.[170] If the SRO succeeds in this regard, it will not only be more likely to generate more effective rules, but it will also be more likely to elicit a greater level of compliance with those rules.[171]

The SRO charged with oversight of network management (or other Internet policy issues) must develop a symbiotic relationship with the FCC to succeed.[172] As noted above in the frequency coordinator example, it is important that the FCC defers to the judgments of a well-functioning SRO and not invite the re-litigation of the issues at the agency level, lest it undermine the SRO's effectiveness.[173] At the

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[169] Even as far as using the notice-and-comment procedure, it would be a gross understatement to say that the agency is a model of how expert agencies should operate. *See, e.g.*, *McDowell Dissent*, 23 F.C.C.R. 13,028, 13,088 (2008) ("Commissioner Tate and I received the current version of the order at 7 p.m. last night, with about half of its content added or modified. As a result, even after my office reviewed this new draft into the wee hours of the morning, I can only render a partial analysis."). For a broader critique of the FCC's operating practices, see generally Weiser, *Institutional Design*, *supra* note 154, at 3-5.

[170] *See* AYRES & BRAITHWAITE, *supra* note 22, at 87 ("[C]ooperative open communication may produce more efficient regulatory outcomes because bad arguments and bad solutions are less likely to go unchallenged. And genuine communication means that when challenges are advanced, they are listened to.").

[171] *See id.* at 87-88 ("Conditions of trust and cooperation increase the prospects that the parties will end up with a commitment to making the agreed upon solution work." (citing Victor H. Vroom, *Industrial Social Psychology*, *in* 5 THE HANDBOOK OF SOCIAL PSYCHOLOGY 196, 233-37 (Gardner Lindzey & Elliot Aronson eds., Addison-Wesley Publ'g Co. 2d ed. 1969))).

[172] *See supra* notes 99-101 (discussing FCC's experience overseeing self-regulatory bodies in spectrum context).

[173] Notably, Professor Bratton suggests that the Financial Accounting Standards

same time, as the ham radio example demonstrates, the ability of the FCC to adjudicate disputes effectively may prove critical to empowering the SRO in the first place.[174] After all, if the parties know that the FCC could not, or will not, effectively adjudicate matters, they might be less committed to ensuring that the SRO is able and willing to do so.[175]

To appreciate the importance of the FCC's role in actual oversight and enforcement as part of a regime of co-regulation, consider the recent breakdown in SEC regulation. This example provides a cautionary tale of how the lack of public oversight can render self-regulation ineffective. In 2004, the SEC decided to loosen the capital requirements for investment banks on the theory that the agency could rely on "the firms' own computer models for determining the riskiness of investments, essentially outsourcing the job of monitoring risk to the banks themselves."[176] In the wake of this decision, however, the SEC "never took true advantage of that part of the bargain" because "[t]he supervisory program under [SEC Chairman Christopher] Cox, who arrived at the agency a year later, was a low priority."[177] Suggesting that this sort of failing is endemic, SEC Chairman Cox explained that "[t]he last six months have made it abundantly clear that voluntary regulation does not work."[178] Moreover, former SEC Chairman Arthur Levitt underscored the importance of public enforcement as part of any self-regulatory regime

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Board ("FASB"), which operates under the oversight of the SEC is successful because its "appointments structure and rules of independence assure that its members pursue its formal mission rather than constituent or personal interests." William W. Bratton, *Private Standards, Public Governance: A New Look at the Financial Accounting Standards Board*, 48 B.C. L. REV. 5, 35 (2007). Moreover, Bratton highlights, the SEC maintains effective oversight over FASB because it invests in its own accounting expertise and, as in the frequency coordinators case, the SEC wields its exercise of formal authority — the need to certify FASB decisions — carefully, deferring to FASB and only rarely overruling its decisions. *Id.*

[174] *See supra* notes 99-101 and accompanying text (discussing ham radio context).

[175] Angela Campbell, for example, has stressed the importance of government oversight by suggesting: "Where the threat of government regulation receded — as in the case of the National News Council — self-regulation failed. Further, in cases where the credible threat of governmental regulation disappeared, so did the regulation." Angela J. Campbell, *Self-Regulation and the Media*, 51 FED. COMM. L.J. 711, 758 (1999); *see also* Estlund, *supra* note 82, at 347 ("The limited threat of enforcement gives regulators little leverage to promote self-regulatory experiments.").

[176] Labaton, *supra* note 83.

[177] *Id.*

[178] *Id.*; *see also* AYRES & BRAITHWAITE, *supra* note 22, at 19 ("A strategy based totally on persuasion and self-regulation will be exploited when actors are motivated by economic rationality.").

by explaining that "[i]t seems to me the enforcement effort in recent years has fallen short of what one Supreme Court justice once called the fear of the shotgun behind the door."[179]

In short, the ability of a governmental authority to oversee and empower a self-regulatory strategy by wielding the shotgun behind the door will greatly influence both the SRO's legitimacy and its effectiveness.[180] Ideally, the role of the governmental agency will be to enlist the SRO to improve the quality of the substantive legal regime while curbing any potential for SRO "pro-industry bias."[181] Thus, an essential part of a co-regulation model is that the agency must be able and willing to step in if the SRO departs from enforcing its overarching goals (e.g., the Internet Policy Statement) effectively.[182]

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[179] Labaton, *supra* note 83; *see also* AYRES & BRAITHWAITE, *supra* note 22, at 6 ("Regulatory agencies will be able to speak more softly when they are perceived as carrying big sticks."); Wolfgang Schulz & Thorsten Held, *Regulated Self-Regulation as a Form of Modern Government*, Study Commissioned by the German Federal Commissioner for Cultural and Media Affairs B-9 (Oct. 2001), *available at* http://www.humanrights.coe.int/Media/documents/interim-report-self-regulation.pdf ("Even representatives of industry bodies confirmed that self-regulation only works if there is a threat of state intervention, such as in the shape of industry standards in case of failure of a code or sanctions imposed on enterprises that have infringed a rule (the so-called 'heavy stick in the background').").

