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THE FUTURE OF INTERNET REGULATION

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For almost one week in the fall of 2008, "major American and Canadian universities lost contact with each other, officials in Maine's state government found they couldn't link up with many town governments, and [m]illions of Sprint's wireless broadband customers found themselves cut off from thousands of Web sites."¹ 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 between two Internet "backbone" providers and a disagreement about whether Cogent should be treated as a "peer" of Sprint (and offered settlement free interconnection) or as a customer (and pay for "transit" services). To most Internet users, the Internet backbone is a mystery; its importance, however, is hard to overstate, as Internet backbone providers are the entities who carry traffic from one ISP (such as Comcast's cable modem service) to another (such as Verizon's DSL service).

As a consequence of the dispute between backbone providers Cogent and Sprint, Internet users whose ISPs relied on Cogent to carry their traffic could not send emails to or access the websites of other Internet users whose ISP relied on Sprint (and vice versa). In short, a core of the Internet as a communications network—i.e., the "network effect" created by its nature as an interconnected network of networks²—was compromised by private actors not subject to any form of government oversight. Ultimately, the Cogent-Sprint dispute was resolved by a standstill agreement. Nonetheless, the differences that sparked the dispute were left unaddressed,

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¹ 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.

² Economists have termed the value of a larger network as a "network effect." For a discussion of this issue and its legal implications, see Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. 479 (1998).

meaning that this situation could easily reoccur (as it had previously between Cogent and other backbone providers)—without any assurance that it would be addressed quickly.³

In the fall of 2007, a similar episode to the Sprint/Cogent dispute took place. In this case, a number of consumers using Comcast's cable modem service to access the Internet could not use a popular "peer-to-peer" application, BitTorrent. (BitTorrent efficiently carries large data files, such as movies and multimedia presentations.) In that case, the ISP (i.e., Comcast) did cause the degraded Internet functionality, although Comcast claimed that the harm to its customers resulted from its "reasonable network management" policies. At the time of this incident, the FCC had yet to announce any formal rules or principles to govern network management, but merely had issued a policy statement that provided that all network management techniques must be reasonable. Nonetheless, the FCC acted on a complaint that Comcast violated the policy statement by adopting unreasonable network management techniques, concluding—after undertaking a self-styled adjudication based on a purely paper record—that the company's conduct was illegal.⁴

The Sprint/Cogent Internet backbone issue the and Comcast/BitTorrent network management issue discussed above represent emerging regulatory challenges that do not fit comfortably within traditional models of regulation and are not addressed effectively using legacy regulatory strategies. For the FCC, its traditional inquiry is to ask whether private actors are providing critical infrastructure-one affected with a "public interest,"⁵ so to speak—and, if so, to impose 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. As a general matter, this commitment is enforced through prescriptive regulation, with the FCC using notice-and-comment rulemakings to develop ex ante rules to restrict the behavior of regulated parties.

³ Mikael Ricknäs, Sprint Reconnects Cogent, But Differences Are Unresolved, NETWORK WORLD (Nov. 3, 2008), available at http://www.networkworld.com/news/2008/110308-sprint-reconnects-cogent-butdifferences.html?fsrc=netflash-rss. For a discussion of the competitive concerns raised in the Internet backbone context, see Kevin Werbach, The Centripetal Network: How The Internet Holds Itself Together and The Forces Tearing It Apart, 42 U.C. DAVIS L. REV. 343, 369-72 (2008).

⁴ Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications, *Memorandum Opinion & Order*, 23 FCC Rcd. 13,028 (2008) [hereinafter *Comcast Decision*].

⁵ The phrase, which is long associated with utility regulation, dates back to Munn v. Illinois, 94 U.S. 113, 124 (1876).

To date, the Internet has developed outside of the FCC's traditional regulatory model, enjoying a long period of freedom from regulatory oversight. The Internet initially developed during a long period of U.S. government stewardship, including substantial financial support and coordination by key government officials. Owing to a series of formative decisions in the early 1990s, however, the Internet was privatized and has since developed in an environment largely free of regulation.⁶ In line with that decision, several commentators have maintained during that time that no regulatory oversight over the Internet was warranted.⁷ Over the last several years, however, it has become clear that the "hands off the Internet" era is over-a point underscored by the FCC's decision in the Comcast/BitTorrent matter. 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, while it is clear that the Internet will be subject to some form of government oversight, scholars and policymakers have yet to develop an alternative regulatory strategy in this context different from traditional command-and-control regulation.

The reason that episodes like the Cogent/Sprint 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 affects consumers in substantial ways, and there is no system of institutional oversight to ensure that such cooperation continues. Originally, such cooperation was largely guaranteed by the Internet's open architecture and the social norms that emerged from an era where only a relatively select group of users set expectations for how the Internet would operate. 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. Consequently, a critical question for Internet stakeholders and consumers is how the terms of cooperation-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—which often center on calls for or against "network neutrality"— generally feature different claims about what accounts for the Internet's success and whether regulating the Internet is prudent. On the most extreme account, network neutrality calls for the Internet to be regulated so that it functions like the electricity grid—i.e., does not provide any

⁶ Philip J. Weiser, *The Internet, Innovation, and Intellectual Property Policy*, 103 COLUM L. REV. 534 (2003) (describing Internet's early development).

¹ For a defense of the unregulation of the Internet, see Jason Oxman, *The FCC and the Unregulation of the Internet*, OPP WORKING PAPER NO. 31, 1999, *available at* http:// www.fcc.gov/Bureaus/OPP/working_papers/oppwp31.txt.

differentiated quality of service or functional advantage or disadvantage to one application over another (say, Voice over Internet Protocol (VoIP) or BitTorrent). Advocates of this approach maintain that "core infrastructure" must be treated as a "commons" and subject to common carrier regulation just like the telephone network always was.⁸ This logic, however, ignores that 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 Network neutrality opponents, by contrast, generally fail to nature. appreciate that a complete absence of any regulatory oversight would be unsustainable in a world where critical communications can be compromised by the behavior of a single party (be it Comcast or Cogent) that seeks to advance its own parochial interests. Finally, as for the claim that antitrust law can safeguard cooperation in the Internet ecosystem.⁹ this suggestion overlooks the limitations of generalist courts in overseeing terms of cooperation.¹⁰

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.¹¹ To its credit, the FCC has begun to move partially towards a new model of regulation and thus far has resisted the calls to use the old model in the Internet context. Nonetheless, neither the FCC nor commentators have developed an institutional strategy for how the FCC should operate in the Internet ecosystem. In this Article, I do just that.

This Article outlines a three-part strategy for the FCC—or any other agency authorized to oversee Internet providers—to oversee Internet connectivity disputes. First, it calls on the FCC to act as a norm entrepreneur,¹² identifying areas where cooperation is essential and setting

⁸ See Brett M. Frischmann, An Economic Theory of Infrastructure and Commons Management, 89 MINN. L. REV. 917 (2005).

⁹ See, e.g., Jonathan Nuechterlein, Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate, http://www.reg-markets.org/publications/abstract.php?pid=1257 (antitrust law for network neutrality); see generally PETER HUBER, LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM (1997).

¹⁰ Moreover, as expressed strongly in the recent *Trinko* decision, antitrust courts may well refuse to entertain such cases altogether. *See* Verizon v. Trinko, 540 U.S. 398 (2004).

¹¹ For my earlier treatment of this topic, see Philip J. Weiser, *The Next Frontier for Network Neutrality*, 60 ADMIN. L. REV. 273 (2008) [hereinafter Weiser, *Next Frontier*]; Philip J. Weiser, *Toward A Next Generation Regulatory Strategy*, 35 LOY. U. CHI. L.J. 41 (2003) [hereinafter Weiser, *Toward a Next Generation*].

¹² The term appears to stem from Cass Sunstein, *On The Expressive Function of Law*, 144 U PA. L. REV. 2021 (1996). For a notable use of the term in connection with a government agency, see Steven Hetcher, *The FTC As Internet Privacy Norm Entrepreneur*, 53 VAND. L. REV. 2041 (2000).

forth the broad terms that should govern that cooperation. Second, it argues that the FCC should use a model of co-regulation, whereby a private sector collaborative body operates under FCC oversight. Third, it recommends that the FCC should exercise *ex post* adjudicative authority (rather than *ex ante* rulemaking authority) to address breakdowns in cooperation and departure from announced norms. Notably, although this Article focuses on Internet policy challenges and how the FCC should address them, the basic model outlined herein can be applied more broadly and thus merits attention not merely by Internet policy scholars and policymakers, but also by those interested in the future of the administrative state.¹³

This Article proceeds in five parts. Part I outlines why cooperation among an array of players is both necessary and unlikely to occur without regulatory oversight as well as why the traditional model of regulation is illsuited to this 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 the case of network management, discussing both the set of implementation challenges and potential objections to that model. Part IV explains how the FCC should move to the use of after-the-fact adjudicative authority as a backstop for overseeing breakdowns in cooperation and adherence to principles for how Internet providers should operate. Finally, Part V offers a short conclusion.

I. COORDINATION, STRATEGIC BEHAVIOR, AND COMMON CARRIAGE

The challenge for the FCC in the Internet age is to develop an institutional strategy for addressing Internet policy disputes like the network management issue it confronted in the *Comcast* case and the Internet backbone disputes that have thus far eluded regulatory scrutiny. For some time, the conclusion that there were no problems for the agency to solve in the Internet environment led it to respect the calls not to regulate the Internet. To be sure, the monopoly concerns of yesteryear do not justify the imposition of traditional common carrier regulation on Internet networks. Nonetheless, a different form of market failure—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.

¹³ For a recent projects discussing the challenges of the "coordination state" and how government should act in concert with private bodies, see Robert B. Ahdieh, *From Regulation to Coordination: Standard-Setting, Network-Building, and the Modern Administrative State*, Working Paper (October 27, 2008); Michael P. Vandenbergh, *The Private Life of Public Law*, 105 COLUM. L. REV. 2029 (2005). For an earlier such effort, see IAN AYRES & JOHN BRAITHWAITE, RESPONSIVE REGULATION: TRANSCENDING THE DEREGULATION DEBATE (1992) [hereinafter RESPONSIVE REGULATION].

A. THE MULTIPARTY CONTRACTING PROBLEM

A central rationale for developing a regulatory framework to govern network management and other Internet policy issues is that it can assure all stakeholders that they can employ business strategies without negotiating a maze of private contracts with the affected parties. Viewed in this light, a principal goal of 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. In so doing, the regulatory structure can channel multiparty contracting problems into a framework that avoids the escalation and politicization of disputes and misunderstandings.¹⁴

Without some 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 remain at risk of being compromised. In particular, under high levels of uncertainty, some parties may well resist making certain kinds of investments or choose to engage in strategic behavior aimed at appropriating some (or all) of the value created by the other party's investment.¹⁵ In short, strategic behavior 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—whose interests may well be undervalued by the relevant Internet providers. Consequently, from both an enlightened self-interest perspective of the affected companies and a public policy perspective, the question is not whether there is a need for a regulatory framework to oversee issues like

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.

¹⁴ Oliver E. Williamson, *Franchise Bidding for Natural Monopolies—In General and with Respect to CATV*, 7 BELL J. ECON. 73, 91 (1976) ("regulation may be described contractually as a highly incomplete form of long-term contracting").

¹⁵ 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:

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 Committee (May 9, 1995)).

network management practices, but rather, what type of framework can do so most effectively.¹⁶

The challenge of developing norms of cooperation in the Internet context can be understood 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 them is essential because the Internet experience is not created by any single actor, but rather exists because of their collective contributions.¹⁷ 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 it is in their narrow self-interest to strategically withhold cooperation.

