2014

Procedural Architecture Matters: Innovation Policy at the Federal Communications Commission

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PROCEDURAL ARCHITECTURE MATTERS: INNOVATION POLICY AT THE FEDERAL COMMUNICATIONS COMMISSION

By: J. Brad Bernthal*

ABSTRACT

This Article examines the puzzle of whether today's Federal Communications Commission ("FCC" or the "Agency") is institutionally suited to craft telecommunications innovation policy and, if not, what changes are needed to better equip the Agency to respond to twenty-first century realities. Evaluation of FCC innovation policy performance is stubbornly difficult. Some criticize the FCC as a brake on innovation yet, under the FCC's oversight, the United States' communications industry has become an innovative engine propelling the overall economy more than ever before. It is difficult to untangle whether the FCC deserves credit for helping usher in today's communications age, whether the FCC deserves blame for hamstringing innovation, or both. New tools are needed to address this puzzle.

This Article develops such a tool, the procedural architecture analysis. A detail-rich examination of the FCC's procedural architecture—viz., the Agency's formal and informal procedures, resources, and institutional norms—reveals systemic FCC leanings that are in tension with oft-stated innovation objectives. The Article cracks the black box problem, whereby much Agency decision-making is not readily observable, by studying a key yet understudied input: the advocacy of those who practice in front of the FCC. Procedural architecture analysis reveals surprising gaps between administrative process theory's ideals and FCC realities. Moreover, it underscores crucial reforms needed to enable the FCC to act faster, marshal independent expert resources that it conspicuously lacks, and broadly fulfill its twenty-first century imperative to facilitate telecommunications innovation.

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I. INTRODUCTION

The "Eighth Floor" is shorthand for the location where commissioners' offices reside atop the FCC's building in Washington D.C. This would be unremarkable except for one thing: the Eighth Floor is nine floors above street level. This anomaly is not a mistake; rather, it is a legacy from the FCC's prior facility. In the old FCC building, commissioners' offices were—actually—on the eighth floor. When the Agency moved to new quarters, in order to maintain traditional terminology, the building was given a "12th Street Level" (entry level) and a "Courtyard Level" (one floor up) below the "First Floor" (two floors up). This labeling contrivance allows the commissioners to continue their traditional residence on the "Eighth Floor."

This anecdote is telling. Namely, the FCC's institutional inertia favors the status quo and resists change. The importance of Agency architecture is relevant as a growing chorus calls upon the FCC Chairman and other Commissioners on the "Eighth Floor" to focus upon substantive telecommunications policy conducive to information communications technology (ICT) sector innovation. To be sure, un-

understanding the relationship between FCC regulation and innovation has never been more urgent. Greater Agency emphasis on innovation reflects the vital role of ICT in the twenty-first century economy. ICT underlies growth and improvements across industry sectors and today represents the “global economy’s strongest driver of productivity, innovation, and ultimately economic growth.” In addition to economic objectives, communications innovations have cultural, social, and political “effects and purposes that transcend mere transactional utility” and, in today’s interconnected age, “the information industries are collectively embedded in our existence in a way unprecedented in industrial history.” Yet when it comes to innovation, the FCC’s architecture—even fictional floor numbering that requires suspension of disbelief—is a legacy that must be addressed.

Concerns that the FCC unduly stymies innovation have led scholar Larry Lessig, among others, to favor condemnation of the FCC to the scrap heap of history. Critics emphasize that the FCC is a New Deal agency originally built to promote stability that today unduly drags innovation and threatens to hamstring economic vitality across industry sectors. On the other hand, the FCC’s role amid communications innovation achievements may be underappreciated. After all, under

3. Agencies are often said to produce “regulation.” As a formal matter, however, agencies produce “rules” and “orders”—not regulations—under the Administrative Procedure Act. 5 U.S.C. §§ 701–06 (2012); Steven Croley, Regulation and Public Interests: The Possibility of Good Regulatory Government 81 (2008). For purposes of this Article, “regulation” is used in the broad sense of enforceable law produced by legislatures and agencies, except where modified to delineate a narrower version of law (e.g., “administrative regulation”).

4. ICT’s direct contributions to gross domestic product in the United States are estimated to be 25% greater than it was in the 1990s. See Stephen Ezell, Boosting Exports, Jobs, and Economic Growth by Expanding the ITA, INFO. TECH. & INNOVATION FOUND. 4, (Mar. 2012), http://www2.itif.org/2012-boosting-exports-jobs-expanding-ita.pdf. See id. at 2–5.

5. See id. at 2–5.


7. See, e.g., Lawrence Lessig, It’s Time to Demolish the FCC, NEWSWEEK (Dec. 22, 2008, 7:00 PM) http://www.newsweek.com/id/176809 [hereinafter Lessig]; Peter Huber, Law and Disorder in Cyberspace: Abolish the FCC and Let Common Law Rule the Telecom (1997); see also Thomas W. Hazlett, Optimal Abolition of FCC Spectrum Allocation, 22 J. ECON. PERSP. 103, 104–05 (Winter 2008) (advocating that control of the FCC “over the allocation of spectrum should be abolished” and noting that, as a historical matter, “in 1978 the Chairman of the U.S. House Communications Subcommittee, Lionel van Deerlin (D-CA), introduced a bill to abolish the FCC. . . . The Legislation failed.”).

8. Lessig, supra note 7; see Nuechterlein & Weiser, Digital Crossroads: American Telecommunications Policy in the Internet Age 366 (2d. ed., 2013) (“Observers have expressed dismay that it has taken so long to complete the shift
the FCC's telecommunications oversight, the United States' ICT industry has flourished and is recognized as an innovation powerhouse. It is difficult to untangle whether the FCC deserves credit for helping usher in today's communications age, whether innovation emerged in spite of the FCC, or both.

Definitive analysis concerning this question presents several layers of difficulties. The arc of industry innovation is not fully within the FCC's control since, no matter how innovation is defined, the Agency's role is typically indirect. Indeed much of ICT is beyond the FCC's direct jurisdictional reach. The FCC does not conduct significant in-house research, rarely awards research grant monies, lacks the power to tax, and does not directly bring products or services to market. Accordingly, it is difficult to isolate causation associated with FCC policies as they relate to innovation. The FCC, moreover, must balance innovation goals versus promotion of other regulatory objectives. Divining whether the FCC strikes the correct balance among competing objectives is difficult. Finally, there is not a ready institutional reference by which to compare FCC innovation policy performance. New tools of analysis are needed.

This Article develops such a tool, which this Author calls the procedural architecture analysis, to examine the systemic tilt of the Agency. The Author defines the FCC's procedural architecture as from legacy monopoly-style regulation to a more market-oriented regulatory model based on convergence and the layered nature of modern communications.

9. "Information technology is perhaps the U.S. economy's most dynamic industry" and American ICT firms hold a 26% share of the global ICT industry. Ezell, supra note 4, at 4.

10. The FCC's direct jurisdictional ambit, described more fully in Section III infra, is telecommunications, which is decidedly smaller than the entire ICT sector. Importantly, however, telecommunications infrastructure and communications services superintended by the FCC are nonetheless critical for a host of communications technology elements that are outside the FCC's direct jurisdictional purview. ICT is formally defined as a subset of knowledge and technology intensive (KTI) industries. The entire ICT industry consists of two high-technology manufacturing industries—(1) computers and office machinery and (2) communications equipment and semiconductors—and two knowledge-intensive service industries—(1) communications and (2) computer services—that are classified under business services. ICT is used in a wide variety of economic sectors and is considered an important driver of economic growth. NATIONAL SCIENCE FOUNDATION, SCIENCE AND ENGINEERING INDICATORS 2010 6–9 (Jan. 2010), available at http://www.nsf.gov/statistics/seind10/pdf/c06.pdf.

11. As emphasized in Part II, this Article owes a debt to Bruce Owen and Ronald Braeutigam who, in their now out-of-print 1978 book The Regulatory Game, focused upon advocate behavior and the institutional tendencies of the FCC. BRUCE M. OWEN & RONALD BRAEUTIGAM, THE REGULATORY GAME: STRATEGIC USE OF THE ADMINISTRATIVE PROCESS (1978). This Article reinvigorates the insights of Owen's and Braeutigam's prescient work by extending its insights through a broader definition of procedural architecture, an original survey of practitioners before the FCC, and considering normative implications for today's FCC innovation policy. The procedural architecture approach is a version of an institutional policy analysis. Institutional policy analysis "should tell us whether the constitutional arrangements that confine public administration promote the process values they are designed to pro-
encompassing three institutional dimensions of the Agency: (1) formal *de jure* rules and constraints upon FCC procedure; (2) norms salient to FCC operations and procedures; and (3) institutional structure and FCC resource capabilities. This architecture is the context against which day-to-day FCC policy-making activities occur. Architecture is not value agnostic: it invites and discourages behaviors, and it favors and disfavors outcomes. The procedural architecture analysis reveals some predictable observations, i.e., similar to other parts of government, the *status quo* is difficult to dislodge at the FCC. But it also reveals some surprising and even counterintuitive insights. For example, while the FCC is intended to serve an expert agency that oversees the communications industry, it is in fact deeply reliant upon outside—and often interested—parties to supply the technical and economic expertise upon which decisions are based. This and other architectural features explain why the FCC is out of sync with twenty-first century innovation cycles.

Contrary to Lessig’s proposal to reboot the FCC, this Article develops an alternative prescription for Agency reform. The procedural architecture analysis draws upon insights of administrative process theory (APT), as proposed by Steven Croley, which posits the “centrality of the administrative process” as it relates to regulatory outcomes. APT provides a conceptual framework to evaluate the FCC’s ability to resist public choice pressures and superintend a dynamic and fast-changing sector of the economy. Laudable Agency intentions to elevate innovation as a policy goal—absent attendant changes to the FCC’s procedural architecture—are unlikely to yield a regulatory environment amenable to timely telecommunications innovation. In particular, this Author develops three perspectives that collectively make the case for re-architecting the Agency.

The first perspective is an in-depth portrait of advocacy before the FCC. Advocates’ repeat strategies before administrative bodies provide important observable data that reveal much about the “black box” of FCC regulation. Analysis is informed by an original qualitative survey of FCC practitioners, literature from legal, political science

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12. See NUECHTERLEIN & WEISER, supra note 8, at 366–67 (“[T]he FCC will indefinitely remain the least problematic institution to oversee telecommunications policy, at least for most issues within its jurisdiction.”).

13. CROLEY, supra note 3, at 68 (It is “puzzling why [other] leading theories of regulation . . . seek to explain and predict regulatory outcomes without close attention to the specific processes by which those outcomes are generated.”).

and economic spheres, and FCC-specific analyses from academics and practitioners. This produces legal scholarship's most extensive analysis to date about how FCC advocacy actually works. This Author distills four repeat advocacy strategies—presented as a "playbook"—which practitioners use during FCC notice and comment rulemaking. The four stylized plays are: (1) leverage the status quo through process and delay; (2) influence agenda-setting and other FCC functions where formal disclosure requirements are relaxed or nonexistent; (3) dominate information flows to FCC decision-makers; and (4) carefully nurture personal relationships so as to affect how policy-makers frame and analyze issues. It is hoped that this technique, the procedural architecture analysis, can be replicated in future research to reveal new insights about other agencies.

Second, the Article illuminates why the timing of FCC decision-making often frustrates twenty-first century innovation cycles. Analysis reveals three relative value preferences embedded in the FCC's procedural architecture. One, due process and fairness are valued over efficiency and dynamic change. Shorter periodicity of many ICT industry cycles makes possible new products and services yet, even as industry moves faster, the FCC favors process well past the point of diminishing returns. The Agency lacks disciplined mechanisms to produce timely Agency rules and orders, and, as a result, open-ended rulemaking practices without deadlines remain a prevailing FCC practice. While regulatory drag hampers all firms looking to innovate, uncertainty and delay are especially problematic for startups and newcomers with limited financial resources and little regulatory savvy. Two, outside sources of expertise are valued over resources inside the FCC. A dearth of economists and engineers in senior management or commissioner advisor roles, as well as limited FCC ability to commission independent research, renders the FCC reliant upon information provided to it by interested parties. This favors repeat players, who are familiar with the Agency and are able to provide crucial information to the FCC, over newcomers with limited resources to spend navigating the regulatory process. And three, opacity in the rulemaking process is more valued than is generally appreciated. Much Agency activity occurs in the sunlight of the public record. What is often underappreciated, however, is how notice and comment rulemaking chases important aspects of policymaking into shadows outside the

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15. One proxy for the speed of industry change is duration for which companies thrive. For example, a recent study found that the period of flourishing for top companies is dramatically shrinking. In 1958, the average tenure for a firm in the S&P 500 index was sixty-one years. By 1980 that average stay in the index shrank to twenty-five years and, in 2012, was down to eighteen years. At current churn rate, 75% of today's S&P 500 will be replaced by 2027. See Richard N. Foster, Creative Destruction Whips through Corporate America, INNOSIGHT (Winter 2012), http://www.innosight.com/innovation-resources/strategy-innovation/upload/creative-destruction-whips-through-corporate-america_final2012.pdf.
public record. Particularly important is advocacy involving agenda-setting and issue framing that occurs before a public notice is published in the Federal Register. Pre-notice advocacy favors repeat players with preexisting relationship who are familiar with the Agency's personnel.

Finally, the Article's third perspective examines how a different procedural architecture would better resist public choice pressures and enable the Agency to act in service of innovation. Promotion of innovation, however, would require some demotion of existing values. Consistent with the old economic adage, innovation policy-making is not and will not be a free lunch. This Article provides a template for re-architecting the Agency that emphasizes three perspectives for reform: (1) truncate time frames for decision-making; (2) bulk up FCC expertise; and (3) increase administrative tolerance for uncertainty.

This Article proceeds in four sections. Section II explores communications innovation and addresses the urgency to evaluate the FCC's innovation policy performance. Next, Section III details the procedural architecture analysis methodology and diagrams notable features of the FCC's procedural architecture. Section IV focuses upon advocates' behavior for what they reveal about the institutional nature of the FCC. This Section distills advocacy strategies into common plays that are presented in the form of a stylized "Advocate's Playbook," and examines the interfaces between advocates' moves and the uniqueness of the FCC's procedural architecture. Section V contrasts theoretical accounts that explain and predict administrative outcomes with FCC realities. This Section explains why, despite policy statements and the well-intended efforts of individuals to elevate the importance of innovation as an FCC policy objective, predictable patterns engendered by the FCC's architecture tilt against innovation. It then proposes reforms designed to make the Agency more likely to regularly produce timely substantive policy conducive to innovation.

II. The Innovation Imperative: Does the FCC Deserve Credit or Blame?

An important inquiry is whether the FCC is able to adequately superintend telecommunications, one of the nation's most dynamic and economically important industries. Yet evaluation of FCC performance concerning telecommunications innovation is stubbornly difficult. Some scholars make the case that the FCC's performance is so abysmal as to justify abolition or a "reboot" of the Agency.16 Yet the case can also be made that the United States' communications industry under the FCC's oversight has blossomed into an engine of innova-

16. See, e.g., Lessig, supra note 7; Huber, supra note 7.
tion that today propels the economy more than ever before. This Section explores why evaluation of the FCC's performance eludes easy answers. Importantly, it explains why new tools are needed to aid assessment of the Agency's relationship with innovation policy.

It is helpful to start with a simple question: What do we mean by innovation? Innovation is a much used but oft undefined term in rhetoric surrounding the FCC. It is commonly used as an unspecified catch-all for things perceived to relate to new technology. This is problematic, however, since meaningful evaluation of Agency performance must be pegged to a fixed point of reference. Moreover, different types of innovation can be distinguished, and some types of innovation matter more to the economy, or are likely to trigger regulatory action, than others.

Innovation broadly refers to implementation of novel ways that yield improvement upon existing practices. Innovation connotes more than just technological improvement; it requires implementation by firms or users. Clayton Christensen distinguishes between innovation that is disruptive, where an innovation leads to creation of a new market, versus innovation that is sustaining, where innovation results in marginal improvements to a product or service within the existing market. While sustaining innovation has competitive implications within existing markets, it is disruptive innovation that results in leaps of value creation. Economist Joseph Schumpeter colorfully describes innovative dynamism as the "perennial gale of creative destruction" that "strikes not at the margins of the profits and the outputs of the

17. See, e.g., Wu, supra note 6, at 309 (assessing FCC policy-making—not limited to innovation—from the 1970s through 1990s, noting that the Agency "effected some extremely successful policy").

18. Harvard Business Essentials, Managing Creativity and Innovation (2003) ("Innovation ... is generally understood as the successful introduction of a new thing or method ... [T]he embodiment, combination, or synthesis of knowledge in original, relevant, valuable new products, processes, or services."); see also Clayton M. Christensen & Michael E. Raynor, The Innovator's Solutions: Creating and Sustaining Successful Growth at xiv–xvii, 9–18, 34–35 (2003); see also Clayton Christensen, The Innovator's Dilemma: When New Technologies Cause Great Firms to Fail 32–49 (1997).

19. Thus, Christensen has replaced his use of the term disruptive technology with the term disruptive innovation because "few technologies are intrinsically disruptive or sustaining in character." See Disruptive Technologies, WIKIPEDIA, http://en.wikipedia.org/wiki/Disruptive_technology (last visited Sept. 3, 2010). The creation of technology alone is better construed as invention.

20. See generally Christensen & Raynor, supra note 18, at xiv–xvii, 9–18, 34–35; see also Christensen, supra note 18, at 32–49.

existing firms but at their foundations and their very lives.” Schumpeter depicts creative destruction as the “fundamental impulse” of capitalism that yields competition for a market, rather than within a market.

Notions of destruction and company demise, however, point out that innovation is not an unbounded good from a policy-maker’s perspective. Notably, changes wrought by innovation, while economically value-creating, can be nonetheless disruptive to existing companies and society. The FCC must balance innovation goals versus service to other regulatory objectives including public safety, universal access to communications, procedural fairness, and consumer protection. The FCC is entrusted to balance a wide range of goals—often, “incommensurate interests”—that require trade-offs. Among these goals, innovation has been an FCC objective since the Agency was established in 1934 with a statutory mandate to “encourage the provision of new technologies and services to the public.” What is different in recent decades, especially since passage of the 1996 Telecom Act ushered in local telephony competition, is that innovation as an FCC policy goal occupies a higher relative position vis-à-vis other policy objectives than it did in past eras. Heightened scrutiny about how the FCC affects innovation is the result of three trends.

