# The Myth of *Hush-A-Phone v. United States*

Jasper L. Tran

*Abstract*—This paper explores the history of, and addresses certain perceived procedural misunderstandings in, *Hush-A-Phone v. United States* and its progeny *In re Carterfone* to illuminate what the Hush-A-Phone Corporation actually did in its dispute with AT&T prior to the breakup of AT&T's century-long telephone monopoly.

*Keywords*—telephone; communications; *Hush-A-Phone*; *Carterfone*; AT&T; Bell; FCC; D.C. Circuit; administrative law; antitrust law.

The year 1956 marked an important turning point in the history of telecommunications. Before that year, AT&T (American Telephone and Telegraph, then known as the Bell System[1]) had a century-old monopoly on the telephone system, including all attachments.[2] In 1956, the D.C. Circuit came down with the *Hush-A-Phone v. United States* decision ("*Hush-A-Phone*"), permitting a noise reduction systems developed at firms other than Bell to attach to the Bell telephone system.[3] *Hush-A-Phone* shifted the tide in the history of telecommunications and paved the path for another landmark decision, *In re Carterfone* (1968) that permitted another non-Bell (speaker) device to attach to the Bell telephone system.[4] *Hush-A-Phone* and *Carterfone* are recognized as the starting point of the demise of the Bell System's century-long monopoly on the telephone industry.

Despite its centrality to the history of telecommunications, Hush-A-Phone Corporation's defeat of the Bell System has been quite a mystery to many people, including historians and legal scholars.[5] One oversimplification of the story recounts a lunch-break stroll of an AT&T's lawyer, John Steele Gordon, in the late 1940s, in which he saw an advertisement for Hush-A-Phone. Upon learning of "a telephone-related item without going through AT&T, [h]e set out to squash it. He *filed a suit* with the FCC claiming the Hush-a-Phone mouthpiece would cause catastrophic failure of the phone system."[6] In the same vein, Law Professors Tim Wu and Lawrence Lessig in 2003 wrote to the Secretary of the Federal Communications Commission ("FCC"), Marlene H. Dortch, stating: "In the well-known *Hush-A-Phone* decision, AT&T *sought to ban* the use of a simple plastic cup used to facilitate the privacy of telephone conversations as an 'unauthorized foreign attachment.'"[7] Similarly, Steven Shepard wrote in his *Telecom Crash Course*: "In 1948, *AT&T sued* the Hush-a-Phone Corporation for manufacturing a device that physically connected to the telephone network."[8]

But that was simply not what happened.[9] *Hush-A-Phone* was not a lawsuit where the Bell System sued to preserve its monopoly and squash a competitor; rather, *Hush-A-Phone* was a *declaratory judgment* action[10] where Hush-A-Phone, as plaintiff, proactively sued to challenge the legal validity of the Bell System's tariff,[11] which forbade non-Bell attachments to telephone, as contrary to law and invalid. A clear understanding how *Hush-A-Phone* played out procedurally can help scholars appreciate current telephone-war debates.[12] Interestingly, the entire opinion of *Hush-A-Phone* from the D.C. Circuit spans 4 pages, consisting of 9 short paragraphs. Though this writing style was unsurprising for opinions of that date,[13] such bare-

bone decision has often misled scholars. This important yet short decision prompts further investigation and merits commentary.

The study of history is sometime the study of law.[14] This paper traces *Hush-A-Phone*'s procedural history through a journey of tension between the federal agency of telecommunication and the federal Court of Appeals. Part I introduces the history of the FCC and its ongoing tension with the D.C. Circuit for non-legal readers. Part II discusses the Hush-A-Phone device, and follows its journey through the FCC proceeding. Part III continues the *Hush-A-Phone* story at the D.C. Circuit. Part IV then analyzes *Hush-A-Phone*'s influence on *Carterfone* at the FCC. Part V explores life after *Hush-A-Phone* and *Carterfone*, focusing on the breakup of Bell System's monopoly.

### *The F.C.C. and the D.C. Circuit*

Like other independent agencies of the U.S. government, the Federal Communications Commission (more commonly known by its abbreviation, "the FCC") also originated from statute. The Communications Act of 1934,[15] replaced the Federal Radio Commission with the FCC, and transferred regulation of interstate telephone services from the Interstate Commerce Commission to the FCC. As time goes on and new technologies emerge, the FCC has expanded the scope of its discretion.[16] By 1951 (the relevant time period for *Hush-A-Phone*), the FCC could already regulate adequacy, quality, and rates of interstate *and international* telephone services,[17] including the Bell telephone monopoly. As of 2008, the FCC can regulate interstate communications by radio, television, wire, satellite, and cable and in the areas of broadband access, fair competition, radio frequency use, media responsibility, public safety, and homeland security.[18]

The FCC's expansion of discretionary power over time has led to a "fine tension" with the U.S. Courts of Appeals for the D.C. Circuit (known in short as "the D.C. Circuit," or sometime as the second-most powerful court in America[19]). The reason for such tension is quite simple: "Agency actions are necessarily political" because they "apply policy at least partly determined by the political process," whereas courts, including the D.C. Circuit, "are not and cannot be in the policy business."[20] As the D.C. Circuit becomes closely familiar with the FCC's work over time, the D.C. Circuit maximizes its utility by holding the FCC's expansion of discretion in check. The standard of review is simply that the D.C. Circuit can set aside agency decisions, including those from the FCC, if they were "arbitrary or capricious" or not supported by "substantial evidence."[21] As Professor Sheila Jasanoff noted: "[P]aradoxically, . . . lay judges have the power to overturn decisions made by administrative agencies with considerably greater technical expertise and policy experience."[22]

### *In re Hush-A-Phone* (F.C.C.)

In the early twentieth century, the Bell System "controlled not only the telephone network, but also the devices attached to it," such that consumers "rented their phones from A&T, and the company prohibited them from making any modifications to the phones."[23] This sort of horizontal monopoly on both the telephone and its attachments was a huge problem for the Bell System's competitors. It made the Bell System, especially as a defendant with deep pockets, a target for lawsuits. Indeed, the Bell System's breakup began "with a rubber cup."[24]

Since 1921, the Hush-A-Phone Corporation had been manufacturing and selling the Hush-A-Phone device, an acoustical device used with a telephone transmitter as a selective silencing system to provide privacy for telephone conversation and improve reception of transmission.[25] In simpler terms, the Hush-A-Phone device (which can be seen in a Google Images search) was a large plastic funnel enveloping the telephone user's mouth on one end and strapped to the microphone of the handset on the other to muffle the conversation.[26] As to quantity, from 1921 to 1949, the net sales of all Hush-A-Phone models totaled about 125,000, but roughly 85,000 of those (for the pedestal type telephones) were obsolete and no longer in use. Thus, the total number of Hush-A-Phone devices in use as of early 1950 was about 40,000.[27] As such, the Hush-A-Phone Corporation's number was about 0.117% compared to over 35.3 million Bell telephones in service in 1950.[28]