Under the original Internet architecture, which was engineered in an environment where the Internet operated under a "best efforts" model and Internet communications were generally not real-time or bandwidthintensive, the Internet's architecture provided an effective guarantee as to how parties could and would behave.¹⁸ Because the core Internet standards (i.e., the TCP/IP protocol suite) are not owned by any firm, subject to licensing restrictions, or in danger of being changed without notice,¹⁹ they provide—as long as they are universally adopted—a form of guaranteed open access. Moreover, the open architecture provided by these standards was also backed by strong social norms among a relatively small and sophisticated group of users, whose joint use of TCP/IP, while voluntary,

¹⁸ As Lawrence Lessig has put it:

¹⁶ As explained by Steven Shavell, cases where parties are unable to anticipate and, in some cases, be capable of paying for the losses caused by their behavior, the case 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).

¹⁷ See, e.g., Susan Crawford, *The Internet and the Project of Communications Law*, 55 UCLA L. REV. 359, 360 (2007) (noting that all value is not created by nor should be captured by broadband providers).

The original Internet achieved this architecture of competition unintentionally. The framers of the network's original design were not economists. They were not focused on building an engine of economic growth. Yet that was a 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.

Testimony of Lawrence Lessig, Senate Committee on Commerce, Science, and Transportation, at 3 (Apr. 22 2008), *available at*

http://commerce.senate.gov/public/_files/LessigTestimony.pdf.

¹⁹ Oxman, *supra* note 7, at 5.

achieved sufficient acceptance that it constituted a kind of open contract. To facilitate this form of cooperation, the Internet Engineering Task Force (IETF), whose mission was and remains to consider official standards that would complement TCP/IP, provides a forum for discussion and famously hews to an Internet ethic of operating based on "rough consensus and running code."²⁰

In today's highly commercialized Internet environment, there are a series of pressures that are leading broadband providers to upgrade and manage their networks in ways that they are compromising 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).²¹ At the same time, there are opportunities for applications developers (as well as end users) to take advantage of massive levels of bandwidth-sometimes in ways that challenge the ability of broadband networks to perform reliably.²² Unfortunately, when those efforts-instituting network management techniques and developing bandwidth-intensive (or quality-of-service dependent) applications—work at cross-purposes with one another, broadband providers and applications developers may well find themselves in a game of tug-of-war (or cat-and-mouse), with end users potentially suffering as innocent victims.

In evaluating the potential for breakdowns in cooperation, it is important to underscore at the outset that, contrary to some of the depictions of network neutrality advocates, it is not generally in the interests of broadband platform providers to undermine 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 development of new applications that will make its platform more valuable.²³ To that end, for example, Comcast CEO Brian Roberts reported that "the increased demand for online video viewing was

²⁰ For a discussion of this body, see Michael Froomkin, *Habermas@discourse.net: Toward A Critical Theory of Cyberspace*, 116 HARV. L. REV. 749 (2003).

²¹ Ohm, *supra* note ____, at 51-53.

²² For a discussion of some emerging bandwidth-intensive applications, see Stacey Higginbotham, *Why We Need Fat Pipes: The Top 5 Bandwidth-Hungry Apps*, GIGAOM, Aug. 12, 2008, *available at* http://gigaom.com/2008/08/12/why-we-need-fat-pipes-the-top-5-bandwidth-hungry-apps.

²³ For the economic logic behind the principle that a platform provider welcomes complementary applications, see 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, 89-100 (2003).

helping drive sales of cable modems," stating that "[v]ideo over the Internet is cable's friend[.]"²⁴

From the perspective of aspiring applications developers (like Vuze, a P2P applications developer who complained about Comcast's conduct in the case before the FCC), the case for trusting a platform provider is open to a number of questions. Even putting aside the concern that a platform provider will act in ways to prevent the applications developer from competing with the platform (such as the blocking of Vonage's VoIP service in the Madison River Communications case²⁵), applications developers will often worry about the temptation on the part of platform providers to extract rents once the application has been developed and successfully deployed. Indeed, if that fear is great enough, applications developers may decline to develop new applications at all or engage in wasteful cat-and-mouse strategies aimed at evading detection by the rent seeker.²⁶ On the other side of the equation, moreover, there are real costs if platform providers are absolutely prohibited from identifying new revenue opportunities or protecting the performance of their network in the face of bandwidth and QoS hungry applications because such prohibitions will constrain their available business strategies and ability to succeed.

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, in certain cases, anticipate and address concerns related to "*ex post* opportunism." Similarly, in some environments, such as the earlier era of the Internet, social norms develop and are enforced effectively 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 Jim DeLong has explained, "the mantra of 'do it by contract' is [flawed insofar

²⁴ Vishesh Kumar, *Comcast Reports Strong Results in Web Services*, WALL ST. J., July 31, 2008, at B8.

²⁵ See Madison River Communications, LLC and Affiliated Companies, Order, 20 FCC Rcd. 4296 (2005), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A2.pdf [hereinafter Madison River]. There have been some examples abroad as well. See, e.g., Cho Jin-seo, Cable TV Operators Block HanaTV, KOREA TIMES, Oct. 22, 2006, available at http://www.asiamedia.ucla.edu/article.asp?parentid=55961 (reporting that company blocked internet television services). For a discussion of the possible reasons for such behavior, see Farrell & Weiser, supra note 24, at 89-90.

²⁶ 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).

as] it requires contract writers with an unlimited legal budget and a level of foresight that would be the envy of a psychic."²⁷ Moreover, at least in this context, "we are talking long term investments under conditions of great uncertainty, and it is difficult to write the contracts that would be required."²⁸ Consequently, if protections against opportunistic behavior (be they contractual safeguards or norm-based) 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."29

The concern with opportunistic behavior is greatest where a set of parties needs to cooperate and where a threat by one party not to cooperate can be used to extract greater rents from another party. In general, firms confronting such a scenario will look for means of avoiding the need to engage in repeated bargaining for fear that their ability to bargain effectively will be compromised once they have made relationship-specific investments. The study of such relationships and the effort to develop safeguards against ex post opportunism is a central project of new institutional economics (NIE). Consequently, as explained by NIE, firms search for contractual (or regulatory) guarantees against opportunistic behavior when entering into such relationships.³⁰ In some cases,

³⁰ 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 costminimizing 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.

Paul L. Joskow, Contract Duration and Relationship-Specific Investments: Empirical Evidence from Coal Markets, 77 AMER. ECON. REV. 168, 169 (1987) (citations omitted).

²⁷ James V. DeLong, Avoiding A Tech Train Wreck, THE AMERICAN, May/June 2008, available at http://www.american.com/archive/2008/may-june-magazinecontents/avoiding-a-tech-train-wreck;

see also Paul L. Joskow, Transaction Cost Economics, Antitrust Rules, and Remedies, 18(1) J. L. ECON. & ORG. 95, 102 (2002) ("Transacting parties enter into relationships to mitigate [ex post opportunistic behavior,] but cannot do so perfectly."). 28 *Id*.

²⁹ Carl Shapiro, Statement on Exclusionary Conduct, Testimony Before the Antitrust Modernization Commission (September 29, 2005), available at http://faculty.haas.berkeley.edu/shapiro/amcexclusion.pdf.

reputational constraints—and the power 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.³¹ 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.³²

Given the challenges of developing private protections against opportunistic behavior, it should not be surprising that, over the course of modern regulatory history, platform providers and applications developers have often relied on the presence of regulatory oversight mechanisms to facilitate cooperation.³³ Consider, for example, the role played by the rules governing "retransmission consent" arrangements in the cable TV context. These rules, in effect, seek to limit the potential to engage in strategic behavior by a firm—either the platform provider (in this case, the cable or satellite company) or the applications developer (in this case, the broadcast network owning local TV stations). The presence of such rules becomes part of the operating environment and is only visible on rare occasions,

³¹ As Josh 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." Joshua D. Wright, *Benjamin Klein*, Working Paper 10 (George Mason Law & Econ. Research Paper No. 08-31), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1143568.

³² OLIVER WILLIAMSON, MECHANISMS OF GOVERNANCE 268 (1996) ("[R]egulation can serve to infuse 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, Working Paper, 7-11 (2008), available at http://papers.ssrn.com/sol3/papers.cfm?abstract id=1114541; see also ELINOR OSTROM GOVERNING THE COMMONS 15-17 (1990) (explaining the 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." Amartya Sen, Isolation, Assurance, and the Social Rate of Discount, 81 Q. J. ECON. 112, 122 (1967).

³³ 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. M. 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.").

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 (ABC, Disney, ESPN, etc.) and Time Warner's cable systems. In particular, Time Warner refused to meet Disney's demands and decided to cease carrying all of its channels, leaving customers served by Time Warner without access to them—including the then very popular "Who Wants to Be A Millionaire" (which was carried on ABC). In that case, the FCC possessed the necessary regulatory oversight authority to act quickly and condemn Time Warner.³⁴ In announcing the ruling, FCC Chairman Bill Kennard warned that "no company should use consumers as pawns in a private contract dispute"³⁵ and criticized the parties for their "game of brinkmanship."³⁶

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 isolated case. Over the last few years, Cogent has challenged the relevant norms (informal and un-codified 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.³⁷ At present, however, there is no regulatory oversight whatsoever (private or public) to govern such negotiations, leaving users unprotected from the collateral damage that arises where parties engage in strategic behavior. To be sure, it is theoretically possible that the relevant actors in the Internet ecosystem

³⁵ Statement of FCC Chairman William E. Kennard on Ruling in Time Warner-Disney Dispute (May 3, 2000), *available at* http://www.fcc.gov/Speeches/Kennard/Statements/2000/stwek036.html

³⁶ Statement of FCC Chairman William E. Kennard Regarding Disney-ABC/Time Warner Dispute (May 3, 2000), *available at*

³⁴ Time Warner Cable, Emergency Petition of ABC, Inc. for Declaratory Ruling and Enforcement Order, 15 FCC Rec. 7882 (2000).

http://www.fcc.gov/Speeches/Kennard/Statements/2000/stwek035.html ³⁷ 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; Todd Underwood, Wrestling With the Zombie: Sprint Depeers Cogent, Internet Partitioned, RENESYS (October 31. 2008), available BLOG at http://www.renesys.com/blog/2008/10/wrestling-with-the-zombie-spri.shtml; Om Malik, Cogent, Sprint Un-peer, May Cause Web Slowdown, N.Y. TIMES, Oct. 21, 2008. http://www.nytimes.com/external/gigaom/2008/10/31/31gigaom-cogentsprint-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

could agree on cooperative norms—whether on Internet backbone interconnection, network management, or other Internet policy issues— without any governmental involvement, but there are powerful reasons to believe that they will fail to overcome the temptations for strategic behavior and attendant transaction costs of developing and enforcing those norms.

In the Internet ecosystem, the contractual environment, the relevant norms, and the regulatory requirements are all in flux, meaning that businesses and policymakers need to develop a strategy for guarding against opportunism. Some might challenge any role for government in this context, arguing that businesses can be expected to negotiate a maze of contractual arrangements on their own and would face antitrust oversight if and when they withheld cooperation as an anticompetitive tactic. Even putting aside the optimistic view that antitrust law can provide an effective response in this area, this argument paints an overly rosy picture of how parties are able to avoid the temptation to engage in opportunistic behavior.

