

***PUBLICATION***

**How Government Can Bring  
New Communications to All Americans:  
Six Lessons of History**

**John W. Berresford**

**October 2004**

***Program on Information  
Resources Policy***



***Center for Information Policy Research***



***Harvard University***

The Program on Information Resources Policy is jointly sponsored by Harvard University and the Center for Information Policy Research.

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John W. Berresford is an attorney with almost 30 years experience in communications regulation. He now works for the Media Bureau of the Federal Communications Commission, is Adjunct Professor of Law at George Mason University School of Law in Arlington, Virginia, and is proprietor of <http://www.johnwberresford.com>. Earlier, he was General Counsel and Vice President for Business and Government Relations of Bell Atlantic Mobile Systems for its formative years. He received an A.B. from Washington University in St. Louis in 1972 and a J.D. from that university's School of Law in 1975.

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E-mail: [pirp@deas.harvard.edu](mailto:pirp@deas.harvard.edu) URL: <http://www.pirp.harvard.edu>  
ISBN 1-879716-79-8 **P-02-4**

October 2004

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The author gratefully acknowledges the following people who reviewed and commented critically on a draft version of this article. Without their consideration, input, and encouragement, this study could not have been completed:

Richard Allen  
Geoffrey C. Berresford  
Henry Boettinger  
Timothy Brennan  
Keith Brown  
Jean-Pierre Chamoux  
Barbara Esbin  
Gerald R. Faulhaber  
Mark Foster  
Dennis E. Frady  
Albert J. Germek  
Gregory W. Guice  
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Kas Kalba  
Wayne Andrew Leighton  
Wolter Lemstra  
David Pickeral  
Alejandro Pisanty  
Jason Scism  
James Seng  
Lisa Sockett  
Thomas Spavins  
Craig Stroup

These reviewers and the Program's Affiliates, however, are not responsible for or necessarily in agreement with the views expressed here, nor should they be blamed for any errors of fact or interpretation.

The views expressed in this article are the author's alone and do not necessarily represent those of the FCC, George Mason University, or any of their other employees.

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## Preface

This article aims to help bring new communications to all Americans.<sup>1</sup> Its method is to examine what governments in the U.S. have done with new communications technologies in the past. Four "case histories" are examined – the achievement of universal telephone service, the creation of radio broadcasting, the creation of television broadcasting, and the taming of the Bell System (which allowed new, non-Bell technologies to flourish). From these histories, six lessons are drawn about what actions by government produced, and did not produce, good results. "Good results" are defined as putting into the hands of the greatest number of American consumers, quickly and cheaply, high-quality service with maximum choice, innovation, and freedom of expression.<sup>2</sup>

What prompted this article was my work as a lawyer in several cases where the government was asked to regulate nascent or young communications technologies. Regulation, we were told, would do some good or prevent some harm that *might* occur if the market were left unregulated. Bringing the new technology to all Americans was a 'good' that, many claimed, would occur fastest if the government regulated. Others claimed, with equal conviction, that not regulating was the shortest path to universal service.

What impressed me most in these cases was everyone's near-total ignorance of the future – how would the market grow if the government regulated it, and how would the market grow if the government did nothing? How could government predict with any confidence that regulating, or not regulating, would benefit consumers (without incurring costs and creating harms that would outweigh any benefits)?

Trying to answer these questions to my own satisfaction, I started with strong libertarian instincts against regulation. I had also learned, however, that government action is sometimes needed to open up stodgy monopolies to competition, to make way for new technology, and to bring service to "have-nots."

I wondered what past regulators had done when new technologies and the urge to regulate had come before them, and when they had to react in conditions of extreme uncertainty. What did government do when telephone service was new, when radio was young, when television was born, and when the first discontent with Ma Bell and the Big Three TV Networks was heard?

Much reading and talking with "old timers" followed. From this and from others' comments, I learned much. Among the surprises were how many factors other than regulation had a huge impact on the development of new services and their spread into all American homes. The most striking of these factors were the persistent influence of the

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<sup>1</sup> The author welcomes comments on this article at [jberresford13@comcast.net](mailto:jberresford13@comcast.net).

<sup>2</sup> This article focuses exclusively on the welfare of consumers. The welfare of other stakeholders – investors, companies, employees, politicians, bureaucrats, *etc.* – is ignored and, in my opinion, unimportant except as a means to the end of consumer welfare.

President and Congress and their tendency to suppress diverse and off-the-beaten-track speech and entertainment in broadcasting. Almost equally striking was the importance of war and 'The Military-Industrial Complex' in creating new technologies that eventually became popular consumer services. Other insights were how new, disruptive technologies and services did more to improve life for consumers than the regulation of old ones and how America had to be a wealthy country before most Americans could afford new services and 'share the wealth' with have-nots.

After this self-education, I still have a pronounced but not monomaniacal preference for free markets over regulation. If any reader finds the following pages too favorable to unregulated markets, I urge him or her to argue with and improve my thinking. My hope is that this work will be the first step towards an understanding that can guide nations as each approaches the next round of changes in its communications industry's technology, structure, and regulation.

In keeping with the impression that prompted this article, I will give not only sympathy, but credit to governments that had to act in conditions of extreme uncertainty. Where I criticize government's decisions, I will try to limit myself to only the facts that government knew or could have known at the time the decisions were made. My criticisms, for the most part, will be only those that were made at the time decisions were made and by significant participants in the decision-making process. Twenty-twenty hindsight will be avoided (and, when it occurs, will be clearly labeled). My goal is not to fault past governments for not attempting the politically impossible or not knowing the future, but to help today's decision-makers do what they can, with their necessarily limited power and knowledge, to make decisions that will spread new communications technology to all their people.<sup>3</sup>

## **Executive Summary**

This history recounted in the following pages is of four technologies and their spread to all Americans. The technologies are the telephone, the radio, and the television when each was new, and the telephone when it was in late middle age. The story is how governments in the United States used, and did not use, their powers on each technology. The result, in each case, was that governments sped or slowed the spread of new technology to all Americans.

This history leads to several conclusions and lessons for the future. My first and most broad-sweeping lesson is that government should do a few things that have nothing to do with communications *per se*. These are to have property laws that reward the creators of innovative technology and builders who bring it into homes and consumers'

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<sup>3</sup> This article also treats as unavoidable the existence of governmental oversight of communications, with the goal "to make available, . . . to all the people of the United States, . . . a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges" (47 U.S.C. § 151), of powerful industry lobbies, and of politicians who have great interest in rural communications and, for selfish and unselfish reasons, the contents of broadcasting.

hands; to encourage a fluid and complex business and social life in which people demand and companies supply new technology; and to create a secure and rich country in which the vast majority of homes are prosperous enough to afford new technologies and to be generous to the few that aren't.

The histories recounted in the following pages lead to a few more specific conclusions. The first of these (and my second lesson) is that the bigger the task that government took on, the more room it had for mistakes and the more mistakes it made. Therefore, Lesson Two is that government should, if possible, limit its role to fixing obvious, persistent, and substantial problems, especially entrenched and unresponsive monopolies.

The third conclusion is that government, when confronted with a monopoly (or oligopoly), should avoid regulating it in hopes of making it a "Good Monopoly." Lesson Three is that government's scarce resources are best devoted to stimulating competition and abundance, not to regulating a Good Monopoly and the scarcity that it usually creates.

This article's fourth observation is that American government helped consumers by waiting, before declaring a new technology to be a universal entitlement, until the technology had matured and been accepted by millions of real consumers. Lesson Four, therefore, is that government should avoid making a new technology a right until it has matured and succeeded in the marketplace.

A fifth observation is that government has committed some major mistakes, specifically the suppression of unorthodox stations and niche-oriented content in radio broadcasting and the stunting of cable TV. On the whole, the effect of government action on broadcast speech has been to limit it, not to free it. Therefore, Lesson Five is that government should cultivate the virtue of humility, especially concerning broadcast content.

This article's final specific observation is that the source of the greatest benefits for consumers has been new technology. The new technologies of the last fifty years, not regulation, have given more power to the people and more voice to the silent. Therefore, Lesson Six is that government should welcome disruptive, unpredictable, even chaotic new technologies.

## Case History #1: Achieving Universal Telephone Service

The telephone was invented and marketed in the mid-1870s,<sup>4</sup> but did not become universal in American homes until more than 100 years later.<sup>5</sup> Government did little or nothing specific to promote it for a long time.<sup>6</sup> The federal government did not make universal service a goal until 1934.<sup>7</sup> State and local promotion of universal service before then appears to have been only occasional.<sup>8</sup> Nonetheless, America achieved universal service faster than any other large country in the world.<sup>9</sup>

During the Bell patent monopoly (roughly 1876-95), residential penetration was low, rising no higher than 2%.<sup>10</sup> There were several reasons: few systems were built, quality of service was low, prices were high,<sup>11</sup> and consumers were skeptical of the newfangled thing.<sup>12</sup> Also, Bell marketed almost entirely to businesses in urban centers, especially in the Northeast.<sup>13</sup> To Bell, residential customers were an afterthought and

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<sup>4</sup> Herbert N. Casson, *THE HISTORY OF THE TELEPHONE* ("Casson") at 32-33, 52 (A.C. McClurg & Co., Chicago, 1910).

<sup>5</sup> See text accompanying note 56 *infra*. "Universal" here means subscribed to by 95% of households. FCC Wireline Competition Bureau, Industry Analysis & Technology Division, *Trends in Telephone Service* ("Trends"), Table 17.3 at 17-5 (May 2002), available at [http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/IAD/trend502.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/trend502.pdf) (visited June 6, 2003). In the early decades of telephone service, access to a pay telephone in every neighborhood might be a form of "Universal Service." I consider this to be an inadequate long-term standard, however.

<sup>6</sup> Claude S. Fischer, *AMERICA CALLING: A SOCIAL HISTORY OF THE TELEPHONE TO 1940* ("Fischer") at 58 (University of Calif. Press, Berkeley, Calif., 1992). Of course, government helped the telephone's growth by its broad enforcement of property rights, including patents. See, e.g., *United States v. American Bell Tel. Co.*, 167 U.S. 224 (1897); *Dolbear v. American Bell Tel. Co.*, 126 U.S. 1 (1888); Casson, *supra* note 4, at 82-107.

<sup>7</sup> See note 3, *supra*.

<sup>8</sup> Milton L. Mueller, Jr., *UNIVERSAL SERVICE: COMPETITION, INTERCONNECTION, & MONOPOLY IN THE MAKING OF THE AMERICAN TELEPHONE SYSTEM* ("Mueller") at 100 (In Bell writings around 1910, "[t]here is not a hint of the notion that Bell and the government were joining in a partnership to extend service to everyone.") (MIT Press, Cambridge, Mass., & AEI Press, Washington, D.C., 1997). In the 1970s, Bell claimed that government had been its partner in bringing telephone service to all Americans. This probably false tale (see *infra* note 30) was intended to sprinkle Bell's monopoly with governmental approval and thus repel antitrust suits.

<sup>9</sup> International Telecommun. Union, *World Telecommunication Development Report*, Table 4.2 (ITU, Geneva, Switzerland, 1998); Peter Temin & Louis Galambos, *THE FALL OF THE BELL SYSTEM: A STUDY IN PRICES & POLITICS* ("Temin & Galambos") at 16 n.18 (Cambridge Univ. Press, New York, 1994).

<sup>10</sup> *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable & Timely Fashion, and Possible Steps to Accelerate Such Deployment* ("First Broadband Notice"), 14 FCC Rcd 2398, 2412 (1999).

"Residential penetration" means the percentage of homes subscribing to telephone service.

<sup>11</sup> John Brooks, *TELEPHONE: THE FIRST HUNDRED YEARS* ("Brooks") at 60-66, 85-87 (Harper & Row, New York, 1976); Richard Gabel, *The Early Competitive Era in Telephone Communication, 1893-1920* ("Gabel I"), 34 L. & CONTEMP. PROBS. 340, 343 (1969) (stating that during the monopoly period, Bell earned almost 46% return on investment); Kenneth Lipartito, *THE BELL SYSTEM & REGIONAL BUSINESS: THE TELEPHONE IN THE SOUTH, 1877-1920* ("Lipartito") at 65, 90-91 (The Johns Hopkins Univ. Press, Baltimore, 1989). Bell's patents gave it a lawful monopoly, and monopolies typically achieve maximum profits at higher prices and lower sales than companies in competitive markets do. John B. Taylor, *PRINCIPLES OF MICROECONOMICS* at 336 (Houghton Mifflin Co., Boston, 1995).

<sup>12</sup> Casson, *supra* note 4, at 42-84, 178; Lipartito, *supra* note 11, at 7-10.

<sup>13</sup> Brooks, *supra* note 11, at 106.

rural areas were barely worth a thought.<sup>14</sup> “Network effects,”<sup>15</sup> too, limited penetration: few homes had a telephone, so the value of a telephone to most residential users was low. The only major competitor, Western Union, paid more attention to its core telegraph business.<sup>16</sup>

When the Bell patents expired in the mid-1890s, suddenly any local entrepreneur could build a telephone network and there began thirty years of entry, competition, and a race to build in new territories.<sup>17</sup> Prices fell and residential penetration grew phenomenally,<sup>18</sup> reaching 35% in 1920.<sup>19</sup> Growth was especially rapid in rural areas, resulting in farms having higher penetration than other households.<sup>20</sup> Perhaps the greatest growth occurred there because farm homes are also business premises and it was cheaper to string wire there. Especially for isolated farmers during northern winters, the telephone was the only way to talk with non-household members.<sup>21</sup> Farmers improvised, erecting their own poles and lines and even using barbed wire fences as a medium.<sup>22</sup>

Most expansion, urban and rural, was started by hundreds of non-Bell telephone enterprises (the “Independents”). They built local systems, especially in the South, the Midwest and the West and in virgin urban neighborhoods, rural areas, and some areas already served by Bell.<sup>23</sup> Bell responded by expanding its coverage beyond its urban “big business” base, too.<sup>24</sup> By 1920, there was some sort of telephone system in almost every community in the country, although subscription was far from universal.<sup>25</sup>

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<sup>14</sup> Gerald W. Brock, *THE TELECOMMUNICATIONS INDUSTRY: THE DYNAMICS OF MARKET STRUCTURE* (“Brock I”) at 107 (Harvard Univ. Press, Cambridge, Mass., 1981); Fischer, *supra* note 14, at 41-42, 82-84, 94; Amy Friedlander, *NATURAL MONOPOLY & UNIVERSAL SERVICE: TELEPHONES & TELEGRAPHS IN THE U.S. COMMUNICATIONS INFRASTRUCTURE, 1870-1940* (“Friedlander”) at 29-30, 54 & n.115 (Corp. for Nat’l Research Initiatives, Reston, Va., 1995).