However, the plain language of the Bell System's foreign attachment tariff regulation forbade Hush-A-Phone Corporation's customers from using the Hush-A-Phone device in connection with interstate and foreign message toll and private line telephone service furnished by Defendants.[29] A provision in the nature of such tariff regulation appeared in private contracts with telephone subscribers as early as 1899. The tariff provision first appeared in the Bell System's intrastate tariff schedules in 1913, and since then, the Bell System generally incorporated such provision in all tariffs, both interstate and intrastate.[30] The tariff provision reads, for example: "No equipment, apparatus, circuit or device not furnished by the Telephone Company shall be attached to or connected with the facilities furnished by the Telephone Company, whether physically, by induction or otherwise."[31] Or by way of another example of the tariff provision, "no equipment, apparatus or lines not furnished by the Telephone Company shall be attached to, or used in connection therewith."[32] For consequences, the Bell System's "policy, upon discovering the use of a Hush-A-Phone, is to inform the subscriber that use of the device is contrary to their tariff regulations and to request him to remove it. . . . If the customer does not agree to disconnect the device, he may be informed that the company may discontinue his service."[33] Additionally, after the Bell System informed vendors of the Hush-A-Phone devices, some of Hush-A-Phone Corporation's distributors began to give up selling Hush-A-Phones.[34]

The loss in sales of the Hush-A-Phone devices was significant to the Hush-A-Phone Corporation. On December 22, 1948, the Hush-A-Phone Corporation and its President, Harry C. Tuttle, along with manufacturers, distributors, sellers, and users of the Hush-A-Phone device ("Plaintiffs"), filed a Complaint with the FCC for declaratory judgment (*i.e.*, seeking a declaration of invalidity) against American Telephone and Telegraph Company and 22 other Defendants (collectively the "Bell System" or "Defendants").[35] Like courts, the FCC decides among the competing interests of private parties. The Complaint "attacked the lawfulness of the so-called foreign attachment provisions of [D]efendants' tariffs insofar as they were construed to prohibit the telephone subscriber's use of the Hush-A-Phone device in connection with interstate and foreign telephone service" because they are in violation of the Communications Act of 1934.[36]

On February 1, 1949, Defendants filed their Answer, denying the allegations and arguing that the FCC has no jurisdiction under §§ 2(b)(1)[37] & 221(b)[38] of the Communication Act to grant the relief asked by Plaintiffs.[39] Hush-A-Phone's theory of the case was that "the phone silencer was indeed an ineffective and useful device," and one that the Bell System did not offer. Undeniably, "the strongest part of Hush-A-Phone's case was the technical aspect."[40] The FCC

held public hearings from January 17th to 26th of 1950 to address the issues raised by the Complaint and Answer, as well as: (1) The nature and extent of the public need and demand for the Hush-A-Phone device; (2) the effect of the use of the Hush-A-Phone device on the quality of interstate and foreign telephone services; (3) whether Defendants' effective tariff regulations are properly construed as prohibiting the use of the Hush-A-Phone device; (4) if so, whether the foreign attachment provisions are unjust and unreasonable, and therefore unlawful, and unreasonably discriminatory against the Hush-A-Phone device users; and (5) whether the FCC should prescribe a tariff regulation to permit the use of Hush-A-Phone devices in connection with interstate and foreign telephone services, and, if so, the kind of tariff regulation to prescribe.[41]

On February 16, 1951, the FCC released its Initial Decision, "propos[ing] to deny the relief requested and to dismiss and terminate the proceeding, upon the basis of findings and conclusions sustaining the lawfulness of the tariffs as applied to Hush-A-Phone."[42] Plaintiffs and the Chief of the FCC's Common Carrier Bureau filed exceptions, and Defendants filed reply briefs. Though none of the parties, on their own account, requested oral argument, the FCC, sitting with all the Commissioners, nonetheless held oral argument on November 30, 1951 because of the nature of the case.[43] The question presented to the FCC, as preserved by the exceptions, was "whether defendants' foreign attachment tariff regulations are unjust and unreasonable to the extent that they prohibit the use of the Hush-A-Phone device in connection with interstate and foreign telephone service."[44] The FCC hinged its "just and reasonable" on whether the use of the Hush-A-Phone device impairs telephone service. That is, "if the use of Hush-A-Phones does not impair telephone service, a tariff provision barring use of the device would not be 'just and reasonable' within the meaning of § 201(b) of the [Communications] Act."[45]

The FCC took the case under advisement for *almost five years*. Tim Wu explained the delay: "[T]he FCC elected to stall, allowing [the Bell System] to continue its ban on foreign attachments."[46] Such delays in adjudication before administrative agencies echoes the "inefficacy of the judicial process" that prompts Professor Jasanoff's "concern about the role of courts [and federal agencies] in shaping technology policy."[47] Finally on December 21, 1955, the FCC issued its 28-page Final Decision in favor of Defendants, and "concluded that it was not an unjust and unreasonable practice upon the part of [D]efendants to prohibit the use of the Hush-A-Phone device in connection with their telephone service."[48]

The FCC found that "the use of the Hush-A-Phone device affords some measure of privacy as well as a more quiet telephone wire by reason of exclusion of surrounding noise"[49] and "does not *physically* impair any of the facilities of the telephone companies."[50] The FCC initially appeared favorable to Plaintiffs. But the FCC also found the Hush-A-Phone device, in particular instances, "would be deleterious to the telephone system and injures the service rendered by it, [especially] within the latter category."[51] That was because "the use of the Hush-A-Phone results in a number of effects upon the telephone circuit; a slight loss in intelligibility when used in ordinary conversation, and a greater loss of intelligibility, when used with the objective of obtaining privacy."[52] In sum, the FCC "weigh[ed] against Hush-A-Phone's significant benefit of privacy the 'public detriment' involved in this loss of intelligibility and concludes that it is not unjust and unreasonable to forbid the use of Hush-A-Phone" devices.[53]

The FCC relied heavily on *In re Use of Recording Devices in Connection with Telephone Service*, where the FCC "determined that the furnishing, installation and maintenance of the necessary connecting device should be the responsibility of the telephone companies [to protect against impairment of the telephone service], although the telephone user could provide his own recording device,"[54] and thus, the FCC saw "no reason, in this case, to order a departure therefrom."[55] The FCC explained that it was "necessary and proper that the use of foreign attachments be subject to control by [D]efendants through reasonable tariff regulations . . . to guard against any unreasonable restraints by common carriers" and found it "not possible to measure the public need or demand which may exist for the use of the Hush-A-Phone device in connection with interstate and foreign telephone services."[56] To be clear, the FCC belabored its 28-page opinion with 19 pages, including footnotes, of "Findings of Facts" with tests after tests that Defendants conducted on the Hush-A-Phone device only to later discredit them.[57] Accordingly, the FCC denied the exceptions, dismissed the Complaint, and terminated the proceedings.[58]