Despite the fact that parties are better served by cooperation in many cases, the lure of opportunistic behavior is often too strong to curtail without public oversight. Consider, for example, Gary Libecap's finding that, when neighboring property owners are interested in drilling for oil, they are rarely able to cooperate to develop a framework that leaves them all better off. Rather, at least as a historical matter, they each tend to act opportunistically, drilling down to reach the same bed of oil and, in the process, all end up worse off.³⁸ Conversely, where parties do cooperate within closely knit communities where, among other things, reputational sanctions are effective.³⁹

Outside of closely knit communities, parties are generally able to cooperate with one another on account of an established institution that facilitates communication and cooperation. In some cases, such institutions have a quasi-public character to them.⁴⁰ In other ones, private companies—

³⁸ James Surowiecki, *The Permission Problem*, THE NEW YORKER, Aug. 11, 2008, at 34, *available at*

http://www.newyorker.com/talk/financial/2008/08/11/080811ta_talk_surowiecki.

³⁹ See 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"); ROBERT ELLICKSON, ORDER WITHOUT LAW 167 (1991) ("[M]embers of a tight-knit group develop and maintain norms whose content serve to maximize the aggregate welfare that members obtain in their workaday affairs with one another.").

⁴⁰ One notable historical example was the creation of merchant guilds. *See* Avner Grief et al, *Coordination, Commitment, and Enforcement: The Case of the Merchant Guild* in EXPLAINING SOCIAL INSTITUTIONS 35 (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

such as the different companies who owned the patents necessary to manufacture DVDs⁴¹—forge a coalition to establish a framework that restricts the opportunities for hold-up-type behavior. Such scenarios tend to emerge when there is an industry leader and the parties have yet to realize the value of the potential market that can develop on account of cooperation—making the lure of opportunistic behavior less appealing and easier to be overcome.⁴² Moreover, such solutions are very hard to fashion through private negotiation when parties are, as is often the case in the Internet ecosystem, both competitors and complementors.

B. THE LIMITS OF COMMON CARRIER REGULATION AND ANTITRUST

The tactics of the railroads and the Bell System in the late 1800s and early 1900s left policymakers concerned about the ability of dominant firms to use the threat of discrimination in interconnection—i.e., withholding cooperation from certain users—as an anticompetitive tool. In response to the rise of the Bell System, Congress adopted Title II of the Communications Act of 1934, which imposed common carrier regulation on all providers and made clear that the telecommunications industry would not be treated just like any other market. In particular, the 1934 Act underscored the concerns that telecommunications markets could not be trusted to produce competitive markets or provide access to the network without public regulatory oversight.⁴³

were replaced by this institution because they were undermined by contract ambiguities and asymmetric information as well as selective discrimination. *Id.*

⁴¹ *Id.* For the antitrust business review letter approving the creation of this patent pool, see U.S. Department of Justice Antitrust Division, Koninklijke Philips Electronics, N.V., Sony Corporation of Japan and Pioneer Electronic Corporation of Japan Business Review Letter (1998), *available at* http://www.usdoj.gov/atr/public/busreview/2121.htm.

⁴² 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), and not their problem, but rather 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.

⁴³ As Richard Epstein put it, "The provision of telecommunications services is not like production and sale of raisins. Even if pure competitive markets are possible in agriculture, they are not possible in telecommunications, notwithstanding the

The Communications 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.⁴⁴ This rule, which was enforced by pre-set and tariffed rates, terms, and conditions, emerged largely from the concern that firms would withhold cooperation as a means of extracting the rents of 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. Similarly, for the railroad companies themselves, the regulatory solution provided a measure of stability that emerged from prices set by regulators.⁴⁵

In today's broadband era, the network neutrality debate and the concerns around "rent extraction" echo some of these earlier debates.⁴⁶ In particular, many proponents of network neutrality champion a zero price, nondiscriminatory access rule on the ground that will protect innovation by developers of applications (such as Google and Yahoo) that require access to broadband platforms.⁴⁷ Critics of such a rule highlight that limits on pricing strategies allowed by broadband providers will invariably restrict their ability to recover their sunk costs and thereby undermine their incentives to invest in the network.⁴⁸ Given the lack of any obvious division of rents in this context, the incentives to protect a firm's own rents as well as to extract the rents of the complementary provider set the stage for "rent-seeking" behavior by all involved—whether in terms of strategic

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 (2009).

⁴⁴ Joseph D. Kearney & Thomas W. Merrill, *Great Transformation*, 98 COLUM. L. REV. 1323, 1332 (1998).

⁴⁵ For a discussion of the issues that emerged from that era, see James V. DeLong, *Avoiding A Tech Train Wreck*, THE AMERICAN, May/June 2008, *available at* http://www.american.com/archive/2008/may-june-magazine-contents/avoiding-a-tech-train-wreck;

⁴⁶ 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 (Jan. 27, 2008), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1095350 (predicting, in the 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").

⁴⁷ Susan P. Crawford, *Transporting Communications*, _____B.U. L. REV. ___, ____(forthcoming 2009) ("concerns 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").

⁴⁸ See C. Scott Hemphill, Network Neutrality and the False Promise of Zero-Price Regulation, 25 YALE J. REG. 135, 149 (2008).

behavior in the marketplace or efforts to obtain favorable regulatory treatment.

The part of the network neutrality debate that has yet to generate much-if any-discussion is which institutional strategy policymakers should embrace for a broadband era. Notably, it is increasingly clear that 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, but that only begs the question of what model of regulation is appropriate for an Internet era.⁴⁹ 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;⁵⁰ (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 a vis one another; and (3) FCC administration of command-and-control regulation invites and rewards rentseeking behavior. In any event, whether or not traditional common carrier regulation is imposed on Internet networks, the FCC's Comcast decision 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, it is sometimes tempting to suggest that Congress either should craft a new policy solution or that policymakers should rely on the general applicability of the antitrust laws.⁵¹

⁴⁹ See Epstein, *The AT&T Consent Decree*, supra note 43, 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."); Crawford, *Transporting Communications*, supra note 48, at _____ (noting the challenge of developing "a model of regulation that maintains the essential nugget of basic, common carriage nondiscrimination regulation without

resurrecting the superstructure of heavy-handed government micromanagement that both regulator and regulated were happy to dismantle").

⁵⁰ See Richard B. Stewart, Administrative Law in the Twenty-First Century, 78 N.Y.U. L. REV. 437, 446 (2003) (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"); IP-Enabled Servs., *Notice of Proposed Rulemaking*, 19 F.C.C. Rcd. 4863, 4864-68 (2004) ("the rise of [Internet Protocol]-enabled communications promise to be revolutionary," a source of technological dynamism, and driver of innovation).

⁵¹ For an argument that the antitrust laws are up to addressing the issues related to network neutrality, see Jonathan E. Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate* iii (Reg-Markets Ctr., Working Paper No. 08-07), *available at* http://aeibrookings.org/admin/authorpdfs/redirect-safely.php?fname=../pdffiles/phpGw.pdf; Thomas Hazlett, *FCC Should Leave Net Neutrality to Antitrust Courts*, FINANCIAL TIMES (September 30, 2008), *available at* http://www.ft.com/cms/s/0/bac78ca4-8ee8-11dd-946c-0000779fd18c.html.

In terms of network management regulation and Internet policy issues more generally, there are reasons to seriously question this counsel. 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."⁵² As for the role of antitrust law, there are substantial questions about its effectiveness in this context. Commissioner Thomas Rosch of the Federal Trade Commission (FTC) has suggested, for example, that it is far from clear that an antitrust court would condemn the blocking of a rival application (as the FCC did in the Madison River *Communications* case).⁵³ Moreover, on the remedy front, as FTC Commissioner Jonathan Leibowitz has explained, antitrust institutions may well be deficient in terms of overseeing more technical matters like interoperability and network management.⁵⁴ Finally, antitrust oversight may not even apply in broadband markets under the *Trinko* decision.⁵⁵ In short, these limitations all point to the need, discussed in Part II, to develop a new model of regulation for Internet policy.

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.⁵⁶ By contrast, the Internet's culture is premised on cooperation, collaboration, and free-

⁵² Weiser, Next Frontier, *supra* note 11, at 5.

⁵³ J. Thomas Rosch, Comm'r, FTC, Address at the Broadband Policy Summit IV: Broadband Access Policy: The Role of Antitrust 6 (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*, *supra* note 25, at 1.

⁵⁴ 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 ("while antitrust may be a good way of thinking about [consumers' "Internet Freedoms"], it is not necessarily well-suited to protecting them." (emphasis in original)); see also Philip J. Weiser, Regulating Interoperability: Lessons From AT&T, Microsoft, and Beyond, __ ANTITRUST L. J. __ (forthcoming 2009).

⁵⁵ See Verizon v. Trinko, 540 U.S. 398, 399, 412 (2004); see also Philip J. Weiser, *The Relationship between Antitrust and Regulation in a Deregulatory Era*, 50 ANTITRUST BULL. 549 (2005) (evaluating the impact of regulation on the role of antirust in the wake of *Trinko*); 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 a refusal-to-deal case that "does not displace the role of antitrust laws in regulated industries.").

⁵⁶ For an indictment of the FCC for committing such sins, 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 (2001).

wheeling entrepreneurship. A principal challenge for the FCC in the twenty first century—if not *the* principal challenge for the agency—is thus to forge a new model of regulation that can reign in the Internet's aspiration to exist as a law-free zone and provide an alternative to using the agency's legacy *modus operandi* in this context. To that end, the model of co-regulation provides considerable promise as a means of developing standards of conduct necessary to implement basic norms as well as oversee compliance with those norms.

Traditional administrative law accounts have yet to incorporate and explain the potential for co-regulation as a regulatory strategy.⁵⁷ This strategy is, however, starting to attract attention in selected areas outside securities law,⁵⁸ where, as experience has shown, the presence or absence of public monitoring is critical to making this type of model effective.⁵⁹ Part of the challenge for commentators is that the related concept of "self-regulation" is susceptible to a number of interpretations.⁶⁰ 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.⁶¹

⁵⁷ 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 declines 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* Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 833 (2006) (noting how new governance scholars have generally not studied self-regulatory models).

⁵⁸ Cynthia Estlund, *Rebuilding The Law of the Workplace in An Era of Self-Regulation*, 105 COLUM. L. REV. 319, 321 (2005) (discussing self-regulation in the 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 the enforcement of employee rights and labor standards").

⁵⁹ See Omnig H. Dombalagain, Self and Self-Regulation: Resolving the SRO Identity Crisis, 1 BROOK. J. CORP. FIN. & COM. 317, 323 (2007) ("When the power of self-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. 2, 2008, available at http://www.nytimes.com/2008/10/03/business/03sec.html?_r=1.

⁶⁰ Margot Priest, *The Privatization of Regulation: Five Models of Self-Regulation*,
29 OTTAWA L. REV. 233 (1997) (setting forth five versions of self-regulation).

⁶¹ 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), 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), http://www.ofcom.org.uk/consult/condocs/coregulation/condoc.pdf.

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 oversight, the FTC can hear appeals from the NAD, and the FTC has authority to decide such claims on its own.⁶² In this model, the self-regulatory organization (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"⁶³). After discussing how the FCC and the FTC have used self-regulation in the past, this Part discusses how the FCC could use this model in the context of network management and other Internet policy issues.