<sup>15</sup> A service has “network effects” if it becomes more valuable to customers as more customers use it. Network effects tend to be strongest in businesses, such as telephone service, whose main output or product is access to other persons. *Time Warner, Inc.*, 16 FCC Rcd 6547, 6613 (2001) ¶ 153.

<sup>16</sup> Casson, *supra* note 4, at 84.

<sup>17</sup> FCC, *Proposed Report Telephone Investigation* at 145 (U.S. Gov’t Printing Office, Washington, D.C., 1938); Casson, *supra* note 4, at 189-90; Mueller, *supra* note 8, at 8, 54, 59.

<sup>18</sup> Brock I, *supra* note 14, at 110-17; Friedlander, *supra* note 14, at 29-30, 57 (prices fell and residential penetration rose); Gabel I, *supra* note 11, at 345; Lipartito, *supra* note 11, at 90-91, 103, 205.

<sup>19</sup> Bureau of the Census, U.S. Department of Commerce, *HISTORICAL STATISTICS OF THE UNITED STATES, COLONIAL TIMES TO 1970, PART 2, Chapters N-Z* (“Historical Statistics”), Series R 1-12 at 783 (Kraus International Publications, White Plains, N.Y., 1989).

<sup>20</sup> Brooks, *supra* note 11, at 104, 116; Fischer, *supra* note 14, at 93; Friedlander, *supra* note 14, at 39-40, 69; Lipartito, *supra* note 11, at 106; Mueller, *supra* note 8, at 68, 148.

<sup>21</sup> Brooks, *supra* note 11, at 94, 104, 111, 116-17; Fischer, *supra* note 14, at 99, 261; Mueller, *supra* note 8, at 68, 148.

<sup>22</sup> Brock I, *supra* note 14, at 111; Fischer, *supra* note 14, at 94; Friedlander, *supra* note 14, at 40; Lipartito, *supra* note 11, at 103. See also Dale Hatfield, *The Role of Farmer Lines in the Early History of the Telephone Industry in the United States*, <http://www.annenbergnwu.edu/pubs/speed/speed2.htm> (visited Aug. 29, 2003).

<sup>23</sup> Brock I, *supra* note 14, at 111-14, 121-22, 124; Brooks, *supra* note 11, at 104, 110; Casson, *supra* note 4, at 189-90, 193; Fischer, *supra* note 14, at 43-44; Gabel I, *supra* note 11, at 344; Lipartito, *supra* note 11, at 94; Mueller, *supra* note 8, at 62 n.16.

<sup>24</sup> Brooks, *supra* note 11, at 106-07; Fischer, *supra* note 14, at 95; Mueller, *supra* note 8, at 74-75.

<sup>25</sup> Brock I, *supra* note 14, at 121-22; Brooks, *supra* note 11, at 109; Mueller, *supra* note 8, at 146-48.

Most state governments started regulating telephone service in the early twentieth century.<sup>26</sup> A few ordered or encouraged urban telephone companies to expand into the unserved rural areas of their states.<sup>27</sup> Some states required all telephone systems to rise to Bell's quality. Requiring high quality may have suppressed residential penetration by eliminating Independents that had been offering low-quality service at low prices and had reached some low-income areas and residences that Bell disdained.<sup>28</sup> Some states ordered equal rates in all parts of their states, which caused heavily populated, built-up areas to support thinly populated, un-built areas.<sup>29</sup> These orders tended to make service physically available for the first time in the latter areas, a first step towards universal service there.<sup>30</sup> The actual achievement of universal service awaited subscription by large numbers of residents, however. And in the meantime, higher prices in built-up areas presumably lowered residential penetration.<sup>31</sup>

During the competitive era (roughly 1895-1920), in most places and at most times, governments did not order telephone systems to connect with each other (“interconnection”), which would have enabled users of one system to talk with users of others. Most interconnection occurred only where both systems wanted it.<sup>32</sup> Government's failure to order this kind of interconnection meant that each system could reap all the rewards from any customer who took its service, as it would not have to share that customer with any competing system. This may have stimulated building and,

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<sup>26</sup> Brock I, *supra* note 14, at 158-61; Richard Gabel, DEVELOPMENT OF SEPARATIONS PRINCIPLES IN THE TELEPHONE INDUSTRY at 16 (Michigan State Univ., East Lansing, Mich., 1967) (“Gabel II”); Lipartito, *supra* note 11, at 186.

There was some municipal regulation of telephone service before state regulation began. Except in small bits, its history is unwritten and its net effect on universal service is unmeasured. It may have stimulated universal service to some extent by requiring pay phones in unserved neighborhoods (perhaps a first step towards true universal service, which I define as phone service in homes), and by threatening municipal takeover or competition if rates went too high. On the other hand, it may have been, just as often, narrow-minded and corrupt. *See, e.g.*, Lipartito, *supra* note 11, at 175-86.

<sup>27</sup> Lipartito, *supra* note 11, at 196-97, 201. Some states also required urban companies to acquire weak rural ones. *Id.* at 201.

<sup>28</sup> Fischer, *supra* note 14, at 58; Lipartito, *supra* note 11, at 176, 186-88, 202-03.

<sup>29</sup> Lipartito, *supra* note 11, at 197 & n.116; Fischer, *supra* note 14, at 105 (“State-directed subsidies of rural telephony, through rate caps, were not substantial until after World War II”), 262 (regulatory subsidies to raise residential penetration “came late and were small”).

<sup>30</sup> The preponderance of evidence indicates that, contrary to industry-inspired folklore, Bell and government did not join forces to put a telephone in every home. Rather, it appears that Bell advocated only that a community have telephone service from one local telephone company and that every company be either a Bell company or an Independent company chosen by Bell. *See* Mueller, *supra* note 8. For some contrary evidence that universal service of some kind was Bell's original intent, *see* Paul Starr, THE CREATION OF THE MEDIA: POLITICAL ORIGINS OF MODERN COMMUNICATIONS (“Starr”) at 207 & n.237 at 446 (Basic Books, New York, 2004). I give more credence to the former view, if only because of Bell's interminable lack of interest in rural America.

<sup>31</sup> Lipartito, *supra* note 11, at 219-20.

<sup>32</sup> *See, e.g.*, *Pacific Tel. & Tel. Co. v. Anderson*, 196 F. 699 (E.D. Wash. 1912); *Perry County Tel. & Tel. Co.*, 1917A P.U.R. 916 (Pa. P.U.C. 1916), *affirmed*, *Perry County Tel. & Tel. Co. v. Public Serv. Comm'n*, 69 Pa. Super. Ct. 529 (1918), *affirmed*, 265 Pa. 274, 108 A. 659 (1919); *Shafar v. Public Util. Comm'n*, 94 Ohio 230, 113 N.E. 809 (1916); Brooks, *supra* note 11, at 114; Friedlander, *supra* note 14, at 49; Peter W. Huber, Michael K. Kellogg & John Thorne, FEDERAL TELECOMMUNICATIONS LAW § 1.3.1 at 15-16 & nn. 44-46 (Aspen Publishers, Inc., New York, 1999); Mueller, *supra* note 8, at 115-27.

ultimately, residential penetration, in the first decades of telephone service.<sup>33</sup> Government may thus have stimulated the “race to build” between 1895 and 1920, but there is little or no indication that government, when it failed to order interconnection, consciously intended to boost residential penetration.

In sum, regulation before 1920 did not increase residential penetration much, if at all.<sup>34</sup> Competition did. Early regulators were more interested in substituting statewide regulation for inconsistent city and county regulations, stabilizing the industry by ending competition between local telephone companies serving the same area, interconnecting all local and long distance systems once competition was over, and setting minimum standards.<sup>35</sup>

Residential penetration grew in the 1920s, helped by prosperity in most of the country and telephone companies’ marketing telephone service for the first time as a social pastime for residential customers, especially housewives.<sup>36</sup> By 1929, 42% of homes had a telephone.<sup>37</sup> The telephone was widespread in urban and suburban upper income and upper-middle income homes, and was in most middle class homes.<sup>38</sup> Telephone penetration was lowest in the South, due to the combination of lack of investment capital, poverty among potential customers, lack of big cities and commerce,<sup>39</sup> elites unconcerned with the poor,<sup>40</sup> and a culture that put a low value on entrepreneurship and new technology.<sup>41</sup>

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<sup>33</sup> Mueller, *supra* note 8, at 8, 25, 54, 59, 120. Bell and some Independent companies vied for what became the natural monopoly of local telephone service. Bell had the advantages of superior technology and access to capital, control of at least half the telephones in the country (in contrast to the hundreds of uncoordinated Independents), and superior management, chiefly Theodore N. Vail. After 1908, Bell also used network effects to greatest advantage by buying out some Independents and refusing to interconnect with many others and their long distance systems. Finally, in the court of public opinion Bell promoted regulated monopoly as superior to either government takeover or the continued “chaos” and “wasteful duplication” of competition. See generally Brock I, *supra* note 14, at 117-19, 151-59; Brooks, *supra* note 11, at 127-55; Gabel I, *supra* note 11, at 346-58; Mueller, *supra* note 8, *passim*. For a statement of the case for regulated monopoly and against competition, see *Perry County Tel. & Tel. Co.*, *supra* note 32. By the mid-1920s, the local telephone business settled into a Bell-dominated patchwork of interconnected local monopolies, with Bell having the only long distance network. Mueller, *supra* note 8, at 145-46.

<sup>34</sup> In local service, relatively low rates for residential customers and high ones for business customers was a common practice of Bell before regulation. Brooks, *supra* note 11, at 105, 109, 112; Friedlander, *supra* note 14, at 33; Lipartito, *supra* note 11, at 119, 182. To the extent that regulators required that this discrimination continue, they did not change Bell’s conduct. Therefore, government requiring low residential rates is not government promoting residential penetration.

<sup>35</sup> Fischer, *supra* note 14, at 51, 74, 103; Lipartito, *supra* note 11, at 196-97.

<sup>36</sup> The frock-coated founders of the telephone industry, who ran it until the 1920s, thought of the telephone as a business tool and labor-saving device. They did not encourage, or they actively discouraged, housewives from using telephone service for social conversation. Fischer, *supra* note 14, at 78-83.

<sup>37</sup> Historical Statistics, *supra* note 19, Series R 1-12 at 783.

<sup>38</sup> Fischer, *supra* note 14, at 111-13.

<sup>39</sup> Lipartito, *supra* note 11, at 18, 42, 44, 81.

<sup>40</sup> Lipartito, *supra* note 11, at 204.

<sup>41</sup> Fischer, *supra* note 14, at 89; Lipartito, *supra* note 11, at 19-23 (noting at 19 a Southern “failure of entrepreneurship”), 153.

Starting sometime in the 1920s, rural penetration started falling even as urban and suburban penetration continued rising. There were several reasons for the rural fall. Telephone technology had matured from hand-cranked phones that could be connected to barbed wire fences. Complex facilities and paid specialists were needed, and many rural areas couldn't afford them. Telephone companies, now that the competitive "race to build" had ended, no longer had an economic incentive to expand into unprofitable rural areas.<sup>42</sup> On the demand side, the economic boom of the 1920s missed many American farms and the Depression began for them before the Stock Market Crash of 1929.<sup>43</sup> The 1920s also brought farmers better ways than the telephone to spend their scarce dollars and overcome isolation: electricity, which made radio broadcasts available, and the low-priced automobile.<sup>44</sup> Once the Great Depression began, residential penetration fell across the nation, sinking to 31% in 1933.<sup>45</sup>

As the Great Depression ended in the late 1930s, living standards rose and residential penetration resumed its rise, passing 50% in 1946 and 62% by 1950.<sup>46</sup> But there were problem pockets, especially some (but not all) rural areas. In 1949, almost two-third of American farms had no telephone service.<sup>47</sup> This was a problem as persistent as it was substantial. Many rural areas, it seemed, chronically lacked the critical mass of money, technical know-how, population density, and entrepreneurial spirit to create a telephone system that reached beyond the county seat. The nation as a whole, however, had emerged from World War II with stupendous wealth.<sup>48</sup> America could afford to be generous and reach the goal of universal service that Congress set in 1934.<sup>49</sup>

So, for the first time, the federal government promoted rural penetration. The Agriculture Department's Rural Electrification Administration and the Rural Telephone Bank made low interest loans and some engineering assistance available to rural entrepreneurs. The latter built new telephone systems, upgraded existing primitive ones, and extended lines from county seat towns to outlying, thinly populated areas.<sup>50</sup> These

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<sup>42</sup> Fischer, *supra* note 14, at 102-07.

<sup>43</sup> Arthur M. Schlesinger, Jr., *THE AGE OF ROOSEVELT: THE CRISIS OF THE OLD ORDER: 1919-1933* at 67, 105-10 (Houghton Mifflin Co., Boston, 1957).

<sup>44</sup> Fischer, *supra* note 14, at 102-07; Lipartito, *supra* note 11, at 102.

<sup>45</sup> Historical Statistics, *supra* note 19, Series R 1-12 at 783.