### ***Hush-A-Phone v. United States*** **(D.C. Cir.)[59]**

On November 8, 1956, a panel of three D.C. Circuit Judges, David L. Bazelon, Henry White Edgerton, and Wilbur K. Miller, disagreed and reversed the FCC's decision in a brief opinion spanning 4 pages, consisting of 9 short paragraphs. Undeniably, "brevity is the soul of wit."[60] Judge Bazelon, writing for the panel, found that the FCC has no control "to prevent the subscriber from achieving [low and distorted] tones by the aid of a device other than his own body" and that Defendants "do not challenge the subscriber's right to seek privacy[—t]hey say only that he should achieve it by cupping his hand between the transmitter and his mouth and speaking in a low voice into this makeshift muffler."[61]

The 3-0 decision from the panel showed a powerful case of judicial intuition, that the judges understood what was going on and were in agreement in their *ex ante* view of the telecommunication world.[62] The D.C. Circuit found that in cases without "public detriment," where the phone system was not itself harmed, the Bell System had no authority to forbid customers to make physical additions to their handsets and manufactures to produce and distribute those additions. The D.C. Circuit found "no findings to support [the FCC's] conclusions of systemic or public injury," as the FCC already found, to its own detriment, that "using a Hush-A-Phone does not *physically* impair any of the facilities of the telephone companies."[63] Further, the D.C. Circuit found no difference in cupping a hand and placing a plastic funnel on the phone: "In neither case is anyone other than the two parties to the conversation affected. To say that a telephone subscriber may produce the result in question by cupping his hand and speaking into it, but may not do so by using a device which leaves his hand free to write or do whatever else he wishes, is neither just nor reasonable." In short, Defendants' tariffs were "in unwarranted interference with the telephone *subscriber's right reasonably to use his telephone in ways which are privately beneficial without being publicly detrimental*." Thus, the D.C. Circuit set aside the FCC's order and remanded (*i.e.*, returned the case) for further proceedings not inconsistent with this opinion.[64]

Unlike the FCC, the D.C. Circuit hinged the "just and reasonable" within the meaning of § 201(b) on the user's privacy versus public injury, not on whether the use of the Hush-A-Phone device impairs telephone service. On one hand, such line of analysis on individual privacy versus public injury illustrates an instance of Professor Jasanoff's observation that "[d]octrinal

shifts occurred most noticeably, and most controversially, in those areas of the law in which technological change was bound up with profound changes in the public's expectation of liberty, [and] privacy."[65] On the other hand, Judge Bazelon's analysis implicitly heeded Justice Oliver Wendell Holmes, Jr.' wise words from 1896 – "free competition is worth more to society than it costs."[66]

While the short opinion of *Hush-A-Phone* at the D.C. Circuit itself was interesting to ponder, its significance became clear due to what happened after the remand from the D.C. Circuit to the FCC. There, the FCC had to listen to the D.C. Circuit's instructions and similarly "conclude[d] that the tariff regulation is unjust and unreasonable and, therefore, unlawful."[67] The FCC ordered the Bell System to file a revised tariff schedules by May 16, 1957, including rescinding and canceling "any tariff regulations to the extent that they prohibit a customer from using, in connection with interstate or foreign telephone service, the Hush-A-Phone device or any other device which does not injure defendants' employees, facilities, the public in its use of defendants' services, or impair the operation of the telephone system."[68] Accordingly, the Bell System then "revised its tariffs, but in the narrowest sense possible manner. Customer-provided equipment that entailed inter-connection by electrical contact remained totally prohibited, while other devices would have to be proved unharmful."[69] But to fully understand *Hush-A-Phone*'s after-effect, it is worthwhile to revisit another landmark case, *Carterfone*, involving customer-premises equipment.

***In re Carterfone* (F.C.C.)**

"Entry to the market for customer-premises equipment was not truly tested until" *Carterfone*.[70] Invented by Thomas F. Carter, the Carterfone device (which can be also seen in a Google Images search) attached to a separate speaker, functions like today's walkie-talkie, connecting an ordinary phone line to a two-way radio.[71] Between 1959 and 1966, the Carter Electronics Corporation ("Carter") sold 3,500 Carterfones to dealers and distributors throughout the United States and in foreign countries.[72]

Like what it did with Hush-A-Phone, the Bell System "advised [its] subscribers that the Carterfone, when used in conjunction with the subscriber's telephone, is a prohibited interconnecting device, the use of which would subject the user to the penalties provided in the" Bell System's revised tariff. The revised tariff states in relevant part: "No equipment, apparatus, circuit or device not furnished by the telephone company shall be attached to or connected with the facilities furnished by the telephone company, whether physically, by induction or otherwise."[73] "Whenever Bell employees discovered a subscriber using a Carterfone, they would discontinue service, in compliance with the foreign attachment restrictions in their tariffs."[74]

Carter brought a private antitrust suit against AT&T and General Telephone Co. of the Southwest in the Northern District of Texas, challenging the justness and reasonableness of the revised tariff and seeking treble damages and injunctive relief. On February 8, 1966, the District Court deferred to the FCC to determine "the justness, reasonableness, validity, application and effect of the tariff" because of the FCC's "special competence and expertise" in the technical and complex matter of the telephone communication.[75] The Court of Appeals for the Fifth Circuit affirmed on August 17, 1966.[76] The FCC ordered a public hearing on October 20, 1966.[77] On December 21, 1966, Carter also filed a formal complaint, under 47 U.S.C. § 208 of the Communications Act, with the FCC against the Bell System, again challenging the justness and

reasonableness of the revised tariff. The FCC consolidated the antitrust suit and Carter's later complaint on March 8, 1967.[78]

On June 22, 1968, the FCC found (1) that "Carterfone fills a needs and that it does not adversely affect the telephone system," (2) that "the tariff broadly prohibits the use of interconnection devices, including the Carterfone," and (3) that "application of the tariff to bar the Carterfone in the future would be unreasonable and unduly discriminatory." The FCC appeared to have understood the D.C. Circuit's message from *Hush-A-Phone* and did not want to face another reversal.[79] Citing to *Hush-A-Phone*, the FCC "also concluded that the tariff has been unreasonable, discriminatory, and unlawful in the past," struck the revised tariff, and "permit[ted] the carriers, if they so desire, to propose new tariff provisions."[80] That is because *Hush-A-Phone*'s principle "is directly applicable here, there being no material distinction between a foreign attachment such as the Hush-A-Phone and an interconnection device such as the Carterfone, so far as the present problem is concerned."[81] Thus, "the tariff is unreasonable in that it prohibits the use of interconnecting devices which do not adversely affect the telephone system."[82] The FCC's rationale was "based on two primary considerations, each of which was crucial: (a) the AT&T network was a monopoly, [and] (b) the network was regulated via rate-of-return rules."[83]