26. § 157. One reading of this statutory charge—to get “new” technologies to the public—is that speed matters. As a practical matter, however, this provision is infrequently used to effectively assist timely resolution favoring innovation. See, e.g., M2Z Networks, Inc. v. F.C.C., 558 F.3d 554, 561–62 (D.C. Cir. 2009). It is common that the FCC resolution of novel service applications stretch out over years.
27. Following passage of the 1996 Telecom Act, which amended the 1934 Communications Act in order to promote competition, then-FCC Chairman Reed Hundt set innovation as a high priority: “Behind all of our decisions were the motives of stimulating economic growth and innovation.” Reed Hundt, You Say You Want a Revolution: A Story of Information Age Politics 7–8, 17, 156 (2000). Innovation as a policy priority today is also reflected in the FCC’s 2011 creation of a Technology Experience Center (TEC). In announcing the TEC, Chairman Genachowski predicted that the TEC would “help the FCC staff stay on the cutting-edge and help drive innovation in the broadband ecosystem.” See FCC Press Release, FCC Chairman Julius Genachowski Unveils First-of-its-Kind in Government “Technology Experience Center” at FCC Headquarters, Spotlights Innovation & Growth Throughout Broadband Economy (July 13, 2011), available at http://www.fcc.gov/document/genachowski-unveils-technology-experience-center-spotlights-innovation-growth.
First is the recognition that communications is a critical engine of innovation across the economy. The Communications Act in 1934 created the FCC and gave it authority over communications by wire and radio. This broad substantive scope means that FCC policies have important consequences for information infrastructure, including broadband and Internet communications, satellite, cable, telephony, and broadcast television. Rapid advancement in telecommunications has rendered the FCC a “focal point for almost every important innovation in technology.” Communications-based innovation enables advancements in other sectors of society, including healthcare, energy, education, job training, and public safety. As one commenter aptly observes, “the telecom policy environment created by [the] FCC is vital to the whole economy” because the FCC’s “broad ‘product line’ of regulatory activities” are crucial to economic growth in sectors that stretch well beyond the parties it directly regulates.

A second factor is that the pace of innovation is accelerating—a trend especially pronounced within information industries—while the pace of regulation is not keeping up. Concerns emerge where industry structures change but regulatory structures do not since “governance structures that arise efficiently in one period may be overtaken by the efficacy of alternative structures in another period.” Related to reservations about outmoded administrative structures, a

30. Lessig, supra note 7.
31. “A healthy environment for innovation will enable advances in health care, energy, education, job training, public safety and all of our national priorities.” NATIONAL BROADBAND PLAN, supra note 28.
33. One statistical indicator of this is shrinking company longevity. Larry Summers, Director of the White House National Economic Council, observes that “in 1960 it took 20 years for a third of the Fortune 500 companies to turn over. Today it takes just four.” Larry Summers, Remarks at A New Beginning: The Presidential Summit on Entrepreneurship (Apr. 27, 2010), available at http://www.america.gov/st/webchat-english/2010/May/20100512172631xjsnommis0.6948496.html#ixzz0xXoG9bgh.
34. The mismatch between the speed of change in communications industries and regulatory bodies’ operating tempos is not limited to the FCC. See, e.g., Cecilia Kang, In Silicon Valley, Fast Firms and Slow Regulators, WASH. POST, July 5, 2012, available at http://www.washingtonpost.com/business/economy/in-silicon-valley-fast-firms-and-slow-regulators/2012/07/05/gJQAsc4YW_story.html (detailing closing of fourteen-year long antitrust case versus Microsoft and highlighting disconnect between rapid changes in communications markets and speed of regulatory enforcement).
third factor calling attention to the FCC and innovation is the recognition that the global economy makes innovation critical to national competitiveness. If innovation in the United States is hamstrung by regulatory barriers, there is concern that innovation will occur elsewhere. Against this backdrop, there is increased urgency to evaluate the performance of FCC policy-makers vis-à-vis innovation objectives.

Some critics conclude that the FCC is devoid of the institutional competence to superintend the modern communications industry. This conclusion stems from observations that the Agency wields inadequate tools, lacks sufficient resources, and is encumbered by bureaucratic processes poorly suited to perform its core functions. Larry Lessig observes that the FCC was architected as a New Deal agency built to promote stability and, moreover, has a historic DNA that persistently favors powerful interests over innovation. He argues that the first step to “restarting an engine of innovation and technological growth” in the United States is to reboot the FCC and to “remove the

36. President Barack Obama’s *Strategy for American Innovation* emphasizes that international competition and an information age makes innovation more crucial than in previous eras:

[T]he basis of competition and the nature of the economy have changed, and we must change with them. . . . Other countries understand that innovation is fundamental to their economic well-being and are finding new ways to advance their innovation agendas. We can be even more ambitious, even more successful, and even more focused on building the essential sidewalks of innovation.


38. See generally, Lessig, supra note 7. A philosophical undercurrent of this and related analyses is a belief that markets work comparatively better than regulation in fostering conditions amenable to innovation. See Mayo, supra note 2, at 123. Peter Huber writes that in erecting the FCC a “fateful choice was made: Marketplace and common law were rejected. Central planning and the commission were embraced.” Huber, supra note 7, at 4. Historical perspective shows that current critiques echo prior indictments of the FCC. Newt Minow, at the end of his tenure as FCC Chairman in 1963, focused upon procedural shortcomings and proposed a set of reforms for the Agency. Newt Minow, *Suggestions for Improvement of the Administrative Process*, 15 ADMIN. L. REV. 146 (1963). Shortly thereafter Minow described the FCC as “a quixotic world of undefined terms, private pressures and tools unsuited to the work.” Nicholas Johnson & John Jay Dystel, *A Day in the Life: The Federal Communications Commission*, 82 YALE L.J. 1575, 1634 n.1 (1973) (quoting Newt Minow, *Is the FCC Dead?*, ATLANTIC, July 1967, at 29).


40. Lessig, supra note 7; Mayo, supra note 2, at 121 (“[T]he twentieth century regulatory infrastructure for telecommunications was designed for a monopoly, and while legislative reforms enacted in 1996 embraced competition, the regulatory infrastructure has remained fully entrenched.”).
government from the mix as much as possible." In a world in which innovation is increasingly at a premium, critics argue, the FCC should be dismantled.

At the same time, while outside scholarly fashion, an opposing argument can be made that the FCC deserves credit for regulating the world's most innovative communications industry. After all, under the FCC's watch, the United States communications industry pioneered innovations ranging from Bell Labs' development of cellular technology—a predicate for the wireless age—to the cable industry's creation of the DOCSIS standard, which has played an important role in ushering in the broadband age for American consumers. More specifically, it is not difficult to identify prescient FCC policies that facilitated innovation. The 1968 Carterfone decision and subsequent Part 68 rules facilitated competitive entry into portions of the phone network and set in motion the events that, sixteen years later, resulted in the breakup of the telephony monopoly. The Computer Inquiries, initiated in 1971, erected a protective separation that allowed newcomer firms to provide nascent computer services without being snuffed out by AT&T. Beginning in the mid-1980s, the FCC created unlicensed bands that—subject to technical constraints—permitted provision of virtually any type of spectrum service in bands believed to be "junk." Liberalization of spectrum use within the junk bands allowed providers to innovate without regulatory permission and resulted in unforeseen—and highly valuable—breakthroughs such as WiFi. Pro-competition rules implementing the 1996 Telecom Act

41. Lessig, supra note 7.
42. Id.
43. Susan Crawford observes that the cable industry has been perhaps too successful in this effort and now commands a monopoly over broadband in the United States. See generally Susan Crawford, Captive Audience: The Telecom Industry and Monopoly Power in the New Gilded Age (2013).
44. For a synopsis of the Part 68 rules, see Nuechterlein & Weiser, supra note 8, at 43.
45. The Computer Inquiries refers to the set of FCC rules—enacted through decisions referred to as Computer I, II, and III—that separated AT&T's telephone services from computer services. This separation protected newcomers in computer and data services from AT&T and, arguably, helped the new computer industry flourish. Wu, supra note 6, at 190-91. Precedent for the Computer Inquiries came from a 1956 consent decree between AT&T and the Department of Justice, in which AT&T agreed to limit its business to the "provision of common carrier services." Benjamin et al., Telecommunications Law & Policy 720 (2d ed. 2006).
showcased FCC action to move quickly and unseat the status quo. And early policies to protect the Internet through regulatory forbearance, combined with empowering technologies such as personal computers and Internet protocol, engendered unexpected “generative” and salutary innovations from the edge of the network. More recent efforts to open FCC-collected data to the public, as well as to map broadband availability and performance, may bear innovative fruit. In sum, one can selectively cherry-pick historic anecdotes in which FCC action seemed to facilitate innovation or, alternatively, select horror stories where the Agency stymied innovation, but overall it is difficult to objectively determine the net magnitude of Agency policy actions over time.

A final confounding issue is that it is often unclear what is expected of the FCC with respect to innovation. No matter how innovation is construed, the FCC’s role is typically indirect, and the Agency’s efforts alone are insufficient to catalyze disruptive innovation. Much of ICT is outside of the FCC’s direct jurisdiction. Moreover, the FCC does not conduct significant in-house research, rarely awards research grant monies, lacks the power to tax, and does not directly bring products or services to market. One perspective is that it is the Agency’s innovation policy role to create conditions conducive to innovation in the communications industry and encourage—or at least not unnes-


47. As stated earlier, following passage of the 1996 Telecom Act, which amended the 1934 Communications Act in order to promote competition, then-FCC Chairman Reed Hundt set innovation as a high priority: “Behind all of our decisions were the motives of stimulating economic growth and innovation.” HUNDT, supra note 27, at 156. In so doing, Hundt later wrote that he aimed to “rescind the compact between government and the status quo in the information sector” and “unleash the power of change.” Id. at 206.

48. With respect to early Internet policy, then-FCC Chairman Bill Kennard articulated a principle in 1999 of “first, do no harm.” See Remarks by William E. Kennard, FCC Chairman, Speech Before the Federal Communications Bar, Northern California Chapter, San Francisco, CA: The Unregulation of the Internet: Laying a Competitive Course for the Future (July 20, 1999), available at http://transition.fcc.gov/Speeches/Kennard/spwek924.txt (“In a market developing at these speeds, the FCC must follow a piece of advice as old as Western Civilization itself: first, do no harm. Call it a high-tech Hippocratic Oath.”).

49. Jonathan Zittrain celebrates the “generative system” aspects of technologies, such as the personal computer and the Internet, which provide of multi-purpose tools to end users who find unexpected uses for such tools. Generativity “is a system’s capacity to produce unanticipated change through unfiltered contributions from broad and varied audiences.” ZITTRAIN, supra note 70, 126 (2008) (“An information technology environment capable of recursive innovation in the realms of business, art, and culture will best thrive with continued regulatory forbearance, recognizing that the disruption occasioned by generative information technology often amounts to a long-term gain even as it causes a short-term threat to some powerful and legitimate interests.”).
sarily frustrate—innovation by industry participants and researchers. Another perspective is that the Agency's role is to allocate innovative potential through policies such as nondiscrimination mandates and vigilant separation of content and conduit. In any event, the FCC is rarely asked to directly generate innovation.

The cumulative effect of these factors is that, while there is urgency to understand and evaluate the FCC's effect upon innovation, the FCC's relationship to innovation is difficult to isolate and, consequently, often a matter of conjecture. New tools are needed to better understand the role of the Agency superintending twenty-first century telecommunications. Section III, next, develops such a tool.

III. Architecture Matters: A Diagram of FCC Procedural Architecture

In examining the puzzle of whether today's FCC is institutionally suited to oversee ICT innovation, this Article develops a procedural architecture analysis that examines systemic values etched into agency architecture. The Author defines procedural architecture as encompassing three institutional dimensions of the Agency: (1) formal *de jure* rules and constraints upon FCC procedure; (2) norms salient to FCC operations and procedures; and (3) institutional structure and FCC resource capabilities. This broad conception of agency procedure mirrors other academic accounts that focus on institutional aspects of regulation. The FCC's procedural architecture is the background

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50. For example, companies require advance FCC permission before offering services or equipment that fall into certain regulated categories. Certain services, such as a novel spectrum service in a swatch of licensed spectrum require "mother may I"-type regulatory approvals whereby FCC blessing is required before offering the service to the market. Hazlett, *supra* note 7, at 114 (citing several examples of administrative delay on spectrum decisions); Nuechterlein & Weiser, *Digital Crossroads*, *supra* note 8, at 241-42 (2005) ("[A]s long as the government has regulated access to the airwaves, spectrum incumbents have invoked 'interference' concerns as a rallying cry against new entry, an unassailable engineering conclusions rarely end the debate.").

51. See, e.g., Tim Wu's argument for a "separations principle" that would require nondiscrimination by a network and would bar vertical integration as part of oversight of industrial structure. Wu, *supra* note 6, at 299-319.

52. Inclusion of norms is important because "the effects of formal institutional constraints are defined in important ways by their relationships to the informal processes that surround them." West, *Formal Procedures*, *supra* note 11, at 68.

53. For example, it is similar to the definition used by political scientist Kathleen Bawn, who notes that procedure encompasses "such structural issues as which agency makes the decision, how the agency is organized, what qualifications are required for key personnel, and how the agency relates to the rest of the bureaucracy." Kathleen Bawn, *Political Control Versus Expertise: Congressional Choices About Administrative Procedures*, 89 Am. Pol. Sci. Rev. 62 (1995). Relatedly, Steven Croley's conception of administrative process encompasses (1) legal rules surrounding administrative law processes (APA, FACA); (2) informal norms; (3) effects of agency oversight (Congress, courts, president); and (4) agency structure and culture. See generally Croley, *supra* note 3.
context against which day-to-day FCC policy-making activities occur. The behavior of advocates before administrators reveals institutional tendencies of administrative agencies. Subsection A highlights why the repeat actions of advocates before administrative bodies provide valuable observable evidence about the “black box” of agency policy-making. In particular, understanding how advocates behave and—most importantly—why advocacy appears to work yields insight relevant to the determinants of regulation. Subsection B then details a methodology by which to conduct a procedural architecture analysis of the FCC. Finally, Subsection C details and examines four notable elements of the FCC’s procedural architecture.

A. Observable Evidence Associated with the Black Box: Advocacy Behavior

Architecture—understood in the broad sense of a relatively fixed background structure or context against which activity occurs—is present in the design of a range of settings including residential neighborhoods, buildings, and software.54 Choices about architecture, as Paul Starr writes, “create the material and institutional framework of fields of human activity.”55 Actions occur against a background structure. While often unnoticed in the background, architectural context is not neutral towards behavior; rather, it invites and discourages actions. Whether by intentional design or otherwise, architecture embeds values as it biases toward certain outcomes and militates against others.56 Consistent with this, Lawrence Lessig stresses the importance of developing an architecture “that structures and constrains social and legal power, to the end of protecting fundamental values.”57

Architecture is often evident in physical design.58 Less noticed is that architecture is also present within the design of institutional structures. Organizational forms and rules of procedure are examples of background architectural structures against which activity occurs.

55. Id.
56. See, e.g., LAWRENCE LESSIG, CODE: AND OTHER LAWS OF CYBERSPACE, VERSION 2.0 (2006) [hereinafter LESSIG, CODE 2.0]; STARR, supra note 54.
57. LESSIG, CODE 2.0, supra note 56, at 4.
58. For example, Starr highlights two architectural choices in the former Soviet Union that illustrate values enshrined in the technical architecture. First, from the point in which Soviet rulers took power in 1917, construction of loudspeakers—a broadcast medium—was emphasized over the build-out of a phone network which offered point-to-point communications. STARR, supra note 54, at 9. Other countries at the time built out phone networks; however, the Soviet investment in a loudspeaker infrastructure emphasized state speech over individual communications. Second, when the Soviet Union’s phone network was built out, the physical infrastructure routed each call through Moscow. Id. That architecture promoted state security and surveillance over economic efficiency and individual privacy. Id. Each of these architectural choices shaped citizen behavior by promoting state speech and minimizing individual expression critical of the state. Id.
Scholars highlight a common insight: architecture matters. Political scientists recognize this and, when analyzing political institutions and processes, emphasize the constitutional dimensions of government. Constitutional rules refer to a political institution’s architectural constraints and the boundaries against which ordinary legislation and policy decision-making occurs. That is, constitutional rules provide the background context against which day-to-day political activities are conducted. As with physical architecture, constitutional architecture inevitably promotes certain values at the expense of others. This is because constitutional rules affect outcomes and can even be outcome-determinative. For example, constitutional rules can promote stability in ordinary legislation (and disfavor change) or, alternatively, facilitate passage of new ordinary legislation (and disfavor stability). Indeed, “[f]or a given set of voters with unchanged preferences, any outcome” is possible, contingent upon the governing constitutional rules.

Steven Croley highlights the importance of background architecture in understanding administrative agencies. In particular, Croley underscores that the “centrality of the administrative process” must be considered insofar as process relates to regulatory outcomes. Similarly, in a 1978 book, The Regulatory Game, Bruce Owens, a former Chief Economist in the White House Office of Telecommunications Policy, and Ronald Braeutigam posit that institutional process is central to understanding the FCC and, accordingly, highlight procedure as the defining feature which most profoundly affects the interests of those

59. STARR, supra note 54; LESSIG, CODE 2.0 supra note 56.

60. James M. Buchanan, Public Choice: Politics Without Romance, 19 Pol’ly 13, 14 (2003) (“We distinguished between ‘ordinary politics,’ consisting of decisions made in legislative assemblies, and ‘constitutional politics,’ consisting of decisions made about the rules for ordinary politics.”).

61. Similar to Starr and Lessig, political scientists analyze background context by distinguishing between constitutional and ordinary stage politics. See, e.g., id. at 15–16.

62. Id.

63. Assume ordinary legislation favored by 55% of the population. Whether the legislation passes or fails hinges on a host of background constitutional rules that address inter alia whether the proposed legislation will or will not reach a vote (e.g., who sets the agenda), who gets to vote (e.g., direct or representative voting rights? If representative, are voting rights determined by proportional representation?), and the voting threshold required to pass proposed legislation (majority? super majority? unanimity?).

64. GORDON TULLOCK ET AL., GOVERNMENT FAILURE: A PRIMER IN PUBLIC CHOICE 22 (2002). For example, if a super-majority requirement of 80% is required in order to pass ordinary legislation, then this constitutional rule would attenuate the overall rate of change. Ordinary legislative proposals lacking overwhelming support would fail. The super-majority rules promote conservative values of stability, consensus and continuity over dynamic responsiveness and change. Buchanan, supra note 60, at 15.