<sup>46</sup> *Id.*

<sup>47</sup> Paul W. Carlson, *McDonough Telephone Cooperative Serves Rural America* ("Carlson"), Illinois Periodicals Online, <http://www.lib.niu.edu/ipo/ihy960458.html> (visited Nov. 21, 2002); Joseph C. Goulden, *MONOPOLY* ("Goulden") at 73-74 (G.P. Putnam's Sons, New York, 1968).

<sup>48</sup> Murray Kempton, *PART OF OUR TIME: SOME RUINS & MONUMENTS OF THE THIRTIES* at 5 (Random House, Inc., New York, 1998) (describing post-War America as "made glorious according to every dream of the economic materialist," with "[i]ts wealth, its resources, its almost universally exalted living standards.").

<sup>49</sup> *See supra* note 3.

<sup>50</sup> Friedlander, *supra* note 14, at 77-78 & n.171; Goulden, *supra* note 47, at 76; Hugh Owen, *WE MUST SERVE WELL TO PROSPER: A HISTORY OF SHENANDOAH TELECOMMUNICATIONS COMPANY* at 64, 73, 82 (BookCrafters, Chelsea, Mich., 1998). Dozens of web pages of small Independents describe the transformative effect of REA loans on rural telephone deployment and penetration. *See, e.g.*, Carlson, *supra* note 47; National Telecommun. Coop. Ass'n, *History of Rural Telecommunications*, <http://www.ntca.org/about/history/> (visited March 16, 2003); *Rural Telephone*, <http://www.ruraltelephone.com>.

programs did more than anything else to bring telephone service to rural Americans who didn't have it yet.

More subtly, the Federal Communications Commission ("FCC" or the "Commission"), under pressure from Congress, began changing the telephone industry's internal payments to make long distance users pay relatively high prices so that rural and local telephone users could pay relatively low ones.<sup>51</sup> The motivation for this subsidy was a Robin Hood "take from the rich (long distance callers) and give to the poor (local callers)" notion. What made it possible were two events that made long distance very profitable: a surge in long distance calling that started just before World War II<sup>52</sup> and new technologies (coaxial cable and microwave) that lowered the cost of long distance calling and made it highly profitable at prevailing rates.<sup>53</sup> Congress and the FCC allowed Bell to keep its 'excess' long distance profits only if it, in effect, gave some of them to local, and especially rural, telephone companies.<sup>54</sup> The rural companies used these moneys to build rural telephone systems and keep their residential rates lower than they otherwise would be. Thus, a surge in demand and new low-cost technology made it possible to stimulate rural penetration without raising anyone's rates. Bell was content to let all this happen and became the Good Monopoly, helping to achieve universal service hand in hand with the FCC.<sup>55</sup>

This rate-changing, rising prosperity, and network effects,<sup>56</sup> filled the holes that remained seventy-five years after the telephone was invented, and universal telephone service was achieved in the 1980s.<sup>57</sup> Starting in that decade, government slowly eliminated some of its rate-changing in telephone companies' internal payments.<sup>58</sup> New programs, such as Link-Up and Lifeline,<sup>59</sup> targeted the few consumers who could not pay

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com/history/default.asp (visited Aug. 23, 2002). See also Rural Electrification Administration, *The New Deal Project*, <http://web54.sd54.k12.il.us/schools/keller/newdeal/rea.htm> (visited Nov. 21, 2002).

<sup>51</sup> Gerald W. Brock, TELECOMMUNICATION POLICY FOR THE INFORMATION AGE: FROM MONOPOLY TO COMPETITION ("Brock II") at 68 (quoting the powerful Senator McFarland, who wanted rates low for "the average housewife and business or professional man who do not indulge in a great deal of long distance.") (Harvard Univ. Press, Cambridge, Mass., 1994); Gabel II, *supra* note 26, *passim*; Mueller, *supra* note 8, at 159-60; Temin & Galambos, *supra* note 9, at 68.

<sup>52</sup> Fred W. Henck & Bernard Strassburg, A SLIPPERY SLOPE: THE LONG ROAD TO THE BREAK-UP OF AT&T ("Henck & Strassburg") at 18 (Greenwood Press, Westport, Conn., 1988); Temin & Galambos, *supra* note 9, at 20.

<sup>53</sup> Brock II, *supra* note 51, at 25; Henck & Strassburg, *supra* note 52, at 21-22, 40-56.

<sup>54</sup> Brock I, *supra* note 14, at 201-02; Brock II, *supra* note 51, at 68-69; Henck & Strassburg, *supra* note 52, at 13-17.

<sup>55</sup> Re the Bell System's cultivation of a benign public image, see Roland Marchand, CREATING THE CORPORATE SOUL: THE RISE OF PUBLIC RELATIONS & CORPORATE IMAGERY IN AMERICAN BIG BUSINESS at 48-87 (University of Calif. Press, Berkeley, Calif., 2000).

<sup>56</sup> Friedlander, *supra* note 14, at 80.

<sup>57</sup> See *supra* note 9.

<sup>58</sup> See, e.g., Brock II, *supra* note 51, at 173-94. Some experts wonder whether these payments ever really helped poor residential and rural consumers. High urban rates may have suppressed urban residential penetration as much as they stimulated rural penetration. High long distance rates to help the poor, if they cause the poor to have their service cut off for running up long distance bills they cannot pay, may actually suppress residential penetration among the poor.

<sup>59</sup> Link-Up helps qualified low-income consumers to establish telephone service. This federal program offsets one-half of the initial hook-up fee, up to \$30.00. The program also includes a deferred payment

prevailing rates. This is much more efficient than sending money to all rural areas or all residential customers.

In sum, governments' actions to stimulate universal telephone service were slight. Unlike radio and television, the next two Case Histories, the telephone network was privately created, owned, and managed.<sup>60</sup> American government did little, did it late, and did it in a carefully focused manner. America, however, achieved universal service before any other country.

What lessons does this brief history teach about what government can do well to stimulate the deployment of new technology to all Americans? The most obvious one is for government to play its part in making a country whose private resources, without much direct governmental help, make residential penetration almost universal. That is, have property laws that reward the creators of innovative technology (by granting patent monopolies) and builders (by not ordering interconnection under the antitrust laws if it seems that growth is occurring at a healthy rate); promote a society with a fluid and complex business and social life, in which each person might want to talk with each other person (and would therefore value universal service); rely on easy entry and competition to lower prices and spread the technology throughout society (as in the era of unregulated competition between 1895 and 1920); and limit government intervention to substantial and persistent problems. Government also helps by presiding over a secure and rich country in which the vast majority of homes are prosperous enough to afford telephone service and to be generous to the few that aren't, and a culture that encourages consumers to demand and take new technology that gives them what they want.

American government's long inaction in promoting universal service had the added advantage that by the time it acted, telephone service was both successful in the marketplace and well defined. Had government made telephone service a basic human right in 1880, it would have summoned a host of problems. It would have run the risk that the telephone would be a failure or a passing fad, a New Coke or Hula Hoop. Government would probably have had to pick among Bell and other telephone technologies, which would have combined guesswork with the potential for corruption. Government would have endorsed an expensive and fragile technology, missing the years of testing and improvement that new technologies must survive before they are welcomed into most households. Had government guaranteed everyone a hand-cranked, battery powered telephones in 1880, it might well have discouraged the creation of electrical telephones with dials and later improvements. If government had required existing customers, when there were few of them, to subsidize construction and service for have-

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schedule for these charges. Lifeline provides certain discounts on monthly service for qualified telephone subscribers, ranging from \$6.75 to \$9.50 per month, depending on the actions of state regulators. *The FCC's Universal Service Program for Low-Income Consumers*, <http://www.fcc.gov/cgb/consumerfacts/lowincome.html> (visited May 15, 2003).

<sup>60</sup> In every other major country after 1912, the telephone system was part of the government. Brooks, *supra* note 11, at 148. The U.S.'s only experience with government control of the telephone system was half-hearted and around World War I. It was such a disaster that, at the War's end, private ownership was restored enthusiastically. Susan J. Douglas, *INVENTING AMERICAN BROADCASTING, 1899-1922* ("Susan Douglas") at 281 (The Johns Hopkins Univ. Press, Baltimore, 1988).

nots, when there were many of them, the financial burden on the few might have been so great that telephone service would have remained a high-priced luxury for the few and would never have reached the many. For all these reasons, governmental hesitation in acting directly to achieve universal telephone service was wise.

If there was error in government's actions promoting universal telephone service, the error was in doing so through monopoly in the industry. When government ordered telephone companies to do possibly unprofitable things (build out to rural areas and change their financial arrangements to benefit rural customers) it had to guarantee them the extra profits with which to do these good deeds. Accordingly, government practically guaranteed Bell and the Independents that it would suppress competition and bar entry so that they could begin and continue their socially desirable but unnatural acts. The government thus effectively enshrined the nationwide, integrated Bell-Independent monopoly of long distance, local, and (through "economies of scope" arguments) manufacturing and research.

This monopoly had harmful long-term effects. Long distance service remained a high-priced luxury, unaffordable by most Americans for decades. Bell and the Independents, protected by government from competition<sup>61</sup> and forced by government to concentrate on basic telephone service, eventually became complacent and too conservative. They paid little attention to deploying new technologies and meeting their customers' changing needs. They also prevented other people from putting new technologies to use by denying them interconnection to the telephone network. To remove this dead weight from the American economy, the Herculean task of taming the Bell System, Case History #4 below, was needed.<sup>62</sup>

Even the good that government did became smaller as time went by. Some of the government programs that helped achieve universal service eventually funded companies that did not need financial help. For example, today's "High Cost Fund" has given millions of dollars to the Independent telephone companies that serve Hilton Head Island and Walt Disney World.<sup>63</sup> Little attention, however, is given to the five percent of

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<sup>61</sup> Radio-based long distance systems to compete with the Good Monopoly's were proposed as early as 1928. The federal government denied them spectrum until well after World War II. SECOND ANNUAL REPORT OF THE FEDERAL RADIO COMMISSION TO THE CONGRESS OF THE UNITED STATES FOR THE YEAR ENDED JUNE 30, 1928, TOGETHER WITH A SUPPLEMENTAL REPORT FOR THE PERIOD FROM JULY 1, 1928, TO SEPTEMBER 30, 1928 ("FRC Second Annual Report") at 33 (U.S. Gov't Printing Office, Washington DC, 1928); Brock I, *supra* note 14, at 180-87.

<sup>62</sup> In the telephone's early decades, government's refusal to require interconnection may have stimulated residential penetration, *supra* note 33. Once Bell's monopoly was established, omnipresent, and stodgy, however, government had to order interconnection for new technology to be connected to the phone network. *See infra* pages 44-5.

<sup>63</sup> Financial payments to "high cost areas" are authorized by 47 U.S.C. § 254 (b)(3). Payments to companies that serve Hilton Head (Hargray Tel. Co.) and Disney World (Smart City Tel. LLC) are recorded in Federal & State Staff, Federal-State Joint Board on Universal Service, *Universal Service Monitoring Report*, Tables 3.26, -.27, -.28, -.31, -.32 (Oct. 2002), available at [http://www.fcc.gov/Bureaus/Common\\_Carrier/Reports/FCC-State\\_Link/Monitor/mrs02-0.pdf](http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/Monitor/mrs02-0.pdf) (visited May 16, 2003).

American homes that still lack telephone service.<sup>64</sup> Government subsidizes traditional wireline telephone companies where wireless technology, without subsidies, is cheaper.<sup>65</sup>

None of these sins were foreseen in the 1920s, however, so these criticisms are twenty-twenty hindsight. The now-classic inefficiencies of government-sanctioned utility monopolies did not materialize, much less come under study, for decades.<sup>66</sup> American government's efforts to promote universal service, despite their long-run defects, were on the whole very successful. Presiding over the first country in the world to achieve universal telephone service, and helping achieve that in small and focused ways, covers a multitude of sins.

## Case History #2: The Jambalaya Re-Creates Radio Broadcasting

Broadcasters, unlike telecommunications providers, choose most of the content that goes through their lines. A study of broadcasting therefore requires a broader definition of “good results” for consumers than sufficed for universal telephone service. This article defines “good results” in broadcasting as service available everywhere, with no limits except ones imposed by the market on the number of channels, voices heard, viewpoints expressed, and kinds of content. This takes the First Amendment seriously<sup>67</sup> and avoids the quicksand of government making qualitative judgments about who gets to broadcast, leaving such matters to the decentralized and potentially fast-changing decisions of consumers. The only kinds of broadcast content that government should favor or create are public goods such as educational broadcasting and such discussion of public affairs as is necessary for republican government to function. And it should only create these if the market does not create them.

The radio frequency spectrum in the United States was first used, and radio broadcasting became big business, in an amazingly short time, about twenty years. In 1922, two years after the first regular broadcasts, there were more than 600 radio stations ‘on the air’ somewhere in the nation.<sup>68</sup> Two years later there were 1,400<sup>69</sup> and at least

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<sup>64</sup> Most universal service activity appears aimed at continuing and increasing the flow of funds to companies that already receive them. An unfortunately rare example of a program aimed at adding genuine have-nots to the network is the FCC’s Indian Telecommunications Initiatives, begun under former Chairman William Kennard. See *Tribal Homepage*, <http://www.fcc.gov/indians/> (visited May 16, 2003).

<sup>65</sup> See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Comments of Western Wireless Corp., Attachment F, available at [http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native\\_or\\_pdf=pdf&id\\_document=6514083855](http://gullfoss2.fcc.gov/prod/ecfs/retrieve.cgi?native_or_pdf=pdf&id_document=6514083855).

<sup>66</sup> Opposition to the Bell monopoly early in the twentieth century came from (1) the surviving isolated Independents, who chided Bell’s nationwide service as a newfangled, expensive luxury that most people didn’t want (see Friedlander, *supra* note 14, at 60-61; Mueller, *supra* note 8, at 10); (2) antitrust arguments against Bell leveraging its small monopolies into a nationwide, industry-wide one (Mueller, *supra* note 8, at 129-35); and (3) proponents of government ownership (Brooks, *supra* note 11, at 148-53), which would have proved much worse.