[180] *See* BROADBAND CONNECTIVITY, *supra* note 108, at 136 (suggesting that "any program of self-regulation is more effective when complemented by strong enforcement mechanisms"); *see also* Neil Weinstock Netanel, *Cyberspace 2.0*, 79 TEX. L. REV. 447, 478 (2000) (reviewing LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999) and ANDREW L. SHAPIRO, THE CONTROL REVOLUTION: HOW THE INTERNET IS PUTTING PEOPLE IN CHARGE AND CHANGING THE WORLD WE KNOW (1999), and arguing, based on Internet privacy case, that self-regulatory programs only work when government oversight mechanisms are in place); Bill Ray, *Three-Quarters of EU Radio Equipment is Non-Compliant*, REGISTER (UK), July 10, 2008, http://www.theregister.co.uk/2008/07/10/eu_radio_compliance_testing/; Jodi L. Short & Michael W. Toffel, *The Causes and Consequences of Industry Self-Policing*, 15 (Harvard Bus. Sch. Tech. & Operations Mgmt. Unit Research, Working Paper No. 08-021, 2007), *available at* http://ssrn.com/abstract=1016068 ("[O]ur findings support a regulatory policy that recognizes the ongoing importance of government regulation and regulators to the success of private-public regulatory partnerships.").

[181] *See generally* Grajzl & Murrell, *supra* note 106, at 522 (discussing potential tradeoff between industry bias and effectiveness).

[182] In theory, this is the model used by the SEC for how it manages its regulatory oversight of securities markets — as called for by Congress in the Maloney Act, which authorized the creation of the National Association of Securities Dealers, a self-regulatory organization that is now known as the Financial Industry Regulatory Authority (FINRA). *See* 52 Stat. 1070, 1070 (1938) (codified at 15 U.S.C § 78o (2000) and other scattered sections of 15 U.S.C.). This model differs from that contemplated herein not only because of the emphasis on oversight and parallel enforcement, which are often lacking in securities regulation, but also because of the fact that some self-regulatory organizations operating under SEC oversight attempt to perform both

C. Applying Co-Regulation to the Cogent and Comcast Cases

To appreciate how the model of co-regulation operates in practice, consider how it would apply to the Sprint–Cogent and Comcast–BitTorrent cases. In the Sprint–Cogent case, the absence of any norms governing Internet backbone interconnection was an integral part of why cooperation broke down between the parties. In particular, the cooperation that is necessary to provide Internet connectivity to millions of consumers relies on a set of ill-defined contractual obligations and social norms. For that reason, as Professor Kevin Werbach has highlighted, the "Internet as we know it is surprisingly fragile."[183] Thus, by developing a more well-defined set of norms, the SRO could provide greater stability and reliability in the Internet ecosystem.

As explained above, the first step of developing the relevant standards of conduct begins with FCC leadership in setting the relevant norms of behavior. In the past, the FCC has sometimes attempted to avoid setting any rules to govern how Internet providers should behave because of its concern that the market was moving too quickly to lend itself to command-and-control regulation. But using a model of co-regulation offers the FCC an alternative: it can simply use a rulemaking proceeding to identify a norm at a more general level — as it did in the case of the Internet policy principles — and allow the SRO to develop those principles into more meaningful and evolving standards of conduct. In the case of Internet backbone interconnection, the norms might include requirements to provide some level of transparency over the terms of treating a counterpart as a peer deserving of settlement-free interconnection as opposed to a customer required to pay for transit. Thus far, the FCC has failed to identify any relevant norms and the marketplace has also failed to develop them, leaving providers like Cogent free to engage in strategic

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regulatory and market-based activities. This creates a potentially irreconcilable conflict, leading to calls to separate the two. *See* Jonathan R. Macey & Maureen O'Hara, *From Markets to Venues: Securities Regulation in an Evolving World*, 58 STAN. L. REV. 563, 581-83 (2005); Stephen M.H. Wallman, *Competition, Innovation, and Regulation in the Securities Markets*, 53 BUS. LAW. 341, 369-70 (1998). Over the last several years, this separation has started to take place. *See* Order Granting Approval of Proposed Rule Change and Amendment Nos. 1, 3, and 5 Thereto and Notice of Filing and Order Granting Accelerated Approval to Amendment Nos. 6 and 8 Relating to the NYSE's Business Combination With Archipelago Holdings, Inc., Exchange Act Release No. 53,382, 71 Fed. Reg. 11,251-52 (Mar. 6, 2006).

[183] Werbach, *supra* note 5, at 345.

behavior and push the envelope on what practices it can claim are legitimate.[184]

As highlighted by the Comcast–BitTorrent case, it remains open to debate how the FCC will address the need to develop relevant standards of conduct and adjudicate those standards. In some cases, those standards will be self-evident and the need for enforcement will be minimal. In many cases, however, disputes will arise as to whether a firm complied with the relevant standards.

The Comcast–BitTorrent case pointed out three fundamental flaws of the FCC's current model. First, as discussed above, the FCC failed to establish any binding legal rules through rulemaking before taking its action in that case. Second, in articulating the relevant principle, the FCC failed to develop more meaningful standards of conduct based on the relevant norm (here, reasonable network management) — either by itself or through a reliance on an outside party (such as an SRO). Consequently, the FCC invited disputes like the one involving Comcast.

Lastly, the most significant shortcoming of the FCC's process in the Comcast–BitTorrent case is the agency's lack of developed adjudication capabilities. Notably, the FCC did not engage in a true adjudication-like process and instead followed a model that is typical of its usual notice-and-comment model of rulemaking.[185] This model, however, did not afford the FCC an effective opportunity to discern the relevant facts and expeditiously determine its course of action. By contrast, an SRO charged with overseeing such dispute resolution matters from the beginning, with an appeal to the FCC, would lessen the adjudicative burden placed on the FCC, as well as ensure more effective decision-making.