Like the D.C. Circuit in *Hush-A-Phone*, the FCC's further elaboration on justness and reasonableness elevated *Carterfone* "to the landmark status."[84] As a result of *Carterfone*, the Bell System filed new and revised tariffs, "permit[ting] the interconnection and use of customer-provided terminal devices or communications systems to the telephone message toll and exchange network."[85] Post-*Carterfone*, "any company could sell customer-premises equipment. The market swelled with entrepreneurs selling standard and special-function phones, decorator phones, recorders, chimes, headsets, key sets, PBX, teleprinters, [with names such as] Multiphone, Phone-Mate, Code-a-Phone, Attaché Phone, Selectrons, Tele/Resources, Wren, Codex, Valic."[86] Further, "after the law compelled [the Bell System] to permit third-party hardware to connect, we saw a number of new endpoint devices: new telephone units in various shapes, colors, and sizes; answering machines; and, most important, the telephone modem."[87]

**Life after *Hush-A-Phone* and *Carterfone***

In some way, *Hush-A-Phone* shows that judges can make not only law but history as well.[88] Indeed, "in history, it is only effects and results which count."[89] *Hush-A-Phone* was not only about the Bell System's monopoly, but it was also about curbing the FCC's discretion. That is, *Hush-A-Phone* was novel in the sense that it was one of the first instances of courts, including the D.C. Circuit, intervening to second-guess the FCC's practice, in a way that fundamentally changed the future course of telecommunication regulation.

To elaborate, the rise of the administrative state transferred the power to oversee telecommunications growth to the FCC, and the FCC allowed the Bell System to create, maintain, and enforce its monopoly power through tariffs. The FCC routinely acted to back up the validity of the Bell System's tariffs, even where they could not be justified by either the Bell System's natural monopoly over the telephone service or other legitimate concerns. The fact that the FCC initially supported the Bell System's actions effectively stifled competition and gave would-be competitors little practical recourse. *Hush-A-Phone* came along to challenge not just a single act of the FCC-supported monopoly power, but also the seemingly unchallengeable nature

of the FCC. It did so in a case in which the FCC's purported justification was unconvincing and seemingly unsupported by the FCC's own evidence. And *Hush-A-Phone* is important because it invited future challenges to the FCC's power.

Law Professor Jonathan Zittrain opined that had the Bell System "prevailed in the *Carterfone* proceeding, it would have been able to insist that its customers use the phone network only for traditional point-to-point telephone calls. The phone network would have been repurposed for data solely at [the Bell System's] discretion and pace. Because [the Bell System] lost, others' experiments in data transmission could move forward."[90] Similarly, Professor Richard R. John opined that "[h]ad Bell wanted to provide the entire population with low-cost long-distance telephone service, it could have," but he thought the problem was entirely political.[91] That is, since "Alexander Graham Bell obtained his first telephone patent in 1876, the telephone has been a creature of not only of technology and economics but also of politics and culture."[92] For instance, in 1976, John D. deButts, the then-Chairman of AT&T (from 1972 to 1979), "sent his lobbyists to Congress with a bill, [namely the Bell Bill, or the Monopoly Protection Act of 1976,] that would reverse all that the FCC was trying to do, with provisions, for instance, that simply . . . reversed *Carterfone* and even *Hush-A-Phone*." However, this attempt failed.[93]

Once the Bell System's competitors noticed the *Hush-A-Phone* chink in the Bell System's monopoly armor, they then had a path forward. *Hush-A-Phone* and *Carterfone* were foundational in the eventual judicial proceedings ordering the breakup of AT&T[94] "to promote competition in complementary services, such as long-distance, customer-premises equipment, and data-processing services."[95] Though "the attachment rules [in *Hush-A-Phone* and *Carterfone*] were much less than a complete success; the U.S. Government moved to divest AT&T in an antitrust case that ultimately dismembered the monopoly."[96] In 1984, the Bell System divested its operating companies to settle the Justice Department's antitrust suit, ending the Bell System. In 1996, Congress enacted the Telecommunications Act of 1996, abolishing municipal franchise monopoly.[97]

**Acknowledgement**

Many thanks to June Carbone, Gerardo Con Diaz, Margaret Adema Maloy, Kevin Song, the editors of the *IEEE Annals*, and four anonymous reviewers for their thoughtful feedback.

**Jasper L. Tran** is an intellectual property attorney in private practice in San Francisco, California. A former federal clerk, he graduated from UC Berkeley and University of Minnesota. The usual disclaimer of course applies: Opinions herein are personal, and do not necessarily reflect those of the author's employer or affiliated institutions; all acts of omission and commission are my own. Contact him at tranx806@umn.edu.

**References and Notes**

[1] The paper uses the Bell System or AT&T interchangeably throughout to denote the historical company, which is the focus of the paper. The post-breakup Southwestern Bell Corporation grew continuously for two decades until its

2005 acquisition of AT&T and rebranded the company to become the AT&T today. In that sense, AT&T is not the same company now as it was.

[2] "[M]ore precise[ly,] AT&T was not there mere holder of a monopoly, but multiple monopolies—six or seven, depending on how one counts—making it the quintessential 'super monopolist.' At its height the firm controlled local telephone service, long distance service, the physical telephone, all other attachments, business telephone services, and markets just coming into existence, like 'online' services." T. Wu, *The Curse of Bigness: Antitrust in the New Gilded Age*, Columbia Global Reports, 2018, p. 94. It is also worth noting the difference between monopoly and monopolization: "patent law encourages monopoly and antitrust law opposes monopolization." R. Feldman, "Patent and Antitrust: Differing Shades of Meaning," *Virginia J. of Law & Technology*, vol. 13, 2008, p. 5. This paper uses the term *monopoly* to mean the macro-level *monopolization* under antitrust law, not necessarily the micro-level *monopoly* under patent law.

[3] *See* Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956.

[4] *See* In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968.

[5] To be fair, some scholars deserve being credited for having understood and described the accurate procedural posture of *Hush-A-Phone*. *See, e.g.*, A.L. Russell, *Open Standards and the Digital Age*, Cambridge Univ. Press, 2014, p. 138 ("An initial attack on AT&T's right to control attachments to the telephone network came in 1948, when the *Hush-A-Phone Corporation filed a complaint against AT&T* to establish the legal right to attach their cuplike device to telephone handsets." (italics mine)); A.J. Burstein & F.B. Schneider, "Network Security and the Need to Consider Provider Coordination in Network Access Policy," *35th Research Conference on Communication, Information & Internet Policy (TPRC)*, 2007 ("At the end of a lengthy proceeding to hear *Hush-a-Phone's complaint against AT&T*'s application of this "foreign attachment" rule, the FCC found . . . ." (italics mine)); S.E. McMaster, *The Telecommunications Industry*, Greenwood Press, 2002, p. 94 ("The Hush-A-Phone Company filed a complaint at the FCC against AT&T and requested permission to sell its device."); J.R. McNamara, *The Economics of Innovation in the Telecommunications Industry*, Quorum Books, 1991, p. 24 ("Hush-A-Phone Company finally filed a complaint against AT&T with the FCC in 1948.").