65. CROLEY, supra note 3, at 68.
before the FCC. Owen and Braeutigam set forth common strategies used by advocates who leverage process in order to gain advantage in FCC policy-making. Thirty-five years later, substantive aspects of telecommunications regulation look radically different—viz., a major overhaul to the Communication Act, technological convergence ushered in by the digital age, and Internet Protocol rendering transmission platforms service agnostic—yet, far from outdated, insights from Owen's and Braeutigam's now-out-of-print book look prescient. The institutional architecture they characterized in 1978 as the defining aspect of the FCC today remains intact and relevant to outcomes. As Owen and Braeutigam emphasize, "It is the procedures as much as the ultimate outcome that matters. Or rather, the procedure is the outcome." While a broad appreciation of architecture is helpful, however, much remains untested and unseen about how FCC architectural features work in practice. The "black box" is commonly invoked as a metaphor that refers to administrative agencies' production of laws. The black box suggests a system by which inputs and outputs are observable, however, the inner machinations of how agency regulations get made is not well understood. At a generalist's level, the black box metaphor operates to express the mystification of the lay person concerning regulation's Byzantine institutional and procedural complexities. The metaphor is also appropriate at a specialist's level, even for academics and experts familiar with operations of agency

66. OWEN & BREAUITGAM, supra note 11. Additionally, in the early 80s, Gail Arnall and Lawrence Mead similarly highlighted process-oriented models developed by Graham Allison of FCC decision-making. Gail Arnall & Lawrence Mead, Decision Making at the FCC, in TELECOMMUNICATIONS: AN INTERDISCIPLINARY TEXT 38 (1978).

67. OWEN & BREAUITGAM, supra note 11, at 26.


69. "The administrative process is the proverbial black box that mysteriously translates legislative inputs into regulatory outcomes." Steven P. Croley, Theories of Regulation: Incorporating the Administrative Process, 98 COLUM. L. REV. 1, 27 (1998); see also, Philip J. Weiser, Institutional Design, FCC Reform, and the Hidden Side of the Administrative State, 61 ADMIN. L. REV. 675, 721 [hereinafter Weiser, Institutional Design] (advocating for greater academic attention to internal workings of FCC since "the design and functioning of regulatory agencies is not one that can be assumed away or viewed as a black box"). For a basic discussion of black box systems across different technical and academic contexts, see WIKIPEDIA, http://en.wikipedia.org/wiki/Black_box (last visited Sept. 11, 2011) ("A black box is a device, system or object which can be viewed solely in terms of its input, output and transfer characteristics without any knowledge of its internal workings, that is, its implementation is 'opaque' (black).").
processes, since much is yet to be known about fundamental aspects concerning how agencies produce rules and orders.\textsuperscript{70}

Significantly, a study of advocacy yields insight about the institutional nature of agencies. This Article approaches the black box problem, where much Agency decision-making is unknown, by focusing upon observable inputs. To date, specific to advocacy, "there is only a "small body of literature" regarding the direct interactions of interest groups and agencies."\textsuperscript{71} Agency production of rules and orders does not occur in a vacuum. Much is observable about how advocates work and, moreover, there is reason to believe that advocates exert direct influence upon substantive outcomes.\textsuperscript{72} In order to be effective, advocacy techniques must respond to procedural administrative requirements as well as institutional design. Patterns of advocates repeat because the FCC's procedural architecture provides a background context that shapes advocates' behavioral tendencies.

B. Methodology and Assumptions

In conducting a procedural architecture analysis of the FCC, an improved understanding of administrative advocacy entails examination of two primary questions: (1) How do advocates attempt to influence the production of administrative rules and orders; and (2) Why do such advocacy methods before administrative bodies prevail?

As to the first question, how advocates behave, this Article creates a composite based upon existing scholarship about the FCC and feedback from professional advocates. Specifically, three different sources of information are relied upon to diagram patterns of advocacy behav-

\textsuperscript{70} Empirical work on administrative agencies, while valuable, is limited in volume and, moreover, faces challenges to definitive observations that can be generalized across agencies. West, Black Box, supra note 14, at 578–79.

\textsuperscript{71} Susan Webb Yackee, Sweet-Talking the Fourth Branch: The Influence of Interest Group Comments on Federal Agency Rulemaking, 16 J. PUB. ADMIN. RES. THEORY 103, 103–24 (2006) (internal citations omitted). Overall the effects of advocates' behavior and their substantive effect upon the production of agency rules and orders remain underexplored. West, Formal Procedures, supra note 11, at 66 ("Scholars have given little systematic attention to external influences on the rulemaking process.").

\textsuperscript{72} Yackee, Sweet-Talking, supra note 71. The best—and most extensive—work concerning advocacy and regulation followed federal policy issues in Washington D.C. spanning 1999–2002. Frank Baumgartner et al., Lobbying and Policy Change: Who Wins, Who Loses, and Why 5–6 (2009). Baumgartner et al. studied the behavior of advocates on ninety-eight randomly selected issues to analyze federal lobbyists' and other advocates' arguments and tactics, what other parties did, and the substantive regulatory outcomes. Id. Most issues in the study directly involved Congressional legislative activity, however, agency officials often also had a direct role in the legislative activity concerning these issues, too. Id. at 6. Underscoring the difficulty of effecting policy change, "little happened" on the majority of issues tracked by Baumgartner et al. over the study's three years. Id. Indeed, in terms of legislative advocacy, the study argues that "one of the best predictors of success in the lobbying game is not how much money an organization has on its side, but simply whether it is attempting to protect the policy that is already in place." Id.
ior before the FCC: (1) an original qualitative survey of FCC advocates; (2) scholarly examinations of regulatory advocacy; and (3) additional literature that provides institutional detail about the FCC. Observations across these three sources help identify common patterns of behavior.

Parties affected by administrative agency action and inaction have incentive to invest resources and compete to capture the value they perceive may be gained through the influence of administrative decision-making.\(^\text{73}\) The larger the benefits that are at stake in a regulatory decision or series of decisions, the greater is the incentive an affected party has to invest additional resources into the regulatory process.\(^\text{74}\) FCC lobbying “is too important to the bottom lines of most businesses to be ignored.”\(^\text{75}\) Indeed for a firm affected by FCC functions, “[s]trategic use of the regulatory process is at least as important to many industries as the traditional decision variables: prices, entry, and innovation.”\(^\text{76}\)

An original survey of FCC advocates provides the starting point for analyzing how advocates behave before the FCC. This survey is qualitative. It started with a question to the Cybertelecom list-serve requesting suggestions to existing literature concerning technology policy advocacy. Cybertelecom (Cybertel) is a list-serve oriented around electronic correspondence by professional advocates, scholars, and policy-makers concerning telecommunications issues. Specifically, on January 10, 2010, this Author asked Cybertel members if they knew of “an excellent text or starter set of materials concerning the ‘how to’ advocacy aspects of technology law policy.” The group demurred on the question of useful resources; however, several individuals reinterpreted the question as an opportunity to opine on their own approaches to advocacy.

Fifty-two responses from Cybertel list-serve members over the course of a week set about filling what participants perceived as a par-

\(^\text{73}\) Buchanan, supra note 60, at 15 (discussing Tullock and Krueger’s work on rent-seeking behavior).

\(^\text{74}\) Pierre Lemieux, The Public Choice Revolution, 27 REG. 22, 27–28 (2004). Studies show that business interests dominate the weight and volume of participation during public comment periods of agencies’ informal notice and comment rulemakings. West, Black Box, supra note 14, at 578; Croley, supra note 3, at 125–27. In a study of forty rules across four agencies over a seven-year period, Yackee found that 57% of filings were from businesses, 19% from government, 22% from non-government sources, and only 6% from public interest groups. Yackee, supra note 68, at 133. There remains disagreement, however, on the systematic effects of public comment on agency production of laws. Croley, supra note 3, at 132 (reviewing studies and concluding that “with respect to the influence participants have on agency decision making . . . the available evidence taken as a whole is inconclusive”).


\(^\text{76}\) Owen & Braeutigam, supra note 11, at 2.
tial literature gap about FCC advocacy. The Author then played the role of curator, providing conceptual structure for the whole, but allowing the individual contributions and ideas to stand for themselves. The result is included as Appendix A.77 Quotations signal language directly provided by an individual from the Cybertel group. Individual attribution is avoided to be consistent with the candid dialogue encouraged by the rules and norms of the Cybertel list-serve.78 This original survey of repeat players involved in advocacy before the FCC is, to be sure, not quantitatively rigorous. But it is qualitatively interesting and contributes to understanding of FCC advocacy. Future empirical work could study the frequency and quantitative impact of advocate behaviors.

The Cybertel survey results are cross-referenced against existing literature on FCC advocacy. Books and web resources from the FCC itself,79 public interest advocates,80 and others interested in transparency about FCC processes81 are available, which collectively provide strategies and received wisdom about how to navigate FCC processes.82 Among these efforts, the most comprehensive “how to” handbook to date on FCC advocacy is a 2001 practitioner’s guide to FCC lobbying by Krasnow, Siddal and Berg.83 These resources give reason to believe that the repeat plays reported by the Cybertel contributors accurately reflect actual behaviors.

This Article relies upon three assumptions. First, there is a connection between what advocates think that they do and what they empirically do. If advocates falsely report information about behavior—even if in good faith—then analysis of mythical advocacy techniques is of little value. The second assumption is that architecture affects behaviors. Advocacy behavior is explained through the prism of the Agency’s procedural architecture. Evidence supports this explanatory framework, however, other prisms may exist that may provide alternative accounts of advocate behaviors. And a third assumption is that advocacy influences Agency behavior. This is significant because in-

77. See Cybertel, Appendix A.
78. Id.; an FCC-oriented list-serve and web-site are operated under the Cybertel umbrella. The list-serve’s participants include individuals who advocate before the FCC, policy-makers, academics, and others involved in FCC-related public interest work. Robert Cannon moderates the Cybertel discussions.
82. For advocates in the field, much about the “how to” aspects of navigating the Agency is learned through apprenticeship-type relationships (often in law firms under the guidance of an experienced practitioner), employment at the Agency itself, and case-by-case engagements with the regulatory process.
83. See generally Krasnow, supra note 75.
sights about the FCC that are based upon explanation of advocate actions are limited in value if such actions have no bearing on Agency outputs and advocates' actions are superfluous. The analysis posits that advocates often affect an Agency's substantive outputs, even if the effect is merely to cancel out another side's efforts. Intuitively, parties' commitments of significant resources to the regulatory lobbying process suggest that Agency advocacy makes a difference. Moreover, empirical research from political science suggests that Agency advocacy affects notice and comment rulemaking outcomes.\(^{84}\) If advocates indeed play an important role in shaping outputs then such strategies and techniques merit special examination for what they reveal about Agency processes.

C. Notable Dimensions of the FCC's Procedural Architecture

Constitutional dimensions of FCC architecture provide the background structure against which the Agency's ordinary, substantive policy-making occurs. It is unnecessary to depict every aspect of the FCC's architecture, however, this Subsection highlights four important features that merit elaboration in order to understand why advocates evince repeat behaviors before the FCC.

The first notable dimension of procedural architecture is that while the FCC enjoys considerable substantive discretion within its jurisdictional berth, it is comparatively more constrained by congressionally prescribed procedures. The FCC is principally guided by two statutory schemes, the 1934 Communications Act (Communications Act)\(^{85}\) and the Administrative Procedure Act (APA).\(^{86}\) The Communications Act created the FCC and grants the Agency authority over communications by wire and radio.\(^{87}\) This is a broad substantive scope, and over time it has manifested in FCC activity in areas ranging from indecency to media ownership to universal service to public safety to broadband policy.\(^{88}\) FCC procedures, relative to substance, are less discretionary

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\(^{84}\) Advocacy during public comment periods, which follows publication of proposed rules in the Federal Register, appears to exert influence upon final rules. Scholarly study indicates that such efforts also successfully tilt in favor of business interests. Yackee, supra note 68, at 133–35 (When business commenters are united against regulation, then final rule results in less regulation 90% of time. "[A]gencies in our sample appear to consistently alter their final rules to reflect the comments of business interests; on the other hand, we find no statistically significant relationship between non-business/nongovernment comments and changes in the final rule.").


\(^{87}\) 47 U.S.C. § 151.

\(^{88}\) The FCC enjoys wide latitude on much substantive decision-making thanks to broad dictates from Congress and a capacious mandate to regulate in the "public interest, convenience and necessity," as well as deferential standards of judicial review of Agency decisions. Krasnow, supra note 75, at 88; Owen & Braeutigam, supra note 11, at 3 (public interest standard is a "vague and open ended license, and can be used to rationalize virtually any degree of intervention"); see generally City of Arling-
and are prescribed by statutes, which enunciate extensive administrative procedural requirements set forth by Congress.\textsuperscript{89}

The APA sets forth fundamental due process safeguards that require meaningful participation opportunities in advance of final administrative decisions such as rules and orders, a step that Kenneth Culp Davis famously heralded as "one of the greatest inventions of the American government."\textsuperscript{90} During ordinary "notice and comment" rulemaking, for example, an agency must provide notice of "either the terms or substance of the proposed rule or a description of the subjects and issues involved."\textsuperscript{91} Any "interested persons" must have an opportunity to participate.\textsuperscript{92} Moreover, procedural mandates for agencies are not limited to the APA. Additional guidance for—and constraints upon—FCC operations arise from amendments, "sunshine" laws,\textsuperscript{93} and court rulings\textsuperscript{94} applicable to federal agencies.\textsuperscript{95} Eventually, FCC rules and orders, despite the Agency's formal status as an independent agency, are checked by other branches of government. In

\textsuperscript{89} In response to concerns that agencies wielded too much power, rather than directly curtailing substantive agency jurisdiction, Congress instead imposed procedural mandates upon agencies. CROLEY, supra note 3, at 154. Judicial deference to the decision-making of New Deal-era regulatory agencies in 1946 prompted Congress to codify rules of procedural fairness in the APA. OWEN & BRAEUTIGAM, supra note 11, at 22.

\textsuperscript{90} West, Formal Procedures, supra note 11, at 67.

\textsuperscript{91} 5 U.S.C. § 553(b) (2012).

\textsuperscript{92} Id. § 553(c).

\textsuperscript{93} Id. § 552b; see Lisa A. Reilly, The Government in the Sunshine Act and the Privacy Act, 55 GEO. WASH. L. REV. 955, 956 (1987) (Passed in 1976, "The Sunshine Act requires that all meetings of multi-member federal agencies be open to the public, unless discussion falls within one of ten narrowly defined exemptions. Federal agencies must fulfill numerous requirements when scheduling or deciding to close meetings, must make a transcript or keep minutes of all closed meetings, and must release all nonexempt information.").

\textsuperscript{94} See Wendy Wagner, Administrative Law, Filter Failure, and Information Capture, 59 DUKE L.J. 1321, 1331 (2010).

\textsuperscript{95} So-called "good government" requirements passed subsequent to the APA are expressed in several statutes, including the Federal Advisory Committee Act ("FACA," which governs activities of committees that advise federal agencies), the Freedom of Information Act ("FOIA," which mandates inter alia certain disclosures and requires that an agency must publish its own rules of procedures), the Negotiated Rulemaking Act (NRA), and the Open Meetings Act/Sunshine Act, which inter alia prohibits more than two Commissioners to meet in private to discuss matters active before the Agency. Freedom of Information Act, 5 U.S.C. § 552 (2012); Negotiating Rulemaking Act, 5 U.S.C. § 561 (2012); Open Meetings Act, 5 U.S.C. § 552b (2012); CROLEY, supra note 3, at 146, 154. Against this statutory and case law backdrop, the FCC enunciates the procedures that formally govern its operation. These regulations are set forth in Subparts A through Z of Chapter 1 of Part 47 in the Code of Federal Regulations. Collectively, procedural requirements direct what types of public notice the FCC must provide, what information the FCC must consider, how parties must memorialize meetings with agency staff and commissioners, and avenues of appeal for parties aggrieved by FCC processes. A helpful discussion of the FCC's decision-making process is found in Chapter 4 of KRASNOW, supra note 75.
particular, the specter of judicial review by federal courts of appeals forces the Agency to build a record to support its rules.96 In response to court decisions interpreting the APA, "agencies routinely provide more process in the course of ordinary rulemaking than what Section 553 minimally requires."97 In turn, this "reliance on the written record has led to substantial 'judicialization'" of the rulemaking process.98

A second notable aspect of procedural architecture is that the FCC's analytic capabilities are limited, especially in the areas of engineering and economics. This may be surprising to those unfamiliar with communications law given the FCC's role as an expert agency. The FCC is led by a Chairman and four other Commissioners.99 Deep economic or operational expertise in communications industries is not a prerequisite for commissioner appointment.100 The appointment process often results in political drivers outweighing substantive expertise.101 While much attention is often paid to Commissioners, the FCC's shortages in economic and engineering expertise are particularly acute in the advisor positions within Commissioners' offices as

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97. CROLEY, supra note 3, at 119.
98. Yackee, Sweet-Talking, supra note 71, at 108.
99. See KRANSOW, supra note 75. The President designates the Chairman and the President's party controls a majority (three of five) of the Commissioners. Id.
100. See, e.g., HUNDT, supra note 27 (detailing Hundt's inexperience in telecommunications prior to appointment as Chairman). In contrast, incoming FCC Chairman Tom Wheeler has significant telecom industry expertise, ranging from professional roles to authoring written work in telecom. Wheeler's background includes service "from 1992 to 2004 as the chief executive of the Cellular Telecommunications and Internet Association, the cellphone industry trade group, and from 1979 to 1984 [as] chief executive of the National Cable Television Association." Edward Wyatt, Telecom Investor Named to Be F.C.C. Chairman, N.Y. TIMES, May 1, 2013, available at http://www.nytimes.com/2013/05/02/business/tom-wheeler-telecom-investor-is-fcc-nominee.html?_r=0.
101. Politicization of the Commissioner appointments is, at least in part, a function of greater appreciation of ICT's critical role in the economy. It can also be explained in part by an mid-1990s agreement brokered by then President Bill Clinton and Senator Bob Dole, whereby appointments of FCC minority commissioners would functionally be handled by the ranking member of the Senate who is not in the President's party, and then rubber stamped by the President. Some observers speculate that this exacerbates political patronage as well as tends toward minority-party appointments who are generally opposed to the majority party's agenda. Increased politicization is not limited to the FCC as Capitol Hill's influence expands concerning independent agency selections across the board. See, e.g., Floyd Norris, Independent Agencies, Sometimes in Name Only, N.Y. TIMES, Aug. 8, 2013, available at http://www.nytimes.com/2013/08/09/business/independent-agencies-sometimes-in-name-only.html?_r=0 (describing trend where "president generally gets to choose the chairman of independent commissions, but the other majority members are picked on Capitol Hill"). As a matter of history, however, it should be noted that the FCC's predecessor organization, the Federal Radio Commission, was found by the Brookings Institution in a 1932 report to be the "most politically-charged agency yet to appear in Washington." Hazlett, supra note 7, at 104.
Each Commissioner is permitted to hire three professional advisors who report directly to that Commissioner. In recent years, attorneys are uniformly selected—in lieu of engineers or economists—as the Commissioners' professional advisors. The Chairman directs the staff through bureau and office chiefs and, except for commissioners' dedicated advisors, FCC staff is directly responsive to the Chairman. A shortage of engineers and economists likewise exists among the FCC's senior management positions. A 2010 study comparing the FCC's senior management composition versus seven other countries' telecom regulatory bodies observed:

Many countries maintain roughly the same balance between lawyers, economists, and engineers at senior management level as at the professional staff . . . . What is particularly striking is that the U.S. FCC's senior management team contains only one engineer . . . and not a single economist!