In dissenting in the *Comcast* decision, Commissioner McDowell called for an approach based on "collaboration" and not "regulation."⁶⁴ In so doing, McDowell pointed to existing Internet standard setting bodies as the obvious starting place for a self-regulatory program. This confidence, unfortunately, is likely misplaced, as it assumes a type of institutional competence (the ability to set and enforce standards of conduct) that these bodies generally lack. He suggests, moreover, that "[t]hese groups have remained largely self-governing, self-funded and non-profit—with

As providers craft their network management practices, this 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.

Statement of Commissioner Adelstein, *Comcast Decision, supra* note Error! Bookmark not defined., at 13,082.

⁶²See Jeffrey S. Edelstein, *Self-Regulation of Advertising: An Alternative to Litigation and Government Action*, 43 IDEA 509, 527 (2003) (explaining the regime and noting that only 5% of cases are referred to the 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 the National Advertising Division a "notable example of successful self-regulation.").

⁶³ Douglas C. Michael, *Federal Agency Use of Audited Self-Regulation As a Regulatory Technique*, 47 ADMIN. L. REV. 171 (1995). Ayres and Braithwaite call a version of this concept "enforced self-regulation." *See* RESPONSIVE REGULATION, *supra* note 13, at 101-2 (applying the concept at the individual firm, rather than at the industry, level).

⁶⁴ Dissenting Statement of Commissioner Robert M. McDowell, Comcast Decision, *supra* note 4, at 13,088-94, 13,093 (2008) [hereinafter *McDowell Dissent*]. Commissioner Adelstein suggested a similar preference in his statement:

volunteers acting in their own capacities and not on behalf of their employers."⁶⁵ This depiction is also too rosy. Notably, participants in these bodies are affected by corporate interests and are often unable to reach 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.⁶⁶

If the FCC opts for a model of co-regulation to resolve Internet policy disputes, it may well not be feasible to turn to existing standard setting bodies and the agency may need to oversee (as discussed below) the establishment of a new SRO. To that end, the few existing self-regulatory initiatives overseen by the FCC bear 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 insights as to what type of institutional solution can be effective in the Internet context.

One notable FCC self-regulatory program 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.⁶⁷ In that context, the coordinator evaluates requests for new licenses and certifies

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 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.

⁶⁵ Id.

⁶⁶ As I explained elsewhere,

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

⁶⁷ For an excellent study of this system, see John 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.

that such new licenses will not cause undue interference to established users. 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, which facilitates cooperation around the use of the relevant licenses. As Dale Hatfield, a former Chief Engineer at the FCC, has explained, 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."⁶⁸ In that context, the FCC calls upon the coordinator to principally avoid interference between competing users, leaving it to the FCC to define the relevant standard of conduct (i.e., harmful interference); in the network management context as well as other Internet policy issues, the SRO would have a role both in fleshing out a standard of conduct and in adjudicating compliance with it. In reality, however, the FCC's role in the frequency coordination effort is somewhat modest because the tightly knit community is generally able to develop and enforce tractable social norms with limited FCC involvement.⁶⁹

Another FCC-related case study in self-regulation comes from the amateur (or "ham") radio context. In particular, the American Radio Relay League (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 put it, "their 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."⁷⁰ Only in the most egregious cases will such matters ever go to the FCC, with the ARRL reporting such cases to the agency's Enforcement Bureau. 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.

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 could be enforced

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http://www.silicon-

flatirons.org/documents/publications/summits/WeiserNetworkManagement.pdf. ⁶⁹ The reason for this is that the relevant parties are generally engaged in repeat playing 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).

⁷⁰ Philip J. Weiser, *Exploring Self Regulatory Strategies for Network Management*, Flatirons Summit on Information Policy (August 25, 2008), *available at* http://www.silicon-

flatirons.org/documents/publications/summits/WeiserNetworkManagement.pdf.

by the FTC.⁷¹ As part of their 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 follow its exhortation and do so in good faith. As Peter Swire related, those reports 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.⁷² At that same time, moreover, Congress focused in on the most compelling concern related to Internet privacy—the use of information provided by children—and crafted a law focused on that specific issue.⁷³

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.⁷⁴ In the context of network neutrality, for example, former

⁷¹ A discussion of this initiative is found in Steven Hetcher, *The FTC As Internet Privacy Norm Entrepreneur*, 53 VAND. L. REV. 2041 (2000).

⁷² Philip J. Weiser, *Exploring Self Regulatory Strategies for Network Management*, Flatirons Summit on Information Policy (August 25, 2008), *available at* http://www.silicon-

flatirons.org/documents/publications/summits/WeiserNetworkManagement.pdf.

⁷³ 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* 4, EPIC.ORG, Mar. 4, 2005, *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=650804 ("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.").

⁷⁴ Former FTC Chairman Bob 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.

FTC Chair 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."⁷⁵ This suggestion flows naturally from the FTC's history of working with self-regulatory strategies, such as the NAD's policing of false advertising claims.⁷⁶ Similarly, the FTC's perspective on privacy concerns related to online behavioral marketing reflect the caution exemplified by the agency's earlier stance on Internet privacy, suggesting that legislation in this area is premature and that self-regulation is an appropriate initial strategy.⁷⁷

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 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. Concept Release Concerning Self-Regulation, Exchange Act Release No. 50,700, 84 SEC Docket 619 (Nov. 18, 2004).

⁷⁵ 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) (transcript *available at* http://www.ftc.gov/speeches/majoras/070627fcba.pdf); *see also* FTC STAFF REPORT, BROADBAND CONNECTIVITY, COMPETITION POLICY 136 (2007) (recognizing the potential for such an approach, noting that "the Commission applauds industry self-regulation.") [hereinafter *Broadband Connectivity*]. ⁷⁶ See Edelstein, *supra* note 62, at 527.

⁷⁷ 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, *available at* http://bits.blogs.nytimes.com/2008/07/21/the-ftcs-bullypulpit-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, the FTC's Director of Consumer Protection); *see also* FTC, ONLINE BEHAVIORAL ADVERTISING: MOVING THE

Robert Pitofsky, Chairman, Fed. Trade Comm'n, Address at the D.C. Bar Ass'n Symposium: Self Regulation and Antitrust (Feb. 18, 1998). Two other commentators offered a similar analysis:

In devising a regime of co-regulation, a critical challenge to overcome is the "chicken-and-egg" question of whether the relevant stakeholders need first to form the appropriate organization or the FCC needs first to call for the establishment of such a body. In the past, each model has worked under different circumstances, with frequency coordinators developing an industry body before the FCC formally empowered such a body and certification bodies stepping into the fray once the FCC called for their involvement to oversee its equipment attachment rules.⁷⁸ 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, making it more difficult for them to organize a self-regulatory effort without government leadership. Consequently, even though it might be ideal for a pre-existing body to be empowered by the FCC, the agency may well have 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 adopted the model of co-regulatory urged here—i.e., 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, it has generally spurred action through either implicit or explicit threats along the lines of "if you don't solve this problem, we will take action." Consequently, when the FCC wished to see a cooperative arrangement developed for connecting third-party set-top boxes to television sets used by cable customers, it explicitly told the relevant industries (the consumer electronics firms and the cable providers) to reach an agreement or face FCC regulation.⁷⁹ This sort of strategy is often referred to as "regulation by raised eyebrow" or "administrative arm-twisting" and is controversial insofar as it is runs counter to democratic legitimacy and transparency values that inhere in official agency action.⁸⁰ It is also dangerous in that, if the parties fail to reach an agreement, there

DISCUSSION FORWARD TO POSSIBLE SELF-REGULATORY PRINCIPLES (2007), *available at* http://www.ftc.gov/os/2007/12/P859900stmt.pdf.

⁷⁸ See Williams, supra note 67, 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).

⁷⁹ See Jonathan E. Nuechterlein & Philip J. Weiser, Digital Crossroads 403 (2005).

⁸⁰ Lars Noah, Administrative Arm Twisting in the Shadow of Congressional Delegations of Authority, 1997 WIS. L. REV. 873. 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).

may well be no effective institutional strategy at the FCC (or elsewhere) to forge one. 81

The use of administrative arm twisting as a strategy is qualitatively different than the model urged here because it often does not involve official agency action. 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. In so doing, the agency first engages in a notice-andcomment rulemaking to establish the relevant administrative structure and empowers an SRO to act within that structure.

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. To date, the FCC's uses of this basic strategy have either emerged in *ad hoc* manner or unofficially (i.e., through regulation by raised eyebrow). Without FCC leadership, however, it is unlikely that such an SRO will be established for contexts where there are a number of stakeholders with varied interests.⁸² To provide an example of 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 how the FCC should address that issue.

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

At this stage in the Internet's evolution, there is a vibrant debate over a number of key policy issues, including what constitutes "reasonable network management" and how to determine compliance with that standard. In short, there are really two separate issues—how to define the basic principle more precisely (i.e., what constitutes reasonable network

⁸¹ There is a potentially strong analogy between the FCC 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. For a discussion of these cases, see Robert P. Merges & Richard R. Nelson, *On the Complex Economics of Patent Scope*, 90 COLUM. L. REV. 839, 893 (1990). I am indebted to Rochelle Dreyfuss for suggesting this analogy.

⁸² Ofcom, for example, cites the role of government encouragement as particularly important, stating that "the 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 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, *supra* note 61, at ¶ 2.23.

management) and how to determine compliance with the relevant standard of conduct. In the wake of the FCC's *Comcast* decision, there is an increasing recognition that both types of judgment calls are not hypothetical and demand an institutional strategy to address them in a way perceived as fair, effective, and legitimate.

Both the workload demands and dynamic nature of the Internet make it very difficult for the FCC to, acting alone, provide guidance to affected parties in matters like what constitutes reasonable network management. While co-regulation provides a promising alternative to traditional administrative regulation, it is not well understood (at least in telecommunications policy circles) and thus has not received much attention as a solution to the network management issue. This Part explains both how the FCC has addressed the network management issue and how a co-regulation strategy provides an effective way forward. In so doing, it 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, it was becoming increasingly clear that the networks of the future were not the ones designed to deliver "plain old telephone service," but instead digital broadband networks that carried Internet traffic.⁸³ The first regulatory policy debate of this new era involved whether traditional common carrier concepts-as enshrined in Title II of the Communications Act of 1934—should apply to such networks. The FCC initially deferred addressing the issue, allowing the Ninth Circuit to decide the matter before it did.⁸⁴ Ultimately, it concluded that such networks should not be governed by the traditional common carrier obligations embodied in Title II.⁸⁵ Rather, it decided, cable broadband networks should be classified as "information services" and subject to its "Title I" authority, which begins from the premise that no regulation is necessary.⁸⁶ In 2005, the Supreme Court affirmed this determination in the *Brand X* case.⁸⁷

⁸³ 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 migration." *See* Michael Powell, The Great Digital Broadband Migration (2000), *available at* http://www.fcc.gov/Speeches/Powell/2000/spmkp003.html

 ⁸⁴ AT&T v. City of Portland, 216 F.3d 871 (9th Cir. 2000); Brand X Internet Servs.
 v. FCC, 345 F.3d 1120 (9th Cir. 2003), *rev'd*, 545 U.S. 967 (2005).

⁸⁵ 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 (Mar. 14, 2002).