[6] J.H. Lienhard, "No. 1222: Breaking the Monopoly, University of Houston: Engines of Our Ingenuity," *Univ. of Houston: Engine of Our Ingenuity*, 1997, https://www.uh.edu/engines/epi1222.htm (citing J.S. Gordon, *The Death of a Monopoly*, 1997, American Heritage, p. 168) (italics mine); *accord* J.S. Gordon, *The Business of America: Tales from the Marketplace American Enterprise from the Settling of New England to the Break up of AT&T*, Walker Books, 2001, p. 236 (AT&T "*moved* immediately to have the Federal Communications Committee forbid the use of Hush-A-Phone on all AT&T equipment." (italics mine)).

[7] Letter from Timothy Wu & Lawrence Lessig to Marlene H. Dortch, Secretary, Federal Communications Commission, August 22, 2003, http://www.timwu.org/wu_lessig_fcc.pdf (italics mine). Interestingly, Tim Wu's other publication shows that he correctly understood *Hush-A-Phone*'s procedural posture. *See, e.g.*, T. Wu*, The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 102 (the President of the Hush-A-Phone Corporation, Henry "Tuttle hired an attorney, who *petitioned the FCC* for a modification of the [tariff] rule and an injunction against AT&T's threats" to Hush-A-Phone customers (italics mine)).

[8] S. Shepard, *Telecom Crash Course*, McGraw-Hill Professional, 2001, p. 134 (italics mine).

[9] While it is unclear how pervasive this procedural misunderstanding is, a comprehensive statistical analysis of such misunderstanding, though interesting, is outside the scope of this paper.

[10] A declaratory judgment action, in short, seeks judicial (or the federal agency's) clarification to resolve legal uncertainty. *See generally, e.g.*, S.L. Bray, "The Myth of the Mild Declaratory Judgment," *Duke Law J.*, vol. 63, 2014, p. 1091; S.L. Bray, "Preventive Adjudication," *Univ. of Chicago Law Rev.*, vol. 77, 2010, p. 1275; C.S. Chuang, "Offensive Venue: The Curious Use of Declaratory Judgment to Forum Shop in Patent Litigation," *George Washington Law Rev.*, vol. 80, 2012, p. 1065; Grand T. W. R. Co. v. Consolidated Rail Corp., 746 F.2d 323, Sixth Circuit, 1984, p. 325 ("Title 28 of the United States Code § 2201 provides that in 'a case of actual controversy within its jurisdiction' a federal court 'may' give a declaratory judgment, a power permissive, not mandatory.").

[11] The Communications Act of 1934 requires every common carrier to file with the FCC "schedules" (aka "tariffs") that show "all charges" and "the classifications, practices, and regulations affecting such charges." 47 U.S.C.

§ 203(a). Under the "filed-tariff doctrine" (aka the "filed-rate doctrine"), "once a carrier's tariff is approved by the FCC, the terms of the federal tariff are considered to be 'the law,' [not merely contracts,] and to therefore 'conclusively and exclusively enumerate the rights and liabilities' as between the carrier and the customer.'" Evanns v. AT&T Corp., 229 F.3d 837, Ninth Circuit, 2000, p. 840 & n.8 (quoting Marcus v. AT&T Corp., 138 F.3d 46, Second Circuit, 1998, p. 56).

[12] *See, e.g.*, S. Burstein, "The 'Article of Manufacture' Today," *Harvard J. of Law & Technology*, vol. 31, 2018, p. 781; P. Saidman et al., "Determining the Article of Manufacture under 35 U.S.C. § 289," *J. Patent & Trademark Office Society*, vol. 99, 2017, p. 349; D.H. Brean, "Will the 'Nexus' Requirement of *Apple v. Samsung* Preclude Injunctive Relief in the Majority of Patent Cases?: Echoes of the Entire Market Value Rule," *San Diego Law Rev.*, vol. 51, 2014, p. 153. For background, a patent, as one form of an economic monopoly, "gives the patent owner 'the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States.' " Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC, 138 S. Ct. 1365, U.S. Supreme Court, 2018, p. 1374 (quoting 35 U.S.C. § 154(a)(1)). *See generally* J.L. Tran, "Software Patents: A One-Year Review of *Alice v. CLS Bank*," *J. Patent & Trademark Office Society*, vol. 97, 2015, p. 532–550; G. Con Diaz, "Contested Ontologies of Software: The Story of *Gottschalk v. Benson*, 1963–1972," *IEEE Annals of the History of Computing*, vol. 38, no. 1, 2016, pp. 23–33.

[13] *Cf.* F.B. Cross & J.F. Spriggs, "The Most Important (and Best) Supreme Court Opinions and Justices," *Emory Law J.*, vol. 60, 2010, p. 470 ("Judges themselves are critical of longer opinions . . . many of the courts' opinions were too long.").

[14] *See* E.J. Wallach, "Partisans, Pirates, and Pancho Villa: How International and National Law Handled Non-State Fighters in the 'Good Old Days' Before 1949 and That Approach's Applicability to the 'War on Terror'", *Emory International Law Rev.*, vol. 24, 2010, p. 549 ("The study of the law is the study of history.")

[15] The Communications Act of 1934, codified at 47 U.S.C § 151 et seq.

[16] J. Hirrel, "Oil and Vinegar: The FCC and the D.C. Circuit," *CommLaw Conspectus*, vol. 3, 1995, p. 121.

[17] *See, e.g.*, Seventeenth Annual Report, Federal Communications Commission, 1951, p. 37, https://apps.fcc.gov/edocs_public/attachmatch/DOC-308671A1.pdf. *See generally* 47 U.S.C. §§ 154, 151 (including the Communications Act of 1934).

[18] 2008 Performance and Accountability Report, Federal Communications Commission, 2008, https://www.fcc.gov/Reports/ar2008.pdf.

[19] *See, e.g.*, J. Roberts, "What Makes the D.C. Circuit Different? A Historical View," *Virginia Law Rev.*, vol. 92, 2006, p. 375. Similarly, others have called the D.C. Circuit the "second-most important court." *See, e.g.*, B. Obama, "Remarks by the President to College Reporters," *White House Press Release*, Apr. 28, 2016, https://obamawhitehouse.archives.gov/the-press-office/2016/04/28/remarks-president-college-reporters (noting "the D.C. Circuit Court of Appeals [a]s the second most important court in the land"); G.W. Bush, "President Bush Speaks to Latino Coalition," *CNN Live Event: Transcripts*, Feb. 26, 2003, http://transcripts.cnn.com/TRANSCRIPTS/0302/26/se.02.html (calling the D.C. Circuit "the second most important court in America"); A.L. Nielson, "D.C. Circuit Review – Reviewed: The Second Most Important Court?," *Yale J. on Regulation: Notice & Comment*, vol. 36, Sept. 4, 2015, http://yalejreg.com/nc/d-c-circuit-review-reviewed-the-second-most-important-court-by-aaron-nielson/. The reason is quite simple: due to its location at the nation's capital, the D.C. Circuit has jurisdiction to hear the majority of the appeals coming from the federal agencies, granting it the power to correct the federal agencies' lawmaking activities, which is in some sense quasi-lawmaking. To that end, the D.C. Circuit hears, decides, and sometime disagrees with, an overwhelming majority of appeals from the FCC decisions per the Communications Act's requirement. M.J. Hirrel, "Oil and Vinegar: The FCC and the D.C. Circuit," CommLaw Conspectus, vol. 3, 1995, p. 121. While the U.S. Supreme Court technically has the authority to reverse the D.C. Circuit's decisions, the Supreme Court only exercises that authority if it grants *certiorari* review in a very limited number of cases. (Not having to answer to anyone else makes the Supreme Court the nation's most powerful court.) For the remaining cases, the D.C. Circuit has the final say on what the federal agencies' lawmaking activities "should" be.