Commissioners' advisors and agency staff are central to FCC operation since, due to the "amount of information to be processed, Commissioners are heavily dependent upon the staff" for the information provided to them.

Resource constraints help explain the FCC's norm of extensive reliance upon outside parties to provide information and analysis that informs Agency decision-making on pending matters. This norm illustrates that the FCC augments its formal rules with informal and unwritten norms that act as de facto operational standards.

Of course, the APA mandates participatory opportunities and—to the extent that the FCC goes beyond minimal requirements of the APA to

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102. The FCC employed 1,930 personnel as of September 2009.
103. Krasnow, supra note 75, at 92.
104. See also U.S. Gov't Accountability Office, GAO-10-79, FCC Management: Improvements Needed in Communication, Decision-Making Processes, and Workforce Planning (2009) (highlighting shortcomings among engineers and economists could become more acute: "FCC faces challenges in ensuring it has the expertise needed to adapt to a changing marketplace. For example, a large percentage of FCC's economists and engineers are eligible to retire in 2011, and FCC faces difficulty recruiting top candidates.").
105. J. Scott Marcus & Juan Rendon Schneir, Drivers and Effects of the Size and Composition of Telecoms Regulatory Agencies 16 (Sept. 12, 2010) [hereinafter Marcus & Schneir]. Marcus and Schneir note that the FCC has a Chief Economist and brings in outside experts to advise; however, he observes that the Chief Economist is not a "decisional" position within the Agency. The FCC has recognized its own shortcomings in this area, citing that it "need[s] more economists and engineers." Mary Beth Richards, FCC Reform Agenda, FCC, Slide 19 (Feb. 2010), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296363A1.pdf.
106. Arnall & Mead, supra note 66, at 59.
107. Id. at 45 ("The Commission has lacked the expertise to analyze most highly technical issues on its own. It has relied instead on data and analysis submitted by the affected parties or by outside experts.").
108. See Krasnow, supra note 75, at 86 ("[T]he FCC uses both written and unwritten processes as it reaches decisions.").
elicit outside input—much is to be said in favor of this norm, which encourages the FCC's Commissioners and staff to interface with industry and public interest groups in order to better understand issues in a rapidly changing and often highly technical sector. But such an arrangement, if too extensive, risks compromising independence associated with the FCC's expert analysis. As a practical matter, FCC resource constraints manifest in extensive one-sided ex parte contacts between advocates and decision-makers at the FCC.

Unlike the judicial system, and even in contrast to the prevailing practices of some agencies that minimize ex parte contacts once an NRPM is published, the FCC relies extensively upon the ex parte practice. FCC norms even permit use of ex parte contacts after the comment period concludes and FCC administrators signal the issues they deem to be the most relevant. This practice is criticized as compromising the fairness and integrity of FCC processes. Even after ex parte reforms implemented under Chairman Genachowski, the FCC's permissive

109. Kathleen Abernathy, Managing the FCC: Style, Substance, and Institutional Reform, Reforming FCC 3, (2009), available at http://archive.is/CRnQ4 ("As a Commission staffer and as a Commissioner, I learned a great deal from the briefings I received from the legal, technological, and financial insights of the experts who came to advocate positions.").

110. See, e.g., KRASNOW, supra note 75, at 88 ("Personal exchanges are often the most effective way to explain your viewpoint and to understand the reasoning of the staff and commissioners"); See Weiser, Institutional Design, supra note 69, at 692. As the FCC explains, "An oral presentation is 'ex parte' when it is made without advance notice to other parties to a proceeding and without the opportunity for them to be present." FCC, AMENDMENT OF THE COMMISSION'S EX PARTE RULES AND OTHER PROCEDURAL RULES, REPORT & ORDER & FURTHER NOTICE PROPOSED RULEMAKING, FCC 11-11, GC No. 10-43 (Feb. 2, 2011), available at http://www.fcc.gov/document/ex-parte-rules-and-other-procedural-rules (citing 47 C.F.R. § 1.1202(b) (2012)).

111. Some federal agencies, such as the Department of Interior and Department of Commerce, have explicit internal policies that discourage ex parte communications during the comment period. West, Black Box, supra note 14, at 590. In contrast, the FCC liberally permits ex parte discussion and advocacy after NPRM publication.

112. See NUECHTERLEIN & WEISER, supra note 8, at 384 (discussing "flurry" of post-comment ex parte meetings that the FCC "disproportionately" relies upon).

113. Related to yet distinct from the ex parte norms, claims of de facto favoritism toward insiders have been levied against the Agency. The United States Government Accountability Office in 2007 documented an example of how information was not equally transparent to all stakeholders involved in a proceeding. See U.S. Gov't Accountability Office, GAO-07-1046, FCC SHOULD TAKE STEPS TO ENSURE EQUAL ACCESS TO RULEMAKING INFORMATION 4 (2007). The GAO found that FCC staff often shared with certain stakeholders nonpublic information concerning when rules would come up for a vote, however, advocates representing consumer and public-interest groups said that they did not know when the FCC was about to vote on a rule. This is significant because, as FCC officials interviewed told the GAO, "timing is everything" when it comes to persuasively making a case concerning a proposed rule to the Agency—viz., it is critical to advocate at a ripe point before the Commission is set to vote. Id. at 24.
A third notable dimension of procedural architecture is that FCC staff is composed of well-protected career civil public servants who serve as information gatekeepers to the Agency's decision-makers. FCC staff is composed primarily of career civil public servants. The FCC's sprawling scope of substantive responsibilities and significant workload prohibits Commissioners from conducting extended analysis across all proceedings, a difficulty exacerbated by the fact that some Commissioners are not deep subject-matter experts before they reach the Agency. The staff generally proposes "specific solutions to issues raised in the proceedings." In addition to their power as information gatekeepers, FCC staff is insulated from Commissioner control in important ways. The career service system removes "most of the supervisors' discretion to hire and fire for their own reasons, and with it most of their coercive power to motivate their staff to perform." The unionization of the FCC in 1978 bolstered staff protection and, to a certain degree, staff independence. While Commissioners will leave as their appointments to the FCC expire, FCC staff knows that they may remain after a Chairman or other Commissioner has come and gone.

A fourth important dimension of procedural architecture is that critical decisions concerning FCC agenda-setting, including the so-called pre-proposal phase of a rulemaking, may occur outside the public light of the APA. This is because the procedural requirements that guide the Agency—while robust in prescribing participatory opportunities—do not directly constrain important aspects of FCC functions, especially actions prior to public notice of a rulemaking. The Chairman generally controls the Agency's agenda. With few exceptions—such as statutorily mandated reports or periodic reviews and timeta-

114. See supra Part I (citing West, Black Box, supra note 14, at 590). For a recent example of a claim of ex parte abuses, including improper uses of ex partes after the comment closing period, see White Paper on Key FCC Procedural Reforms, NARUC (Feb. 4, 2013).

115. Minow, supra note 38, at 148. For a contemporary example, former FCC Chairman Reid Hundt acknowledges that his appointment was owed to his work for and relationship with Vice President Al Gore, despite limited background in telecom policy. Hundt writes that at the outset of his Chairmanship, given his inexperience in telecom subject matter, "Not only did I have no new or old answers, I could scarcely describe the issues." Hundt, supra note 27.

116. Krasnow, supra note 75, at 90. The staff also acts on "delegated authority" without Commissioner action on more informal items before the Agency. Id.

117. See Arnall & Mead, supra note 68, at 66 (discussing civil service in United States post the Pendleton Act of 1883).

118. A handful of FCC political appointment jobs also turn over with each administration and are personal to the Chairman's appointments. These jobs are set forth every four years in the Plum Book. U.S. Government Printing Office, Policy and Supporting Positions 154 (2005), available at http://www.gpoaccess.gov/plumbook/.
bles for merger reviews—most rulemakings are placed on the FCC's agenda at the complete discretion of the FCC Chairman. The FCC can launch a proceeding upon its own initiative or, alternatively, in response to an outside petition, but there is little direct outside control associated with this process. Moreover, once the Chairman directs Agency staff that a matter should be considered for rulemaking, but before public notice of a proposed rule, the so-called pre-proposal stage of rulemaking is unconstrained by the APA. Notably, it is at this stage where problem formation and issue framing occurs. In many respects, problem formation and issue framing dictate the range of possible solutions and the result, as William West argues, is that "the most important decisions in rulemaking are tentatively made before procedural constraints go into effect."

IV. A PROCEDURAL ARCHITECTURE ANALYSIS OF THE (STYLIZED) ADVOCACY PLAYBOOK

The procedural architecture analysis is an analytic tool that, when applied to the FCC, yields a detail-rich portrait that illuminates values etched into the Agency that have important implications for innovation policy.

Based upon the original survey in Appendix A and relevant literature, four FCC advocacy strategies can be diagrammed as stylized "plays," which constitute core elements of the "Advocate's Playbook." These plays are not meant to represent an exhaustive list of advocate tools; rather, they are presented as common representations of frequently deployed strategies. These include: (1) leverage the status quo through process and delay; (2) influence agenda-setting and other FCC functions where formal disclosure requirements are relaxed or nonexistent; (3) dominate information flows to decision-makers; and (4) carefully nurture personal relationships so as to affect how policy-makers frame and analyze issues. Each is discussed below.

An improved understanding of why administrative lobbying is effective makes more explicit the values embedded within the Agency's procedural architecture. This approach to understanding the nature of

119. Krasnow, supra note 75, at 90; see Cybertel, Appendix A, § III. Because three votes will be required to effectuate proposed rules from the five member FCC body, and since losing a vote is widely seen as politically compromising and publicly embarrassing for the Chairman, it is often necessary to posture an issue in a manner that is plausible—and even likely—to garner the support of two additional commissioners in order to help get it onto the agenda.

120. Political scientist William West studied this stage across federal agencies and observed that pre-proposal processes are marked by "informal and idiosyncratic" mechanisms that are "not usually constrained by institutional assurances of inclusiveness and transparency." West, Black Box, supra note 14, at 577. There is disparity across agencies since "prenotice participation—its extent, its timing, its content, and the mechanisms through which it occurs—varies a great deal, both across agencies and within agencies from one rule to the next." Id. at 588.

121. Id. at 583.
the Agency departs from traditional methods of analyzing the FCC’s institutional patterns, which typically examine the Agency’s observable work product—viz., its substantive law and policy decisions—or the roles and incentives of individual policy-makers at the FCC.

The approach presented by this Article, focusing upon the actions and strategies of parties who advocate before the FCC, provides a useful, additional prism by which to analyze values etched into the institution. In particular, this Author finds that process and fairness are valued over efficiency and dynamic change. Additionally, outside sources of expertise are valued over resources inside the FCC. And finally, opacity and transparency in the rulemaking process are more equally valued than is generally appreciated. Each of these systemic insights is relevant to how institutional dimensions of the Agency affect innovation. This Section distills four repeat plays used by FCC advocates before the Agency. It then examines how advocate behavior in response to the procedural architecture of the FCC reflects systemic institutional tilts that affect FCC policy-making outcomes.122

A. “The Procedure Is the Outcome.” Leverage the Status Quo Through Process and Delay

Perhaps the most important consequence of the FCC’s procedural architecture is the power it gives to the status quo, which, in turn, influences advocate behaviors before the FCC. Advocates who wish to alter the status quo face an uphill battle; advocates who defend the status quo are advantaged.123 A host of factors combine to make the status quo powerful.124

Slowing the speed by which a matter progresses through the regulatory process is among the most important tools available to an administrative advocate opposing change and defending the status quo. As Owen and Braeutigam highlight, the “jurisprudentially laudable set of constraints on agency behavior has an interesting side effect, which is the creation of substantial delays and legal expenses.”125 Common variants of the delay “play” available to advocates include the slow roll (e.g., requests for extensive and time-consuming testing and re-

122. As Owen and Braeutigam highlight, “certain important aspects of the policy-making process are constrained to follow rules that bias the outcome in predictable ways . . . .” Owen & Braeutigam, supra note 11, at 20.
123. As former FCC Chairman Reed Hundt writes, “In our current era of politics, many factors militate against changes in policies.” Hundt, supra note 27.
124. Baumgartner et al., supra note 72, at 132. Issue attention scarcity of regulators can make it difficult to get an issue on the regulatory agenda. Id. Another obstacle is the fear of “unintended and deleterious consequences” that policy change would bring. Additionally, regulators may be hesitant to admit prior error in order to effect change. Id. And the status quo may be favored because it is already the result of compromises and experience in the area which reflects an equilibrium of power distribution. Id.
125. Owen & Braeutigam, supra note 11, at 3.
search), deference to self-regulatory body solutions, strategic use of litigation, as well as congressional lobbying. Researchers examining behavior across a variety of regulatory environments—not just the FCC—found that advocates who seek to maintain the status quo are more than three times as likely to emphasize the need for more study about the feasibility for alternatives.

In both de jure and de facto respects, the process-intensive orientation of FCC proceedings provides ample opportunity for parties who benefit from the status quo to accentuate delay and make achieving regulatory change an expensive endeavor. Among advocates seeking to change the status quo, defenders' ability to delay the process disproportionately hinders parties with fewer resources as compared to those with more resources at their disposal. The APA does not mandate that an agency act expeditiously on matters before it. Moreover, specific to the FCC, long-open rulemaking dockets are common because the FCC does not have an institutional norm of nor—in most cases—a de jure “shot clock” rule that would require that rulemaking dockets be completed and closed out in a timely way. The upshot of the FCC's procedural architecture is that a party with limited resources must carefully consider how much money it has to play the regulatory game, how long it can engage in the process before exhausting resources, and the intensity with which it can compete. Meanwhile, “[d]efenders of the status quo can often sit back and do very little.”

Significantly, however, the delay “play” can be used by advocates for any interested party before the FCC—whether a regulated firm, an advocacy organization, an industry group, or other—who is favored by the status quo. Early regulatory treatment of the Internet illustrates the power of the status quo and how it can benefit newcomers. With little regulation in place concerning the Internet, phone companies and others who urged regulation at the outset of the Internet

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127. BAUMGARTNER ET AL., supra note 72, at 138 (17.2% to 4.6%).

128. Costs of delay are “likely to be proportionally much more important to new firms, prospective entrants, and public interest advocates.” OWEN & BRAEUTIGAM, supra note 11, at 4–5.

129. Special access reform, which involves the provision of unswitched, high-capacity services to businesses, presents an illustrative example of open ended decisionmaking. See NUECHTERLEIN & WEISER, supra note 8 at 76–82 (citing proceeding which opened in 2005 but to date is unresolved). On July 31, 2013, the FCC again pushed back the proceeding’s comment deadlines into 2014, a delay that industry insiders believe benefits incumbent telecommunications providers. FCC, Comment Deadlines Extended in Special Access Proceeding (July 31, 2013), https://www.fcc.gov/document/comment-deadlines-extended-special-access-proceeding.

130. See Cybertel, Appendix A, § II.

131. BAUMGARTNER ET AL., supra note 72, at 150.
ternet's growth had to galvanize Agency action around new rules. These forces were unable to carry this burden during the chairmanships of Reed Hundt and Bill Kennard, and, as a result, infant industries had sufficient time to grow into companies large enough to eventually fight regulatory battles.

Where the status quo disfavors a new entrant, Northpoint presents an example of how the regulatory game can exhaust a party's resources and extend the administrative process until a company's primary business model becomes stale. Northpoint involved a decade-long quixotic journey for a would-be new entrant's request to use spectrum licenses in the 12.2 to 12.7 GHz range. In 2004, ten years after it originally approached the FCC and almost six years after the original Notice of Proposed Rulemaking (NPRM), Northpoint achieved a paradigmatic pyrrhic regulatory victory: approval of a service for which its original business plan was no longer viable and for which its resources were depleted. Similarly, regulatory issues where "technical issues dominate the rulemaking," such as the FCC's White Spaces proceeding, are especially susceptible to delay. Open-ended dockets invite extended tests and battles of the experts, which are "especially stressful on companies funded with venture capital—a fact rarely recognized at [the] FCC." For example, the FCC announced a schedule in September 2006 for completion of the TV White Space Proceeding which contemplated a set of final rules in October 2007. Final rules were not adopted until November 2008. As Mike Marcus noted:

While the opponents of this rulemaking favored endless delay, the proponents were "burning through cash" as the Commission delayed its decision month after month. While this is less severe for a division of a major corporation that can work on multiple projects,

132. See Kennard, supra note 48.

133. Hazlett, supra note 7, at 114. In 1994, Northpoint originally reached out to the FCC concerning technology that permitted spectrum sharing through terrestrial use of bands allocated for satellite broadcasting. A promising aspect of the terrestrial system was that it allowed delivery of local broadcast signals to satellite subscribers, a difficult technological problem for satellite providers at that time. Following grant of an experimental license in 1997, in March 1998 the FCC released a NPRM that proposed that the 12.2 to 12.7 GHz Ku band would be shared by Direct Broadcast Satellite (DBS) providers with the new terrestrial service proposed by Northpoint, known as Multi-Channel Video Distribution and Data Service (MVDDS). This initiated a chain of events involving Congress, interference testing, and multiple court appeals. In January 2004 an auction was finally held for the MVDDS licenses. While this process played out, DBS providers found solutions to the local channel problem.

134. It sat out the January 2004 auction and instead went to court where it lost its last battle—as well as the war—before the D.C. Circuit in July 2005. See Northpoint Tech., Ltd. v. FCC, 412 F.3d 145 (D.C. Cir. 2005).