The SRO plays a central role in the model of co-regulation, but co-regulation cannot succeed without effective agency oversight. Most importantly, the FCC is the body that must initially set the relevant norm. Moreover, as discussed above and in Part IV, the FCC's ability to manage adjudications is a necessary part of enabling a co-regulation strategy to work. After all, without the shotgun behind the door, the FCC's oversight of the SRO will be ineffective.

D. The Implementation Challenges in Establishing an SRO

Assuming that the relevant actors want to cooperate and charter an SRO to address the responsibilities outlined above, a fundamental

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[184] For a discussion of the issues raised by Cogent, see Wooley, *supra* note 2.

[185] *See* Weiser, *Institutional Design*, *supra* note 154, at 3, 31.

question will be what form of governance should be established. The form of governance will need to account for the financial commitment of different players, but must also maintain legitimacy by ensuring that those who financially support the organization are not able to control it. To that end, the SRO should draw the individuals charged with developing standards of conduct and adjudicating particular matters from the Internet community at large. Moreover, as is the case with some respected academics, it is important to select individuals who are viewed as impartial towards particular companies or industry segments.[186]

Once the relevant players demonstrate the necessary commitment to establish the SRO and a critical mass of participants has agreed to participate in and abide by its decisions, the next step will be to gain the blessing of the FCC. This step would also presumably include obtaining a business review letter from the Department of Justice to establish that the SRO's structure does not raise any antitrust concerns.[187] In particular, the SRO would need to establish its commitment to transparency, open participation (at least on specified terms), periodic exit rights for members, and, most importantly, a showing that its benefits exceed any potential anticompetitive effects.[188]

Over time, as in the frequency coordination and ham radio contexts, the newly established SRO will be able to develop a culture of its own. Ideally, this culture will be sensitive to the broad Internet community and welcome the type of feedback typical of the Internet's user-based

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[186] As Ofcom put it in discussing the potential benefits of co-regulation:

> There is a clear tension between the desirability of autonomous schemes and the objectives of drawing on the experience, expertise, resources and engagement of the industry within them. The benefits of self-regulation may only be realised if the scheme is respected by other stakeholders including consumer and citizen groups, government and parliamentarians. Consequently a system involving a mixture of independent lay and industry members will be appropriate in both the scheme's governing body and further operating committees.

OFCOM, INITIAL ASSESSMENTS OF WHEN TO ADOPT SELF- OR CO-REGULATION, *supra* note 85, § 4.3(h).

[187] To that end, the cooperative effort that set and oversees the DVD standard, which is accompanied by a patent pool, sought and received the blessing of the Justice Department. *See* Letter from Joel J. Klein to Garrard R. Beeney, *supra* note 61, at 15.

[188] When self-regulatory bodies are created with antitrust concerns in mind, "antitrust only rarely limits opportunities for genuine self-regulation." Pitofsky, *supra* note 106, at 1.

culture (or wiki-nomics, as it sometimes is called).[189] There are, to be sure, a number of particular strategies that can advance this overarching goal, including a commitment to seek comment on proposals for particular standards of conduct and the establishment of advisory committees of technical authorities.

For the SRO to succeed in the Internet context, it must develop a reputation for independence and credibility. One important role that it could play is to foster and validate the trustworthiness of different Internet actors. The original Internet's open architecture design presumed that actors would not abuse the rule of open access by either designing or using applications in a malicious manner.[190] Over time, it became clear that this assumption was too generous, and thus users have looked for forms of protection, including embracing the built-in protections offered by intermediaries.[191] As users continue to look for assurances that broadband providers build in protections and not take unnecessary steps to undermine open innovation, the SRO could play a critical role in building trust among affected players by certifying the conduct of broadband providers and providing guidance to applications developers.[192] To gain the trust of Internet users, the SRO would need to ensure that its key decision-makers — say, a Technical Advisory Council — are perceived as impartial and knowledgeable.

One challenging question for an SRO chartered to oversee network management practices is whether to confine membership to broadband providers or open it up to all players in the Internet ecosystem. The justification for a narrow definition of membership rests on the premise that only such a strategy could succeed given that broader participation might undermine the effectiveness of such a body. Recall, for example, that the IETF, which has a broad array of members and operates by consensus, is often unable to resolve issues in a reasonably expeditious fashion.

The countervailing argument to a focused membership is that any effort that does not include applications developers and end users

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[189] *See* DON TAPSCOTT & ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGED EVERYTHING 4 (Portfolio 2006).

[190] *See supra* notes 14-15 and accompanying text.

[191] *See generally* JONATHAN ZITTRAIN, THE FUTURE OF THE INTERNET AND HOW TO STOP IT (2008) (explaining increased use of "appliance"-like devices that restrict user control).

[192] *See* David Clark & Marjory S. Blumenthal, The End-to-End Argument and Applications Design: The Role of Trust 13-16 (2007) (unpublished draft, Telecommunication Policy Research Conference), *available at* http://www.tml.tkk.fi/Opinnot/T-110.7190/2008/spring/papers/04a_Clarke_t2t.pdf.

might be viewed as partial and, therefore, untrustworthy by the Internet community as a whole. Such challenges might be overcome by FCC oversight (and the threat of more intrusive regulation if the SRO-based regime was viewed as ineffective), advisory bodies, or a process sufficiently open and transparent as to welcome input and invite confidence. Nonetheless, a narrow membership is risky at best and likely to undermine the likely chances of the SRO's success.