⁸⁶ *Id.* It later extended the "information services" classification towards wireline broadband networks (e.g., DSL services). *See* Appropriate Framework for

The FCC's regulatory classification decision only begged-and did not decide-the relevant policy issues. Indeed, calls for scrutiny of how broadband providers operate their networks have increased over time, citing the concern that broadband providers might engage in anticompetitive discrimination absent a regulatory regime in place to check such conduct.⁸⁸ In the mid-2000s, a name emerged for this concern-"network neutrality." The concept took its name from a paper authored by Tim Wu and gained momentum when it was later embraced, in a speech by then-FCC Chairman Michael Powell, as "Internet Freedom."⁸⁹ 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 expressly reserved the right to broadband providers to manage their networks. In particular, he recognized "that network operators have a legitimate need to manage their networks and ensure a quality experience, thus reasonable limits sometimes must be placed in service contracts."90

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 a level of concern towards broadband discrimination when it entered into a consent decree with Madison River Communications, fining the company and enjoining its blocking of Voice over Internet Protocol (VoIP) traffic.⁹¹ Pointing to that case, some opponents of network neutrality regulation have maintained that no regulatory action is necessary because the FCC is able to act quickly and to remedy effectively any anticompetitive conduct undertaken by broadband providers. This claim, however, understates ignores three important facts—(1) Madison River was

Broadband Access to the Internet over Wireline Facilities, *Report and Order and Notice of Proposed Rulemaking*, 20 F.C.C.R. 14,853 (2005) (classifying DSL connections as an "information service").

⁸⁷ See Nat'l Cable & Telecomm. Ass'n v. Brand X Internet Servs., 545 U.S. 967 (2005) (upholding classification of cable modem service as an "information service").

⁸⁸ See, e.g., Weiser, *Toward a Next Generation, supra* note 11; see also JONATHAN E. NUECHTERLEIN & PHILIP J. WEISER, DIGITAL CROSSROADS: AMERICAN TELECOMMUNICATIONS POLICY IN THE INTERNET AGE (MIT Press 2005); 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 (2003).

 ⁸⁹ Tim Wu, Network Neutrality, Broadband Discrimination, 2 J. TELECOMM. HIGH TECH. L. 141 (2003); Michael K. Powell, Preserving Internet Freedom: Guiding Principles for the Industry, 3 J. TELECOMM. HIGH TECH L. 5, 11-12 (2004).
 ⁹⁰ Powell, supra note 89, at 11.

⁹¹ Madison River Communications, LLC, Order, DA 05-543, 20 FCC Rcd 4295¶ 5 (2005), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-05-543A1.pdf (mandating that "Madison River shall not block ports used for VoIP applications or otherwise prevent customers from using VoIP applications.")

particularly receptive to settling this matter quickly, as it had a pending initial public offering;⁹² (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 (Section 201) of the Communications Act (which governed wireline broadband providers until 2005) as the relevant legal principle that was violated.⁹³ Consequently, it remains far from clear that this precedent proves as much as opponents of network neutrality regulation suggest, particularly now that the FCC has taken the long-anticipated step of classifying wireline broadband as an "information service" regulated under Title I of the Communications Act.

The FCC's third major step after Powell's Four Freedoms speech and the *Madison River Communications* decision was the adoption of a policy statement that set forth a modified version of the four freedoms announced by Powell. Notably, the policy statement was not developed with an eye to regulate broadband providers *per se*, but rather, as a guide for the agency's "ongoing policymaking activities."⁹⁴ And like Powell's speech, the Internet Policy Statement made clear that the "principles we adopt are subject to reasonable network management."⁹⁵ Given the relatively concise nature of the statement (as opposed to providing prescriptive rules), it did not make clear what constitutes "reasonable network management."

For broadband providers, managing the traffic on their networks addresses a series of concerns. In particular, broadband providers employ "network management techniques"⁹⁶ to, among other things, protect

⁹² See Scott Bradner, The Internet: Unblocking Pipes, NETWORK WORLD (March 14, 2005), available at

http://www.networkworld.com/columnists/2005/031405bradner.html (noting that "[t]here is no legal finding that blocking VoIP is wrong - that means a betterfunded provider (and one that was not in the middle of an IPO) might just go ahead and test the precedent.")

 $^{^{93}}$ In particular, the agency pointed to section 201(b) of the Communications Act, which requires the practices of common carriers to be "just and reasonable." *Id.* at 1 (citing 47 U.S.C. § 201(b)).

⁹⁴ Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, *Policy Statement*, FCC 05-151 (Aug. 5, 2005) *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 Communications Inc. and MCI, Inc., *Memorandum Opinion and Order*, FCC 05-184, ¶ 215 (2005), *available at*, http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-05-184A1.doc. ⁹⁵ *Id*.

⁹⁶ 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

customers from spam and denial-of-service attacks, protect the security of their networks, avoid network congestion, and ensure quality of service (QoS). 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.

In the case of Comcast's network management strategies, the company took a particularly aggressive approach to conserving bandwidth by limiting uploads using peer-to-peer (P2P) applications. The fact that Comcast was using a form of network management that targeted P2P applications came to light 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. The Electronic Frontier Foundation investigated the matter further and concluded that Comcast was using a technique called "packet forgery" as a means of causing peer-topeer connections to shut down.⁹⁷ 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.⁹⁸ After a number of groups complained to the FCC, the agency opened a proceeding to examine Comcast's network management practices.

⁹⁷ 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.

⁹⁸See Grant Gross, *EFF: Comcast Continues to Block P-to-P*, WASH. POST, Nov. 30, 2007, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2007/11/30/AR2007113001543.html (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, *supra* note 97, 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, available at http://blogs.zdnet.com/Ou/?p=852&page=2.

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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 5.

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."⁹⁹ The FCC's decision highlighted that Comcast's network management practices were not transparent and, in its view, downright deceptive.¹⁰⁰ Notably, Comcast did not disclose that it subjected P2P applications to any Internet management techniques, but simply warned consumers against "excess" uses of bandwidth.¹⁰¹

The FCC's decision in the Comcast matter represents the beginning of what is likely to be a challenging effort to define "reasonable network management." In its decision, the FCC offered mixed signals as to how it would define this concept, suggesting that Comcast's failing was that it engaged in discriminatory conduct and used deep packet inspection, which it labeled as unacceptable behavior.¹⁰² At the same time, the Commission concluded that Comcast's network management techniques were unreasonable 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

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.

⁹⁹ 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.

¹⁰⁰ The FCC's order excoriated Comcast on that score. See Comcast Decision, supra note 4, at $\P\P$ 7-9.

¹⁰¹ See Drew Clark, Comcast and Freedom to Obtain Service Plan Information, DREWCLARK.COM, Nov. 6, 2007, available at http://www.drewclark.com/comcastand-freedom-to-obtain-service-plan-information; see also Comcast Decision, supra note **Error! Bookmark not defined.**, at ¶ 53 ("Comcast's claim that it has always disclosed its network management practices to its customers is imply untrue."). ¹⁰² The FCC elaborated on this point, explaining that :

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.

such as child pornography or pirated music or video."¹⁰³ Moreover, the FCC claimed that its analysis was tailored "to the particulars of the dispute at issue" and did not call for "broad, prophylactic rules."¹⁰⁴ Nonetheless, as Commissioner McDowell put it in his dissent, the Comcast decision "generate[s] more questions than it" answers.¹⁰⁵ After all, it is far from clear which network management techniques are "minimally invasive"¹⁰⁶ or "reflect a tight fit between its chosen practices and a significant goal."¹⁰⁷

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 institutional processes used by the FCC, suggesting that "[t]he truth is, the FCC does not know what Comcast did or did not do."¹⁰⁸ This characterization is compelling given that the FCC did not receive any evidence under oath, held no crossexamination, and merely evaluated filings where parties advanced selfserving claims. In short, the process used by the FCC in the Comcast case lends itself more to political bargaining than judicial-like dispute resolution.¹⁰⁹

The FCC's determination that Comcast violated its Internet Policy Statement is also vulnerable on the legal ground that an agency cannot enforce a policy statement that did not emerge from notice-and-comment rulemaking or explicitly warn parties that it would be enforced.¹¹⁰ To be

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¹⁰³ *Id* at 3.

¹⁰⁴ Comcast Decision, supra note 4, at \P 36. The opinion also stated that it did not institute "an inflexible framework micromanaging providers' network management practices." *Id.* ¹⁰⁵ *McDowell Dissent, supra* note 64, at 13,094.

¹⁰⁶ Comcast Decision, supra note Error! Bookmark not defined., at ¶ 42.

¹⁰⁷ *Id.* at ¶ 46.

¹⁰⁸ McDowell Dissent, supra note 64, at 13,091.

¹⁰⁹ 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 peer-to-peer technology operates. Ed Felten, Comcast's Disappointing Defense, FREEDOM TO TINKER, Feb. 18, 2008, http://www.freedom-to-tinker.com/?p=1256.

¹¹⁰ Nina A. Mendelson, Regulatory Beneficiaries and Informal Agency Policymaking, 92 CORNELL L. REV. 397, 407 (2007) (an "agency cannot base an enforcement action solely on a regulated entity's noncompliance with a guidance document"); Ronald M. Levin, Nonlegislative Rules and the Administrative Open Mind, 41 Duke L.J. 1497, 1501 (1992); 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); Appalachian Power Co. v. EPA, 208 F.3d 1015, 1020-21 (D.C. Cir. 2000); Pacific 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."). Indeed, Chairman

sure, the agency is free to act by adjudication rather than rulemaking but adjudications must develop and enforce previously announced principles or rules—as the *Madison River Communications* decision did with Section 201(b) of the Communications Act.¹¹¹ To that end, Justice Scalia explained that "[a]djudication *deals* with what the law was; rulemaking deals with what the law will be."¹¹² Finally, some might argue—although I disagree—that the Title I classification itself is antithetical to imposing regulations on network management and provides another ground for appeal.¹¹³ In any event, whether or not the case is remanded to the FCC, the agency will have the opportunity—and, indeed, the imperative—of developing an institutional strategy for addressing network management and other Internet policy disputes. In the next Section, I discuss how a model of co-regulation would operate in this 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 Section evaluates how a co-regulatory strategy built around a new self-regulatory institution would address the network management issue (as well as other Internet policy issues). In short, the

Martin had earlier suggested that the policy statement was unenforceable. *See* Kevin J. Martin, Comments on Commission Policy Statement, News Release (August 5, 2005) ("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* General Electric Co. v. EPA, 290 F.3d 377, 384 (D.C. Cir. 2002).

¹¹¹ The reason for requiring a previously announcement rule or statutory standard is that it affords those affected by the regulation some right to challenge it. *See* Nina A. Mendelson, *Regulatory Beneficiaries and Informal Agency Policymaking*, 92 CORNELL L. REV. 397, 421 (2007) ("[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, *see* McLouth Steel Prods. Corp. v. Thomas, 838 F.2d 1317, 1320-22 (D.C. Cir. 1988), the lack of an opportunity for parties to comment on the Policy Statement before it went into effect would still constitute a basis for resisting its applicability in the *Comcast* case, *id.* at 1323.

¹¹² Bowen v. Georgetown University Hosp., 488 U.S. 204, 221 (1988).