135. Wagner, supra note 94, at 1326; Marcus, supra note 32, at 10 (discussing Docket 04-186).

it is a severe problem for a VC-funded startup, the basic engine of the “new economy.”\textsuperscript{137}

Notably, the pivotal role of the status quo in dictating the arguments and tactics of advocates and affecting agency outcomes reveals an insight about values embedded into the FCC’s procedural architecture namely that rights in the status quo are favored over dynamic changes. The institutional nature of the FCC favors fairness—even if delayed—over timely efficiency. The procedural exactitude of the APA vests in “individuals and firms some legal rights to the status quo.”\textsuperscript{138} Indeed, one explanation for the FCC’s procedural architecture is that, much like insurance and agricultural price supports, it serves to protect “human as well as financial interests from the shocks and blows of market forces.”\textsuperscript{139}

This insight highlights a point missed by observers who exclusively focus upon who is advantaged and disadvantaged in the regulatory process (big versus small; incumbent versus newcomer; public versus private interests). Such discussions are important; however, they obscure a fundamental point: the procedural architecture of agency processes—especially at the FCC—systematically favors the side of the status quo. At the FCC, as Baumgartner et al. found across regulatory contexts, “[O]ne of the best predictors of success in the lobbying game is not how much money an organization has on its side, but simply whether it is attempting to protect the policy that is already in place.”\textsuperscript{140} This insight has important implications for the FCC’s ability to create conditions conducive to innovation, as we will discuss in Section V, infra.

B. Take Advantage of Expertise Two-Steps Removed: Win the “Information Capture” Battle

Persuasive comments filed in dockets, submission of credible empirical data, and availing ex parte meetings are critical tools in effective FCC advocacy. This is because information upon which the FCC relies is generally informed by external inputs rather than generated from within, or commissioned by, the Agency itself.\textsuperscript{141} This underscores the importance of providing information, resources, and data to the Agency. Supplying evidence and data is particularly important because “the agency has few research resources” and institutional knowledge “can be very shallow.”\textsuperscript{142} FCC norms and APA require-

\textsuperscript{137} Id.
\textsuperscript{138} OWEN & B\textsc{braeutigam}, supra note 11, at 2.
\textsuperscript{139} Id. at 21, 24 (noting that “[n]oneconomists are great respecters of sunk costs”).
\textsuperscript{140} BAUMGARTNER ET AL., supra note 72, at 6.
\textsuperscript{141} Concerning regulation overall, the “growing research consensus” is that the “currency of lobbying is the costly information that lobbyists provide to decision makers.” Id. at 123.
\textsuperscript{142} See Cybertel, Appendix A.
ments make the Agency heavily reliant upon outside resources for the information upon which decisions are made.

Even beyond APA-mandated opportunities for input, FCC cultural norms generally encourage consideration of expert information from sources external to the Agency.143 The FCC leans heavily on information provided by regulated and unregulated companies, public interest organizations, industry groups, and others from outside the Agency. This approach has merit, at least to a reasonable extent, given that the fast-changing technologies often implicated in FCC matters make it difficult to stay abreast of complex issues without assistance from the parties involved in such changes. But it also makes the Agency susceptible to information capture whereby advocates strategically control information flows to promote special interests at the expense of public-welfare-maximizing results.144 A savvy advocate with sufficient resources can leverage the Agency’s information collection methods to advantage by a careful calculation of how much, what type of, and when to provide information for Agency consumption. Further, issues posed by the FCC in NPRMs can be structured in ways that outsiders unschooled by the ways of the Agency find puzzling to engage. Moreover, large repeat players before the FCC possess resources to enlist technical and economic analyses that smaller entities cannot afford.

One permutation of the information capture strategy, for example, is to “co-opt the experts” by hiring academics as consultants and advisors who produce reports commissioned by private parties.145 Funding research centers and think tanks is another way to leverage experts. Public interest advocate Harold Feld highlights the growing demand by policy-makers for “empirical economic evidence, persuasive economic theory, or other forms of social science analysis to support policy” and opines that the “mass of evidence compiled” by well-heeled parties have allowed them to control public policy debate.146

FCC administrators face the same information overload challenges that other agencies and individuals face in a digital age, “how to make sense of the avalanche of information that comes . . . from every direction.”147 As a result, an additional advocacy tactic is to process voluminous amounts of publicly available information in a manner that is difficult for others to do. This strategy is effective “precisely because there is an enormous amount of policy-related information out there

143. Advocates are encouraged to volunteer ideas and people to FCC administrators who speak authoritatively about an issue. Krasnow, supra note 75, at 28 (“meetings with the FCC hold a special place”).
144. See Wagner, supra note 94, at 1331 (addressing environmental regulatory processes).
145. Owen & Braeutigam, supra note 11, at 7.
146. Harold Feld, Necessary Knowledge for a Democratic Public Sphere: Creation of a Shared Culture of Skills and a Vocabulary Between Advocates and Academics 2 (unpublished manuscript) (updated version on file with Author).
147. Baumgartner et al., supra note 72, at 124.
policy makers and their staffs would (and do) incur considerable costs to sort through and locate what is relevant, credible, useful or being used by others.\textsuperscript{148} This creates opportunity for advocates to help policy-makers interpret and make sense of what is often a deluge of information.\textsuperscript{149}

Two dimensions of procedural architecture explain why advocacy strategies based on information capture repeat. One, FCC procedural architecture favors acceptance of outside information and, indeed, makes it difficult for the Agency to reject or fail to consider information. Advocates for open governmental processes, inspired by the spirit of Justice Brandeis's admonition that "sunlight is the best disinfectant," promote objectives concerning transparent administrative processes and deliberations. To effectuate this goal, the APA prescribes extensive rulemaking participation rights and mandates that significant comments must be "considered" by the Agency.\textsuperscript{150} In order to avoid reversal by the courts, as noted in Section III supra, an agency has an incentive to develop rules that are "more complex, detailed and lengthy" than necessary.\textsuperscript{151} Legal considerations flowing from the APA and subsequent court interpretations create requirements and incentives for the Agency to accept and consider materials submitted from external sources into the Agency's record.\textsuperscript{152} As a result, the FCC processes voluminous amounts of information.

It is not inevitable that a government entity proceeds this way. Other government forums, such as the courts, use tools such as the discovery process, page limitations, and time constraints to require parties—rather than the decision-maker—to bear costs of information processing and economize their submissions to the decision-maker.\textsuperscript{153} But requirements governing the FCC, combined with the FCC's norm of relying upon outside resources and \textit{ex parte} meetings, afford the Agency few mechanisms to exclude information.

Two, the FCC's shortage of in-house economic and technical expertise is a critical factor that contributes to information capture. As described in Section III(C), commissioners are not necessarily leading subject-matter experts when they gain appointment to the FCC, and in any event, commissioners lack the time sufficient to conduct independent research across FCC proceedings. This elevates the importance of the FCC staff who act as intermediaries responsible for sifting through much of the information presented to the Agency. The FCC

\begin{footnotesize}
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  \item \textsuperscript{148} \textit{Id.}
  \item \textsuperscript{149} \textit{Id.} at 125.
  \item \textsuperscript{150} 5 U.S.C. § 553(c) (2012).
  \item \textsuperscript{151} Wagner, supra note 96, at 1355.
  \item \textsuperscript{152} \textit{Id.} at 1357–59 (noting that doctrinal demands drive an agency "to engage in defensive overkill" because in "the rulemaking environment created by the case law, every comment that raises a credible-sounding issue, even a peripheral one, must receive a complete and detailed response.").
  \item \textsuperscript{153} \textit{Id.} at 1330.
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is stocked with many individuals at the staff level who possess deep domain expertise. But several factors result in staff reliance upon non-independent outside resources to a degree that is suboptimal.

The first challenge relates to the dearth of economists and technologists in commissioner advisor roles and senior management positions. Additionally, with respect to the Agency’s in-house expertise, some portion of the FCC’s technical staff—who are there for the long term—grows stale insofar as their core expertise often concerns yesterday’s technologies. On problems where the FCC’s expertise is limited, moreover, it is difficult for the Agency to marshal independent information or analysis. Budget and procedural constraints are prohibitive in terms of time and money for the FCC to regularly commission independent research. As a result, the FCC’s common practice is to lean heavily upon outside parties, often with a direct interest in a matter, to provide the information on which the FCC will base its policy decisions.

While the FCC has too little access to independent research, there is reason to suspect the Agency also suffers from too much privately provided information. Wendy Wagner, writing in the environmental law context, describes this as a “filter failure” problem. Filter failure causes an agency to be inundated with excessive amounts of information. Advocates strategically flood the agency “with more information than it can absorb”—for example, in a manner designed to drown other voices or obscure bad facts. As Wagner notes, transparency advocates did not foresee “that a dense cloud of detailed, technical, and voluminous information would move in to obscure the benefits of transparency.” Where stakes are high, parties with sufficient resources to enable access to experts with relevant information can load information into the system and exhaust opponents with disproportionately fewer resources or less motivation to engage in the

154. Marcus and Schneir’s research highlights that the FCC is out of step, with respect to the ratio of economists and technologists to attorneys, compared to the way communications regulatory agencies are staffed in other nations. See MARCUS & SCHNEIR, supra note 105.

155. Even where budget permits outside research to be commissioned, one FCC official off the record estimated the time requirement for approval to be approximately a year to navigate the required budget approval, Paperwork Reduction requirements, and the procurement process for outside, independent research.

156. See Marcus, supra note 32, at 6 (“Other regulatory agencies contract for outside technical support, particularly in rapidly evolving areas where they may not have sufficient staff with the right expertise . . . [A common reason] to the nonuse of both is the lack of budgeting for such outside expertise at FCC.”).

157. A notable exception to this is the outside resources commissioned by the FCC to complete the National Broadband Plan.

158. See Wagner, supra note 94, at 1328 (defining filter failure as a “refusal of administrative law to make an effort to optimize the amount or nature of information entering or leaving the system”).

159. See also OWEN & BRAEUTIGAM, supra note 11, at 4.

160. See Wagner, supra note 94, at 1324.
regulatory process. Extensive reports and expert battles also relate to the play that uses delay to leverage the status quo.

Information capture strategy, in view of the Agency's procedural architecture, reveals the insight that the FCC is a curious version of an "expert" agency. Data and information, as well as interpretations of such information, from outside parties are generally privileged over expertise inside the Agency. Put plainly, the ultimate source of expert information is often not independent. Outside expertise is often two steps removed from commissioners who serve as decision-makers. Outside experts frequently provide information to staff, and staff then provides information that may influence how commissioners vote.

C. Influence Laws Prior to Public Notice off the APA Radar

Advocates attempt to affect agenda-setting and influence policy at nascent stages of the policy-making process. Once an issue is formally pending before the FCC, advocacy is largely on the record because permit-but-disclose rules govern communications between advocates and Agency staff and commissioners. These requirements, however, do not attach to communications before or after an issue is formally pending before the Agency. In this respect, the FCC is not unique among federal agencies, as this element of procedure is guided by the APA. Private meetings with staff and commissioners before an item is part of a pending proceeding—i.e., during the proposal-development stage—are not subject to ex parte filing requirements.

Advocates' communications to administrators early in the cycle of rulemaking during the pre-proposal phase can be particularly valuable. As one FCC advocate advised:

Get in on the process at the early stages if you can. Policy development is an evolving process, the earlier you can get in on the process, the more you can help shape the thinking, the interim product and the end product (if there is ever truly an end product).
Other academic studies concerning administrative advocates, not specific to the FCC, find that the period before public notice of a proposed rulemaking is the most opportune time to influence decisions. West’s interviews with administrators indicate that the proposal-development phase commonly involves interaction between administrators and the “usual suspects” of advocates—viz., practitioners associated with business and professional groups—who dominate such off-the-record communications.

Conference presentations, panel discussions, email exchanges, workshops, focus groups, and public hearings each provide a forum to message FCC decision-makers at nascent stages of discussion, or even before a matter is on the regulatory radar, because these exchanges occur when an issue is still being conceptually framed. Issue framing at the FCC is important because technology policy matters are typically subject to multiple ways in which questions are presented. Underscoring the importance of issue-framing, one technology policy advocate invoked the parable of the blind man and the elephant:

Any regulatory question that is remotely complicated has many aspects—market, technical, consumer, legal—and can be presented in different ways. Use the parable of the...elephant to your advantage: Is your case served by presenting elephant-as-rope, elephant-as-wall, elephant-as-tree, or elephant-as-snake?

In addition to issue framing, consensus building with important industry stakeholders as well as other government bodies occurs during the proposal-development phase of a rulemaking. Work conducted by administrators prior to public notice naturally results in momentum

167. West, Black Box, supra note 14, at 592 (citing Furlong and Kerwin studies).
168. West, Formal Procedures, supra note 11, at 74; see also West, Black Box, supra note 14, at 577 (describing “informal and idiosyncratic” mechanisms associated with pre-proposal phase which are “not usually constrained by institutional assurances of inclusiveness and transparency”).
169. See West, Formal Procedures, supra note 11, at 70.
170. Timing can also be of great consequence. For example, one advocacy strategy is to galvanize placement of an issue on the agenda before a vested interest forms in opposition to a proposal. This is because “once policies are in place and institutions have developed and adapted to those policies, it is a lot harder to get changes.”
171. This parable highlights how perspectivism, especially circumstances in which humans know one piece of a larger whole but are unable to see the whole picture, leads to multiple—and often erroneous—interpretations of the functions of individual parts.
172. Cybertel, Appendix A, § IV (“The thought experiment I perform at the beginning of an engagement is typically something like, ‘What has to be true about the world in order for a win for my client to be the right thing to do?’ Then I work to assemble elephant-fragments to make the case that the world is, in fact, that way.”).
173. West, Black Box, supra note 14, at 582 (“[P]roposal development also frequently includes efforts to coordinate with and secure buy-in from external constituents such as affected groups and other agencies.”).
that carries over into on-the-record rulemaking.\textsuperscript{174} This is because agency resources are invested in the proposal-development phase, which results in "sunk organizational costs, psychological commitments, and political momentum" even before public notice of a proposed rulemaking.\textsuperscript{175} The role of the FCC Chairman is critical because, as explained in Section III(C) \textit{supra}, the chair controls the FCC agenda as well the Agency's staff resources (except for staffers specifically assigned to the other Commissioners).\textsuperscript{176} Related to the chair's power, the FCC lacks a transparent policy for promptly deciding whether to act on filed petitions requesting Agency action.\textsuperscript{177} As one observer opined, "The chairman gets what the chairman wants as long as he finds two other votes. The rest is detail."\textsuperscript{178}

Advocacy during the Agency's proposal-development phase reveals an insight about a pragmatic balance etched into procedural architecture by the APA: values of transparency and open participation are elevated in \textit{evaluation} of proposed administrative laws;\textsuperscript{179} however, opacity and insider participation is permitted in \textit{formation} of proposals and in Agency agenda-setting. This dual approach, where proposed laws are formulated in the shadows outside of the APA and then evaluated in APA-mandated light of a public record, reflects the negotiation of a tension between the need for transparent decision-making and the necessity that policy-making is often a give-and-take enterprise that may function better off the record.\textsuperscript{180} As Peter Strauss ob-

\textsuperscript{174} Once an item reaches the rulemaking stage, the Agency is "well-advised to dump all it has learned from extensive pre-NPRM discussions directly into the preamble of the proposed rule." Wagner, \textit{supra} note 94, at 1368.

\textsuperscript{175} West found that an average duration for the proposal-development phase across different federal agencies is five years. West, \textit{Black Box, supra} note 14, at 580 n.6.

\textsuperscript{176} Cybertel, Appendix A, § III. As a practical matter, with a few exceptions most issues are not pursued or brought to a vote unless it is at the Chairman's command. Merger determinations and well as other actions required by statute are automatically voted upon.

\textsuperscript{177} Among other benefits of interpersonal connections, discussed below, a favorable relationship can enhance an advocate's chances of finding a "champion" within the government who will take a cause or project forward. Cybertel, Appendix A, II.

\textsuperscript{178} Cybertel, Appendix A, § III.

\textsuperscript{179} \textit{Ex parte} meetings and filings after the closing of comment periods, discussed in Section IV(C), are a notable exception.

\textsuperscript{180} Additionally, media presents another way to influence decision-making outside of the formal constraints prescribed by the FCC's procedural architecture. \textit{See}, e.g., Cybertel, Appendix A, § II. While media has always been important, a notable development is the rise of advocacy efforts that involve social media tools. \textit{See} Cecilia Kang, \textit{Undercover Persuasion by Tech Industry Lobbyists, WASH. POST}, April 24, 2010, at A01. Traditional media act as gatekeepers who mediate and shape messages, filter opinions, fact check assertions, and moderate the amount of content available to a given perspective. In contrast, social media provides parties a more expansive and less filtered platform. Social media enables advocates and their clients to engage in more direct advocacy efforts than traditional media and, often, affords the choice of whether to be transparent concerning the source of information. \textit{See id.}
serves, "[M]uch as our society values openness, it remains true that
candor and the flexibility necessary for collaboration or compromise
are more likely to flourish in the shade."[181] The opacity-transparency
compromise aspect of procedural architecture favors advocates who
are known to the Agency and possess information or positions that
are valuable.[182]

D. Carefully Cultivate Personal Relationships

Some FCC insiders recoil at the cynical notion that Agency advoca-
cy is a crass game where lobbying efficacy turns on the strength of
personal relationships rather than availing legal or policy analysis.
This reflects an institutional norm where emphasis on personal rela-
tionships—e.g., "I know Person X and she will help me achieve policy
goal Y"—falls outside acceptable patterns of formal persuasion. Ad-
vocacy that explicitly emphasizes personal relationships and political
connections as a rationale for decision-making—whether favorable or
as a potential threat—is eschewed and likely will backfire.[183] Accep-
table patterns of persuasion instead portray the decision-maker as an
objective and public-interested actor able to divine the public welfare
as part of a legitimate and functional agency process. Despite these
rhetorical norms, personal relationships are nonetheless routinely cul-
tivated and carefully nurtured by the best FCC advocates.[184]

The FCC’s procedural architecture rewards personal relationship
for four notable reasons. One, the Agency’s institutional norm is to
consult outside expertise and this leads to relationships where the
FCC is asking an individual for what amounts to a favor. Staff will call

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In addition to providing an unmediated outlet where an advocate and its client can
exercise control over communications, social media also effectively enables advocacy
during times in which direct contacts are embargoed, such as during the Sunshine
period when an item is on circulation.

Recent anecdotes, additionally, suggest that the rise of social media over the past
decade has enabled new and effective ways to help groups surmount collective action
challenges. For example, at the federal level, the SOPA/PIPA debate was strongly
swayed by the public attention and Congressional lobbying of many Internet-facing
companies and interested individuals. At a state level, the car service Uber, which
commonly faces opposition from taxi and other car service providers in front of regu-
larly bodies, has leveraged social media to galvanize grass roots support for its bid
for regulatory legitimacy. See, e.g., Brad Feld, The Colorado PUC Trying To Shut
archives/2013/01/the-colorado-puc-trying-to-shut-down-uberdenv.html.