In order to be most effective, the SRO should not exclude applications developers and end users as formal participants. To do so would potentially threaten the credibility of the SRO by violating core principles of governance that all key stakeholders must be represented, and that the structure of the body should ensure independent and fair decision-making.[193] After all, ensuring the independence of those "who oversee the self-regulatory system and safeguard its integrity" is vital to ensuring a credible and effective model of governance.[194]

A final determinant of the SRO's success will be its ability to both attract and adjudicate effectively complaints that firms have engaged in unreasonable forms of network management. One promising strategy to assist the SRO in identifying questionable practices is empowering users (and applications developers). An example would be the use of tools that reveal whether users' traffic is subject to being throttled and engage in the sort of self-policing managed by the amateur auxiliary service in the ham radio environment.[195] Another promising strategy is for the SRO to ask firms to certify to their use of reasonable network management through regular audits, or to subject themselves to some form of oversight by independent monitors.[196]

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[193] *See* Estlund, *supra* note 82, at 324 (insisting that any credible self-regulatory regime must be "the effective participation of the employees whose rights and working conditions are at stake"). In terms of assuring independence, the SEC has taken the position that a majority of an SRO's directors must be independent. *See* Exchange Act Release No. 50,699, 84 SEC Docket 444, 455 (Nov. 18, 2004). Closer to the FCC, the effort to delegate oversight authority to Cablelabs over the "open cable initiative" was criticized on the ground that it gave "a single highly interested industry a dominant role in the standards-setting process." Baird, *supra* note 164, at 66. Finally, as Ofcom has highlighted, building confidence in the part of stakeholders requires "openness and transparency in operation, and a degree of public accountability in relation to the scheme's performance." OFCOM, IDENTIFYING APPROPRIATE REGULATORY SOLUTIONS: PRINCIPLES FOR ANALYSING SELF- AND CO-REGULATION, *supra* note 85, § 4.28.

[194] Estlund, *supra* note 82, at 324.

[195] The Electronic Frontier Foundation also has a tool called the Switzerland Network Testing Tool, *available at* http://www.eff.org/testyourisp/switzerland.

[196] *See, e.g.*, Estlund, *supra* note 82, at 386-87 (discussing monitoring function and its success in New York City Greengrocer Code of Conduct); Ray, *supra* note 180

In short, the ultimate effectiveness of the SRO will depend on its ability to develop an effective model of governance and decision-making, ensure a broad array of participation, and develop effective solutions for how to address Internet policy issues. Indeed, regulatory policy can facilitate this result by encouraging and empowering the SRO, in addition to creating incentives by subjecting non-participating firms to alternative forms of oversight. But in the end, the SRO and its participants will develop the strategies for overseeing bandwidth usage that will strike applications developers, broadband providers, and end users as fair, reasonable, and effective. By so doing, it will develop credibility as a certifier of reasonable behavior that will enhance consumers' confidence in their Internet Service Provider.[197]

E. Addressing Criticisms of Co-Regulation

The model that some call "new governance," which can include variants of self-regulation, has attracted considerable interest and some criticism over the last several years.[198] In the Internet context, the most formidable self-regulatory initiative to date — the development of the Internet Corporation for Assigned Names and Numbers ("ICANN") — has attracted considerable criticism on the ground that it is neither democratically legitimate nor effective.[199] By contrast, most observers generally view the IETF as both legitimate and effective.[200] Even as to the IETF, however, some have criticized the delegation of governmental authority to outside bodies as raising legitimacy and accountability concerns.

(discussing role of certification and auditing regime).

[197] *See also* Online Privacy Alliance, Effective Enforcement of Self Regulation, http://www.privacyalliance.org/resources/enforcement.shtml ("Validation by an independent trusted third party that organizations are engaged in meaningful self-regulation of online privacy, may be necessary to grow consumer confidence.").

[198] *See* Jason M. Solomon, *supra* note 22, at 823 ("The kinds of regulation encompassed in the term new governance tend to be less prescriptive, less top-down, and more focused on learning through monitoring than compliance with fixed rules."). Others have suggested similar approaches to regulation, offering different names and the basic "experimentalist" theme. *See* Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342, 345-47 (2004) (listing theories).

[199] *See, e.g.*, Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 DUKE L.J. 17 (2000) (criticizing ICANN); Jonathan Weinberg, *ICANN and the Problem of Legitimacy*, 50 DUKE L.J. 187 (2000) (same).

[200] *See* Froomkin, *Critical Theory*, *supra* note 32, at 757, 787.

Professor Freeman has developed a critique of governmental reliance on SROs based on accountability concerns, suggesting that agencies must either set technical standards themselves or rely on federal advisory committees to do so.[201] In so arguing, she suggests that the procedural requirements of the Federal Advisory Committee Act ("FACA"), which confer greater legitimacy on standards that SROs set,[202] must be followed in all cases. In her view, these requirements, which mandate a degree of transparency and impose other formalities on the SRO's operation, can better align a reliance on such bodies with a commitment to democratic governance.[203]

This approach, however, vests too much authority in the agencies. Under the co-regulation model, the FCC would be responsible for overseeing the content and procedure of the SRO to which it would delegate implementation-type authority and imposing procedural safeguards upon how the SRO would operate. To insist that the FCC only draw on the expertise in the private sector through the FACA process, moreover, would greatly restrict its ability to embrace regulatory strategies that call upon the private sector's expertise in a flexible and dynamic manner.[204] In particular, the requirements of FACA can add bureaucratic hurdles to the SRO's modes of operation and, more significantly, disqualify the use of existing bodies that may not adhere to its strictures.[205]

Freeman's critique underscores the importance of agencies ensuring that an SRO's judgment does not substitute for public oversight of the policy issue in question and that the public agenda operates in a transparent manner.[206] Indeed, as a practical matter, the agency will need to endorse and enforce the remedy, as well as provide a remedy should the SRO fail to do so. Moreover, the agency will also need to settle the relevant policy issues and maintain oversight responsibility

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[201] *See* Jody Freeman, *Private Parties, Public Functions, and the New Administrative Law*, 52 ADMIN. L. REV. 813, 821-31 (2000).