<sup>67</sup> The First Amendment to the U.S. Constitution provides that “Congress shall make no law . . . abridging the freedom of speech, or of the press . . .” U.S. CONST., amend. I.

<sup>68</sup> Christopher H. Sterling & John M. Kitross, *STAY TUNED: A HISTORY OF AMERICAN BROADCASTING* (“Sterling & Kitross”) at 69 (Lawrence Erlbaum Associates, Mahwah, N.J., 2002).

one broadcaster could be received in every state.<sup>70</sup> Dozens sprang up in some large cities although the permitted spectrum could allow only seven comfortably.<sup>71</sup> Broadcasters were a come-as-you-are party of government bureaus, newspapers, telephone<sup>72</sup> and power companies,<sup>73</sup> hotels,<sup>74</sup> local feed stores, department stores, and other retailers,<sup>75</sup> laundries,<sup>76</sup> labor unions, political radicals of many stripes,<sup>77</sup> muck-raking demagogues, established politicians and office holders,<sup>78</sup> religious organizations (some very unorthodox),<sup>79</sup> educational institutions,<sup>80</sup> radio manufacturers,<sup>81</sup> small ethnic groups,<sup>82</sup> chiropractors, piano companies, grain exchanges, poultry farms, sellers of marble and granite,<sup>83</sup> hospitals, ice cream parlors,<sup>84</sup> and quack doctors specializing in cures for

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<sup>69</sup> EMPIRE OF THE AIR: THE MEN WHO MADE RADIO ("Empire Video") at 0:59, PBS Home Video by Turner Home Entertainment. In addition to massive entry, early radio had a high exit rate. *See, e.g.*, Gleason L. Archer, HISTORY OF RADIO TO 1926 ("Archer I") at 369 (by 1926, half of all persons who had begun broadcasting had stopped, chiefly due to unprofitability) (American Historical Society, Inc., New York, 1938); Marvin R. Bensman, THE BEGINNING OF BROADCAST REGULATION IN THE TWENTIETH CENTURY ("Bensman") at 94 (50% exit rate between 1921 and 1924) (McFarland & Co., Jefferson, N.C., 2000).

<sup>70</sup> Kenneth Bilby, THE GENERAL: DAVID SARNOFF & THE RISE OF THE COMMUNICATIONS INDUSTRY ("Bilby") at 68 (Harper & Rowe, Publishers, Inc., New York, 1986).

<sup>71</sup> Lizabeth Cohen, MAKING A NEW DEAL: INDUSTRIAL WORKERS IN CHICAGO, 1919-1930 ("Cohen") at 141 (Cambridge Univ. Press, New York, 1999) (in Chicago, 40 stations); Bill Jaker, Frank Sulek, & Peter Kanze, THE AIRWAVES OF NEW YORK: ILLUSTRATED HISTORIES OF 156 AM STATIONS IN THE METROPOLITAN AREA, 1921-1996 ("Jaker *et al.*") at 7 (McFarland & Co., Jefferson, N.C., 1998) (in 1927, 50 stations in New York City); Sterling & Kitross, *supra* note 68, at 74.

<sup>72</sup> AT&T operated some stations on a financial principle that it called "toll broadcasting," renting air time with no serious interest in the content that the renters broadcast – a common carrier model of broadcasting. Too few renters materialized, so the experiment failed. Archer I, *supra* note 69, at 257-58; William Peck Banning, COMMERCIAL BROADCASTING PIONEER: THE WEAFF EXPERIMENT, 1922-26 (Harvard Univ. Press, Cambridge, Mass., 1946); Bilby, *supra* note 70, at 73; Phillip T. Rosen, THE MODERN STENTORS: RADIO BROADCASTERS & THE FEDERAL GOVERNMENT, 1920-1934 at 65 (Greenwood Press, Westport, Conn., 1980) ("Rosen").

<sup>73</sup> Robert W. McChesney, TELECOMMUNICATIONS, MASS MEDIA, & DEMOCRACY: THE BATTLE FOR THE CONTROL OF U.S. BROADCASTING, 1928-1935 ("McChesney") at 14 (Oxford Univ. Press, New York, 1993).

<sup>74</sup> Bilby, *supra* note 70, at 57; Sterling & Kitross, *supra* note 68, at 71, 117.

<sup>75</sup> Alfred D. Chandler, Jr., & James W. Cortada (Eds.), A NATION TRANSFORMED BY INFORMATION: HOW INFORMATION HAS SHAPED THE UNITED STATES FROM COLONIAL TIMES TO THE PRESENT ("Chandler & Cortada") at 147 (Oxford Univ. Press, New York, 2000); George H. Douglas, THE EARLY DAYS OF RADIO BROADCASTING ("George Douglas") at 34 (McFarland & Co., Jefferson, N.C., 2001).

<sup>76</sup> Sterling & Kitross, *supra* note 68, at 116.

<sup>77</sup> Among these were WEVD, named for the socialist labor leader, Eugene V. Debs (see <http://www.savewevd.com/>, visited May 6, 2002) and the Chicago Federation of Labor's station, WCFL (see <http://www.manteno.com/wcfl/history/>, visited May 6, 2002). *See also* McChesney, *supra* note 73, at 28; Jesse Walker, REBELS ON THE AIR: AN ALTERNATIVE HISTORY OF RADIO IN AMERICA ("Walker") at 38 (New York Univ. Press, New York, 2001).

<sup>78</sup> *Fletcher v. Hylan*, 211 N.Y.S. 727 (Sup. Ct. 1925).

<sup>79</sup> George Douglas, *supra* note 75, at 33, 94.

<sup>80</sup> Erik Barnouw, THE GOLDEN WEB: A HISTORY OF BROADCASTING IN THE UNITED STATES, VOL. II – 1933-1953 ("Barnouw II") at 23 (Oxford Univ. Press, New York, 1968); George Douglas, *supra* note 75, at 33, 83; Susan Douglas, *supra* note 60, at 309-10.

<sup>81</sup> George Douglas, *supra* note 75, at 1-2, 19-37.

<sup>82</sup> *See, e.g.*, Yiddish Radio Project, <http://www.yiddishradioproject.org/> (visited May 6, 2002).

<sup>83</sup> George Douglas, *supra* note 75, at 33.

<sup>84</sup> Evan I. Schwartz, THE LAST LONE INVENTOR: A TALE OF GENIUS, DECEIT, & THE BIRTH OF TELEVISION ("Schwartz") at 65-66 (HarperCollins Publishers Inc., New York, 2002).

“middle aged male fatigue.”<sup>85</sup> For the first few years, there were almost no established broadcasts, networks, enforceable property rights to frequencies, or other government regulation.<sup>86</sup> Experimentation, spontaneity, and content aimed at small audiences were common.<sup>87</sup> Many financial models were discussed, and some were tried: advertising, regular fees from subscribers, fees charged to program-creators for “renting airtime,” a tax on vacuum tubes, other kinds of government funding, philanthropy (from a few great benefactors or many small ones), “free” radio provided by businesses in non-broadcast markets that operated stations to promote their products, and profits from sales of radios.<sup>88</sup> Most programs came from a few big coastal cities and reached many states, sometimes across the entire country.<sup>89</sup> In rural areas, where many people lived in those days,<sup>90</sup> there was little or no locally originated broadcasting.<sup>91</sup> Little content was created for broadcast; most had been created for other venues (such as hotel ballrooms or college lecture halls) and was broadcast to distribute it through a new channel (*e.g.*, putting a

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<sup>85</sup> Erik Barnouw, *A TOWER IN BABEL: A HISTORY OF BROADCASTING IN THE UNITED STATES, VOL. I – TO 1933* at 209-10 (“Barnouw I”) (Oxford Univ. Press, New York, 1966); Bensman, *supra* note 69, at 30; Bilby, *supra* note 70, at 57; Susan Douglas, *supra* note 60, at 315; Rosen, *supra* note 72, at 62-63.

<sup>86</sup> Early federal statutes about radio were minimal and did not contemplate broadcasting, much less provide specifically for it. Wireless Ship Act of 1910, 36 Stat. 629 (1910); Radio Act of 1912, 37 Stat. 302 (1912). These statutes gave the federal government so little power over broadcasting that Secretary of Commerce Herbert Hoover met repeated judicial defeats when he attempted to control it. *See, e.g., Hoover v. Intercity Radio Co.*, 286 F. 1003 (App. D.C. 1923), *appeal dismissed*, 266 U.S. 636 (1924); *United States v. Zenith Corp.*, 12 F.2d 614 (N.D. Ill. 1926); *Federal Regulation of Radio Broadcasting*, 35 Op. Att’y Gen. 126 (1926).

<sup>87</sup> Cohen, *supra* note 71, at 135 (describing early radio content as “talk, ethnic nationality hours, labor news, church services, and vaudeville-type musical entertainment by hometown, often ethnic talent.”).

<sup>88</sup> *See, e.g.,* RADIO CONTROL, HEARINGS BEFORE THE COMMITTEE ON INTERSTATE COMMERCE, U.S. Senate, 69<sup>th</sup> Cong., 1st. Sess., BILLS REAFFIRMING THE USE OF THE ETHER FOR RADIO COMMUNICATION (“1926 Hearings”), Part 3 (March 1-2, 1926) at 225-26 (U.S. Gov’t Printing Office, Washington, D.C., 1926); Alan B. Albarran & Gregory G. Pitts, *THE RADIO BROADCASTING INDUSTRY* (“Albarran & Pitts”) at 22 (Allyn & Bacon, Needham Heights, Mass., 2001); Archer I, *supra* note 69, at 252-54, 328-29, 342-44, 360-64; Gleason L. Archer, *BIG BUSINESS & RADIO* (“Archer II”) at 31-32 (The American Historical Co., New York, 1939); Bensman, *supra* note 69, at 83, 106, 126, 143; George Douglas, *supra* note 75, at 81-90; Robert L. Hilliard & Michael C. Keith, *THE BROADCAST CENTURY & BEYOND: A BIOGRAPHY OF AMERICAN BROADCASTING* (“Hilliard & Keith”) at 42 (Focal Press, Boston, 2001); Herbert Hoover, *THE MEMOIRS OF HERBERT HOOVER: THE CABINET & THE PRESIDENCY, 1920-1933* (“Hoover”) at 140 (The Macmillan Co., New York, 1952); McChesney, *supra* note 73, at 15; Rosen, *supra* note 72, at 65, 68; Schwartz, *supra* note 84, at 95-96, 98; Susan Smulyan, *SELLING RADIO: THE COMMERCIALIZATION OF AMERICAN BROADCASTING, 1920-1934* (“Smulyan”) at 65 (Smithsonian Inst. Press, Washington, D.C., 1994); Walker, *supra* note 77, at 31; Joan Hoff Wilson (Oscar Handlin, Ed.), *HERBERT HOOVER: FORGOTTEN PROGRESSIVE* (“Wilson”) at 112 (Waveland Press, Prospect Heights, Ill., 1992).

<sup>89</sup> ANNUAL REPORT OF FEDERAL RADIO COMMISSION TO THE CONGRESS OF THE UNITED STATES FOR THE FISCAL YEAR ENDED JUNE 30, 1927 (“FRC First Annual Report”) at 2, 9 (1927) (noting that in 1927 one seventh of all U.S. radio stations were in New York and Chicago); 1926 Hearings, *supra* note 88, at 220-21 (AT&T in 1926 describing one of its stations as providing reliable service over 1,000 mile radius); Archer I, *supra* note 69, at 293 (a St. Louis station heard in 41 states); Bensman, *supra* note 69, at 88 (one listener in Baltimore complaining of interference between a station in Cincinnati and a station in California); WASH. EVE. STAR, Feb. 17, 1927 at 34 (Washington radio listings including three California stations).

<sup>90</sup> In the 1920, 49% of the population of the United States lived in rural areas. As late as 1950, 36% did. In 2002, only 21% did. State Library of Iowa, *Urban & Rural Population for the U.S. & All States: 1900-2000*, <http://www.silo.lib.ia.us/specialized-services/datacenter/data-tables/UnitedStates/urusstpop19002000.pdf> (visited July 29, 2003).

<sup>91</sup> FRC First Annual Report, *supra* note 89, at 8-9; Bensman, *supra* note 69, at 42.

microphone in front of the hotel orchestra or a professor).<sup>92</sup> Contrary to the mythology of later “Golden Ages” of radio and television, early radio contained much news and cultural and educational broadcasting.<sup>93</sup> For all its unpredictability, radio was hugely popular<sup>94</sup> and therefore, it is safe to assume, pleasing to consumers.

For all the tumult, by the mid-1920s there were signs of order emerging, with minimal government regulation. A flurry of local legislation addressed some aspects of interference.<sup>95</sup> Secretary of Commerce Herbert Hoover imposed, or “jawboned” rival broadcasters into accepting, agreements to share the same channel by broadcasting at different times. Courts enforced these agreements.<sup>96</sup> At least one state court decision, from Cook County, Illinois, applied common law precepts of unfair competition to resolve an interference dispute between two stations that were using adjacent frequencies.<sup>97</sup> Secretary Hoover told stations that “they should in case of interference by ‘pirate’ stations try out their common law rights.”<sup>98</sup>

Much of the order that was emerging, however, came from the private sector. Stations worked out private arrangements to share the same frequency or nearby frequencies.<sup>99</sup> In many cities, all local stations agreed not to transmit for one evening to allow listeners to tune into popular broadcasts from far away. These “Silent Nights”

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<sup>92</sup> Rosen, *supra* note 72, at 72.