182. West, Black Box, supra note 14, at 589 ("[A]lthough agency officials indicate
that they make assiduous efforts to consider all relevant data and viewpoints, most
participation in proposal development occurs at their specific invitation.").

183. See, e.g., KRASNOW, supra note 75, at 56 (citing former Chairman Reed
Hundt’s discomfort "with lobbying that involved blatant or personal appeals," as well
as discouraging thank you letters to staff or commissioners after a favorable result).

184. Of course the FCC is not the only regulatory context in which personal rela-
tionship matters. See BAUMGARTNER ET AL., supra note 72, at 15.
individuals whom they perceive as experts—even those not directly involved in a proceeding—for advice and information on issues in which the FCC needs assistance. Savvy practitioners and experts jump at this opportunity to advise FCC staff and commissioners as it affords an individual the opportunity to develop a trusted relationship with staff over time.\textsuperscript{185} Two, such relationships increase the likelihood of an internal champion within the Agency able to help get an issue onto the agenda and through the process.\textsuperscript{186} Three, the FCC staff is career public civil service and many individuals are employed with the Agency for a significant period of time. Meanwhile, the FCC's subject-matter jurisdiction and rulemaking orientation mean that the same players are repeatedly before the FCC. Unlike the episodic nature of action at an agency that is not sector specific, the same interests and individuals are often involved again and again in subsequent matters at the FCC, which motivates investment in deeper relationships. In addition to connections to political appointees, advocates highlight the importance of relationships with staff who are "there for the long term."\textsuperscript{187} On this score, FCC culture is distinctive as close regulator-regulatee relationships are part of communications industry norms.

The repeat-player nature of the communications industry, where advocates are consistently in front of the FCC across different matters, facilitates personal relationships. This is in contrast to other agencies, such as the Federal Trade Commission, where matters are more isolated and norms do not embrace close regulator/regulatee relationships. At the FCC, social events are a crucial part of a strategy to "establish long-term personal relationships transcending any particular issue" with FCC decision-makers.\textsuperscript{188} For example, the Federal Communications Bar Association has a variety of professional and quasi-professional functions that routinely bring regulators and advocates together, including fundraising and volunteer events. And the annual "Chairman's Dinner"—where the FCC Chairman hosts members of industry and communications law advocates—is perhaps the strongest illustration of the norm of close regulator/industry relationships.

A fourth reason to cultivate relationships is that it helps advocates refine their messages and tune them for a specific audience. The Agency is not a monolith, and, in order to be effective, each "contact must be carefully tailored to the background and personality of the

\textsuperscript{185} Knowing the persons involved in a regulatory matter—even if not "full FBI clearance level of knowledge"—can "really help" an advocate's cause.

\textsuperscript{186} Baumgartner et al.'s research on the regulatory process \textit{writ} broad underscores how important the role an internal champion may be. They found that 41\% of the "major actors" involved in regulatory matters were government officials advocating a change or a position on a policy matter. \textsc{Baumgartner et al.}, \textit{supra} note 72, at 21.

\textsuperscript{187} Cybertel, Appendix A §§ I, III.

\textsuperscript{188} \textsc{Owen & Braeutigam}, \textit{supra} note 11, at 6.
official being lobbied.” Regulatory folklore includes stories of the monopoly-era AT&T compiling files on each agency official. Whether true or not, advocates highlight the importance of knowing the backgrounds, responsibilities, and values of the Agency personnel involved. “You should have some inkling of the other person’s view of the world in question, and a bit of personal knowledge about the person can help with that.”

Consistent with the Agency’s norm of relying upon and welcoming external inputs, advocates emphasize physical proximity as an element of human interaction and recognize that geography matters, and they underscore that in-person meetings are preferable to written comments alone. This strategy helps personalize an issue so that policy-makers are considering people, not abstract institutions or companies, when they make decisions.

A final dimension relevant to the importance of relationships is the consensus that, irrespective of the message, the messenger matters. Credibility and a trustworthy reputation for expertise are important. A strategy that flows from this belief, consistent with agency capture theory, is to take advantage of the Agency’s revolving door: “[h]ire lots of lobbyists who left the agency you wish to have favors [from]—preferably a former commissioner.” A related strategy that emphasizes the messenger is to co-opt top law firms by keeping leading firms on retainer in an effort to keep potential competitors away from them due to conflict of interest requirements.

As a practical matter, the importance of personal relationships in policy-making is difficult to quantify and almost certainly varies with the issue and individuals involved. But the care that advocates take to nurture relationships with FCC Commissioners and staff suggests that personal aspects are important to effective regulatory advocacy.

189. Id. at 7.
190. Cybertel, Appendix A, § II (The comment stressed that an advocate should “know something about the PERSONS involved—the key legislators, key regulators, key lobbyists, key industry executives, key interest group leaders, and key staff to all of those. It need not be a ‘full FBI clearance’ level of knowledge, but sometimes knowing a favorite activity or pet peeve of a key person can really help.”).
191. Id. at 15.
192. Id.
193. Id. at 15 (“Be prepared . . . You waste your time and hurt your credibility if you start trying to advocate on a policy matter before you are really prepared.”).
194. Id. at 15.
195. OWEN & BRAEUTIGAM, supra note 11, at 7 (“The Washington law firm is essential to success in the regulatory game.”).
196. Association of positive outcomes with personal relationships may relate to what psychologists refer to as “motivated reasoning.” Erica Dawson et al., Motivated Reasoning and Performance on the Was on Selection Task, 28 PERSONALITY & SOC. PSYCHOL. BULL. 1379, 1379 (2002). People tend to approach propositions with a bias in favor (e.g., “Can I believe this?”) or against (e.g., “Can I reject this?”). Particularly where multiple outcomes are plausible, “people’s wishes have a powerful influence on their beliefs.” Id.
V. VALUES EMBEDDED INTO PROCEDURAL ARCHITECTURE IMPede INNOVATION

Procedural architecture analysis is a tool that informs "whether the constitutional arrangements that confine public administration promote the process values they are designed to promote." It underscores that processes tilt toward some substantive outcomes and away from others. A different procedural architecture may better serve FCC objectives by adapting to twenty-first century communications industry realities. Subsection A examines the chasm between the ideals of administrative process and today's FCC. Subsection B then provides a template for re-architecting the Agency, based upon insights from the procedural architecture analysis, which emphasizes three insights for reform: (1) truncate time frames; (2) bulk up FCC expertise; and (3) increase administrative tolerance for uncertainty.

A. Gaps Between Agency Ideals Expressed in Administrative Process Theory and FCC Procedural Architecture

Administrative process theory (APT), a regulatory theory focused upon institutional design, provides a helpful framework for considering FCC reform. Like the more familiar regulatory theory, public choice, APT seeks to explain and predict administrative out-

197. West, Formal Procedures, supra note 11, at 67 (Institutional policy analysis "should tell us whether the constitutional arrangements that confine public administration promote the process values they are designed to promote. It also should tell us whether those values are realistic in light of what agencies are called upon to do.").

198. It is tempting to focus upon the Agency's shortcomings in isolation, and then make judgments based upon this analysis. But this is inappropriate. Evaluating an institutional arrangement is ultimately a comparative matter. See, e.g., NUECHTERLEIN & WEISER, supra note 8, at 371-76 (comparing FCC to other institutional arrangements). To date, no compelling case has been presented as to what a post-FCC institutional arrangement would look like. As a practical matter, the reform path is likely to be pursued in the near term.

199. In contrast with idealized regulatory settings posited by other theories, such as the public interest theory of regulation, public choice theory provides a realpolitik lens for interpretation and prediction of legislative and agency activity. W. Kip Viscusi et al., Economics of Regulation and Antitrust 313 (3d ed. 2000). Public choice explains regulation based on the core assumption that the individuals who craft and enforce regulation are rational economic actors that should be expected to prioritize their individual interests. "Individuals, when acting as voters, politicians, or bureaucrats, continue to be self-interested and try to maximize their utility." Lemieux, supra note 74. Regulated parties take advantage of regulators' incentives and engage in "rent seeking" (e.g., behavior seeking private benefits through regulatory decisions) since, where "there is value to be gained through politics, persons will invest resources in efforts to capture this value." Buchanan, supra note 60, at 15. One gloss on public choice depicts an iron triangle whereby interest groups capture Congress, Congress controls administrative agencies (via control levers such as budget, oversight hearings, and legislative ability to control the agency's scope of authority), and agencies in turn provide benefits to special interest groups. Crole, supra note 3, at 16-17. On this account, agency processes then provide "camouflage" for how decisions are made and extend the ability of special interests to capture regulatory rents. Id. at 23-24, 72. Over time in a regulatory world of rational economic actors, accord-
Unlike public choice, however, APT argues that a well-structured administrative agency can produce good policy. As John Mayo observes, public choice theory often suffers from confusion insofar as descriptive aspects of a positive theory are construed as a normative guide. This confusion masks opportunities to improve regulation because it focuses "attention on the political determinants of regulation rather than on its efficiency consequences."

APT posits that a regulatory theory is incomplete if it does not properly account for the "centrality of the administrative process" as it relates to regulatory outcomes. As Croley explains:

[Regulatory outcomes are a function of—and therefore explicable only with reference to—the formal and informal administrative process rules that agencies employ, as well as administrators' motivation and the institutional environment in which administrators make regulatory decisions.]

APT is premised upon three essential claims: (1) administrators are motivated to advance what they believe to be the public interest; (2) agencies enjoy significant autonomy from other branches of government, including Congress; and (3) agencies possess competency ing to public choice theory, special interests (viz., actors who enhance their private interests) are generally expected to dominate public interests (viz., actors who aim to enhance overall public welfare) in capturing regulatory benefits due to a superior ability to solve collective action challenges. See generally Mancur Olson, The Logic of Collective Action: Public Goods and the Theory of Groups (1965).

Public choice approaches of regulation, however, suffer notable shortcomings. With respect to Congressional control of agencies, for example, public choice broadly ascribes uncharitable motivations to individual administrators who are presupposed to elevate self-interests over public interests. This is a contestable claim since, for example, the genuine private interests of some administrators may in fact be to serve public interests. Croley, supra note 3, at 37, 46–47, 56. Moreover, public choice fails to fully account for administrative processes, a forceful criticism given the process-intensive constraints under which an agency operates. Id. As an empirical matter, inconsistent with agency capture, there exists a "long list of regulations that were not supported by . . . industry and have resulted in lower profits." Viscusi et al., supra, at 318 (critiquing capture theory).

200. Conceptions of regulatory theory focus on their theory's consistency with available evidence and descriptive accuracy about how future events will play out. See Croley, supra note 3, at 70; Viscusi et al., supra note 199, at 313 (citing George J. Stigler, The Theory of Economic Regulation, Bell J. of Econ. & Mgmt. Sci. 2, 3–21 (Spring 1971)).

201. Of course theories beyond public choice and administrative procedure exist; however, no alternate account has gained wide acceptance and public choice theory remains the dominant prism today. For a summary and critique of neo-pluralist, public interest, and civil republican theories of regulation, see Croley, supra note 3, at 54–61.


203. Croley, supra note 3, at 68–69 (It is "puzzling why [other] leading theories of regulation . . . seek to explain and predict regulatory outcomes without close attention to the specific processes by which these outcomes are generated.").

204. Id. at 239.
and neutrality sufficient to get to the "right" answer.\textsuperscript{205} Per Croley, as a consequence of proper administrator motivation, relative agency autonomy, and sufficient competency, administrative regulation may "well serve broad-based interests far more often than public choice theory and conventional wisdom suggest."\textsuperscript{206} APT does not assert that agencies will always get it right, however, it departs from public choice in allowing that agencies \textit{can} conduct policy-making that benefits public welfare, maximizing interests. APT's vision of agency regulation ascribes primary importance to observable administrative processes and institutional details. Among regulatory theories, APT presents an intriguing alternative to public choice insofar as APT gives weight to the import of administrative processes that are understated by public choice.\textsuperscript{207} Further, APT presents an attractive alternative to the public choice account insofar as APT allows that agency regulation can produce better results than public choice would predict. In sum, APT provides a potential normative guide for FCC reform.

Procedural architecture analysis of the FCC, however, provides a disquieting contrast to the sanguine regulatory possibilities presented by APT. Where administrative process ideals are frustrated by the FCC's procedural architecture, values that the FCC desires to achieve are undermined. In particular, APT's competency and neutrality claim assumes deep expertise within regulatory agencies.

The competency and neutrality claim posits that "[a]gencies are equipped to assess information about regulatory ends and means, and in particular to do so with informational independence from those interests with the biggest stake in regulatory outcomes."\textsuperscript{208} Indeed, regulatory agencies are presumed sufficiently staffed such that they "are not dependent upon regulated parties for either information or expertise."\textsuperscript{209} Robust internal agency resources protect an agency from information capture and, according to APT, help explain why agencies are competent and neutral in their regulatory work.

Procedural architecture analysis, however, shows that the FCC looks like a circus mirror distortion of the expert agency picture hypothesized by APT. Sources external to the FCC are required for both information \textit{and} expertise. In terms of information collection, institutional norms encourage reliance upon \textit{ex parte} meetings and external contacts with stakeholders. At the same time, FCC procedural architecture frustrates efforts by administrators to commission independent outside reports and analyses. Additionally, opacity in the pre-proposal

\textsuperscript{205} \textit{Id.} at 72-74.
\textsuperscript{206} \textit{Id.} at 73.
\textsuperscript{207} See generally Weiser, \textit{Institutional Design}, supra note 69, at 676 (underscoring the importance of understanding institutional processes based upon "actual operations of administrative agencies"—as opposed to theoretical understandings of administrative law).
\textsuperscript{208} \textit{CROLEY, supra} note 3, at 75.
\textsuperscript{209} \textit{Id.} at 294 (emphasis added).
phase of rulemakings, as permitted by the APA, allows administrators to consult the "usual suspects" during the period when problem formation and issue framing typically occur. Further, in terms of expertise, FCC commissioners who ultimately vote on major issues—such as approval of final rules—are often selected for political reasons and subject-matter expertise is uneven across commissioners. Rarely do individual Commissioners have economists or engineers as dedicated advisors. And, as shown by Marcus, senior management at the FCC is out of step with typical ratios of economic and engineering expertise featured at international peer agencies.

Yet, even if the competency and neutrality claim does not hold for the FCC today, the question remains whether changes to FCC procedural architecture could create different conditions tomorrow. Phil Weiser has noted that, overall, consensus is building that "the question is not whether to reform the agency's operations, but how to do so." Procedural architecture analysis explains why the elevation of innovation as a policy goal relative to other objectives—absent attendant changes to procedural architecture—is unlikely to yield a regulatory environment amenable to timely telecommunications innovation. This is because the FCC has been architected for functions different than the role it is increasingly asked to now perform.

Subsection B turns to normative questions associated with reforms.

B. Re-Architecting the FCC: Changes to Help Create Conditions Conducive to Innovation

If innovation is an objective that needs to be elevated vis-à-vis other policy priorities, then changes to procedural architecture are war-
As industry innovation cycles shorten, Agency shortcomings become more acute absent changes to the FCC's procedures, resources, and institutional arrangements. Especially problematic are the effects of two dimensions of FCC procedural architecture: (1) outside sources of expertise are valued over resources inside the Agency; and (2) the power of the status quo in elevating values of due process and fairness over efficiency and dynamic change.

It is important to bear in mind that changes to procedural architecture entail trade-offs. The description of the pronounced attributes that define the FCC's procedural architecture does not alone suggest systemic Agency dysfunction or militate in favor of radical restructuring. Rather, it suggests that often-hidden priorities and values are served by existing procedural architecture. Promotion of innovation from new entrants would require some demotion of existing values.

Consistent with the old economic adage, innovation policy-making is not and will not be a free lunch. Yet it is necessary. This Author believes that innovation policies will need to be elevated vis-à-vis other objectives due to economic necessity as well as the close relationship between human flourishing and communications.

This Article provides a template for re-architecting the Agency, based upon the procedural architecture analysis, which emphasizes three insights for reform: (1) truncate time frames; (2) bulk up FCC expertise; and (3) increase administrative tolerance for decision-making based on limited available information, mindful of the FCC's sector-specific role versus other institutions.

On the first score, FCC norms of open-ended and lengthy rulemaking proceedings entail procedural and substantive uncertainty. Procedural uncertainty relates to the length of time and resources required to reach an outcome. Substantive uncertainty relates to unpredictability about what a rulemaking's outcome will produce. It is procedural uncertainty that can be most dramatically reduced. Procedural uncertainty, particularly the uncertain duration of FCC decision-making, has important consequences for capital formation needed to buoy invention and innovation. Overall, "because the agency's flawed processes undermine the ability of investors and entrepreneurs to predict how and when the agency will act, the FCC's institutional processes discourage new firms from developing technologies that will...

213. As Owen and Braeutigam highlight, "certain important aspects of the policy-making process are constrained to follow rules that bias the outcome in predictable ways." OWEN & BRAEUTIGAM, supra note 11, at 20.

214. Substantive uncertainty undermines the value of "determinacy" as discussed by NUECHTERLEIN & WEISER, supra note 8, at 367 (arguing that a first principle of institutional reform should be that industry "knows as quickly as possible what the ground rules for competition policy will be and can predict with reasonable precision how those rules will be applied").
depend on FCC decisions." In the monopoly telecommunications environment in which the Agency originally operated, the ability of regulated firms to attract capital was not a central issue. But in a competitive environment, the ability of regulated firms to attract risk capital at reasonable prices is a critical requirement for innovation.

Procedural uncertainty can be better managed by FCC emphasis upon background rules that set boundaries for company conduct and reduce instances in which permission is required before innovation goes to market. One of the most celebrated instances of this approach is the FCC's designation of unlicensed spectrum at 2.4 GHz. The FCC in 1985 created the spectral equivalent of a public park at 2.4 GHz. So long as devices obey certain rules, anyone could use the spectrum park for nearly any type of use without obtaining advance permission. Innovation has flourished in this bandwidth; the emergence of the Wi-Fi standard is a celebrated example. The 2.4 GHz approach set forth boundaries for conduct, eschewed broad regulations that targeted a particular issue with prescriptive ex ante guidance, and thereby minimized the enshrinement of standards and practices that existed when the 2.4 GHz rules were enacted.