¹¹³ For a version of this debate, *compare* Weiser, *Next Generation Regulatory Regime, supra* note 11 *with* James B. Speta, *FCC Authority To Regulate the Internet: Creating It and Limiting It*, 35 LOY. U. CHI. L. REV. 15 (2003).

effectiveness of this strategy will depend on the ability to charter a selfregulatory body 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 self-regulatory body is whether it will be viewed as legitimate. Four 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. Second, the body must cooperate and be compatible with the existing institutional environment—i.e., established institutions like the IETF. Third, the body 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. Finally, it must build up its legitimacy by operating in a transparent, effective, timely, and fair manner. Consequently, 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.¹¹⁴

An initial charter for a newly created SRO would be to oversee and help develop how network management practices would evolve and 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, it would need to establish enforceable standards of conduct that would provide broadband operators, applications 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 that cannot be taken for granted and may well be

¹¹⁴ As Dan Kahan explained, an institution can succeed in channeling disputes and maintaining adherence to social norms if it is regarded as effective. Thus, 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 people 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).

difficult to achieve.¹¹⁵ Once established, however, such a process can play an invaluable role, providing parties with "a continuous iterative interpretive loop designed to assure coincidence between stated norms and evolving practices."¹¹⁶

The ability of an SRO to develop standards of conduct for broadband providers and expectations as to how applications developers could use broadband connectivity would lift the burden from the FCC (at least as an initial matter) to define and update what constitutes "reasonable network management." To be sure, the FCC could and should continue to act as a norm entrepreneur by updating its Internet policy principles, but that process should only establish basic norms, leaving it to 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.¹¹⁷ In the parlance of industrial strategy, these standards of conduct would specify how broadband platforms could evolve in a manner that keeps the interfaces and design rules stable.¹¹⁸ As compared to an effort by the FCC to oversee the relevant technical specifications itself, the process managed by an SRO would have the advantage of being more flexible, sensitive to the relevant technical considerations, and able to adapt to change.¹¹⁹

¹¹⁵ 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."). For a discussion of how oversight bodies should evaluate opportunities to gather such information, see Cary Coglianese et al, *Seeking Truth For Power: Information Strategy and Regulatory Policymaking*, 89 MINN. L. REV. 277 (2004).

¹¹⁶ 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. 1145, 1149 (2008).

¹¹⁷ This model is consistent with how the FCC operates in a number of other contexts. *See* Baird, *infra* note 119, at 92 (listing examples of E-911, the Emergency Alert System, and the broadcast flag).

¹¹⁸ See Carliss Y. Baldwin & C. Jason Woodard, *The Architectures of Platforms; A Unified View*, Working Paper 17 (2008) ("Even core components [of platform architectures] can evolve—only the interfaces need to be stable.").

¹¹⁹ For an example of the concerns raised about government standard setting, see Stacy Baird, *The Government at the Standards Bazaar*, 18 STAN. L. & POL'Y REV. 35, 35, (2007) ("the 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"); Implementation of Section 304 of the Telecommunications Act of 1996, 13 FCC Rcd. 14,775, 14781 para. 15 (June 24, 1998) (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").

Moreover, enlisting the aid of an SRO would also remove from the FCC the administrative burden of developing the resources necessary to oversee and adjudicate all Internet policy disputes. To be sure, enlisting the aid of an SRO would not abdicate the FCC's authority insofar as, if the FCC deemed any of the standards of conduct developed by the SRO as unsatisfactory, it would be free to so conclude and either remand the relevant issue back to the SRO or to address the matter directly.

Finally, an SRO should be chartered and authorized by the agreement of the relevant parties to adjudicate claims that broadband providers failed to comply with the relevant conduct standards. 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 employed no real means of ascertaining the relevant facts at issue. 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. Such individuals would, in contrast to the FCC, be relatively insulated from political pressures and could focus on ascertaining the relevant factual issues through an effective adjudicative process.¹²⁰ As explained in Part IV, the FCC could theoretically and should operate in this fashion, but the fact that it has yet to do so is telling.¹²¹

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 superintended 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 be designed as a collaborative effort among relevant stakeholders, it would also have the opportunity to follow the cooperative spirit that has traditionally prevailed in Internet standards bodies rather than the more traditional politicized (and rent-seeking) culture of FCC rulemakings. In this respect, the body could adopt a true "problem solving ethos"—like the self-regulatory efforts in the ham radio and frequency coordinator context—rather than more self-serving advocacy at

¹²⁰ OFCOM, *supra* note 61, at 12.

¹²¹ 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, supra* note 64, at 13,088 ("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 Philip J. Weiser Institutional Design, FCC Reform, and the Hidden Side of the Administrative State (forthcoming 2009).

the FCC.¹²² If this body succeeds in this regard, it will not only be likely to generate more effective rules, but it will also be likely to elicit a greater level of compliance with those rules.¹²³

For it to succeed, it is critical that an SRO charged with oversight of network management (and other Internet policy issues) develop a symbiotic relationship with the FCC. As noted above with respect to 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.¹²⁴ At the same time, as the ham radio example demonstrates, the ability of the agency to adjudicate disputes effectively may well prove critical to empowering an SRO in the first instance. After all, if the parties know that the FCC could not or will not adjudicate matters effectively, they might be less committed to ensuring that an SRO is able and willing to do so.¹²⁵

To appreciate the importance of the FCC playing an actual oversight and enforcement role as part of a regime of co-regulation, consider how the recent breakdown in SEC regulation provides a cautionary tale of how the lack of public oversight can render self-regulation ineffective. In particular, the SEC decided in 2004 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

¹²² See RESPONSIVE REGULATION, supra note 13, at 87 ("cooperative 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.").

¹²³ *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."). ¹²⁴ Notably, Professor Bratton suggests that the Financial Accounting Standards

¹²⁴ Notably, Professor Bratton suggests that the Financial Accounting Standards Board (FASB), which operates under the oversight of the Securities and Exchange Commission (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.*

¹²⁵ Angela Campbell, for example, has stressed the importance of government oversight by suggesting that "[w]here 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 58, at 347 ("The limited threat of enforcement givens regulators little leverage to promote self-regulatory experiments.").

the job of monitoring risk to the banks themselves."¹²⁶ 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] Cox, who arrived at the agency a year later, was a low priority."¹²⁷ 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."¹²⁸ Moreover, former SEC Chairman Arthur Levitt underscored the importance of public enforcement as part of any self-regulatory regime 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."¹²⁹

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.¹³⁰ Ideally, the role of government oversight will be to curb

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¹²⁶ Stephen Labaton, *Agency's '04 Rule Let Banks Pile Up New Debt*, N.Y. TIMES (October 2, 2008), *available at*

http://www.nytimes.com/2008/10/03/business/03sec.html?_r=1&em=&adxnnl=1& oref=slogin&adxnnlx=1223237814-e+NIrsJZWIOLTE7jgf+JZw

¹²⁷ Id.

¹²⁸ *Id.*; *see also* RESPONSIVE REGULATION, supra note 13, at 19 ("A strategy based totally on persuasion and self-regulation will be exploited when actors are motivated by economic rationality.")

¹²⁹ *Id.*; *see also* RESPONSIVE REGULATION, supra note 13, 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 (October 2001), *available at* http://www.humanrights.coe.int/Media/documents/interim-report-self-

regulation.pdf ("Even representatives of industry bodies confirmed that selfregulation only works if there is a threat of state intervention, such as 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')").

¹³⁰ See Broadband Connectivity, supra note 75, at 136 (suggesting that "any program of self-regulation is more effective when complemented by strong enforcement mechanisms"); see also Jodi L. Short & Michael W. Toffel, *The Causes and Consequences of Industry Self-Policing*, Harvard Business School Working Paper 15 (2007) ("our findings support a regulatory policy that recognizes the ongoing importance of government regulation and regulators to the success of private-public partnerships"); 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 an 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*, THE REGISTER

any "pro-industry bias" the body might have while, at the same time, enlisting a self-regulatory body as a means of improving the quality of the substantive legal regime.¹³¹ Thus, an essential part of a regime of co-regulation 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.¹³²

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 Cogent and Comcast cases. In the case of Cogent, the absence of any norms governing Internet backbone interconnection was an integral part of why cooperation broke down between Cogent and Sprint. 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 Kevin Werbach has highlighted, the "Internet as we know it is surprisingly fragile."¹³³ Thus, by developing a more well defined set of norms, an 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

⁽UK), July 10, 2008, *available at* http://www.theregister.co.uk/2008/07/10/eu_radio_compliance_testing/.

 ¹³¹ Peter Grajzl & Peter Murrell, Allocating Lawmaking Powers: Self-Regulation vs Government Regulation, 35 J. COMP. ECON. 520, 522 (2007) (discussing potential tradeoff between industry bias and effectiveness).
 ¹³² 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. 1075, 1075 (1938) (codified at 15 U.S.C § 780 (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 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).

¹³³ Werbach, *supra* note 3, at 345.

norms of behavior. In the past, the FCC has sometimes attempted to avoid setting any rules to govern how Internet providers behave because of its concern that the market was moving too quickly to lend itself to commandand-control regulation. But using a model of co-regulation offers the FCC an alternative: it can simply identify a norm at a broader level of generality—as it did in the case of the Internet policy principles—and allow an SRO to develop those principles into more meaningful (and evolving) standards of conduct. In the case of Internet backbone interconnection, the norms might well include requirements to provide some level of transparency over the terms of peering as well as pre-announced standards for how to "de-peer" an Internet backbone provider. Under the current regime, however, 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 behavior and push the envelope on what practices it can claim are legitimate.

The issues in the Comcast case involved both the need to develop the relevant standards of conduct as well as the question of how to adjudicate them. In some cases, those standards will be self-evident and there may be minimal need for enforcement. In many cases, however, disputes will arise as to whether a firm complied with the relevant standards. As to the Comcast case, the FCC did develop a set of norms for broadband providers to adhere to (in its Internet policy principles), including the concept of "reasonable network management." Comcast, as described above, suggested that its network management practices were legitimate, thereby giving rise to the dispute and leading to the FCC's self-styled adjudication.

The dispute in the Comcast case pointed out two fundamental flaws of the FCC's current model. First, the FCC failed to develop more meaningful standards of conduct based on the relevant norm (i.e., reasonable network management). In particular, by defining the norm at such a high level of generality and not developing more well-specified standards of conduct, the FCC invited disputes like the one involving Comcast. By empowering an SRO to define the concept more meaningfully, the FCC could lessen the likelihood of such disputes.

A second and more notable shortcoming in the FCC's process in the Comcast case involves its limits as an adjudicator. 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. This model, however, did not afford the agency an effective opportunity to discern the relevant facts and make a decision within a relatively expeditious period of time. By contrast, an SRO that superintended such dispute resolution matters in the first instance (with an appeal to the FCC), would lessen the burden placed on FCC as well as ensure more effective decision-making.

In appreciating the opportunity for the SRO to play an important role in a model of co-regulation, it is critical to recognize that the FCC's role in

such a model is fundamental to its success. Notably, the FCC is the body that must set the relevant norm in the first instance. Moreover, as discussed above and elaborated on in Part IV, the FCC's ability to manage adjudications is a necessary part of enabling a co-regulation strategy to work. After all, with the shotgun behind the door (as discussed as to the SEC's oversight of SROs), the FCC's oversight of an SRO will necessarily be ineffectual.

D. THE IMPLEMENTATION CHALLENGES IN ESTABLISHING AN SRO

Assuming that the desire to cooperate exists and an SRO is chartered to address the responsibilities outlined above, a fundamental question will be what form of governance should be established. It is natural that a form of governance will need to take account of the financial commitment of different players, but any system viewed as legitimate will need to ensure that those who support the organization financially are not able to control it. To that end, the individuals charged with developing standards of conduct for approval and adjudicating particular matters must be drawn from the Internet community and viewed as not partial towards particular companies or industry segments.¹³⁴

Once the necessary commitment to establish the organization is demonstrated and a critical mass of participants has agreed to participate in and abide by the decisions of the body, the next step will be to gain the blessing of the FTC and/or the FCC. This step would also include obtaining a business review letter from the Department of Justice to establish that the organization was established in a manner unlikely to raise any antitrust concerns. In particular, the organization would need to establish its commitment to transparency, open participation (at least on specified terms), periodic exit rights for members, and, of course, a

OFCOM, supra note 61, at 15.