[20] M.J. Hirrel, "Oil and Vinegar: The FCC and the D.C. Circuit," *CommLaw Conspectus*, vol. 3, 1995, p. 121 (citing Marbury v. Madison, 5 U.S. 137, U.S. Supreme Court, 1803, p. 170).

[21] Federal Radio Commission v. Nelson Bros. Bond & Mortgage Co., 289 U.S. 266, U.S. Supreme Court, 1933, p. 277; Silberschein v. U.S., 266 U.S. 221, U.S. Supreme Court, 1924, p. 225. As a side note, the D.C. Circuit must still respond to the most powerful court in America, the U.S. Supreme Court, who has the authority to grant review and reverse the D.C. Circuit's decisions. However, this separate interaction between the D.C. Circuit and the Supreme Court was not at issue in *Hush-A-Phone* or *Carterfone*, and thus, is outside the scope of this paper

[22] S. Jasanoff, *Science at the Bar*, Harvard Univ. Press, 1995, p. 69.

[23] J. Zittrain, *The Future of the Internet and How to Stop It*, Yale Univ. Press, 2008, p. 21. Tim Wu characterizes the Bell System as "the jealous God of telecommunications, brooking no rivals, accepting no sharing, and swallowing any children with even the most remote chance of unseating Kronos." T. Wu, *The Curse of Bigness: Antitrust in the New Gilded Age*, Columbia Global Reports, 2018, p. 94–95.

[24] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 190.

[25] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 392, ¶ 2. This cup-like device snaps onto a telephone instrument and "permit[s] the speaker to confine his voice within the enclosure formed by the device so that it is not heard by persons in the speaker's vicinity, thereby providing privacy of conversation and office quiet. It is also designed to improve telephone reception in noisy locations by keeping surrounding noises out of the telephone transmitter and thus out of the telephone circuit." Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 267 & n.2 (citing the FCC's brief, In re Hush-A-Phone, No. 9189, p. 2).

[26] J. Zittrain, *The Future of the Internet and How to Stop It*, Yale Univ. Press, 2008, p. 22.

[27] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 396, ¶ 11 (the actual exact numbers were 125,796; 84,329; and 41,467).

[28] *See* Seventeenth Annual Report, Federal Communications Commission, 1951, p. 38, https://apps.fcc.gov/edocs_public/attachmatch/DOC-308671A1.pdf.

[29] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 392, ¶ 2.

[30] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 413, ¶ 67.

[31] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 413, ¶ 70 (containing the full-text of the tariff provision); In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, 112 (same), ¶ 2 n.1; T. Wu*, The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 102.

[32] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 413, ¶ 69 (containing the full-text of the tariff provision); In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, 112, ¶ 2 n.1 (same).

[33] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, pp. 397, 415, ¶¶ 13, 75.

[34] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 267.

[35] The other 22 Defendants are: (1) The Bell Telephone Co. of Pennsylvania, (2) The Chesapeake & Potomac Telephone Co., (3) The Chesapeake & Potomac Telephone Co. of Baltimore City, (4) The Chesapeake & Potomac Telephone Co. of Virginia, (5) The Chesapeake & Potomac Telephone Co. of West Virginia, (6) The Cincinnati & Suburban Bell Telephone Co., (7) The Diamond State Telephone Co., (8) Illinois Bell Telephone Co., (9) Indiana Bell Telephone Co., (10) Michigan Bell Telephone Co., (11) The Mountain States Telephone & Telegraph Co., (12) New England Telephone & Telegraph Co., (13) New Jersey Bell Telephone Co., (14) New York Telephone Co., (15) Northwestern Bell Telephone Co., (16) The Ohio Bell Telephone Co., (17) The Pacific Telephone & Telegraph Co., (18) Southern Bell Telephone & Telegraph Co., (19) Southwestern Bell Telephone Co., (20) The Southern New England Telephone Co., (21) Wisconsin Telephone Co., and (22) Associated Telephone Co., Ltd. As to the last defendant, the FCC on June 29, 1949 granted Plaintiffs' petition for permission to drop Associated Telephone Company, Ltd. (Santa Monica, California) as defendant. In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 391, ¶1 & n.1. Each Defendant was sometime referred to as the "Baby Bell." T. Wu, *The Curse of Bigness: Antitrust in the New Gilded Age*, Columbia Global Reports, 2018, p. 96.

[36] Seventeenth Annual Report, Federal Communications Commission, 1951, p. 43, https://apps.fcc.gov/edocs_public/attachmatch/DOC-308671A1.pdf; In re Hush-A-Phone, 20 F.C.C. 391, Federal

Communications Commission, 1955, ¶ 2; In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, 112–113, ¶ 2.

[37] Section 2(b) reads: "Subject to the provisions of Section 301, nothing in this Act shall be construed to apply or to give the Commission jurisdiction with respect to (1) charges, classifications, practices, services, facilities, or regulations for or in connection with intrastate communication service by wire or radio of any carrier, or (2) any carrier engaged in interstate or foreign communication solely through physical connection with the facilities of another carrier not directly or indirectly controlling or controlled by, or under direct or indirect common control with such carrier, or (3) any carrier engaged in interstate or foreign communication solely through connection by radio, or by wire and radio, with facilities, located in an adjoining State or in Canada or Mexico (where they adjoin the State in which the carrier is doing business), of another carrier not directly or indirectly controlling or controlled by, or under direct or indirect common control with such carrier, or (4) any carrier to which clause (2) or clause (3) would be applicable except for furnishing interstate mobile radio communication service or radio communication service to mobile stations on land vehicles in Canada or Mexico; except that Sections 201 through 205 of this Act, both inclusive, shall, except as otherwise provided therein, apply to carriers described in clauses (2), (3), and (4)." In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 392, ¶ 1 n.24.

[38] Section 221(b) reads: "Nothing in this Act shall be construed to apply, or to give the Commission jurisdiction, with respect to charges, classifications, practices, services, facilities, or regulations for or in connection with wire telephone exchange service, even though a portion of such exchange service constitutes interstate or foreign communication, in any case where such matters are subject to regulation by a State commission or by local governmental authority." In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 392, ¶ 1 n.24.

[39] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 392, ¶ 3.

[40] T. Wu, *The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 109.

[41] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, pp. 392–393, ¶¶ 4, 6.