Procedural uncertainty can also be reduced through more disciplined strategic planning. The FCC historically pursues rulemaking in an ad hoc fashion responsive to parties' requests and political winds, rather than setting its agenda over time with reference to a disciplined strategic vision. This prevailing ad hoc norm has a long history. Governmental reports from 1949 and 1960, respectively, criticized the FCC's failure to "define its primary objectives" and concluded that the Agency is "incapable of policy planning." To this day, on political matters, the FCC more often than not acts from a reactive posture, without the benefit of a proactive plan motivated by a coherent vision. It is true that the Agency is statutorily required to articulate a

215. Weiser, Institutional Design, supra note 69, at 693. Determinate rules are important to induce investment that finances innovation. "The more determinate these ground rules are, the more comfortable investors will be in placing bets on the future of [communications] industry, and the more likely it is that innovators will obtain financing to put their ideas to work for the public good." Nuechterlein & Weiser, supra note 8, at 367. The FCC is properly criticized for its rules that lack clarity and engender uncertainty among affected parties. For example, ambiguity associated with the FCC's definition of harmful interference invites disputes about spectrum rights. See Pierre de Vries, Radio Regulation Summit: Defining Inter-channel Operating Rules (2009), available at http://www.silicon-flatirons.org/documents/misc/OOBSum mit/Inter-channelSummitReportv1.0.1.pdf.

216. Mayo, supra note 2, at 144.


218. Id. at 682 (citing Comm. on Indep. Regulatory Comm'n, Comm'n on Org. of the Exec. Branch of the Gov't, Task Force Report on Regulatory Comm'n 95 (1949)).


220. See id. at 695–96; Abernathy, supra note 109.
periodically updated strategic plan. As a practical matter, however, the FCC’s strategic plan tends to be a perfunctory exercise with limited utility. Indeed, with a few exceptions, sometimes involving a congressional prompt, a traditional norm of FCC operation is that a strategic agenda seldom serves as the driving determinant for which issues the FCC addresses or how FCC energies are allocated.

Shot clocks for FCC dockets, whereby decisions must be made on a certain time frame, are another tool that would reduce procedural certainty by providing guidance concerning timing that today does not exist. One dimension of uncertainty is that the FCC has no formal policies about responding to petitions for FCC action, such as a petition for rulemaking. More importantly, the average length of a rulemaking proceeding is incongruous with innovation cycles in communications. A one-year shot clock, triggered by publication in the Federal Register and with extensions only upon good cause showing, would force the FCC to better operate at industry speed. Slow administrative processes delay implementation of innovative services and cause uncertainty that in turn deters investment. As Owen and Brawtigam observed about the FCC, “[A] major effect of the administrative or regulatory process is to attenuate the rate at which market and technological forces impose changes on individual economic agents.”

The FCC process, while “designed to be fair and deliberative,” can seem especially “slow and plodding to business people used

223. See Weiser, Institutional Design, supra note 69, at 695 (describing Chairman Bill Kennard’s vision of “A New Federal Communications Commission for the 21st Century”). Another notable exception is the National Broadband Plan completed in Spring 2010 (NBP). NATIONAL BROADBAND PLAN, supra note 28. The NBP is a congressionally mandated document that provides a strategic path forward for the future of broadband communications in the United States. Id. It is informed by data analysis and targets specific rulemakings as part of a coherent path forward. Id. It is not clear, however, how effective the NBP will prove to be when it comes to implementation. Notably, there are three significant hurdles. One, the Commissioners did not vote on the NBP so it is not clear exactly which voting members at the FCC support which proposals. Two, a large amount of the NBP was researched and authored by special contractors who worked as temporary federal employees. Most of these individuals will not remain as part of the permanent FCC staff, whose role is critical and needed in order to implement the NBP proposals. And three, in a somewhat ironic twist, much of what is proposed in the NBP amounts to the FCC pushing back work to Congress. Many of the NBP’s proposals, such as incentive auctions, require congressional action before the FCC would have the power to take them.
224. OWEN & BRAU'TIGAM, supra note 11, at 23–24, 28. While often economically inefficient, this may nonetheless be welcome since “[m]arket forces, particularly those associated with innovative activity, necessarily pose a threat to human beings with less than instantaneous adaptive capabilities.”
the accelerated pace of 'Internet' time."  

A contributing factor to the length of decision-making is the FCC's frequent use of notice and comment rulemaking. This approach reflects an institutional norm, not an institutional necessity. Extensive use of notice and comment rulemakings reflects the FCC's institutional choice not to widely utilize quasi-judicial proceedings, especially those led by an administrative law judge (ALJ), or to primarily rely upon *ex post* competition policy enforcement as is the practice of the Federal Trade Commission.  

Relatedly, FCC policy-makers should take cognizance of maturation and evolution of other, non-sector-specific agencies. FCC decision-making takes place in a context in which the Agency can regulate *ex ante* where necessary while, where appropriate, deferring to substitutable institutions able to address other questions *ex post*.

A second emphasis for a re-architected FCC must focus upon in-house Agency expertise. The twin realities of opacity in the pre-proposal phase and information capture during FCC notice and comment rulemaking are problematic. Procedural architecture analysis shows how the FCC's excessive reliance on outside inputs and analyses, including the *ex parte* process, makes it vulnerable to information capture. Bolstering the Agency's engineering and economic capacities is a start to securing expertise sufficient to permit independent analysis of information presented by advocates to the FCC. Related to this, a disciplined Agency strategic plan would assist the FCC in identifying the types of experts that are likely to be needed in the coming years, as well as direct potential in-house efforts to build a base of knowledge in an issue-area. The strategic plan would help discipline the FCC's allocation of resources through an agenda that promotes an integrated policy vision.

Special problems for newcomer and startup firms flow from FCC reliance upon outside sources of expertise over expert resources inside the Agency. Reliance upon outside sources of expertise supports the observation that "the nature of administrative law makes it virtually impossible for one important interest group to be represented – that group which does not exist until the proposed change has been made, and which could be organized or even identified only after the change." In the pre-proposal phase detailed by West, newcomers are less likely to be consulted or to sustain the needed resources to affect agenda-setting and issue framing. Following notice of a pro-


226. *Croley*, supra note 3, at 87, 110. Indeed, the FCC today has a limited number ALJs on staff (one, to be exact) and commonly permits other agencies to "borrow" these individuals.


posed rule, nascent services are difficult to value, and small firms looking to provide such services often lack resources to navigate the regulatory process. While ICT innovation can come from companies large or small, disproportionate impact upon startups is a concern. Incumbent firms often have adequate resources to produce innovation, however, concerns about disruption to existing business models can lead to incumbent ambivalence toward innovation. Small and newcomer firms often struggle with resources to produce innovation; however, they have strong incentives to resolve such difficulties and deploy innovation where possible.

Four additional steps should be considered to enhance Agency expertise. One, the FCC should have the budget and ability to commission independent research from outside parties on a regular basis. Specialized issues do not always warrant hiring an expert in-house. It would boost the Agency’s capabilities; however, if it could call upon independent outside researchers such as MITRE to assist with testing and analysis. Two, the FCC should consider a trial rotational program that would provide industry and academic opportunities for its engineers. Career civil public servants may be leading-edge expert engineers when they arrive at the Agency; however, it is difficult to maintain leading-edge expertise on new technologies without in-the-field research experience. To be sure, risks of agency capture would need to be guarded against, but the potential benefits of expertise make a trial program worthwhile. Three, the FCC should establish an innovation office expressly designed to confront the challenge that tomorrow’s companies have few lobbyists today. One model to consider is the equivalent of the Office of Native Affairs and Policy, created by the FCC in 2010 pursuant to the National Broadband Plan recommendation. The new innovation office would act as an in-house advocate for innovation with respect to agenda-setting and issue framing, press the Agency for greater use of background rules to set boundaries for company conduct and reduce instances in which permission is required, and serve as a resource to help startup companies unfamiliar with the FCC to navigate the Agency’s process and institutional structure. And fourth, Commissioners should be experts, and they should be empowered by an FCC institutional norm that provides access to expert staff resources. Part of the justification of a multi-member panel, such as the FCC, is to get the benefits of redundancy (i.e., multiple expert viewpoints to guard against error). Where commissioners are not experts, or they are not provided sufficient information to become expert on an issue, the benefits of panel redundancy are undermined.

229. CHRISTENSEN, supra note 18.
230. See Lewis A. Kornhauser & Lawrence G. Sager, Unpacking the Court, 96 YALE L.J. 82, 89 (1986).
Finally, as another broad area for FCC procedural architecture reform, administrative tolerance for market uncertainties will need to increase if the FCC is to create conditions conducive to innovation. Under the APA and judicial review, "the ultimate goal of procedural accountability is to ensure that proposals are based on sound factual and legal premises" and, accordingly, "due process is designed to ensure that decisions are accurate."231 Note that there is an inescapable tension between exacting information requirements, which seeks to reduce uncertainty as much as possible in order to make precise decisions, and the nature of disruptive innovation, which occurs amid environments of tremendous uncertainty and entails risk. Two dimensions merit elaboration concerning the need for administrative tolerance for market uncertainties needed to create conditions amenable to disruptive innovation.

One, as discussed in Section IV supra, APA and judicial review focuses administrators on building records that are complete and demonstrate "sound premises" for decisions. This helps explain why the FCC's alliance with the status quo presents a barrier to innovation. In particular, the burden of proof in administrative processes favors information collection concerning what can be known today. Yet this requirement is squarely in tension with uncertainty inherent in innovation. Innovation is fundamentally about risk and disruption amid uncertain predictions about the future. Venture capital funds make many bets about innovation, with the understanding that a significant percentage of their portfolio companies will fail, some will perform adequately, and a few will achieve spectacular returns.232 At the time of investment, large information gaps make it impossible to know which companies, technologies, and markets will flourish. Given incomplete information, a robust and impenetrable record for an administrative decision—sufficient to withstand judicial review and other forms of oversight scrutiny—is unlikely. As a legal matter, judicial oversight pursuant to the APA may need to be relaxed where an agency makes decisions amid uncertain conditions with incomplete information.

Two, elevation of innovation objectives requires a tolerance for failure. In order to create an Agency more amenable to innovation, oversight from political branches would need to understand the shifting role of the FCC. For every 2.4 GHz unlicensed success story enabled by the FCC, there need to be failures, such as the FCC's forays into Broadband over Power Lines. Some technologies won't advance. Con-

231. West, Formal Procedures, supra note 11, at 68–69.
sumers will be left with products phased out. Markets will fail to emerge. The key, however, is that failure occurs fast and that another generation of products and services is permitted to replace the failed ones.

VI. Conclusion

Procedural architecture analysis provides a tool to facilitate close examination of agency norms, procedures, and human resource capabilities. Moreover, the tool incorporates observable evidence concerning how advocates behave in order to consider whether institutional features of the agency explain why repeat strategies appear effective. Collectively, these institutional details provide insight relevant to the determinants of regulation. This Article's analysis reveals systemic FCC institutional leanings that are in tension with oft-stated innovation objectives and, moreover, suggest that FCC procedural architecture reform is necessary in order to better achieve the Agency's substantive innovation goals. Future study could extend use of the procedural architecture tool to analyze institutional architectures beyond the FCC. Procedural architecture analysis across agencies would enable valuable comparisons of institutional resources and tendencies.

APPENDIX A

THE CRAFT OF TECHNOLOGY POLICY ADVOCACY

Preface

On January 10, 2010, members of the Cybertelecom (Cybertel) list were asked if they knew of "an excellent text or starter set of materials concerning the 'how to' advocacy aspects of technology law policy." It took the group just a week and fifty-two responses to collectively say, "no."

Happily, the collective answer went further. Members of the list set about helping fill what appears to be at least a partial literature gap. This resulted in a set of ideas that make progress toward creation of a document that provides guidance to newcomers concerning technology policy advocacy.

The Author has tried to play curator: impose a conceptual structure for the whole, but let the individual contributions and ideas stand for themselves. Quotes signal language directly provided by an individual from the Cybertel group. Individual attribution is avoided to be consistent with the candid dialogue encouraged by the rules and norms of the Cybertel listserv.

The Author regrets any omissions or mischaracterizations. This is also the part where the Author is supposed to say that errors are his
own; however, as a social production good, this really is not the case. Credit and blame—although there is more of the former than the later—ultimately belong to the group that generously contributed the ideas herein.

This document is an open source creature. Input and additions are welcome. Suggestions for future revisions should be sent to the Author via email at brad.bernthal@colorado.edu.

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ABOUT THE CRAFT OF TECHNOLOGY POLICY ADVOCACY

This is a document produced by members of the Cybertel listserve, which aims to provide guidance to newcomers concerning technology policy advocacy.

Instruction about policy advocacy necessarily overlaps with other areas—e.g., substantive legal expertise, public choice-style considerations, economic and technical familiarity, etc. An emphasis on techniques and strategies is worthwhile as it isolates a critical but perhaps under-examined dimension of technology practice: how to become a great advocate. The particular focus here is on advocacy before the FCC.

This is a start. A fully realized project would serve two objectives for practitioners who are new to FCC matters: (1) provide and build a mental model concerning effective techniques salient to technology policy advocacy; and (2) truncate the practice learning curve so that the path to mastering advocacy is straighter than the standard learning techniques of trial and error, mentorship, and ad hoc experiences alone. It bears mention that this discussion is, on balance, value-neutral insofar as the document is user agnostic. The techniques and strategies here are useful irrespective of whether an advocate is representing the public interest, a well-heeled client, or an individual consumer.

The existing compilation is a small contribution toward a possible larger project, which would achieve the twin objectives identified above. If nothing else, this current document serves as a helpful checklist of starting considerations. A more ambitious project would require fleshing out case studies and use of theoretical frameworks (among other things).

Contributions are sorted into an outline format. The material is organized into five sections. Section I, META OBSERVATIONS, sets forth background suggestions for new practitioners that relate to policy advocacy. Section II, ADVOCACY SITUATED IN A BIGGER PICTURE: RE-
sources, Branches, and Political Realities provides a broad brush framework of the larger policy-making context. Section III, Skillful Navigation of FCC Institutional Processes and Structures, focuses on the importance of agency organization, process, and the roles of people who work at the FCC. Section IV, The Persuasive Request: Effective Communication and Messaging, emphasizes rhetorical, framing, and positioning strategies designed to achieve favorable outcomes. Finally, Section V, How to Learn the Craft of Technology Policy Advocacy, provides additional guidance on the path to becoming an expert practitioner.

I. Meta Observations

1. Learn the craft. “[Technology policy advocacy] remains more craft than science.” This guide is a start. For next steps, see additional thoughts on “how to” learn the craft in Section V infra.

2. Domain expertise in substantive technology policy is mandatory.
   a. Acquire deep substantive domain expertise. “The most important thing, in my experience, is for the regulatory practitioner to actually know what they are talking about.”
      i. Learn relevant precedents and develop pattern recognition. “As someone once said, those who ignore the pasta are destined to reheat it. Yes, we’re in the magic new world of the Internet and all that, but I have found it very helpful to have a pretty good sense of how the industry has developed. Feel free to go back to Bell, Marconi, Strowger, et al., but the minimum requirement seems to me to be from about the FIRST AT&T antitrust case (the one in the 1950s) onward. For example, in some important ways, Net Neutrality and (oh, the horror!) regulation of the Internet is just Computer I, redux.”
      ii. Know the technology. “Understand the technology underlying whatever the issue is. Sometimes it matters, sometimes it doesn’t, but if you don’t know it yourself, you’ll be vulnerable to bogus technical claims by the other side, and you won’t be able to make insightful, valid technical claims of your own.”
      iii. Closely read the record, statutes, regulations, and associated orders. “It may well be that your issue turns on some vague thing like ‘just and reasonable,’ but every once in a while there actually is a provision of law directly on point. That doesn’t necessarily mean you’ll prevail, particularly against big, well-funded opponents . . . But sometimes you will (e.g., the Bright House v. Verizon retention marketing case).”
      iv. Know the concepts and terminology of the prevailing economic paradigm. “Be fluent in whatever the current eco-
nomic policy idiom happens to be. For most of my career that has meant being able to speak Chicago School Libertarian. Going forward it probably means being able to speak Careful Correction of Market Failure. But if you present your arguments in the wrong idiom for the times, people will just look at you funny.”

3. Don’t underestimate luck en route to expertise. “[L]ike a songwriter looking for that elusive ‘hit,’ or the actor looking for that ‘big break,’ most [public interest advocates] pursue their interests because they don’t have a choice; their DNA is crying out to keep going, and luck is more a factor than anything in pursuits.”

4. Have perspective on the panoramic process.
   a. The process and issues are messy. “There are always multiple stakeholders with varying, something inconsistent interests, and many political forces. Some days you win. Some days you lose. . . . Do not throw a hissy fit when you lose! If you burn down the house when you don’t get what you want, you make it all the harder for tomorrow’s game. Politics is rough stuff . . . . Good advocacy doesn’t mean burning down the house.”
   b. Cultivate relationships. “[Y]ou have to carefully cultivate your relationships among staff as well as among political appointees. Staff is there for the long term.”
   c. Develop a trustworthy reputation for expertise. “Be prepared . . . . You waste your time and hurt your credibility if you start trying to advocate on a policy matter before you are really prepared.

II. Advocacy Within a Bigger Picture: Resources, Branches, and Political Realities

1. Know the prevailing political winds that affect policy-making.
   a. Climate matters. “[T]he right political climate [is] an overlay—i.e., it was not a good experience being a CLEC or indie ISP in the reign of Bush/Powell/Martin.”
   b. “Even little guys have ways to affect the process that don’t really have a lot to do with ‘the merits’ as normally understood, and can sometimes use those ways to prevail over larger opponents. As examples I’d throw out the defeat of the ‘modem tax’ in 1987-88 and the defeat of Tauzin-Dingell in 2001-02. The relevance of politics means that a practitioner has to have a pragmatic understanding of what is actually going on politically, untainted by their own political views/preferences.”

2. Strategize across relevant decision-makers and branches of government, whether legislative, judicial or regulatory, federal or state.
a. Consider the courts. “[T]ake them to court regularly, you have to hit it once.”

3. Focus upon relationships, empathy, and understanding the incentives of decision-makers and public policy makers.
   a. Find a “Champion.” Among potential decision-makers and policy-makers, “find a ‘champion’ [in government] who cares about the project.” But “expect your champion to not care about you if something else comes up, or a large donor whispers in their ear.”
   b. Know the personal aspects. “[K]now something about the PERSONS involved—the key legislators, key regulators, key lobbyists, key industry executives, key interest group leaders, and key staff to all of those. It need not be a ‘full FBI clearance’ level of knowledge, but sometimes knowing a favorite activity or pet peeve of a key person can really help. You should have some inkling of the other person’s view of the world in question, and a bit of personal knowledge about the person can help with that.”
   c. Know the pressure points. “Since most (if not all) of the decision-makers are politicians, framing your arguments in political terms will make them notice. Watch their body language and facial expressions. If you ask ‘Do you want to be the one to explain to your constituents why you voted to raise rates?’ you’ll get a much different reaction then if you concentrated on cost structures, declining costs and Pareto optimal effects. Along this line, pick up the phone and call reporters, offer to brief them, to forward them filings you’ve made and to just generally keep them in the loop. They will appreciate that.”