<sup>93</sup> See also Barnouw I, *supra* note 85, at 27 (Caruso and New York City’s Metropolitan Opera broadcasting in 1910), 88 (in 1921-22, every performance by the Chicago Lyric Opera was broadcast), 96-98 (74 colleges and universities broadcasting by the end of 1922); Bensman, *supra* note 69, at 108 (85 educational institutions broadcasting in 1924); Cohen, *supra* note 71 at 133-34 (in 1925, one third of all radio stations were owned by educational institutions and churches); George Douglas, *supra* note 75, at 29 (1922 broadcast of a Mozart opera), 98-112 (“The Birth of Radio News”), 134-36 (classical music), 142-52 (“The Educational Stations”), 153-65 (“Classical Radio Music: The Cultural Windfall”), 194 (“Classical and light classical music programming still dominated the evening hours in 1930”); Hilliard & Keith, *supra* note 88, at 46 (Walter Damrosch conducting the New York Symphony on the radio in 1925); Sterling & Kitross, *supra* note 68, at 78 (colleges and universities), 83 (“Classical music was also a staple on radio in the 1920s.”), 87 (live coverage of the Scopes “Monkey Trial”), 130 (classical music). A populist would also note that “culture” includes the kinds of songs heard on Yiddish radio (*supra* note 82), and such domestic forms of culture as Harlem’s Cotton Club Orchestra and The Grand Ole Opry. Cohen, *supra* note 71, at 155; George Douglas, *supra* note 75, at 177; WASH. EVE. STAR at 34 (Feb. 17, 1927).

<sup>94</sup> The number of households with radios grew from 400,000 in 1923 to 8 million in 1928. Historical Statistics, *supra* note 19, Series R 93-105 at 796. In 1924, one third of American furniture expenditures went to buy radios. Empire Video, *supra* note 69, at 0:59. But see Barnouw I, *supra* note 85, at 210 (citing industry data that purchases of radios slowed during the worst year of ‘chaos,’ 1927).

<sup>95</sup> Stephen Davis, THE LAW OF RADIO COMMUNICATION (“S. Davis”) at 83-84 (McGraw-Hill Book Co., New York, 1927); W. Jefferson Davis, RADIO LAW (“J. Davis”) at 50-51, 62 (Parker, Stone & Baird Co., Los Angeles, Calif., 1930).

<sup>96</sup> *Carmichael v. Anderson*, 14 F.2d 166 (W.D. Mo. 1926), appeal dismissed per stipulation, 21 F.2d 1009 (8<sup>th</sup> Cir. 1927) (per curiam); Bensman, *supra* note 69, at 72.

<sup>97</sup> *The Tribune Co. v. Oak Leaves Broadcasting Station (Inc.)*, (Cir. Ct., Cook Cty., Ill., Nov. 17, 1926), reproduced at 68 CONG. REC. 215-19.

<sup>98</sup> Bensman, *supra* note 69, at 195.

<sup>99</sup> Archer I, *supra* note 69, at 260, 268-70, 281; Barnouw I, *supra* note 85, at 92.

required significant coordination, trust, and self-sacrifice among competitors.<sup>100</sup> Stations in different cities occasionally linked themselves together to give widespread coverage of an event occurring in one of the cities,<sup>101</sup> representing the beginning of networks.<sup>102</sup> The NBC network began taking shape in early 1926,<sup>103</sup> CBS about a year later.<sup>104</sup> Content started to be created just for broadcasting, in the form of the first dramas and situation comedies.<sup>105</sup>

There was even talk of government enforcing property rights in spectrum, as it does with title to land, usage rights to water, and trademarks and copyrights for intellectual property.<sup>106</sup> “Squatter sovereignty,” “first come, first served,” and “homesteading” were the slogans.<sup>107</sup> A special committee of the American Bar Association opined that existing stations had a property right in the “ether”<sup>108</sup> they were using, a right the government could not take away without just compensation.<sup>109</sup> General Electric, represented by no less than Charles Evans Hughes,<sup>110</sup> argued for squatter

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<sup>100</sup> Barnouw I, *supra* note 85, at 93; Bensman, *supra* note 69, at 73; Cohen, *supra* note 71, at 132; Smulyan, *supra* note 88, at 18 (Smithsonian Inst. Press, Washington, D.C., 1994) (“silent nights lasted until about 1927”); Walker, *supra* note 77, at 31.

<sup>101</sup> PROCEEDINGS OF THE FOURTH NATIONAL RADIO CONFERENCE at 53-54 (“Fourth Radio Conference”), reprinted in 1926 Hearings, *supra* note 88, Part 1 (Jan. 8-9, 1926); *id.*, part 3 at 220-21, 224-25 (AT&T in 1926 describing its few links among radio stations); Albarran & Pitts, *supra* note 88, at 28.

<sup>102</sup> Archer I, *supra* note 69, at 324, 335-36; Archer II, *supra* note 88, at 71, 298-99; George Douglas, *supra* note 75, at 127-41; Rosen, *supra* note 72, at 65-66.

<sup>103</sup> Bilby, *supra* note 70, at 68-88; Deborah L. Spar, RULING THE WAVES: CYCLES OF DISCOVERY, CHAOS, & WEALTH FROM THE COMPASS TO THE INTERNET (“Spar”) at 169-70 (Harcourt, Inc., New York, 2001); Sterling & Kitross, *supra* note 68, at 116-19.

<sup>104</sup> See, e.g., Archer II, *supra* note 88, at 305-21; Sterling & Kirtross, *supra* note 68, at 120-22; Llewellyn White, THE AMERICAN RADIO: A REPORT ON THE BROADCASTING INDUSTRY IN THE UNITED STATES FROM THE COMMISSION ON FREEDOM OF THE PRESS (“White”) at 33-36 (University of Chicago Press, Chicago, 1948).

<sup>105</sup> Barnouw I, *supra* note 85, at 136-38; Sterling & Kitross, *supra* note 68, at 88.

<sup>106</sup> Bensman, *supra* note 69, at 100 (“some [radio interests] insisted on permanent preemption of channels as private property”); S. Davis, *supra* note 95, at 14-15, 120-24; Clarence C. Dill, RADIO LAW: PRACTICE & PROCEDURE (“Dill”) at 78-80 (National Law Book Co., Washington, D.C., 1938); Susan Douglas, *supra* note 60, at 101 (as early as 1900, Guglielmo Marconi “regarded the ether as territory he could preempt and privatize.”); Hoover, *supra* note 88, at 139-40 (many “[r]adio men” “were insisting on a right of permanent preemption of the channels through the air as private property”), 142 (regretting “pressure from some interests which still hoped for private rights in broadcast frequency channels.”); Hiram L. Jome, Economics of the Radio Industry at 173, 231-35 (A.W. Shaw Co., New York, 1925); James P. Taugher, *The Law of Radio Communication with Particular Reference to a Property Right in a Radio Wave Length*, 12 MARQ. L. REV. 179, 299 (1928).

<sup>107</sup> See, e.g., Dill, *supra* note 106, at 78-79; Susan Douglas, *supra* note 60, at 214.

<sup>108</sup> As late as the 1930s, some thought that there was an invisible medium, called “the ether,” through which radio communications passed. Dill, *supra* note 106, at 19.

<sup>109</sup> Frank C. Waldrop & Joseph Borkin, TELEVISION: A STRUGGLE FOR POWER at 55 (William Morrow & Co., New York, 1938), citing U.S. Senate Committee on Interstate Commerce, Hearings on S. 6, 71<sup>st</sup> Congress, 1<sup>st</sup> Sess. at 66.

<sup>110</sup> Hughes had been Governor of New York, Secretary of State, Associate Justice of the U.S. Supreme Court, and Republican candidate for President in 1916. *The American Presidency*, <http://gi.grolier.com/presidents/aae/side/hughes.html> (visited May 15, 2003).

sovereignty in the federal courts.<sup>111</sup> All these activities, if allowed to continue, might well have created an efficient system of private property rights in frequencies.<sup>112</sup>

The federal government decided to step in, however, and to re-arrange most aspects of this newborn industry. The pretext was that there was “chaos” on the airwaves.<sup>113</sup> Whether there really was chaos is open to question,<sup>114</sup> but the federal government nationalized the radio frequency spectrum, which stopped state and local regulation in their tracks, and forbade private ownership of it.<sup>115</sup> What could have been private property became “The People’s Airwaves.”<sup>116</sup> The federal government set aside much spectrum for use only by itself.<sup>117</sup> It allowed others (state governments, companies, and individuals) to use other spectrum, but only with the advance permission of a semi-political agency. The first of these was the Federal Radio Commission or FRC, which was absorbed in 1934 into the FCC.<sup>118</sup> The FRC and FCC were given discretion to do whatever they thought was “in the public interest,” a terribly vague standard<sup>119</sup> that

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<sup>111</sup> Dill, *supra* note 106, at 79.

<sup>112</sup> A less optimistic “might have been” scenario is also plausible. GE and a few other companies, the so-called “patent pool,” had patents on the best radio equipment. They wanted to force broadcasters to use it, and hoped thus to gain *de facto* control of the broadcasters (and their spectrum) before the patents ran out. The pool, by controlling spectrum after its patents on equipment ran out, would perpetuate its control of broadcasting – perhaps, in the pre-New Deal era, beyond the reach of government regulation. *See Archer II, supra* note 88, at 1-186 *passim*; Bilby, *supra* note 70, at 59-67, 105-110; Sterling & Kitross, *supra* note 68, at 108.

<sup>113</sup> *See, e.g., National Broadcasting Co. v. United States (“NBC”),* 319 U.S. 190, 212 (1943) (“From, July, 1926, to February 23, 1927, . . . almost 200 new stations went on the air. These new stations used any frequencies they desired, regardless of the interference thereby caused to others. Existing stations changed to other frequencies and increased their power and hours of operation at will. The result was confusion and chaos. With everybody on the air, nobody could be heard.”). *See also, e.g., Jaker et al., supra* note 71, at 7.

<sup>114</sup> Bensman, *supra* note 69, at 179 (quoting Secretary Hoover writing President Coolidge in 1926 that “all offending stations have gone back to their original positions except ten or twelve” and quoting one observer in late 1926 that “up to this writing, a small number of stations have changed their wavelengths, [but] no such thing as *chaos*, nor anything resembling it has resulted”) (italics in original), 196 (quoting Hoover as stating that “there was a much less number [of pirate stations] than we expected”); Hoover, *supra* note 88, at 142 (“One of our troubles in getting legislation was the very success of the voluntary system we had created.”).

<sup>115</sup> Radio Act of 1927, § 1, 44 Stat. 1162 (1927) (current version at 47 USC § 301); J. Davis, *supra* note 95, at 54-57 (citing cases holding that radio is interstate commerce, requires nationwide uniform rules, and therefore is beyond state and local authority).

<sup>116</sup> Secretary Hoover stated in 1925 that “The ether is a public medium, and its use must be for public benefit. The use of a radio channel is justified only if there is a public benefit. . . . [P]ublic good must overbalance private desire; . . .” Fourth Radio Conference, *supra* note 101, at 56-57.

<sup>117</sup> This outcome was advocated by the Navy on national security grounds. Susan Douglas, *supra* note 60, at 124-25, 210-15; McChesney, *supra* note 73, at 14; Spar, *supra* note 103, at 146.

<sup>118</sup> Radio Act of 1927, §§ 1, 4, 5, 9-14, 44 Stat. 1162 (1927) (current version at 47 USC §§ 301, 308-10).

<sup>119</sup> “It has been often remarked that this public interest standard is vague to the point of vacuousness, providing neither guidance nor constraint on the agency’s action.” Glen O. Robinson, *The Federal Communications Act: An Essay on Origins and Regulatory Purpose* at 14, in Max D. Paglin, Ed., *A LEGISLATIVE HISTORY OF THE COMMUNICATIONS ACT OF 1934* (Oxford Univ. Press, New York, 1989). *See also Amendment of Subpart L, Part 91, to Adopt Rules & Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Station to Relay Television Signals to Community Antenna Systems* (“1967 Memorandum Opinion & Order”), 8 Rad. Reg. 2d (P&F) 1677,1704 (1967) (dissenting opinion by Commissioner Loevinger quoting favorably a scholar’s opinion that the

allowed for many outside pressures, some of them corrupt.<sup>120</sup> Licenses would be awarded and frequently renewed not for money, but for broadcasting “in the public

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public interest “may . . . be nothing more than a label attached indiscriminately to a miscellany of particular compromises of the moment.”); Lawrence M. Friedman, *AMERICAN LAW IN THE TWENTIETH CENTURY* at 559 (“It would be hard to think of vaguer language.” The standard gives the FCC “unbridled discretion.”) (Yale Univ. Press, New Haven, Conn., 2002); Lucas A. Powe, Jr., *AMERICAN BROADCASTING AND THE FIRST AMENDMENT* (“Powe”) at 61 (quoting the principal Congressional sponsor of radio regulation as saying that the “public interest” standard “covers just about everything”) (University of Calif. Press, Berkeley, Calif., 1988); Sterling & Kitross, *supra* note 68, at 742 (after 60 years, the standard “is likely to remain undefined beyond what the current political situation says it means, with resultant regulatory confusion and lack of goals.”). *But see* Sterling & Kitross at 734 (perhaps salvaging the standard by saying that “it permits interpretations that reflect current reality rather than an idealized and rigid fiction.”).