[202] *See id.* at 830.

[203] *See id.*

[204] Notably, the FCC's most significant use of the FACA-process — to establish the standards used for digital television — involved a 10 year effort and the selection of a standard widely viewed as inferior to its principal alternative. *See* NUECHTERLEIN & WEISER, *supra* note 52, at 397-98.

[205] *See* Steven P. Croley & William F. Funk, *The Federal Advisory Committee Act and Good Government*, 14 YALE J. ON REG. 451, 493-502 (1997).

[206] *See* Stewart, *supra* note 73, at 447 (criticizing trend among agencies to "turn to less formal, less accountable, and more opaque methods of making regulatory policy").

by embracing formally (as well as practically) the SRO's decisions.[207] Indeed, this practice also responds to the independent criticism that relying on a third-party overseer or certifier "creates another layer of agency problems, a point that accounting debacles in the financial sector have accentuated."[208]

An important lesson from the debacles in the use of self-regulation in the securities industry is that, standing alone, self-regulation cannot replace the role of government oversight. Indeed, self-regulatory approaches are most likely to succeed when there is effective and knowledgeable government oversight. As Joel Seligman has emphasized, "[I]ndustry self-regulation subject to SEC supervision generally has been effective in its major applications *when* the Commission has been willing to threaten or actually use its regulatory authority to create incentives for securities industry self-regulation."[209] Notably, self-regulation as a standalone strategy is often suspect, but co-regulation, at least for addressing emerging Internet policy disputes, is a promising regulatory strategy.

The second basic criticism of governmental reliance on SROs is that this approach is likely to undermine the benefits of private ordering and create an opportunity for public choice pressures (i.e., rent-seeking or cartel-forming behavior). If, however, an SRO provides a forum for broadband providers, applications developers, equipment vendors, and end users to work together to develop norms for cooperative behavior, this form of governance may well be disciplined by the fact that the relevant parties are often engaged in "repeat games" with one another.[210] An SRO operating in this manner would motivate the FCC to avoid the full relitigation of issues that the SRO already decided, as full relitigation would not only undermine the

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[207] Such a commitment may not be sufficient to satisfy Freeman, who argues that "[d]espite the formal overlay of agency authority, private standard-setting should raise doubts about the legitimacy of the resulting regulations." Freeman, *supra* note 201, at 828. In any event, her argument that "administrative legitimacy is, at least in part, a matter of procedural design" must be taken seriously in developing regulatory institutions. Jody Freeman & Laura I. Langbein, *Regulatory Negotiation and the Legitimacy Benefit*, 9 N.Y.U. ENVTL. L.J. 60, 138 (2000).

[208] Cary Coglianese & David Lazer, *Management-Based Regulation: Prescribing Private Management to Achieve Public Goals*, 37 LAW & SOC'Y REV. 691, 718 (2003).

[209] Joel Seligman, *Cautious Evolution or Perennial Irresolution: Stock Market Self-Regulation During the First Seventy Years of the Securities and Exchange Commission*, 59 BUS. LAW. 1347, 1347 (2004) (emphasis added).

[210] *See generally* Robert T. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. PA. L. REV. 1643, 1657-77 (1996) (discussing economics behind this argument); Randal C. Picker, *Simple Games in a Complex World*, 64 U. CHI. L. REV. 1225, 1255 (1997) (same).

SRO's effective functioning, but quite probably lead to a worse outcome.[211] Alternatively, if the SRO is functioning more as a means of facilitating and enforcing a cartel, government deference to its actions would constitute "abdication of regulatory authority to the regulated, the full burgeoning of the interest group state, and the final confirmation of the 'capture' theory of administrative regulation."[212]

The public choice critique of governmental reliance on self-regulation certainly suggests caution in empowering and deferring to a non-governmental body. There are, however, four reasons why the FCC should still rely on private bodies like SROs to address Internet policy issues. First, those organizations possess far greater expertise than that available to the government. Second, the industry participants in the Internet ecosystem are not uniformly positioned on the relevant policy issues — unlike, for example, the stance of industry participants on environmental matters — such that deference to SROs runs a far less risk of ratifying a cartel-like plan. Third, the sunshine of government oversight can help ensure that SROs do not exclude outsiders or innovative approaches. Finally, antitrust enforcement is an important tool and escape valve that should be used to prevent standard-setting bodies or SROs from being used to facilitate cartel-like purposes.[213] But the most fundamental safety valve is that the public agency oversees the SRO and ensures that it is able to carry out its mission effectively.

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[211] *See* Jonathan R. Macey, *Public and Private Ordering and the Production of Legitimate and Illegitimate Legal Rules*, 82 CORNELL L. REV. 1123, 1136 (1997) (finding anectodal support for "public choice theory prediction that there will be a strong demand for legal rules even where the norms generated by private ordering are producing enviable results").

[212] USA Group Loan Servs., Inc. v. Riley, 82 F.3d 708, 714 (7th Cir. 1996).

[213] *See* Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492, 509 (1988) (holding liable standard-setting body for engaging in conduct); Seligman, *supra* note 209, at 1369-70 (discussing Nasdaq antitrust action, whereby traders engaged in collusion that was enforced, and not prevented, by relevant self-regulatory bodies, nor detected by SEC). Unfortunately, it is far from clear that antitrust law governs such situations. *See* Credit Suisse Sec. (USA) LLC v. Billing, 551 U.S. 264, 276 (2007) (holding that SEC oversight sufficient to displace role of antitrust law); Robert B. Ahdieh, *Law's Signal: A Cueing Theory of Law in Market Transition*, 77 S. CAL. L. REV. 215, 252 (2004) (arguing that governmental oversight, such as those that take place in the securities industry, should be sufficient to displace antitrust scrutiny and prevent anticompetitive conduct).