4. Think ahead to unanticipated advantages, second-order effects, and unintended consequences.
   a. “[I]dentify policy changes that are good for you before there is a vested interest on the other side. Once policies are in place and institutions have developed and adapted to those policies, it is a lot harder to get changes. An example or two:”
      i. CD History. “IIRC, about the time CDs entered the market, the music industry got changes to the copyright statute that essentially outlawed CD rentals. (Title 17, United States Code, Sections 501 and 506) They pushed for this change before there was any significant CD rental industry. This statutory change did not save the industry, but it probably postponed for 5 or 10 years, the widespread copying and sharing of recorded music.”
      ii. DTV. “Consider digital television in the U.S. and three interest groups, broadcasters, set manufacturers, and the public interest community. As best I can tell, the set manufacturers got a great deal, the broadcasters probably lost
more than they gained. (They got to buy a lot of new equipment and operate it in parallel with their old equipment for most of a decade. They still have only one must-carry channel on cable and satellite.) The public interest community was absent during the key technical and political arguments that defined the current structure of over-the-air broadcasting. (There is a slight exception to this general statement. Richard Solomon and others at MIT made some filings on modulation technologies.)"

b. *Try to dissuade your client or boss from ill-advised or myopic positions.*

i. "The ILEC industry pushed for reciprocal compensation from CLECs at relatively high rates—and won. Then they were surprised and dismayed when CLECs appeared that were net traffic sinks."

ii. "The motion picture industry fought against the VCR—taking the fight all the way to the Supreme Court. Within a few years after they lost at the Supreme Court, industry revenues from prerecorded movies on tape exceeded box office revenues."

c. "Always leave your opponent an 'out.' If your position essentially destroys them (or a key element of their activities), and there is any chance of you succeeding [see Subsection 3 above], they will fight you to the death."

5. Be aware of how much money you have, how long you can engage the process before running out of resources, and the intensity with which you can participate.

a. *Be realistic.* "[L]et me be very specific—around 1997-200X, after we realized the Telecom Act wasn't a fix, a group of us worked to have the networks actually opened to competition, which they weren't in many areas, especially for ISPs—and remain open. And, as everyone on the list knows, the ISPs, CLEC were clobbered, regardless of the lobbying, the meetings, the 'close allies,' etc. There were some dents, like when we filed the Reg flex challenge as part of the Triennial, the FCC actually had to dedicate 10 pages to explain why we were totally wrong and they were right—or, sue them—No lawyer wanted to take the case that we could find—without raising $100K. But, like a bad steamroller, the FCC, with the telcos, were able to erase entire sections of the Telecom Act. Some of the lawyers on this list were part of the fight, but, we didn't have the resources to lobby, the 'rocket' docket and other FCC-related 'helps' were embarrassing."

b. *No need to be fatalistic.* "[If it were all about money], why would I win against forces that outspend me and my allies so thoroughly? Money is a piece of it. As in professional sports,
it buys you the best players and the best equipment and conveys an enormous advantage. And it is certainly the way to bet over time. But it doesn't predetermine outcomes, and many wealthy parties spend their money foolishly."

6. Understand how the public profile of an issue—high or low—affects policymaking and strategy.
   a. The profile spectrum. "[A]t one end [of a profile scale] is the clash of the titans where large firms have lots at stake, and perhaps where other stakeholders are actively engaged. And perhaps on this end of the scale may be the issues that fit on a USA Today headline. At the other end of the scale is the mundane. Under the radar proceedings that deal with small issues, are not in the headlines, and are not on the radar screen of large stakeholders. This may be where a tower is sighted. It may be spam rules for cell phones. Something that may have a significant impact on the day-to-day operations of a small stakeholder. If you enter the pond where you are arguing against MegaCo or StakeholderCo or WhateverBig Thing, yes, surprise, your opponent is big. If you enter the pond where, frankly there are just a few small fish, and your arguments are not even necessarily oppositional, you will have a different experience. I am not arguing that you should aim for the small ponds. I am arguing - listen to what everyone has said - and realize that your experience may vary - and it will depend on who the other fish are in the pond, how deep the pond is, and whether you are fly fishing or using a bobber."
   b. Where a high-profile issue creates high profile splits, small players can find opportunities. "There is an old saw that goes, 'When the armed services fall out, the Congress can find out,' meaning that when big fish are disagreeing with each other, small fish can play pivotal roles—not only in tipping to one side or another, but perhaps in pushing to a third possibility."

7. Use the press, blogosphere, and academic experts to assist the message.
   a. Think broadly about communications channels. "Take advantage of all means of communications: File comments, comment on official blogs and social media, write blogs, issue press releases, have FAQs up on your website, communicate with your members of congress, call people, write an editorial, do a presentation at a conference, present a paper at TPRC."
   b. Use the press. "Get press—this is also hit and miss . . . . [B]e ready to be attacked if you start getting press; the more you get, the more they will attack you."
   c. Co-opt the experts.

8. Find and cultivate allies, but read Machiavelli.
a. Trust and mistrust others. “[A]llign with others who care about it is great until you actually want your allies to actually do something you believe in that is not a direct hit to their own agenda . . . . Machiavelli should be read.”

b. Look for alignment of interests. “It also helps to cultivate wealthier allies on specific issues. That’s as much about interests as it is relationships.”

III. Skillful Navigation of the FCC’s Institutional Processes and Structures

1. The FCC is not a monolith.
   a. Know the roles, incentives, and functions of different individuals inside the agency; anticipate how individuals analyze and use information on the issue at hand.
      i. “Write a one page executive summary. Staff is going to summarize your comments; you might as well do the work for them.”
      ii. “Meet with both the decision makers and the civil servants. The decision makers have the authority and ultimately set the policy. The civil servants do all the grunt work and need to be educated and provided information in order to draft their work.”
      iii. “10,000 comments filed saying exactly the same thing is probably not too useful. One comment filed representing a wide consensus of representation, with a well made argument, is probably more useful.”
      iv. “Leave a very short summary of your argument with the government official when you visit. Give them something to use to remember the argument and something they can use inside the agency.”
      v. “If it’s a USA Today headline topic, it’s probably highly politicized and politically charged (there will be political agendas). If it is a really under the radar issue, staff may have a lot of influence over outcome and hard evidence and facts can be tremendously useful.”

2. The “process is the outcome.” Know the process and consider how it affects your desired outcome.
   a. Know the organizational chart and agenda-setting roles of individuals within the FCC.
      i. “The chairman gets what the chairman wants as long as he finds two other votes. The rest is detail.”
      ii. “The Chairman controls all of the staff resources, except for the [personal staffers assigned to each] Commissioner. The Chairman controls the agenda; thus, if he does not have the votes for an issue, it never comes up at all.”
iii. "There are occasional exceptions. Occasionally, an issue has to be decided by some specific date, otherwise a default comes into force due to some statutory or court-imposed time limit."

1. "The Bright House retention marketing case was an interesting example of this. The Chairman controls the Bureaus, including Enforcement, and the Chairman favored the defendant in that case (Verizon). So the initial Bureau order went against us. But then on appeal it turned out that the vote was 4-1 against the Chairman. As I understand it there are some special internal procedures for handling matters that have to go out where the Chairman necessarily can't control the process."

b. **Understand an issue's status as a matter of procedural posture.**

"Know where you/the agency/the decision makers are in the process, and what the process looks like ahead and advocate accordingly. If an agency is just beginning a rulemaking process, for example, staff will be very open to big picture thinking. If the agency is in the final throws of trying to finalize a rule—staff will be frustrated by people who want to just talk big picture ideas, but may be open to brilliant or even workman-like fixes to small but important drafting problems . . . . If you are not sure where you/the agency/the decision makers are in the process, ask. People are usually more than willing to walk you through the process."

c. **Be early, but be ready.** "Get in on the process at the early stages if you can. Policy development is an evolving process, the earlier you can get in on the process, the more you can help shape the thinking, the interim product and the end product (if there is ever truly an end product). . . . [G]etting involved early is good, but don't go into an agency (or whatever the forum is) to meet with staff/decision makers before you are prepared. In the early stage of policy development no one has all the answers—but you have to identify key issues and know where you stand. I can think of a group that once came into advocate on a matter I was working on that truly was not prepared - their only goal was to be the first group in the door. They did nothing to help their position (the contours of which they were uncertain about anyway) and although they came back later with a more coherent position, they had not done anything to establish themselves as go-to people on the issue."

d. Read Bruce Owen and Ronald Braeutigam's, *The Regulation Game: Strategic Use of the Administrative Process* (by George C. Eads 1979 The RAND Corporation).

3. Relationships are paramount.
a. See supra Section II. "[Y]ou have to carefully cultivate your relationships among staff as well as among political appointees. [Regulatory] staff is there for the long term."

b. Meetings preferred to comments alone. "Meet with the gov't reps in person; don't just file comments. Generally, civil servants are very approachable and it is easy to get appointments with them and meet with them. Many are eager to meet with those who are directly impacted by regulatory policy decisions."

c. Be mindful of follow up that results in substantive progress and relationship building. "[M]eetings can have strategic value, especially for a one-off decision. But to have lasting impact, there needs to be follow up. The trick is figuring out how to get the most value out of what you have."

d. Use the revolving door to your advantage. "[H]ire lots of lobbyists who left the agency you wish to have favors—preferably a former commissioner."

e. Geography matters. "[M]ove to DC."

f. Humility. "Don't get lost in the policy, politics, and high and mighty of complicated government stuff. Have humility or it will be served up to you. Early in my career I found regulatory practice to be heady stuff. The money, cases, and government involvement are big and cool. You may work for an agency and come out of it with a big title and think you're on top of the world. You may well be. Remember you either serve a business or a corporation. You serve people. Losing the basics within the realm of big money, big government or big deals is dangerous."

4. Understand the expertise and resource limitations of the expert agency.
   a. Ask for direction. "Even if you think you know where the agency/decision makers are headed ask them—both about process and substance. You can learn a lot by asking."
   b. Support your argument with evidence and data. "The agency has few research resources and, additionally, requires a record for decision-making."
   c. Be helpful. "Volunteer ideas and people. If you think that staff should talk to other people or think about related issues, say so."
   d. Cover the bases. "[E]xplain the basics—don't assume the government officials have any knowledge of what you are talking about. Institutional knowledge in government offices (all government offices) can be very shallow."
IV.  **The Persuasive Request: Effective Communication and Messaging**

1. Make a specific request concerning what you want the policy-maker to do.
   a. **Be specific.** "Pray for relief ('pray' is a legal term meaning 'ask what it is you want the officials to do'). As a judicial clerk I was always amazed by the 20 page well written briefs that were totally well written, where the lawyers forgot to ask the judge to do anything! This happened multiple times. What exactly is it you want the government official to do?"

2. Carefully consider the frame of reference that enables you to win.
   a. **Use the elephant.** "Any regulatory question that is remotely complicated has many aspects—market, technical, consumer, legal—and can be presented in different ways. Use the parable of the wise men and the elephant to your advantage: Is your case served by presenting elephant-as-rope, elephant-as-wall, elephant-as-tree, or elephant-as-snake? The thought experiment I perform at the beginning of an engagement is typically something like, 'What has to be true about the world in order for a win for my client to be the right thing to do?' Then I work to assemble elephant-fragments to make the case that the world is, in fact, that way."
   b. "Imagine the solution you wish to create, then work from there."

3. Frame arguments in terms of the goals and objectives of the "system as a whole."
   a. "Regulators are rarely interested in what is good or bad for your client. They are—supposed to be—interested in what is good or bad for the system as a whole. This may sound obvious, but I've seen this mistake made a lot with complaints."

4. In an attention-deficit age, be ready to version your message, but especially know your "short version."
   a. **The short of it.** "The short version of the story is perhaps the most important. At one or several points of the case, the head of the regulatory authority will have to stand up in front of the press and explain what is being done and why—You need to provide a set of coherent stories for your case—legal, economic, engineering, political and media—comprehensible and convincing at any length of exposition, from a 140 character Tweet to a several hundred page regulatory decision."
   b. "[I]f you positively make your case and how what you are asking makes sense for national goals and policy agendas, you can be persuasive. This is along the lines of getting to yes, and creating win-win situations. If you enter the room confrontational and call everyone [dumb], this falls under 'how to make friends and influence people'—not very effective. My favorite
along these lines was a 1998 ISPCON where I brought loads of agency staff up to Baltimore to the conference. Someone in the audience stood up and started screaming at the agency staff—"you never come to industry conferences . . . . Uhhhhhh-hhhhh. Not very effective."

5. Be mindful that policymaking is a social construct.
   a. "Never forget that the entire regulatory process is a social phenomenon, invented, implemented, and changed by people. It is not abstract. It occurs in the real world, in the flesh. If some result seems basically sensible in human terms it is probably basically sensible. If some result just stinks in human terms, it probably stinks. Because regulators are people, they will perceive these things too, and that matters. Trust your gut."
   b. "Have courage to actually create new things . . . . [New] lawyers may feel bound by the law . . . . Communications practice, in particular, touches nearly every aspect of society." Regulatory practice is often not "rule driven." This "can be a let-down for students coming out of law school who, having learned about rules, how they are made, and how to do things with rules, think they finally get it. For the more creative, it is salvation. The sooner they allow for the fact that cases can be lost on policy even where the rules are in their favor, the sooner that deeper realizations, deeper thinking, deeper creativity, and better lawyering can emerge. From that, hopefully comes the empowering realization that they can use the inherent complexities and flexibility of the regulatory system to create better solutions."

6. Consider an incremental approach that leads to a larger ambition.
   a. Be appropriately modest in substantive reach. "If you want to accomplish and it's big, unless you have a) money b) allies, c) champions, d) press, getting change requires to keep doing it until someone does something that you actually asked them to do."
   b. Irrespective of substantive reach, be modest in rhetoric. "Avoid any implication that your request is radical, novel, surprising, or any similar adjective. (Rewatching episodes of the BBC's Yes Prime Minister is useful here. "That's a very courageous decision, Prime Minister." "Oh my god! Is it?") You want to demonstrate that your request (1) lacks any hint of radicalism or novelty, (2) is wholly consistent with what has gone before, (3) is therefore permitted by the powers of the regulator, and (4) ideally is not just permitted but positively required if the regulator is to act consistently with its allotted powers."

7. Use visuals in a visual age.
a. “Draw [regulators] pictures. Literally, I’ve found that diagramming the central office/distribution/feeder portions of the PTSN to be quite powerful in explaining why telecom is ‘different.’ ... Snapping photos of old and deteriorating infrastructure and having a knowledgeable field engineer explain what the decision maker is looking at is very powerful. When we look around and notice, we realize that we are surrounded by infrastructure and that most of it has sunk into the background. Explaining things that are in plain sight can help people see things in a fresh manner.”

V. How to Learn the Craft of Technology Policy Advocacy

1. Get exposure to an expert who has mastered the craft.
   a. Watch an expert. Some experts are terrific at their craft, but limited in their self-reflection and ability to communicate what makes them great. “‘Watch in action’ someone who is excellent at it.”
   b. Write down what experts say. The craft of technology policy advocacy remains a place where apprenticeship and mentorship can be critical. “Follow Chris Savage around, and write down everything he says.” (Curator’s prerogative: Dale Hatfield comes to mind as fitting this category, too.)

2. Attend a Law School that offers a technology policy clinic with a regulatory practice emphasis.
   b. Colorado Law School, Samuelson-Glushko Technology Law & Policy Clinic (http://www.colorado.edu/law/clinics/tech/).
   c. Stanford Law School, Cyberlaw Clinic (http://www.law.stanford.edu/program/clinics/cyberlaw/).
   d. USC Law, Intellectual Property and Technology Law Clinic (http://lawweb.usc.edu/why/academics/clinics/iptl/).

3. Utilize available books and written resources.
   a. Bruce Owen and Ronald Braeutigam’s The Regulation Game: Strategic Use of the Administrative Process (by George C. Eads C 1979 The RAND Corporation). Owen and Braeutigam’s book is a bare-knuckled assessment of their impressions re: how technology advocacy works. Observations such as “the process is the outcome” remain timely today. They draw largely on case studies—some near forgotten—from the
60s and 70s. The authors' grand swing at explaining why a democracy accepts the inefficiencies attendant to the regulatory process is also of interest.


c. *Non-telecom regulatory advocacy resources,* e.g., *environmental, securities,* etc. “[T]here's lots of materials about ‘organizing’ or ‘lobbying’ or other general areas that should also be explored.”

4. Consider lateral insights and strategies from unexpected sources.
   a. Consider a slow, careful reading of Sun Tzu's "Art of War." Among the things this ancient text advises are:
      i. "You need to fully understand the features of the 'field of battle,' opponents' strengths and weaknesses, and your own strengths and weaknesses, before you make your first move into the conflict."
      ii. "Rulers and commanders may have large and legitimate objectives for the organization, but typically don't have a clue in the world about what actually works in the field. If you permit them to dictate or organize your efforts, you are doomed."
      iii. "If your clear-eyed assessment of the situation is that you have no chance of winning, don't waste your time and resources trying. (Note: This does not by any means rule out feints, etc. If my objective is to ensure that people are aware of a problem, I may passionately argue for a solution to it that I know will never be implemented, simply to change the way people think about the issue over the long term. Obviously, it is an error to assume that an opponent's actual goals are the same as their stated goals.)"
      iv. "Always leave your opponent an 'out.' If your position essentially destroys them (or a key element of their activities), and there is any chance of you succeeding [see Subsection 3 above], they will fight you to the death."

5. Learn to manage a process.
   a. "Good regulatory lawyers are good managers. Because regulatory practice is so intertwined with things so close to the daily operations and bottom line of most businesses, and, for agency attorneys, because the details matter to policy and politics, managing expectations, information flows, and personalities is a critical skill."

6. Consider what your role will be: is your advocacy client-driven or determined by a public good/public interest posture?
   a. "For the newbie lawyer . . . the first choice is whether they believe in something and want take it on, or get a job and be
the advocate for their client . . . is the lawyer doing it for a client or doing it because they believe in it.”

b. Client-based advocacy through larger firm may offer: adequate resources and good training, but less (or little) control over issues and message.

c. An ideal public interest role provides an “institutional framework that allows an advocate the discretion necessary to identify issues and develop a resolution in the consumer and public interest, as well as resources necessary to create the factual predicate to support decisions.”