<sup>120</sup> It can be difficult, in some cases, to say whether an outside pressure is legitimate or corrupt. *See, e.g.*, Archer II, *supra* note 88, at 307 (quoting an FRC official as saying that “Probably no quasi-judicial body was ever subject to so much Congressional pressure as the” FRC), 390 (FRC official becomes Vice President of CBS); Barnouw II, *supra* note 80, at 28 (the FRC “had sometimes operated on a ward-heeler level”), 31 (two FRC Commissioners become CBS Vice Presidents), 42 (FCC’s chief engineer resigns and, two weeks later, lobbies FCC in a case he had worked on), 236 (“Many congressmen had acquired a financial interest in radio stations”); Erik Barnouw, *THE IMAGE EMPIRE: A HISTORY OF BROADCASTING IN THE UNITED STATES, VOL. III – FROM 1953* at 68, 70, 126 (Oxford Univ. Press, New York, 1970) (in the mid-1950s, rumored bribery in FCC awards of television licenses and proven lavish travel by Commissioners paid by broadcasters); Erik Barnouw, *TUBE OF PLENTY: THE EVOLUTION OF AMERICAN TELEVISION* (“Barnouw III”) at 153-54 (an ultimately unsuccessful FCC procurement of perjury to punish an allegedly communist broadcaster during the McCarthy era), 353 (FCC Commissioner resigns to become a cable TV lobbyist) (Oxford Univ. Press, New York, 1990); William Boddy, *FIFTIES TELEVISION: THE INDUSTRY & ITS CRITICS* (“Boddy”) at 215 (University of Illinois Press, Chicago, 1993) (quoting former FCC Chairman as saying that the 1950s were “the ‘Whorehouse Era’ . . . [w]hen matters were *arranged*, not adjudicated.”) (italics in original); Robert Dallek, *LONE STAR RISING: LYNDON JOHNSON & HIS TIMES, 1908-1960* at 247-52 (Oxford Univ. Press, New York, 1991) (describing Congressman Lyndon Johnson’s influence on his wife’s successful entry into radio broadcasting); Henck & Strassburg, *supra* note 52, at 10 (in the 1930s, broadcasters allegedly paid for a “wild party” or “drunken brawl” in New York for Commissioners, one of whose glasses were broken when a woman slapped him), 63 (describing alleged bribery of Commissioner Mack in the early 1950s, leading to his resignation and the suicide of the alleged bribe-giver); Reed E. Hundt, *YOU SAY YOU WANT A REVOLUTION: A STORY OF INFORMATION AGE POLITICS* at 19-20 (“Another revelation on day one [of Mr. Hundt as FCC Chairman] was the omnipresence of congressional influence on the Commission’s work. On my desk were letters from several hundred Congressmen and Senators complaining that the Commission had blundered . . .”) (Yale Univ. Press, New Haven, Conn., 2000); Robert E. Lee & John Shosky, *IN THE PUBLIC INTEREST: THE LIFE OF ROBERT EMMET LEE FROM THE FBI TO THE FCC* (“Lee & Shosky”) at 152 (University Press of America, Inc., Lanham, Md., 1996) (Commissioner recalling that in regulating TV in the 1950s, “improprieties – or what appeared to be – occurred” and “there was a good deal of influence-peddling and some commissioners acted improperly”), 155-57 (Mack alleged bribery incident); Tom Lewis, *EMPIRE OF THE AIR: THE MEN WHO MADE RADIO* at 303 (HarperCollins Publishers, New York, 1991) (crucial decisions in the 1940s about spectrum allocations for FM radio and television were tainted by the Chairman’s alleged conflicts of interest); Newton N. Minow, *EQUAL TIME: THE PRIVATE BROADCASTER AND THE PUBLIC INTEREST* (“Minow”) at 5 (House Speaker Rayburn warned him “don’t ever forget that you’re an arm of the Congress”), 36 (“When I was Chairman, I heard from the Congress about as frequently as television commercials flash across the television screen.”) (Atheneum, New York, 1964); Powe, *supra* note 119, at 70-74 (President Roosevelt, who was opposed by most newspapers, urging the FCC to bar newspapers from owning radio stations); William B. Ray, *FCC: THE UPS & DOWNS OF RADIO-TV REGULATION* at 32-67, 154-59 (Iowa State Univ. Press, Ames, Iowa, 1990) (many instances, starting in the 1930s, of political influence in granting of broadcast licenses); Richard Reeves, *PRESIDENT KENNEDY: PROFILE OF POWER* at 300 (President Kennedy, after seeing what he thought was unfavorable coverage of his Administration by NBC, said to the Chairman of the FCC, “I want you to do something about that. You do something about that.”) (Simon & Schuster,

interest.” A broadcaster who did something that a majority of the regulators thought was against the public interest ran the risk of its license being revoked or denied renewal – a Sword of Damocles that almost never fell but was never withdrawn.<sup>121</sup>

Using these new powers, the federal government decided that broadcasting would be allowed on only a small part of the spectrum<sup>122</sup> and that only a few channels would be used for broadcasting in each community.<sup>123</sup> Government also chose the quality of each channel,<sup>124</sup> who each broadcaster would be,<sup>125</sup> and whether there would be nationwide networks or just local stations,<sup>126</sup> what methods of technical operation broadcasters would use,<sup>127</sup> and which new technologies (*e.g.*, FM) would be allowed or required, and when.<sup>128</sup>

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New York, 1993); Bernard Schwartz, *Comparative Television & the Chancellor's Foot*, 47 GEO. L.J. 655 (1959) (showing that television licenses were awarded to newspapers that had endorsed Eisenhower for President, but denied to those that had endorsed Stevenson); Sterling & Kitross, *supra* note 68, at 260-61 (describing Congressional harassment of the FCC in the 1940s), 361 (describing the resignation of FCC Chairman Doerfer after being reimbursed two and three times for the same “business” trips with broadcasters); Anthony Summers, *THE ARROGANCE OF POWER: THE SECRET WORLD OF RICHARD NIXON* at 446 (quoting the Attorney General, following the President's instructions, warning the Washington Post that if it continued pursuing the Watergate scandal, its owner, who also owned television licenses, was “going to get her tit caught in a big fat wringer”) (Viking, New York, 2000); Temin & Galambos, *supra* note 9, at 51, 178 (FCC Commissioner leaves to lobby for MCI). For relatively recent allegations, *see* David Ho, *FCC Receives Trips from Lobbyists*, AP ONLINE (May 22, 2003), available at 2003 WL 55374440 (alleging an “incestuous” relationship between the FCC and broadcasters, evidenced by the broadcasters’ trade associations paying for FCC travel to Las Vegas, Aspen, and other hotspots); Peter Flaherty, *Perspective, Jesse Came to Do Good & Did Well. Conflict: Is Jesse Jackson Keeping Hope Alive for the Downtrodden or Merely Making His Friends & Family Rich?*, BALT. SUN at 1C (March 18, 2001) (alleging that Rev. Jesse Jackson repeatedly protested proposed mergers at the FCC and then dropped his opposition after charities allied with him were favored financially by one of the merging parties); Jeffrey Silva, *Portals Probe on Pause?*, RCR RADIO COMMUN. REP. (Dec. 13, 1999), available at 1999 WL 28241230 (allegations of corruption involving not an FCC proceeding or decision, but the lease of the FCC’s new office building).

<sup>121</sup> Glen O. Robinson, *The FCC & The First Amendment: Observations on 40 Years of Radio & Television Regulation*, 52 MINN. L. REV. 67, 119 (1967).

<sup>122</sup> FRC First Annual Report, *supra* note 89, at 13.

<sup>123</sup> In 1937, the Washington DC area had only four radio stations, all AM. WASH. EVE. STAR at B-6 (July 20, 1937). Today’s AM spectrum accommodates more than 25. BIA Financial Network, Inc., *INVESTING IN RADIO MARKET REP. 2002 at Metro Rank 8* (BIA Financial Network, Inc., Chantilly, Va., 2002).

<sup>124</sup> *See, e.g.*, FRC First Annual Report, *supra* note 89, at 2-3 (mentioning a total of “89 wave lengths” for radio broadcasting); FRC Second Annual Report, *supra* note 61, at 6 (mentioning “96 channels in the broadcast band,” some of which are reserved for or shared with Canadian stations), 49-50 (FRC General Order No. 40, assigning different frequencies to different parts of the US), App. E (2) at 117-23 (listing each radio station’s location, frequency, and power).

<sup>125</sup> *See, e.g.*, FRC First Annual Report, *supra* note 89, at 14 (requiring prior FRC approval of license transfers “TO PREVENT SPECULATION IN RADIO STATIONS”). *See also* Bensman, *supra* note 69, at 145.

<sup>126</sup> FRC First Annual Report, *supra* note 89, at 8 (noting listeners’ strong feelings for and against “chain broadcasting”); FRC Second Annual Report, *supra* note 61, at 21 (continuing to mull over chain broadcasting).

<sup>127</sup> *See, e.g.*, FRC First Annual Report, *supra* note 89, at 4-5, 8, 14 (*inter alia*, licensing stations every 10 kHz and prescribing separation 50 kHz between stations in the same area); FRC Second Annual Report, *supra* note 61, at 14 (prohibiting moveable radio broadcast transmitters).

<sup>128</sup> *See, e.g.*, Fourth Radio Conference, *supra* note 101, at 54-58 (Secretary Hoover in 1925 discussing many of these matters as requiring decision by the U.S. government).

Government also controlled content to a degree that would have been unthinkable in newspapers, books, movies, and live performances.<sup>129</sup> It shut down more than a hundred stations and moved others to inferior spectrum or times of day.<sup>130</sup> This was a major reduction of industry output, an unusual choice for government in a free market economy. On the stations that government did allow to continue, it discouraged recorded music and explicit advertising,<sup>131</sup> required original content rather than content that people could obtain elsewhere,<sup>132</sup> required equal time for certain candidates for office,<sup>133</sup> forbade broadcasters to express their own opinions on public issues,<sup>134</sup> and required that some others be given free or low-priced airtime to do express theirs.<sup>135</sup>

Why did government rush in and re-arrange a business that was wildly popular and seemed tending to a certain order? The answer is that a jambalaya of powerful interests wanted the federal government to be cartel manager and censor rather than market creator. Several of these forces were transient. In Washington scandals of the time, valuable government-owned resources had been made available corruptly and for low prices.<sup>136</sup> These made private ownership of the spectrum temporarily suspect. The

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<sup>129</sup> For example, in 1922, Secretary Hoover stated that “The wireless spoken word . . . is for broadcast of certain predetermined material[, which] must be limited to news, to education, and to entertainment, and the communication of such commercial matters as are of importance to large groups of the community . . .” Hoover, *supra* note 88, at 140. See also *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 388-89 (1969); Starr, *supra* note 30, at 329 (“The licensing of broadcasters . . . departed radically from earlier practices in communications, as the federal government had never licensed the press, moviemakers, or other creators of culture (though state and local governments did license theatres.)”).

<sup>130</sup> FRC First Annual Report, *supra* note 89, at 2, 9 (opining that “at least 400” of 732 stations would have to be eliminated if interference is ended); FRC Second Annual Report, *supra* note 61, at 16 (noting that 62 stations were “deleted” wholly or partly because of FRC action); George Douglas, *supra* note 75, at 96-97; Hilliard & Keith, *supra* note 88, at 51; Lee & Shosky, *supra* note 120, at 49; Rosen, *supra* note 72, at 125, 128, 134-37; Sterling & Kitross, *supra* note 68, at 144-45.

<sup>131</sup> See, e.g., Fourth Radio Conference, *supra* note 101, at 54 (Secretary Hoover opining about advertising in 1925); FRC First Annual Report, *supra* note 89, at 8 (1927) (noting listeners’ opposition to “[d]irectly advertising wares”); FRC Second Annual Report, *supra* note 61, at 19-20 (generally disparaging recorded music on the radio and mulling over advertising), 41 (requiring that recorded music be so identified), 55 (same); Chandler & Cortada, *supra* note 75, at 149 (noting “elitist opposition” to advertising in the home); Martin Mayer, ABOUT TELEVISION (“Mayer”) at 11 (Harper & Row, Publishers, Inc., New York, 1972).

<sup>132</sup> J. Davis, *supra* note 95, at 144-45 (quoting a 1928 statement by the FRC disparaging phonograph records because their primary purpose is “to provide a cheaper method of advertising for advertisers who are therefore saved the expense of providing an original program.”).

<sup>133</sup> Radio Act of 1927, § 18, 44 Stat. 1162 (1927).

<sup>134</sup> *Mayflower Broadcasting Corp.*, 8 F.C.C. 333 (1940).

<sup>135</sup> *Editorializing by Broadcast Licensees*, 13 F.C.C. 1246 (1949).

<sup>136</sup> These were Teapot Dome and Elk Hills. Thomas H. Johnson, *THE OXFORD COMPANION TO AMERICAN HISTORY* at 776 (Oxford Univ. Press, New York, 1966); Richard B. Morris & Jeffrey B. Morris, Eds., *ENCYCLOPEDIA OF AMERICAN HISTORY* at 371 (HarperCollins Publishers, Inc., New York, 1996); Francis Russell, *THE SHADOW OF BLOOMING GROVE: WARREN G. HARDING IN HIS TIMES* at 488-507 (McGraw-Hill Book Co., New York, 1968). If government selling valuable resources for *low* prices is a problem, it is an odd solution for government to give them away *for nothing*. One cent would have been more than the government received from RCA/NBC and CBS for their broadcasting licenses. To the claim that they paid by creating local news and public affairs content and content directed at children, it may be answered that newspapers and magazines do the same without governmental compulsion. *But see* Ithiel de Sola Pool, *Policies for Freedom*, in Benjamin M. Compaine & William H. Read, Eds., *THE INFORMATION RESOURCES*

conservation movement was growing<sup>137</sup> and saw squatter sovereignty as a give-away of valuable natural resources.<sup>138</sup> Secretary Hoover won the bureaucratic war for control of the spectrum and, contrary to his reputation, was no believer in free markets. He preferred fuzzy ‘partnerships’ between government and large established businesses to care for the common people.<sup>139</sup> Hoover's political opponents, for their part, did not want a candidate for President to have power over broadcasting.<sup>140</sup>

Permanent forces also supported heavy government intervention in radio broadcasting. Some were unsatisfied with what they were getting from the emerging marketplace, some feared what they would get if it continued to emerge, and some believed (in many cases foolishly) that they would get better from a government-regulated spectrum. Many existing businesses felt threatened by radio's potential to compete with them and wanted either to suppress it or to reduce it to a new marketing channel that they controlled. Chief among these were newspapers, who saw broadcasting as competition for both news distribution and advertising;<sup>141</sup> the entire entertainment industry (owners of theatres and music halls; performers; makers of records, record players, musical instruments, sheet music, and paper rolls for player pianos; and music teachers); and the entire sports industry.<sup>142</sup> Rural citizens, for their part, liked show tunes and other sounds from faraway cities,<sup>143</sup> but passionately wanted locally originated broadcasting, especially weather reports and price data from nearby market towns, too.<sup>144</sup> Each established politician wanted at least one station in his district (preferably owned by people well disposed towards him), free airtime for himself, and none for “irresponsible” opposition.<sup>145</sup> Cultural conservatives wanted to suppress freedom of expression lest vulgar and subversive ideas warp impressionable minds.<sup>146</sup> The American Medical

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POLICY HANDBOOK: RESEARCH FOR THE INFORMATION AGE at 438 (The MIT Press, Cambridge, Mass., 1999) (opining that newspapers would be compelled to create “good content” if they did not do so voluntarily).