IV. THE TRANSITION FROM RULEMAKING TO ADJUDICATION AT THE FCC

In the context of the Comcast case, the FCC's adjudication involved a paper record and the functional use of a notice-and-comment process. Going forward, this Article recommends that the FCC use a co-regulation strategy where the adjudicatory process is closer to that of a judicial trial to avoid the limitations of the agency's notice-and-comment rulemaking process.[214] Notably, the weak form of adjudication used in the Comcast case is vulnerable to the criticisms offered by FCC Commissioner McDowell in his dissent, including his conclusion that "the evidence in the record is thin and in conflict."[215]

The salutary aspect of the Comcast decision is that it reminds FCC officials and observers that the agency can act by adjudication as well as by rulemaking.[216] In so doing, the FCC can use its authority to develop greater specificity as to what broader principles mean. In such cases, it can also act by imposing, as it did in the Comcast case, prospective remedies of the "cease-and-desist" variety (as opposed to monetary penalties).[217] Going forward, a critical challenge for the FCC will be to develop a more robust and effective model for conducting adjudications. Thus, after discussing some of the institutional failings of the FCC's current adjudication process, this Part explores the opportunity for the agency to conduct adjudications that are more effective.

In terms of its institutional structure and personnel, the FCC employs two full-time administrative law judges ("ALJs") to decide selected matters and empowers an Enforcement Bureau to decide complaints brought by companies or members of the public. In important respects, however, the role of the Enforcement Bureau

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[214] For a discussion of the flawed nature of the FCC's institutional processes, see generally Weiser, *Institutional Design*, *supra* note 154, at 3.

[215] McDowell elaborated on this point, explaining that:

> All we have to rely on are the apparently unsigned declarations of three individuals representing the complainant's view, some press reports, and the conflicting declaration of a Comcast employee. The rest of the record consists purely of differing opinions and conjecture.

McDowell Dissent, 23 F.C.C.R. 13,028, 13,092 (2008).

[216] The agency has in fact used this model effectively in the past, most famously in the *Carterfone* decision. *See* Use of the Carterfone Device in Message Toll Telephone Service, 13 F.C.C. 2d 420, 425 (1968). However, the agency struggled for almost a decade to devise and institute a remedy in that case. *See* Carolina Utils. Comm'n v. FCC, 552 F.2d 1036, 1042-44 (4th Cir. 1977), *cert. denied*, 434 U.S. 874 (1977).

[217] *See Comcast Decision*, 23 F.C.C.R. 13,028, 13,059-60 (2008).

effectively eclipses that of the ALJs. Notably, the Enforcement Bureau generally handles disputes brought to the FCC for resolution, often deciding such matters either on delegated authority or by providing a recommended decision for the agency.[218] The Enforcement Bureau also has the responsibility of investigating complaints that regulated entities have violated the agency's rules.[219] In both respects, however, the Enforcement Bureau is still evolving and has yet to emerge from the agency's tradition of political negotiations to develop an independent identity.[220] As for the ALJs, their relevance to the agency's current operations is quite limited, having decided only three matters since 2005.[221]

The limitations of the FCC's Enforcement Bureau are two-fold. First, the Enforcement Bureau has not developed an independent mission whereby it can proceed in its adjudicatory or prosecutorial responsibilities free from political interference. Thus, as discussed and criticized in the House Commerce Committee majority report on the FCC's operations, enforcement actions are often treated as political negotiations and resolved through deals made by the Chairman's office.[222] The second critical shortcoming of the FCC's Enforcement Bureau is that it has not developed an effective separation between its adjudication and prosecutorial functions nor an effective strategy to ensure that it performs either mission adequately. Not surprisingly, the agency has failed, according to a General Accountability Office report, to resolve many of the complaints brought to the Enforcement Bureau or to explain why it failed to act with respect to those complaints.[223]

As an example of the Enforcement Bureau's limits in deciding matters brought before it, consider the case of the two satellite radio providers, Sirius Satellite Radio and XM, which were long ago accused

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[218] For a discussion of the FCC's enforcement apparatus, see generally NUECHTERLEIN & WEISER, *supra* note 52, at 455-59.

[219] For a discussion of the Enforcement Bureau's investigative process, see the Investigations and Hearings Division website, *available at* http://www.fcc.gov/eb/ihd/.

[220] *See* NUECHTERLEIN & WEISER, *supra* note 52, at 457-58.

[221] *See generally* Office of Administrative Law Judges, http://www.fcc.gov/oalj (last visited Dec. 19, 2008) (listing ALJ decisions).

[222] *See* COMMITTEE ON ENERGY AND COMMERCE MAJORITY STAFF REPORT, DECEPTION AND DISTRUST: THE FEDERAL COMMUNICATIONS COMMISSION UNDER CHAIRMAN KEVIN J. MARTIN 18-19, 23-24 (Dec. 2008), *available at* http://energycommerce.house.gov/images/stories/Documents/PDF/Newsroom/fcc%20majority%20staff%20report%20081209.pdf.

[223] *See* GAO, FCC HAS MADE SOME PROGRESS IN THE MANAGEMENT OF ITS ENFORCEMENT PROGRAM BUT FACES LIMITATIONS, AND ADDITIONAL ACTIONS ARE NEEDED 5 (2008), *available at* http://www.gao.gov/new.items/d08125.pdf.

of violating the terms of their licenses. After five years of these allegations sitting undecided by the Enforcement Bureau, the FCC finally concluded, as Commissioner Tate put it, that Sirius Satellite Radio had "failed to comply — knowingly and repeatedly — with the specifications for its FM modulators and the terms of its Special Temporary Authorizations ("STAs")" during that entire time.[224] The most damning fact is not that it took five years for the FCC to reach this conclusion, but rather, that the only reason it decided the matter when it did is because the two satellite radio providers were seeking permission to merge with one another. In short, rather than conduct any meaningful enforcement investigation and adjudication, the Enforcement Bureau effectively waited for an opportunity — a merger between the two firms, as it turned out — to enter into a consent decree and receive, as a condition of the FCC's merger approval, "voluntary contributions" of $17,394,375 from XM and $2,200,000 from Sirius.[225]