[42] Seventeenth Annual Report, Federal Communications Commission, 1951, p. 43, https://apps.fcc.gov/edocs_public/attachmatch/DOC-308671A1.pdf.

[43] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, pp. 393–394, ¶ 7 (*en banc*).

[44] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 419, ¶ 3.

[45] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 268.

[46] T. Wu, *The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, pp. 112–113.

[47] S. Jasanoff, *Science at the Bar*, Harvard Univ. Press, 1995, p. 14.

[48] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 268; In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, pp. 112–113, ¶ 2. Interestingly, Tim Wu thought the FCC's *28-page* decision was "a brief decision." T. Wu*, The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 113.

[49] In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, pp. 112–113, ¶ 2.

[50] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 268 (italics mine).

[51] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 420, ¶ 5.

[52] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 421, ¶ 6.

[53] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, pp. 268–269.

[54] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 420, ¶ 5 (citing In re Use of Recording Devices in Connection with Tel. Serv., 11 F.C.C. 1033, Federal Communications Commission, 1947, p. 1048).

[55] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 421, ¶ 5.

[56] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 419, ¶¶ 3, 4 (citation omitted).

[57] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 394, ¶ 8 p. 418, ¶ 81.

[58] In re Hush-A-Phone, 20 F.C.C. 391, Federal Communications Commission, 1955, p. 427, ¶ 19.

[59] A note on the defendant's name being the United States instead of the Bell System: "[W]hen a party is disappointed by the FCC's decision, it sues on appeal not the litigation's winner, but the FCC itself. Winners are relegated to intervenor status." M.J. Hirrel, "Oil and Vinegar: The FCC and the D.C. Circuit," *CommLaw Conspectus*, vol. 3, 1995, p. 121. Here, Hush-A-Phone sued on appeal the United States, who was appearing on behalf of the FCC, in the D.C. Circuit, and the Bell System was relegated to being an intervenor.

[60] William Shakespeare, *Hamlet*, circa 1599–1602, act II.

[61] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 269. As a side note, Judge Bazelon himself was an influential feeder judge, who "fed" many of his clerks to U.S. Supreme Court Justice William J. Brennan. *See generally* F.B. Cross & S. Lindquist, "Judging the Judges," *Duke Law J.*, vol. 58, 2009, p. 1434. Judge Bazelon also served on the same D.C. Circuit for over a decade with the future U.S. Supreme Court Associate Justice Warren E. Burger. J.G. Roberts, "What Makes the D.C. Circuit Different? A Historical View," *Virginia Law Rev.*, vol. 92, 2006, p. 375 (noting that the conflict between "the Bazelon wing and the Burger wing . . . define[d] the character of the court for that entire period of the mid-1950s through the 1960s"); K.I. Eisler, *A Justice for All: William J. Brennan, Jr., and the Decisions that Transformed America*, Simon & Schuster, 1993, pp. 202, 203, 235.

[62] In short, "ex ante" means forward looking as opposed to "ex post," which means backward looking. For background on ex ante versus ex post, see generally B.H. Fried, "Ex Ante/Ex Post," *J. of Law & Contemporary Issues*, vol. 13, 2003, p. 123; L. Kaplow, "Rules versus Standards: An Economic Analysis," *Duke Law J.*, vol. 42, 1992, p. 557.

[63] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 268 (italics mine).

[64] Hush-A-Phone Corp. v. U.S., 238 F.2d 266, D.C. Circuit, 1956, p. 269 (italics mine).

[65] S. Jasanoff, *Science at the Bar*, Harvard Univ. Press, 1995, p. 25.

[66] Oliver Wendell Holmes, Jr.'s dissenting opinion in Vegelahn v. Guntner, 167 Mass. 92, Massachusetts Supreme Judicial Court, 1896, p. 106. For non-legal readers, Justice Holmes was the son of the famous writer Oliver Wendell Holmes Sr. and an Associate Justice of the U.S. Supreme Court from 1902 to 1932. Justice Holmes (like Justice Louis D. Brandeis, an Associate Justice of the U.S. Supreme Court from 1916 to 1939) was ahead of his time, building his reputation on writing dissents that later became the majority opinions. Per Judge Richard Posner (who sat on the Seventh Circuit from 1981 to 2017), "judges have reputation in a baseball card sort of way, making a *Holmes more valuable* than a Taney. The cards traded for and the judges cited reflect the citing judge's sense of judicial greatness." W. Domnarski, *Richard Posner,* Oxford Univ. Press, 2016, p. 111 (italics mine). Under Judge Posner's standard, Justice Holmes has been among the top three of the most quoted judges of all times, which makes Holmes one of the top three greatest judges of all times. *See, e.g.*, F.R. Shapiro, *The Oxford Dictionary of American Legal Quotations*, Oxford Univ. Press, 1993, p. xi.

[67] In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, 114, ¶ 4.

[68] In re Hush-A-Phone, 22 F.C.C. 112, Federal Communications Commission, 1957, 114, ¶ 5. Initially, on February 6, 1957, the FCC ordered Defendants to file a revised tariff schedules, effective no later than April 1, 1957. *Ibid.* On February 27, 1957, the FCC granted Defendants' motion for extension of time move Defendants' deadline to file a revised tariff schedules to May 16, 1957. In re Hush-A-Phone, 22 F.C.C. 291, Federal Communications Commission, 1957, p. 291.

[69] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 191.

[70] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 191.

[71] *See* In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, pp. 420–421.

[72] *See* In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, p. 421.

[73] *See* In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, p. 421. For a full text of the revised tariff at issue, see *ibid.* at p. 427, app. A.

[74] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 192.

[75] Carter v. Am. Tel. & Tel. Co., 250 F. Supp. 188, Northern District of Texas, 1966, p. 192.

[76] Carter v. Am. Tel. & Tel. Co., 365 F.2d 486, Fifth Circuit, 1966, p. 500. The U.S. Supreme Court denied *certiorari* petition for review on January 9, 1967. Carter v. Am. Tel. & Tel. Co., 385 U.S. 1008, U.S. Supreme Court, 1967, p. 1008.

[77] In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, p. 421.

[78] In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, p. 422.

[79] Other instances when the D.C. Circuit exercised its judicial power to reverse the FCC's decisions include *In re MCI Telecommunications Corporation* in 1977 and *MCI Telecommunications Corporation v F.C.C.* in 1978. In re MCI Telecommunications Corporation, 561 F.2d 365, D.C. Circuit, 1977 (holding that the FCC may not exclude new entrants from domestic long-distance telephone service merely because AT&T enjoys de facto monopoly), *reversing* 60 F.C.C.2d 25, Federal Communications Commission, 1976, pp. 41–44; MCI Telecommunications Corporation v F.C.C., 580 F.2d 590, D.C. Circuit, 1978, pp. 596–597 (holding that AT&T must furnish equal or substantially equal access to its intercity competitors), *reversing* In re Petition of American Telephone and Telegraph Company for a Declaratory Ruling and Expedited Relief, 67 F.C.C.2d 1455, Federal Communications Commission, 1978, p. 1479. For background, Microwave Communications Inc. (MCI), founded in 1963, "use[d] microwave towers to sell cheaper private line service for businesses between Chicago and St. Louis." T. Wu, *The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 189.