<sup>137</sup> Barnouw I, *supra* note 85, at 195. See also Rosen, *supra* note 72, at 105.

<sup>138</sup> Conserving spectrum for aesthetic or historic reasons is obvious nonsense. Spectrum, unlike redwoods, is instantly and perpetually renewable and is not pretty to look at. No preservationist has yet proposed keeping the radio frequency spectrum just the way it was when Guglielmo Marconi first used it. Although interference can occur at any moment and can be significant, spectrum cannot be polluted for the future (as happened at Love Canal and Chernobyl). The only conservation of spectrum that may make sense is leaving some unused today so that it may be used at some future time.

<sup>139</sup> Bensman, *supra* note 69, at 17-19, 87; Wilson, *supra* note 88, at 68.

<sup>140</sup> Rosen, *supra* note 72, at 74, 96-97.

<sup>141</sup> See Archer II, *supra* note 88, at 421-22; Lee & Shosky, *supra* note 120, at 151; James H. Quello, MY WARS: SURVIVING WWII & THE FCC (“Quello”) at 42 (Alexis de Tocqueville Inst., Arlington, Va., 2001).

<sup>142</sup> White, *supra* note 104, at 28. See also Rosen, *supra* note 72, at 64.

<sup>143</sup> See, e.g., Archer I, *supra* note 69, at 251-52.

<sup>144</sup> FRC Second Annual Report, *supra* note 61, at 9-10, 155, 168; Dill, *supra* note 106, at 106; Rosen, *supra* note 72, at 129-30. In the mid-1930s, rural America contained a much larger percentage of the nation's population than it does today (see *supra* note 90) and, before *Baker v. Carr*, 369 U.S. 186 (1962), rural areas were disproportionately represented in the House of Representatives.

<sup>145</sup> Barnouw I, *supra* note 85, at 217; Asa Briggs, THE HISTORY OF BROADCASTING IN THE UNITED KINGDOM, VOL. II, THE GOLDEN AGE OF WIRELESS at 47-48 (Oxford Univ. Press, London, U.K., 1965) (Mr. Reith of the BBC opining that the FRC members were helpless stooges of politicians).

<sup>146</sup> See, e.g., Barnouw I, *supra* note 85, at 130-31 (horror at jazz and saxophones); Bensman, *supra* note 69, at 193 (one Senator opposing the teaching of evolution by radio); Rosen, *supra* note 72, 164 (inventor Lee De Forest protesting “the crass commercialism, the etheric vandalism of the vulgar hucksters, agencies,

Association and orthodox religions wanted to silence the “quack” doctors and preachers.<sup>147</sup> The military wanted maximum power over spectrum for itself, or for a few large companies under its control.<sup>148</sup> The latter would be easier to control in a national emergency than thousands of hotels, laundries and feed stores. “Public interest” groups and promoters of educational broadcasting complained that a free market would disserve them, although a noted scholar has theorized that they may have preferred bureaucratic regulation because it created jobs for themselves.<sup>149</sup> Some government employees wanted a sense that they were bringing the public the “best” content; perhaps they also wanted power over a large industry and the flow of ideas.<sup>150</sup> Congress was unwilling to let into private hands a medium that was just discovered, barely understood, and potentially revolutionary.<sup>151</sup> The Bell System wanted big broadcast networks to grow so that they would rent its lines to send programs simultaneously to all their stations. More broadly, AT&T wanted a market division in which the radio spectrum would be used only for broadcasting and not for a competing telephone service.<sup>152</sup> Finally, the biggest manufacturers and broadcasters, chiefly RCA/NBC under David Sarnoff, thought they were approaching domination of the market and wanted government to clinch, and then preserve, it for them.<sup>153</sup> This Jambalaya of disparate interests was an unstoppable force

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advertisers”). The great political scientist V.O. Key, Jr., is reputed to have said that early broadcasters were “the lineal descendants of operators of musical halls and peep shows.” Powe, *supra* note 119, at 30. The editor of The New Republic magazine described many radio programs as “moronic drivel and oral garbage.” Louise M. Benjamin, FREEDOM OF THE AIR & THE PUBLIC INTEREST (“Benjamin”) at 222 (Southern Illinois Univ. Press, Carbondale Ill., 2001).

<sup>147</sup> Benjamin, *supra* note 146, at 107.

<sup>148</sup> Barnouw III, *supra* note 120, at 19-20; Bensman, *supra* note 69, at 13-14; Susan Douglas, *supra* note 60, at 124-25; Spar, *supra* note 103, at 146; Walker, *supra* note 77, at 19.

<sup>149</sup> Thomas W. Hazlett, *The Rationality of U.S. Regulation of the Broadcast Spectrum*, 33 J.L. & Econ. 133, 169 (1990).

<sup>150</sup> Erwin G. Krasnow & Lawrence D. Longley, *THE POLITICS OF BROADCAST REGULATION* at 29 (St. Martin’s Press, New York, 1978) (attributing to former Commissioner Loevinger the view that “the power motive is to bureaucracy what the profit motive is to business. . . . [T]he FCC commissioners and staff seek almost daily to perpetuate and extend their own power.”).

<sup>151</sup> Dill, *supra* note 106, at 104 (Senator expressing vague concern that a totally unregulated broadcasting industry “would be fatal so far as balanced programs of entertainment and information are concerned”), 126-27 (“Why Congress Guards Radio Rights So Jealously”); Bruce M. Owen, Jack H. Beebe, & Willard G. Manning, Jr., *TELEVISION ECONOMICS* (“Owen *et al.*”) at 13 (Lexington Books, Lexington, Mass., 1979) (attributing early governmental actions concerning radio to “ignorance or awe of new technology.”). An example of the latter is in a 1929 Senatorial debate. Cole Blease of South Carolina said that he had “noticed recently that there is a report that it is intended to put a radio in the Capitol; in fact, in this very room.” Senator Blease asked “if that radio is put back in the corner of the Chamber here close to my seat whether it would be possible for one of these anarchists to send something through it and blow us all out of here?” 70 Cong. Rec. 4865 (1929).

<sup>152</sup> See Barnouw III, *supra* note 80, at 52-53; Brock I, *supra* note 14, at 169-70; Susan Douglas, *supra* note 60, at 241-51; Alan Stone, *WRONG NUMBER: THE BREAK-UP OF AT&T* (“Stone”) at 55 (Basic Books, Inc., New York, 1989).

<sup>153</sup> Rosen, *supra* note 72, at 103 (“many of the large organized segments actively courted [regulatory] intervention”); Spar, *supra* note 103, at 168. See also note 112 *supra* (re the “patent pool”).

Should the biggest broadcasters (and, in the telephone business, Bell) be faulted for using the regulatory system for their own advantage and to the disadvantage of consumers? In the author’s opinion, yes. Without a reasonable belief that its advantage coincides with the statutory public interest or the goals outlined at the beginning of this article, a company’s advocacy of its own interest is an abuse of government and its process.

for nationalizing what could have been private property and for making government far more powerful in broadcasting than it was in any other means of personal and political expression.

Government intervention did make broadcasting more ordered and stable than it had been.<sup>154</sup> Government brought some listeners (especially in southern and western rural areas) locally originated content for the first time.<sup>155</sup> An American broadcasting industry – substantial companies that were devoted entirely to broadcasting and content created originally for broadcast – was created. Radio’s huge popularity grew as government intruded, which indicates that consumers continued to be pleased with what they received.<sup>156</sup> Radio broadcasting was deployed to all Americans decades faster than universal telephone service.<sup>157</sup> American radio broadcasting was relatively competitive, innovative, diverse,<sup>158</sup> populist, flexible, and free of political censorship.<sup>159</sup> Most other countries had government-owned monopolies or fewer channels and less dissent and diversity.<sup>160</sup>

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<sup>154</sup> This appears to have been a primary purpose of the FRC. FRC First Annual Report, *supra* note 89, at 1 (FRC summoning a plan to make broadcasting “more dependable” with “gradual and orderly development”).

<sup>155</sup> FRC First Annual Report, *supra* note 89, at 8-9; FRC Second Annual Report, *supra* note 61, at 8-9 (giving special attention to needs of rural listeners), 11 (noting license grants to Southern stations), 11-14 (mulling over the best geographic distribution of stations nationwide); McChesney, *supra* note 73, at 21. Many rural areas, however, lacked the local entrepreneurship to create a local station until after World War II. Albarran & Pitts, *supra* note 88, at 37. The statute requiring “fair, efficient, and equitable” distribution of radio licenses among different regions of the U.S. was originally Radio Act of 1927, §§ 2, 9, 44 Stat. 1162 (1927), and survives today as amended as 47 U.S.C. § 307(b).

<sup>156</sup> Historical Statistics, *supra* note 19, Series R 93-105 at 796 (showing manufacture of radio sets continuing at multi-million annual levels throughout the late 1920s and 1930s, even during the Great Depression); Schwartz, *supra* note 84, at 211 (in 1933, about 50% of U.S. households had a radio; in 1937, nearly 90% did). *But see* Cohen, *supra* note 71, at 142-43 (evidence that Chicago listeners preferred “chaos” to the FRC-created order of the networks).

<sup>157</sup> The speed of radio broadcasting’s deployment owed much to the use of radio waves that were free, removing the need to lay a wire line to each home. On the other hand, the fact that radio became universal faster than telephone service without any subsidies – the government did not set the price of urban TV sets high so that rural TV sets would be cheap – casts doubt on the need for the subsidies that were common in telephone rates and supposedly necessary to make service universal (see *supra* note 51 & accompanying text).

<sup>158</sup> This is true whether diversity is defined in terms of number of stations, sources of content, voices heard, or viewpoints expressed.

<sup>159</sup> In radio’s formative decades, the First Amendment was construed much more narrowly than it is today. Radio received less First Amendment protection than newspapers, but about the same protection as novels, movies and other ‘entertainment’ did at the time. Benjamin, *supra* note 146, at 228-34.

<sup>160</sup> Asa Briggs, THE HISTORY OF BROADCASTING IN THE UNITED KINGDOM, VOL. I, THE BIRTH OF BROADCASTING, 1896-1927 at 89 (“American broadcasting had blundered into chaos; British broadcasting was to be forced into a straight-jacket.”) (Oxford Univ. Press, Oxford, U.K., 1995); Ronald H. Coase, BRITISH BROADCASTING: A STUDY IN MONOPOLY *passim* (Longmans, Green & Co., London, U.K., 1950); Dill, *supra* note 106, at 137; Jerome G. Kerwin, THE CONTROL OF RADIO at 8-15 (University of Chicago Press, Chicago, 1934); John C.W. Reith, BROADCAST OVER BRITAIN at 69-71 (Hodder & Stoughton, Ltd., London, U.K., 1924) (justifying the BBC monopoly); Anthony Smith, Ed., TELEVISION: AN INTERNATIONAL HISTORY (Oxford Univ. Press, New York, 1998); Spar, *supra* note 103, at 177-83; Starr, *supra* note 30, at 376, 382, 400; Sterling & Kitross, *supra* note 68, at 149-50, 216-17.

But these benefits for consumers came at a price. American broadcasting by the late 1930s was stable and orderly, but prisons and graveyards are stable and orderly. What is chaos to one person is creativity, spontaneity, and freedom to another. After the government had done its ordering and stabilizing work, most consumers had fewer choices of programs and fewer kinds of programs.<sup>161</sup> The number of content distributors with nationwide reach was reduced largely to the NBC and CBS networks, a duopoly with enormous barriers to entry.<sup>162</sup> The duopolists and the individual broadcasters who survived the purge were mostly ones that had the most money, the best equipment and political connections, and coverage areas that matched metropolitan areas rather than neighborhoods or whole regions;<sup>163</sup> that could survive on advertising revenue; and that were willing to broadcast culturally mainstream, inoffensive entertainment targeted at the mass audience.<sup>164</sup> The stations that were shut down or crippled were the part-time broadcasters (for example, colleges and hotels);<sup>165</sup> the broadcasters that had low power,<sup>166</sup> little money,<sup>167</sup> inferior equipment,<sup>168</sup> and no network affiliation;<sup>169</sup> and other

<sup>161</sup> McChesney, *supra* note 73, at 26; Sterling & Kitross, *supra* note 68, at 144. A comparison of the radio broadcast listings on page 34 of the Washington Evening Star on February 17, 1927 (the height of the “chaos”), and on page B-6 of the same newspaper on July 20, 1937 (about ten years after the FRC’s creation and three years after the FCC’s) shows enormous changes. The number of hours of programming that a listener has to choose from among been reduced by approximately half; the number of stations broadcasting has gone from dozens of far-away and local stations to four local ones; and the programming has gone from a hodge podge of unpredictable content (police bulletins, lectures, concerts, farm prices) to regularly scheduled half hour shows created just for radio (Ma Perkins, Amos ‘n’ Andy, and Cocktail Capers).