¹³⁴ 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 realized 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.

showing that the benefits of the SRO exceed any potential anticompetitive effects.¹³⁵

Over time, as in the frequency coordination and ham radio context, 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 culture (or wiki-nomics, as it sometimes is called¹³⁶). 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. In practice, however, such steps will develop over time and will emerge to reflect new challenges and opportunities.

For an SRO to succeed in this area, 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. Over time, it is clear that this assumption was too generous and users have looked for forms of protection, including embracing the built-in protections offered by intermediaries.¹³⁷ As users look for assurances that broadband providers build in protections as well as do not take unnecessary steps to undermine open innovation, the role of an SRO in certifying the conduct of broadband providers (and providing guidance to applications developers) could play a critical role in terms of building trust among affected players.¹³⁸ To gain the trust of Internet users, the body would need to ensure that its key decision-makers-say, a Technical Advisory Council-are respected as independent and knowledgeable.

One formidable challenge for an SRO chartered to oversee network management practices is whether membership should be confined to broadband providers or open to all players in the Internet ecosystem. The case 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 Internet Engineering Task Force (IETF), which has a broad array of

¹³⁵ When self-regulatory bodies are created with antitrust concerns in mind, "antitrust only rarely limits opportunities for genuine self-regulation." Pitoskfy, *supra* note 74, at 1.

¹³⁶ DON TAPSCOTT & ANTHONY D. WILLIAMS, WIKINOMICS: HOW MASS COLLABORATION CHANGED EVERYTHING 4 (Portfolio, 2006).

¹³⁷ JONATHAN ZITTRAIN, THE FUTURE OF THE INTERNET AND HOW TO STOP IT (2008).

¹³⁸ See David Clark and Marjory S. Blumenthal, The End-to-End Argument and Applications Design: The Role of Trust (2007), *available at* http://www.tml.tkk.fi/Opinnot/T-110.7190/2008/spring/papers/04a_Clarke_t2t.pdf.

members and operates by consensus, is often unable to resolve issues in a reasonably expeditious fashion. The countervailing concern, however, is that any effort that does not include applications developers and end users might well be viewed as partial and therefore untrustworthy by that community. To be sure, such challenges might be overcome through the role of FCC oversight (and threat of more intrusive regulation if the SRObased regime was viewed as ineffective), advisory bodies, or a process sufficiently open and transparent as to welcome input and invite confidence in its decision making processes. Nonetheless, the exclusion of applications developers and end users as formal participants would potentially threaten the credibility of the SRO, violating a core principle of governance must that all key stakeholders must be represented and that the structure of the body should ensure independent and fair-decision-making.¹³⁹ This requires, in what Cynthia Estlund calls the most important feature of self-regulatory systems, that "independent monitors who oversee the self-regulatory system and safeguard its integrity."140

A final determinant of an SRO's success will be its ability to both attract and adjudicate effectively complaints that companies have engaged in unreasonable forms of network management. One promising strategy to assist an SRO in identifying questionable practices is empowering users (and applications developers) to employ tools that reveal whether, for example, their 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.¹⁴¹ Another promising strategy is for the SRO to ask companies to certify to their use of reasonable network management

¹³⁹ See Estlund, supra note 58, 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 interested industry a dominant role in the standards-setting process." Baird, supra note 119, 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-CO-REGULATION ¶4.28 (2008),AND http://www.ofcom.org.uk/consult/condocs/coregulation/statement.pdf. ¹⁴⁰Estlund, supra note 58, at 324

¹⁴¹ See, e.g., The Electronic Frontier Foundation also has a tool called the Switzerland Network Testing Tool, *available at* http://www.eff.org/testyourisp/switzerland.

through regular audits or to subject themselves to some form of oversight by independent monitors.¹⁴²

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. To be sure, regulatory policy can help facilitate this result by encouraging and empowering an SRO (in addition to creating incentives by subjecting non-participating firms to alternative forms of oversight). But ultimately, it will be up to the SRO and its participants to develop 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 consumer confidence in their Internet Service Provider.¹⁴³

E. ADDRESSING CRITICISMS OF CO-REGULATION

The model of what is sometimes called "new governance," which can include self-regulation, has attracted considerable interest and some criticism over the last several years.¹⁴⁴ 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.¹⁴⁵ By contrast, the IETF is viewed as both legitimate and effective (at its core mission of standards

¹⁴² See, e.g., Ray, supra note 130 (discussing role of certification and auditing regime); Estlund, supra note 58, at 386-87 (discussing monitoring function and its success in a New York City Greengrocer Code of Conduct).

¹⁴³ Online Privacy Alliance, Effective Enforcement of Self Regulation, http://www.privacyalliance.org/resources/enforcement.shtml ("Validation by an independent third party that organizations are engaged in meaningful selfregulation of online privacy, may be necessary to grow consumer confidence.").

¹⁴⁴ See Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 823 (2006) ("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, 346-47 (2004) (listing theories).

¹⁴⁵ See, e.g., Jonathan Weinberg, *ICANN and the Problem of Legitimacy*, 50 Duke L.J. 187 (2000) (criticizing ICANN); Michael Froomkin, *Wrong Turn In Cyberspace: Using ICANN To Route Around The APA and The Constitution*, 50 DUKE L.J. 17 (2000) (same).

development).¹⁴⁶ Nonetheless, the question of comparative institutional competence and how self regulatory bodies can constitute a mediating institution between the requirements of regulatory policy and the decisions of market actors has generated limited academic attention.¹⁴⁷ In one notable line of criticism, however, the delegation of governmental authority to outside bodies to develop and oversee cooperative norms raises legitimacy and accountability concerns.

Professor Freeman has developed a critique based on governmental accountability concerns, suggesting that governmental agencies must either set technical standards themselves or rely on federal advisory committees to do so.¹⁴⁸ In so arguing, she suggests that the procedural requirements of the Federal Advisory Committee Act (FACA), which confer greater legitimacy on any standards set by such a body,¹⁴⁹ must be followed in all cases. This approach, however, ignores both that the agencies would be responsible for overseeing the content and procedure of the SRO to which it would delegate implementation-type authority as well as imposing procedural safeguards upon how the body would operate. To insist that the FACA 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.¹⁵⁰

The public accountability critique underscores that it is important for agencies to ensure that a self regulatory body's judgment does not substitute for public oversight of the policy issue in question and that the

¹⁴⁶ See Michael Froomkin, Habermas@discourse.net: Toward A Critical Theory of Cyberspace, 116 HARV. L. REV. 749 (2003).

¹⁴⁷ See Jason M. Solomon, *Law and Governance in the 21st Century Regulatory State*, 86 TEX. L. REV. 819, 833 (2006) (noting the unaddressed questions of how administrative agencies can, in general, contribute to collaborative problem-solving and, in particular, how they can "induce regulated entities to engage in collaborative efforts"). It is clear, however, that law and regulation can play an important role in this regard. *See* ELINOR OSTROM, GOVERNING THE COMMONS THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION 136, 138-39 (1990) (noting how parties worked together, with the backdrop of litigation, to institute a system of water basin authorities to ensure that the common resource was protected and used appropriately).

¹⁴⁸ See Jody Freeman, Private Parties, Public Functions, and The New Administrative Law, 52 ADMIN. L. REV. 813, 816-18 (2000).

¹⁴⁹ *Id.* at 830.

¹⁵⁰ Notably, the FCC's most significant use of the FACA-process—to establish the standards used for digital television—involved a ten year effort and the selection of a standard widely viewed as inferior to its principal alternative. *See* NUECHTERLEIN & WEISER, supra note 79, at 397-98.

public agenda operates in a transparent manner.¹⁵¹ Indeed, as a practical matter, the agency will need to both endorse and enforce the remedy-as well as to stand ready to provide one should the SRO fail to do so. To the extent that a critique of the reliance on such bodies merely calls for a commitment by public bodies to settle the relevant policy issues and maintain oversight responsibility by formally (as well as practically) embracing its decisions, that call is sensible.¹⁵² 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."¹⁵³ Significantly, the important lesson from those debacles is that selfregulation does not replace the role of government oversight and is most likely to succeed when there is effective and knowledgeable government oversight. As Joel Seligman has emphasized, "industry 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 selfregulation.¹⁵⁴ 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 rent-seeking or cartel-forming behavior. If, however, a self regulatory body 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.¹⁵⁵ If the body operates in this manner,

¹⁵¹ Richard B. Stewart, *Administrative Law in the Twenty-First Century*, 78 N.Y.U. L. REV. 437, 4447 (2003) (criticizing the trend among agencies to "turn to less formal, less accountable, and more opaque methods of making regulatory policy."). ¹⁵² 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." *Id.* 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).

¹⁵³ Cary Coglianese & David Lazer, *Management-Based Regulation: Prescribing Private Management to Achieve Public Goals*, 37 LAW & SOC'Y REV. 691, 718 (2003)

¹⁵⁴ Joel Seligman, *Cautious Evolution or Perennial Irresolution: Stock Market Self-Regulation During the First Seventy Years of the Securities and Exchange Commission*, 59 BUS. L. 1347, 1347 (2004) (emphasis added).

¹⁵⁵ For a discussion of the economics behind this argument, see Robert T. Cooter, Decentralized Law For A Complex Economy: The Structural Approach To

that provides another powerful reason for the FCC to avoid the full relitigation of issues already decided by the body, as it would not only undermine the effective functioning of the body, but quite probably lead to a worse outcome.¹⁵⁶ Alternatively, if the body 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."¹⁵⁷

The public choice critique of governmental reliance on self regulation certainly suggests caution in empowering and deferring to a nongovernmental body. There are, however, four reasons why the FCC should still rely on private bodies to address Internet policy issues. First, those organizations possess far greater expertise than that available to 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 on environmental matters—such that deference to private sector bodies runs a far less risk of ratifying a cartel-like plan. Third, the sunshine of government oversight can help ensure that such bodies 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 self regulatory organizations from being used to facilitate cartel-like purposes.¹⁵⁸

IV. THE TRANSITION FROM RULEMAKING TO ADJUDICATION AT THE FCC

¹⁵⁷ USA Group Loan Servs. v. Riley, 82 F.3d 708, 714 (7th Cir. 1996).

Adjudicating The New Law Merchant, 144 U. PA. L. REV. 1643, 1657-77 (1996); Randal C. Picker, *Simple Games in a Complex World*, 64 U. CHI. L. REV. 1225, 1255 (1997).

¹⁵⁶ See Jonathan R. Macey, Public and Private Ordering And The Production of Legitimate and Illegitimate Legal Rules, 82 CORNELL L. REV. 1123, 1136 (1996) (finding anectodal support for the "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").

¹⁵⁸ See Allied Tube &Conduit Corp. v. Indian Head, Inc. 486 U.S. 492 (1988) (holding liable a standing setting body for engaging in conduct); Seligman, *Cautious Evolution, supra* note 154, at 1369-70 (discussing Nasdaq antitrust action, whereby traders engaged in collusion that was enforced, and not prevented, by the relevant self-regulatory bodies nor detected by the SEC). Unfortunately, it is far from clear that antitrust law governs such situations. *See* Credit Suisse Sec. (USA) LLC v. Billing, 127 S.Ct. 2383, 2392 (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 takes place in the securities industry, should be sufficient to displace antitrust scrutiny and prevent anticompetitive conduct).