[80] In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, pp. 423, 425.

[81] In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, pp. 423–424.

[82] In re Use of the Carterfone Device in Message Toll Tel. Serv., 13 F.C.C.2d 420, Federal Communications Commission, 1968, p. 423.

[83] T.W. Hazlett, "Modular Confines of Mobile Networks: Are iPhones iPhony?," *Supreme Court Economic Rev.*, vol. 19, 2011, p. 72.

[84] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 192.

[85] In re Telerent Leasing Corp., 45 F.C.C.2d 204, Federal Communications Commission, 1974, p. 205, ¶ 5.

[86] R.H.K. Vietor, *Contrived Competition: Regulation and Deregulation in America*, Belknap Press, 1994, p. 192.

[87] J. Zittrain, *The Future of the Internet and How to Stop It*, Yale Univ. Press, 2008, p. 81. For further discussion on Internet governance, see L. DeNardis, *The Global War for Internet Governance*, Yale Univ. Press, 2014.

[88] Judicial lawmaking, namely the notion that courts go beyond the narrow confines of precedent (or metaphorically "balls and strikes" per U.S. Supreme Court Justice John Roberts) to revise old laws or make new ones, certainly has a long history of thought and is well documented. *See, e.g.*, Cash v. Califano, 621 F.2d 626, Fourth Circuit, 1980, p. 628 ("Judicial declaration of law is merely a statement of what the law has always been. 'For if it be found that the former decision is manifestly absurd or unjust, it is declared, not that such a sentence was bad law, but that it was not law.' " (quoting W. Blackstone, *Commentaries on the Law of England*, Clarendon Press, vol. 1, 1765, p. 70)); T.M. Cooley, "Another View of Codification," *Columbia Jurist*, vol. 2, 1886, pp. 464–465 (observing that "decisions continue to accumulate as causes arise which present aspects differing at all from any which preceded; and a great body of laws being made under the statute which is and can be nothing but 'judge-made law' "); B.N. Cardozo, *The Nature of the Judicial Process*, Yale Univ. Press, 1921, pp. 98–141 (discussing "the judge as a legislator"); R.J. Traynor, "Transatlantic Reflections on Leeways and Limits of Appellate Courts," *Utah Law Rev.*, 1980, pp. 258–259 ("The fiction that a court does not make law is now about as hallowed as a decayed and fallen tree . . . . [A] modern judge is quite aware that his customary language indeed makes law."); C.E. Hughes, *The Autobiographical Notes of Charles Evans Hughes*, Harvard Univ. Press, 1973, p. 139 (stating in 1907 that "we live under a constitution, but the Constitution is what the judges say it is."); G. Calabresi, *A Common Law for the Age of Statutes*, Harvard Univ. Press, 1982; L.M. Friedman, *The Republic of Choice: Law, Authority, and Culture*, Harvard

Univ. Press, 1990, p. 21 ("No serious scholar treats the lawmaking power of judges as anything but an established fact . . . Some of the most blatant lawmaking [by judges]. . . gets covered by the fig leaf of 'interpretation.' "); Confirmation Hearing on the Nomination of John G. Roberts, Jr. to Be Chief Justice of the United States: Hearing Before the S. Comm. on the Judiciary, 109th Cong. 56 (2005) ("Judges are like umpires. Umpires don't make the rules; they apply them. . . . [I]t's my job to call balls and strikes and not to pitch or bat."); N.S. Siegel, "The Virtue of Judicial Statesmanship," *Texas Law Rev.*, vol. 86, 2008, pp. 979–993 (discussing how judges make policy). But common law judges, of course, "have always been reluctant to say openly the degree to which they are changing the law." W.A. Fletcher, "Standing: Who Can Sue to Enforce A Legal Duty?," *Alabama Law Rev*., vol. 65, 2013, p. 277.

[89] H. Keyserling, *Problems of Personal Life*, J. Cape, 1934, p. 143.

[90] J. Zittrain, *The Future of the Internet and How to Stop It*, Yale Univ. Press, 2008, p. 22.

[91] R.R. John, *Network Nation: Inventing American Telecommunications*, Harvard Univ. Press, 2010, p. 409.

[92] R.R. John, *Network Nation: Inventing American Telecommunications*, Harvard Univ. Press, 2010, p. 201. Alexander Graham Bell's first telephone patent, U.S. Patent Nos. 174,465, even became the subject of a fiction book. *See* R.A. Pizer, *The Tangled Web of Patent #174465*, AuthorHouse, 2009. The word "Bell" in the early companies of the Bell System was the Bell Telephone Company founder's "tribute to his famous son-in-law." *Ibid.*, p. 217.

[93] T. Wu, *The Master Switch: The Rise and Fall of Information Empires*, Alfred A. Knopf, 2010, p. 191 & n.8.

[94] *See* United States v Western Electric Co, 673 F. Supp. 525, U.S. District Court for the District of Columbia, 1987, p. 537 (concluding that under the breakup of AT&T, "[t]he exchange monopoly of the Regional Companies has continued because it is a natural monopoly"), *aff'd in part*, 894 F2d 1387, D.C. Circuit, 1990; In re Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Notice of Proposed Rulemaking, 11 F.C.C.R. 14171, Federal Communications Commission, 1996, pp. 14173–14174, ¶ 4 (noting that the Communications Act of 1934 (codified at 47 U.S.C § 151 et seq.), was grounded on the notion that local telephony constituted a natural monopoly and that "[t]he Modification of Final Judgment (MFJ) that required AT&T to divest the Bell Operating Companies (BOCs) in 1984 was not so much a repudiation as a reduction in the scope of this paradigm"). For other high-profile acknowledgements that local telephone service remained a natural monopoly, see Verizon Communications Inc. v. F.C.C., 535 U.S. 467, U.S. Supreme Court, 2002, pp. 475–476; S. Breyer, *Regulation and Its Reform*, Harvard Univ. Press, 1982, p. 291; A.E. Kahn, *The Economics of Regulation: Principles and Institutions*, Wiley & Sons, 1971, p. 127.

[95] P. Decherney, N. Ensmenger, & C.S. Yoo, "Are Those Who Ignore History Doomed to Repeat It?," *Univ. of Chicago Law Rev.*, vol. 78, 2011, p. 1638.

[96] T.W. Hazlett, "Modular Confines of Mobile Networks: Are iPhones iPhony?," *Supreme Court Economic Rev.*, vol. 19, 2011, pp. 74–75.

[97] R.R. John, *Network Nation: Inventing American Telecommunications*, Harvard Univ. Press, 2010, p. 423; *see also* T. Wu, *The Curse of Bigness: Antitrust in the New Gilded Age*, Columbia Global Reports, 2018, pp. 93–98.