The development of an effective system for adjudicating and enforcing complaints is a critical step for an agency that has historically relied on ex ante prescriptive regulations.[226] Indeed, without the apparatus to develop an ex post system of adjudicating complaints of improper conduct, the case for either adopting ex ante rules or abolishing the agency entirely becomes much stronger.[227] After all, where the FCC fails to enforce its rules effectively, it sometimes ends up compounding the negative consequences by making accommodations to the parties who violated rules that were not previously enforced.[228] As a result of the FCC's use of

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[224] Sirius Satellite Radio Inc., Order, 23 F.C.C.R. 12,301, 12,324 (2008) (statement of Commissioner Deborah Taylor Tate).

[225] XM Radio, Inc., 23 F.C.C.R. 12,325, 12,347 (2008) (detailing consent decree with XM); *Sirius*, 23 F.C.C.R. at 12,324 (detailing consent decree with Sirius).

[226] This benefit applies to a wide variety of FCC regulations. In the case of spectrum policy, for example, the FCC's legacy orientation means that spectrum licensees are restricted in how they can use their spectrum so that they avoid even the theoretically possible creation of interference — as opposed to making a showing that they created interference in practice. For a discussion of this issue, see Weiser & Hatfield, *supra* note 98, at 558-68.

[227] Lawrence Lessig has, in fact, called for both. *See Future of the Internet*, *supra* note 27 (calling for ex ante network neutrality regulation); *see also* Lawrence Lessig, *Reboot the FCC*, NEWSWEEK.COM, Dec. 23, 2003, http://www.newsweek.com/id/176809 (calling for abolition of FCC).

[228] *See, e.g.*, Unlicensed Operation in the TV Broadcast Bands, Second Report & Order & Memorandum Opinion & Order, 23 F.C.C.R. 16,807, 16807-09 (2008) (making accommodations for user of wireless microphones); *cf.* Posting of Harold Feld to Wetmachine, *We File Wireless Microphone Complaint: Shure Says Breaking Law*

adjudications to make decisions based on an undeveloped factual record of a particular course of conduct, a more effective system for adjudicating and enforcing complaints is needed. This system could both develop effective deterrence against firms that violate its rules and also ensure — through the development of a recommended decision by the Enforcement Bureau or an ALJ — a level of transparency that does not exist under the agency's current operations. In the Comcast decision, for example, two FCC Commissioners (let alone the public) did not have the benefit of time to evaluate the substance of the agency's ultimate findings of fact and legal conclusions, underscoring the vices of the FCC's traditional model and the virtues of a more judicial-like model.[229]

The move to a true adjudication model of decision-making would mark a break from past FCC practice. Under its traditional notice-and-comment model of decision-making, including that used in the Comcast case, the FCC commits the sins highlighted by Judge Posner in *Schurz Communications, Inc. v. FCC*.[230] As Judge Posner stated in that case, "[T]he nature of the record compiled in a notice-and-comment rulemaking proceeding — voluminous, largely self-serving commentary uncabined by any principles of reliability, let alone by the rules of evidence — further enlarges the Commission's discretion and further diminishes the capacity of the reviewing court to question the Commission's judgment."[231] Because the agency's institutional process enables it to shape the facts as it sees fit, it is less constrained and, thus, more vulnerable to making, as Posner put it, "[U]nprincipled compromises of Rube Goldberg complexity among contending interest groups viewed merely as clamoring suppliants who have somehow to be conciliated."[232]

To date, neither the courts nor Congress has pressed the FCC (or other agencies, for that matter) to consider more seriously the promise of administrative adjudication. Under *SEC v. Chenery Corp.*, the FCC is authorized to act by adjudication or rulemaking whenever it so

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Should Be OK If You Sound Good, http://www.wetmachine.com/totsf/item/1256 (July 16, 2008, 18:53 EST) (discussing use of unauthorized wireless microphones).

[229] *McDowell Dissent*, 23 F.C.C.R. 13,028, 13,088 (2008) ("Commissioner Tate and I received the current version of the order at 7 p.m. last night, with about half of its content added or modified. As a result, even after my office reviewed this new draft into the wee hours of the morning, I can only render a partial analysis.").

[230] Schurz Commc'n, Inc. v. FCC, 982 F.2d 1043, 1045, 1057 (7th Cir. 1992) (overturning financial interest and syndication rules, which restricted major television networks from entering into market for program production).

[231] *Id.* at 1050.

[232] *Id.*

chooses, as the agency emphasized in deciding the Comcast case via adjudication.[233] In *Chenery*, the Supreme Court emphasized that the agency properly used an adjudication rather than a rulemaking because doing so allowed the agency to address statutory problems as they arose.[234] This consideration, in addition to the agency's relative inexperience with an issue, its complexity, and the likelihood of unforeseen circumstances, could have provided the basis for a judicial doctrine to evaluate an agency's decision to proceed by rulemaking or adjudication.[235] The courts have failed to adopt any such doctrine, however, allowing agencies to proceed by whatever form of policymaking they choose "for a good reason, a bad reason, or no detectable reason."[236]

For the FCC, the thought of committing to proceed by adjudication over rulemaking is a tough pill to swallow. As Posner emphasized, a rulemaking maximizes the agency's flexibility, leaving it free to act on whatever basis it so chooses and providing discretion that may well protect it from judicial review.[237] In contrast to the "informal rulemakings" that the FCC often uses, true adjudications are held before an ALJ, use a trial and investigative staff that is separated from the FCC (which acts as the ultimate adjudicator), and have far more procedural requirements associated with them.[238] Notably, adjudications, like "formal rulemakings," are characterized by a

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[233] SEC v. Chenery Corp., 332 U.S. 194, 203 (1947) ("The choice made between proceeding by general rule or by individual, ad hoc litigation is one that lies primarily in the informed discretion of the administrative agency."); *see also Comcast Decision*, 23 F.C.C.R. 13, 028, 13,044 (2008).