The FCC's use of a self-styled adjudication to evaluate the propriety of Comcast's network management practices constituted a salutary step in the agency's development of a strategy for overseeing Internet policy disputes. That step, however, is tempered by the fact that the actual proceeding did not resemble anything like a traditional adjudication; rather, the process used by the FCC in that case reflects the same institutional failings that pervade the agency's notice-and-comment rulemakings.¹⁵⁹ As discussed above, the FCC's process in this case relied entirely on a paper record largely comprised of self-serving statements by interested parties made without the penalty of perjury or subject to cross-examination. This very weak form of adjudication is thus vulnerable to the criticisms offered by FCC Commission McDowell in his *Comcast* dissent, including his conclusion that "the evidence in the record is thin and in conflict."¹⁶⁰

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 rulemaking. The challenge for the agency going forward is 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, I will discuss the opportunity for the agency to conduct more effective adjudications.

In terms of its institutional structure and personnel, the FCC employs two full-time administrative law judges (ALJs) to decide select 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 effectively eclipses that of the ALJs. Notably, disputes brought to the FCC for resolution are generally handled by the Enforcement Bureau, which is authorized to decide such matters either on delegated authority or by providing a recommended decision for the agency. The Enforcement Bureau also is tasked with the responsibility of investigating complaints that regulated entities have violated the agency's rules. In both respects, however, the Bureau is still evolving and has yet to emerge from the agency's tradition of political negotiations to develop an independent identity. As for the ALJs, they are effectively

McDowell Dissent, supra note 64, at 13,092.

¹⁵⁹ For a discussion of the flawed nature of the FCC's institutional processes, see Philip J. Weiser, *Institutional Design, FCC Reform, and the Hidden Side of the Administrative State* (forthcoming 2009).

¹⁶⁰ 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.

irrelevant in the agency's current operations, having decided only three matters since 2005.¹⁶¹

The limitations of the FCC's Enforcement Bureau are two-fold. First, the 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 agency's operations, enforcement actions are often treated as a political negotiation and resolved through deals made by the Chairman's office.¹⁶² The second critical flaw 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 GAO report, to resolve many of the complaints brought to the Bureau or to explain why it took no action with respect to those complaints.¹⁶³

As an example of the Enforcement Bureau's limits in deciding matters brought before it, consider the case of the two satellite radio providers that were long ago accused of violating the terms of their licenses. After five years of these allegations sitting undecided by the Bureau, the agency finally concluded, as Commissioner Tate put it, that Sirius Satellite Radio had "failed to comply-knowingly and repeatedlywith the specifications for its FM modulators and the terms of its Special Temporary Authorizations ("STAs")" during that entire time.¹⁶⁴ The most damning fact is not that it took five years for the agency to reach this conclusion, but rather, that the only reason it decided the matter when it did is because the relevant offenders (Sirius Satellite Radio and XM) were seeking permission to merge with one another. In short, rather than conduct any meaning 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.¹⁶⁵

¹⁶¹ Office of Administrative Law Judges, http://www.fcc.gov/oalj (last visited Dec. 19, 2008).

¹⁶² 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. (December 2008),

http://energycommerce.house.gov/images/stories/Documents/PDF/Newsroom/fcc% 20majority% 20staff% 20report% 20081209.pdf.

¹⁶³ GAO, FCC HAS MADE SOME PROGRESS IN THE MANAGEMENT OF ITS ENFORCEMENT PROGRAM BUT FACES LIMITATIONS, AND ADDITIONAL ACTIONS ARE NEEDED 5 (2008), http://www.gao.gov/new.items/d08125.pdf.

¹⁶⁴ Sirius Satellite Radio Inc., *Order*, 23 FCC Rcd. 12,301, 12,324 (Statement of Commissioner Deborah Taylor Tate)

¹⁶⁵ XM Radio, Inc., *Order*, 23 FCC Rcd. 12,325, 12,347 (2008) (consent decree with XM); 23 FCC Rcd. at 12,324 (consent decree with Sirius).

The development of an effective system for adjudicating and enforcing complaints is a critical step for an agency that has historically relied on before-the-fact prescriptive regulations.¹⁶⁶ Indeed, without the apparatus to develop an after-the-fact system of adjudicating complaints of improper conduct, the case for either adopting *ex ante* rules or abolishing the agency entirely becomes much stronger.¹⁶⁷ 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.¹⁶⁸ In a world where the agency used adjudications to enable the agency to make decisions based on a developed factual record of a particular course of conduct, it 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 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.¹⁶⁹

The move to a true adjudication model of decision-making would mark a break from past FCC practice. Under its traditional notice-andcomment model of decision-making, including that used in the *Comcast* case, the FCC commits the sins highlighted by Judge Posner in the *Schurz*

¹⁶⁶ 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 Philip J. Weiser & Dale Hatfield, *Spectrum Policy Reform and the Next Frontier of Property Rights*, 15 GEO. MASON L. REV. 549, 558-68 (2008).

¹⁶⁷ Lawrence Lessig has, in fact, called for both. *See* Testimony of Lawrence Lessig, Senate Committee on Commerce, Science, and Transportation, at 3 (Apr. 22 2008), *available at* http://commerce.senate.gov/public/_files/LessigTestimony.pdf (calling for *ex ante* network neutrality regulation); Lawrence Lessig, *Reboot the FCC*, NEWSWEEK.COM, December 23, 2003, http://www.newsweek.com/id/176809 (calling for abolition of the FCC).

¹⁶⁸ See, e.g., Unlicensed Operation in the TV Broadcast Bands, Second Report & Order & Memorandum Opinion & Order, ET Dkt. No. 04-186, 2008 WL 4908842 (Nov. 14, 2008); see also Posting of Harold Feld to Wetmachine, We File Wireless Microphone Complaint: Shure Says Breaking Law Should Be OK If You Sound Good, http://www.wetmachine.com/totsf/item/1256 (July 16, 2008, 18:53 EST)

¹⁶⁹ *McDowell Dissent, supra* note 65, at 13,088 ("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.").

decision.¹⁷⁰ As Posner put it 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."¹⁷¹ Because the agency's institutional process enables it to shape the facts as it sees fit, it is less constrained by them and thus more vulnerable to making, as Posner put it, "unprincipled compromises of Rube Goldberg complexity among contending interest groups viewed merely as clamoring suppliants who have somehow to be conciliated."¹⁷²

To date, neither the courts nor Congress has pressed the FCC (or other agencies, for that matter) to take more seriously the promise of administrative adjudication. Under *SEC v. Chenery*, the FCC is authorized to act by adjudication or rulemaking whenever it so chooses—as the agency emphasized in deciding the *Comcast* case via adjudication.¹⁷³ In *Chenery*, the Supreme Court emphasized that the agency properly used an adjudication rather than a rulemaking because so doing allowed the agency to address statutory problems as they arose.¹⁷⁴ This consideration—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.¹⁷⁵ The courts have failed to take up 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."¹⁷⁶

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. By contrast to the "informal rulemakings" that the

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¹⁷⁰ Schurz Comm, Inc. v. FCC, 982 F.2d 1043 (7th Cir. 1992) (overturning the financial interest and syndication rules, which restricted the major television networks from entering into the market for program production).

¹⁷¹ *Id.* at 1050.

¹⁷² Id.

¹⁷³ 332 U.S. 194, 203 (1947) ("[t]he 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, *supra* note 4, at 13,044.

 $^{1^{1/4}}$ 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.*

¹⁷⁵ M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383, 1406 (2004).

¹⁷⁶ *Id.* at 1415.

FCC often uses, true adjudications are held before an ALJ, use a trial and investigative staff that is separated from the Commission (which acts as the ultimate adjudicator), and have far more procedural requirements associated with them.¹⁷⁷ Notably, adjudications, like "formal rulemakings," are characterized by a reliance on the development of an actual record created through the submission of evidence and testimony subject to cross-examination.¹⁷⁸ Given the additional requirements of acting by adjudication, the FCC rarely chooses to act in this manner.

The notable benefit of proceeding through the more formal channel is that it grounds the agency's decision-making in empirical reality and constrains the opportunity for interest group politics that thrive in the far less transparent rulemaking process.¹⁷⁹ By grounding its decision-making in the relevant facts determined after-the-fact and avoiding interest group

¹⁷⁷ 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 Hamilton, Rulemaking on a Record by the Food and Drug Administration, 50 TEX. L. REV. 1132, 1142 (1972) (noting the "wide criticism" of the FDA's experience in two formal rulemakings, which took ten years from start to finish). Under section 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 thirty days before the rule goes into effect, a "concise general statement" that explains its course of action. 5 U.S.C. § 553. Famously, Professor Davis celebrated informal rulemakings under the APA as one of the "greatest inventions of modern government." KENNETH CULP DAVIS, Administrative Law Treatise 283 (1970).

¹⁷⁸ See 5 USC 554(d), 47 CFR 1.1202 (c).

¹⁷⁹ As Professors Benjamin and Rai put it,

the 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 Stephen 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 is, for practical purposes, often permanent, and their procedures very much resemble judicial processes." Stephen P. Croley, *Theories of Regulation: Incorporating the Administrative Process*, 98 COLUM L. REV. 1, 116 (1998).

politics, the FCC can operate with greater flexibility and also 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 take seriously 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 superintend a co-regulation-based strategy (or any strategy that depends on data-driven decision-making) will be 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 take seriously the need to follow that body's rulings and the agency will be less able to compensate for any failings of the SRO by taking action when it fails to do so.

V. CONCLUSION

The role of government as a facilitator of cooperation and multi-sided contractual arrangements-rather than as developer of command-andcontrol regulation-represents a fundamental transition for the FCC. At first blush, the dawn of the Internet era presents a familiar issueoverseeing cooperation between an array of parties using information infrastructure-and could be viewed as calling for the familiar strategy of common carriage regulation. Upon closer inspection, however, this traditional strategy is ill-suited to facilitating cooperation in the Internet age. Consequently, the FCC should develop new institutional strategies, with co-regulation and after-the-fact adjudication presenting two promising approaches.

Some skeptics of regulation have called for a continuing "hands off" approach to the Internet and have even suggested that the FCC itself is an antiquated institution that should be abolished.¹⁸⁰ But as this Article demonstrates, the challenges for the relevant firms to cooperate without the aid of government encouragement and oversight may be too much to expect. By contrast, "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."¹⁸¹ Notably, the norms of Internet cooperation cannot be taken for granted and ultimately will require some form of norm entrepreneurship, public oversight, and regulatory backstop to guide the way towards a solution.

In an earlier era, the Internet's technical architecture played the role of ensuring continuing cooperation, but technological change means that

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¹⁸⁰ PETER W. HUBER, LAW AND DISORDER IN CYBERSPACE: ABOLISH THE FCC AND LET COMMON LAW RULE THE TELECOSM (1997).

¹⁸¹ Robert B. Ahdieh, Law's Signal: A Cueing Theory of Law In Market Transition, 77 S. CAL. L. REV. 215, 252 (2004).

this form of assurance is breaking down and that some form of oversight of network architectures—including network management practices—is inevitable. To date, however, scholars and policymakers have focused almost entirely on what rules or principles should guide policy in this area and have spent precious little energy analyzing the available institutional strategies. Consequently, the FCC's current structure and practices still largely adhere to regulatory structures and practices build for the era of the Bell System monopoly. For the emerging era of communications regulation, the FCC's core challenge will be to update those structures and introduce new institutional strategies designed to meet a very different technological and market environment than the one in place when the FCC first adopted a model of common carrier regulation.