[234] *Chenery*, 332 U.S. at 201, 203. The Court noted, moreover, that whether the decision produced by the adjudication should be given retroactive effect was another matter. *Id.*

[235] *See generally* Magill, *supra* note 81, at 1406-07 (discussing possible doctrine to govern use of adjudication or rulemaking).

[236] *Id.* at 1415.

[237] *See Schurz Commc'n*, 982 F.2d at 1050.

[238] In particular, the Administrative Procedure Act (APA) offers agencies very little guidance on the exact contours of how an informal rulemaking must function. By contrast, formal rulemakings are sufficiently cumbersome that agencies generally avoid them. *See, e.g.*, Robert W. Hamilton, *Rulemaking on a Record by the Food and Drug Administration*, 50 TEX. L. REV. 1132, 1142 (1972) (noting "wide criticism" of FDA's experience in two formal rulemakings, which took 10 years from start to finish). Under § 553 of the APA, agencies can rely on informal rulemakings as long as they (1) offer parties notice that the agency is considering adopting a particular rule or a general description of a certain type of rule; (2) provide a chance to comment on the agency's proposed course of action; and (3) promulgate, at least 30 days before the rule goes into effect, a "concise general statement" that explains its course of action. *See* 5 U.S.C. § 553 (2006).

reliance on the development of an actual record created through the submission of evidence and testimony subject to cross-examination.[239] Given the additional requirements of acting by adjudication, the FCC rarely chooses to act in this manner.

The notable benefits of proceeding through the more formal adjudicatory channel is that it grounds the agency's decision-making in empirical reality and constrains opportunities for interest group politics that otherwise thrive in the far less transparent rulemaking process.[240] By grounding its decision-making in the relevant facts determined ex post and avoiding interest group politics, the FCC can operate with greater flexibility and use the benefit of deterrence in a manner that largely does not exist under today's model. After all, if parties can game the agency enforcement processes and successfully invest in lobbying, they will do so rather than seriously consider the possibility that violations of the extant rules and principles will have consequences down the road.

Unless the FCC develops a credible adjudicative process, its ability to oversee a co-regulation-based strategy (or any strategy that depends on data-driven decision-making) will remain greatly compromised. As highlighted in the securities regulation context, SROs operate most effectively with the fear of the shotgun outside the door. Without that threat, parties subject to an SRO are far less likely to consider seriously the need to follow that body's rulings, and the agency will be less able to compensate for any failings of the SRO when it acts.

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[239] *See* 5 U.S.C. § 554(d) (2006); 47 C.F.R. § 1.1202(c) (2008).

[240] As Professors Benjamin and Rai put it:

> [T]he trial-type context of formal adjudications, with the parties presenting evidence and rebutting their opponents' evidence and with the hearing officer's decision based solely on the material presented at the hearing, alleviates the fear of powerful interests presenting arguments privately to the decisionmaker and more generally reduces concerns about bias affecting the agency's decision.

Stuart Minor Benjamin & Arti K. Rai, *Who's Afraid of the APA? What the Patent System Can Learn from Administrative Law*, 95 GEO. L.J. 269, 313 (2007). Similarly, as Steven Croley explained, ALJs "are almost certainly not subject to the kinds of interest group pressures operating through the legislative process . . . [as] ALJs enjoy significant independence, their tenure too is, for practical purposes, often permanent, and their procedures very much resemble judicial processes." Steven P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM. L. REV. 1, 144 n.441 (1998).

CONCLUSION

As this Article goes to press, the FCC is opening a Notice of Proposed Rulemaking that recommends implementing an oversight regime over network management practice (among other things) through the use of case-by-case adjudication.[241] In this respect, the agency is proceeding on a path to implement the latter half of the strategy outlined herein. As Part IV emphasizes, an effective adjudicative model is critical to the overall strategy insofar as the shotgun behind the door is indispensible to enabling an SRO to succeed. It remains to be seen, however, whether the FCC can employ a successful adjudicative model.

The FCC's use of adjudication as the sole means of overseeing network management issues (as well as other Internet policy issues) may well prove to be a risky strategy. The agency should indeed set broad norms to govern Internet policy, but its ability to develop those norms — whether through prescriptive regulation or even adjudication — will be tested if it is not able to rely on mediating institutions (like an SRO under its oversight).

An essential challenge for the FCC is to focus not merely on the broad norms that will govern Internet networks, but also to develop its institutional strategy. Both with respect to the use of adjudication and co-regulation, there are countless details that can either facilitate or undermine the success of such strategies. In the past, the FCC has adhered to a traditional regulatory model that it now realizes is ill-suited to addressing the challenges of the Internet age. Whether the FCC can develop new models that will operate effectively may well determine whether the agency transitions to the Internet age. Regardless of whether the FCC is abolished (as some commentators suggest it should be[242]), some agency will need to assume the mission of the norm entrepreneurship, public oversight, and regulatory backstop to guide the way towards facilitating critical cooperation among Internet networks.[243]

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[241] Notice of Proposed Rulemaking in the Matter of Preserving the Open Internet Broadband Industry Practices, FCC Release No. 09-93, 2009 FCC LEXIS 5421 (Oct. 22, 2009), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-09-93A1.pdf.

[242] *See generally* HUBER, *supra* note 18 (calling for abolition of FCC and reliance on common law courts).

[243] *See* Ahdieh, *supra* note 213, at 252 (explaining that "a public signal to invest the necessary resources in a coordinated solution, and structured opportunities to come together, may suffice to allow private parties to achieve efficient outcomes").