<sup>162</sup> *NBC*, 318 U.S. 190, 197-98 (1943) (“The Commission found that at the end of 1938 there were 660 commercial stations in the United States, and that 341 of these were affiliated with national networks. . . . [T]he stations affiliated with the national networks utilized more than 97% of the total night-time broadcasting power of all the stations in the country. NBC and CBS together controlled more than 85% of the total night-time wattage”); Cohen, *supra* note 71, at 141 (“By 1930, all the major radio stations in Chicago had affiliated with NBC or CBS, and many smaller ones . . . negotiated to carry some network shows.”); Dill, *supra* note 106, at 115 (“Chain Broadcasting’s Domination of American Radio”); Smulyan, *supra* note 88, at 153; Spar, *supra* note 103, at 173, 176; Starr, *supra* note 30, at 382 (“From the outset, broadcasting had the effect of concentrating media power in America far more than it had ever been before.”).

<sup>163</sup> See also FRC Second Annual Report, *supra* note 61, at 21 (FRC deciding which stations get “preferred positions” on the broadcast spectrum based on, among other things, “the quality of their apparatus”); Chandler & Cortada, *supra* note 75, at 148 (“the larger, more select area of the spectrum” went to “those that had abundant resources and commercial interests”); J. Davis, *supra* note 95, at 147-48 (quoting a 1928 statement by the FRC expressing doubt about neighborhood stations in large cities); George Douglas, *supra* note 75, at 97; McChesney, *supra* note 73, at 20; Rosen, *supra* note 72, at 128, 134; Spar, *supra* note 103, at 173; Walker, *supra* note 77, at 32-33; Wilson, *supra* note 88, at 112 (Secretary Hoover “officially favored the big station operators by assigning them preferred broadcast frequencies”).

<sup>164</sup> Sterling & Kitross, *supra* note 68, at 184 (NBC’s 1938 guidelines prohibited “Sex, Profanity, . . . drinking, Smoking by Women, [and] Anything that will offend members of racial, political or religious groups.”), 189 (early FCC prohibition of astrology, contraceptive advertising, and other content “not in the public interest”).

<sup>165</sup> Barnouw I, *supra* note 85, at 218-19, 259-60; Rosen, *supra* note 72, at 73 (licenses of part time broadcasters first voided by Secretary Hoover); Spar, *supra* note 103, at 173; Sterling & Kitross, *supra* note 68, at 122-23.

<sup>166</sup> Albarran & Pitts, *supra* note 88, at 29; George Douglas, *supra* note 75, at 93-94.

<sup>167</sup> Smulyan, *supra* note 88, at 95.

<sup>168</sup> Barnouw I, *supra* note 85, at 179-80, 218; Sterling & Kitross, *supra* note 68, at 115.

<sup>169</sup> Barnouw I, *supra* note 85, at 218; Chandler & Cortada, *supra* note 75, at 147-48.

non-commercial stations,<sup>170</sup> mouthpieces for small ethnic groups, fringe political opinion, content tailored for small audiences,<sup>171</sup> and colorful ‘personal propaganda’ stations.<sup>172</sup>

There is nothing wrong with all this for consumers who liked the bland content that the post-purge industry produced. The harm was the virtual extinction of everything else, especially the explosive energy, creativity, and free speech of radio’s free years.<sup>173</sup> The great popularity of radio in the era of chaos, and the more recent popularity of hundreds of specialty channels on television and billions of web pages on the Internet, show that Americans have an enduring demand for many, rather than few, channels and kinds of content. Government caused radio not to meet that demand.

Nationalization and regulation did longer-term harms, also. They made change in technology, market structure, and some content impossible until the regulators approved.<sup>174</sup> These approvals (for example, of more stations and of FM) were delayed for decades by the incumbent broadcasters’ lobbying.

Perhaps worst of all, the phrase “The People’s Airwaves” entered the national phrase book. Spectrum could have been a commodity to be bought and sold, like wood to be made into newspapers and guitars. Instead, it became like a UFO, a gray blur in the sky onto which each person could project his or her hopes or nightmares. *Individual* tastes may have a dubious claim under a *public* interest standard and small groups of

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<sup>170</sup> McChesney, *supra* note 73, at 25; Smulyan, *supra* note 88, at 127, 130-32, 148.

<sup>171</sup> *Standard Cahill Co.*, 1 F.C.C. 227, 230 (1935) (disapproving programming directed at subscribers to one horse-racing publication and at persons who sent letters to a ‘metaphysician’ and ‘psychologist’ asking for personal advice because such programming has little or no general interest or appeal to the listening public).

<sup>172</sup> One Dr. Brinkley reached all over the Midwest from one transmitter before he was silenced by the FRC and moved his operations to Mexico. He used his station substantially to advocate goat gland transplants as a cure for middle aged male fatigue and to sell his own surgical services and over-the-counter medicines to that end. Gene Fowler & Bill Crawford, *BORDER RADIO* at 13-76 (Texas Monthly Press, Inc., Austin TX, 1987). See also *KFKB Broadcasting Corp. v. FRC*, 47 F.2d 670 (D.C. Cir. 1931) (denying renewal of the license of Dr. Brinkley); *Trinity Methodist Church, South, v. FRC*, 62 F.2d 850 (D.C. Cir. 1932) (en banc), *cert. denied*, 288 U.S. 599 (1933) (denying renewal of the license of a minister who used his station substantially to defame Roman Catholics, Jews, politicians, government employees, labor, judges, the bar, pimps, and prostitutes). See also Barnouw I, *supra* note 85, at 218; Cohen, *supra* note 71, at 141; Susan Douglas, *supra* note 60, at 316; Hilliard & Keith, *supra* note 88, at 51; McChesney, *supra* note 73, at 27; Rosen, *supra* note 72, at 128, 134-37; Sterling & Kitross, *supra* note 68, at 116, 146; Walker, *supra* note 77, at 32-33 (“The biggest broadcasters were granted clear channels. Others – non-profits, small entrepreneurs – were crammed together.”), 35. Re the demise of Yiddish radio, see Yiddish Radio Project, *The End of Brooklyn Radio*, [http://www.yiddishradioproject.org/exhibits/history/sapoznik\\_essay.php3?pg=2](http://www.yiddishradioproject.org/exhibits/history/sapoznik_essay.php3?pg=2) (visited May 13, 2002).

<sup>173</sup> Chandler & Cortada, *supra* note 75, at 147-49 (“Without the role of [government] siding with the network promoters, more democratic, entrepreneurial, diverse models might have prevailed.”). Re the slow suppression of educational, sexual and dissident political content on the radio in the 1920s and 30s, see generally Benjamin, *supra* note 146.

<sup>174</sup> FM radio, for example, with sound quality vastly better than AM’s, was shown to be technically feasible in 1933-34. The FCC gave it spectrum and licenses for commercial operation in 1940-41 and then, in 1945-48, moved it to other spectrum, thus rendering obsolete all FM transmitters and 500,000 radios that consumers had paid for. Partly as a result of the move, FM did not become a major broadcast medium again until decades later. Barnouw II, *supra* note 80, at 130, 242; Hilliard & Keith, *supra* note 88, at 105-06; Sterling & Kitross, *supra* note 68, at 156-60, 276-78, 349-51, 412-15.

political agitators may have a questionable right of access to a mass audience that just wants to be entertained.<sup>175</sup> Many a citizen, however, thought he or she was entitled to favorite content free of charge and hundreds of tiny groups demanded free prime time to speak their views. Many demanded that government suppress the content they disliked. Mainstream politicians wanted free airtime for themselves, and the post-purge broadcasters wanted protection from more stations and new technology. Government entertained all these requests and, to one degree or another, granted them.<sup>176</sup> Human and financial capital that could have gone to buying stations and creating audiences was devoted instead to lobbying for government favors and the suppression of ideas and entertainment. Government, for its part, took on the role of Glinda the Good Witch of the North, dispensing free goodies to a favored few. Politics inevitably intruded more than it would have in a system in which government merely issued licenses and recorded transfers like the Department of Motor Vehicles.

Most or all of these harms could have been avoided. The government could have ended any chaos in the mid-1920s by simply granting property rights to current users of spectrum, perhaps picking a date and time in the recent past and proclaiming that whoever used a frequency then had the exclusive right to use it thenceforth.<sup>177</sup> In cases of use by several broadcasters at the chosen date and time, some relatively simple rule, such as who used it first or who won the flip of a coin or who bid the most at auction, could have picked the winner. Before the Jambalaya grew to unstoppable size, Secretary Hoover could have pressed Congress harder for a property rights system and Congress could have adopted one. Early broadcasters other than RCA/NBC could have pressed harder for a squatter sovereignty system. Locally originated broadcasting could have been produced for southern, western, and rural areas by allowing local people to buy rights from the faraway broadcasters who were reaching there,<sup>178</sup> by taking currently used

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<sup>175</sup> Mayer, *supra* note 131, at 388.

<sup>176</sup> Except for short periods under Presidents Reagan and Clinton, the FCC has generally expanded the scope of its regulatory activity. The courts have upheld the FCC's authority to regulate even matters over which it has no clear statutory authority. See, e.g., *United States v. Southwestern Cable Co.*, 392 U.S. 157 (1968). Congress, for its part, has seldom reduced the FCC's authority and has never narrowed the sweeping "public interest" standard. In the 1990s, it broadened both. See, e.g., Telecommunications Act of 1996, Pub. L. No. 104-104, §§ 104, 254, 110 Stat. 56 (1996), amending 47 USC § 151 to add that the FCC should avoid "discrimination on the basis of race, color, religion, national origin, or sex" in the availability of communications services and adding § 254 (b)(1) providing that universal service should be "affordable" and § 521 (section of the Cable Television Consumer Protection and Competition Act of 1992 stating broad federal regulatory goals for cable TV).

<sup>177</sup> See, e.g., Ronald H. Coase, *The Federal Communications Commission* ("Coase"), 2 J.L. & ECON. 1 (1959); Thomas W. Hazlett, *The Rationality of U.S. Regulation of the Broadcast Spectrum*, 33 J.L. & ECON. 133 (1990); Thomas W. Hazlett, *The Wireless Craze, the Unlimited Bandwidth Myth, the Spectrum Allocation Faux Pas, & the Punchline to Ronald Coase's "Big Joke": An Essay on Airwave Allocation Policy*, 14 HARV. J.L. & TECH. 335 (2001). I understand that such "if you prove you owned it back then, you can get it now" systems have successfully re-created private ownership of land in parts of post-Communist Eastern Europe.

<sup>178</sup> The Coase Theorem, that "[a]s long as there are no obstacles to bargaining between the parties involved, resources will be allocated efficiently regardless of how property rights are initially assigned," teaches that such transactions would have been possible. David W. Barnes & Lynn A. Stout, *THE ECONOMICS OF PROPERTY RIGHTS & NUISANCE LAW* (West Pub. Co., St. Paul, Minn., 1992) at 41. Others doubt that The Coase Theorem works where many parties are involved, however. See Thomas W. Merrill & Henry E. Smith, *What Happened to Property in Law & Economics?*, 111 YALE L.J. 357, 378-83 (2001).

spectrum with compensation under principles of eminent domain,<sup>179</sup> or by convincing Secretary Hoover to allocate more spectrum for local broadcasting. The American Medical Association and consumer protection law could have silenced the quack doctors,<sup>180</sup> and defamation law could have disciplined the demagogues. To the extent that the content resulting from this relatively free market failed to produce content that the government thought consumers needed, government could have created its own broadcasting stations to fill that need – something government eventually did decades later with public broadcasting.

Is this free market, consumer-friendly scenario realistic? American law has successfully grown to cover new forms of private property, in some cases in just a few years.<sup>181</sup> In the 1920s, private property and free markets were popular. Squatter sovereignty would have done with radio spectrum what America has done with other sectors of its economy, relying primarily on private property and free exchanges. Government would have enforced property rights, done some of the work that zoning boards do in real estate, and met the relatively few needs that the market demonstrably fails to meet. Governments in the U.S. have a glorious history of granting ownership to people who moved onto virgin land and developed it.<sup>182</sup> Early radio broadcasters were equally deserving, and government could have rewarded them with ownership of spectrum.

Unfortunately, this consumer-friendly scenario is probably implausible. Radio came into widespread use and importance too quickly to await common law's case-by-case evolution. Common law for land took centuries to develop, and radio acquired too much investment and social significance too quickly to wait even decades.<sup>183</sup> The Cook County, Illinois, court decision was a start at common law of radio rights, a fascinating "might have been," but one swallow does not make a spring. Too many forces favored government regulation on a major scale: Secretary Hoover and other politicians, rural interests crying for their own local stations, the non-profit interests who thought that property rights would serve them or their constituents poorly, and the most powerful incumbent broadcasters who welcomed regulation that would protect them from competition and new technology. Given how fast radio grew and who the players were, what happened was probably inevitable. Supporting that judgment is the fact that government's extremely heavy hand continued unquestioned except by academic<sup>184</sup> and

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<sup>179</sup> See William B. Stoebuck & Dale A. Whitman, *THE LAW OF PROPERTY* §§ 9.4-9.6 at 524-50 (West Group, St. Paul, Minn., 2000).

<sup>180</sup> See, e.g., *Baker v. United States*, 115 F.2d 533 (8<sup>th</sup> Cir. 1940), *cert. denied*, 312 U.S. 692 (1941).

<sup>181</sup> See, e.g., Daniel Yergin, *THE PRIZE: THE EPIC QUEST FOR OIL, MONEY, & POWER* at 32, 220-21 (Simon & Schuster, New York, 1992) (describing the evolution of the "rule of capture" to govern petroleum extraction in the mid-nineteenth century).

<sup>182</sup> See, e.g., Paul Johnson, *A HISTORY OF THE AMERICAN PEOPLE* at 491, 515 (Harper Collins, New York, 1997) (describing the homesteading laws of the 1860s).

<sup>183</sup> The analogy to the "rule of capture," *supra* note 181, is arguably inapt because petroleum was in only a few places, but spectrum and broadcasting were omnipresent by the mid-1920s. Also, defining property rights in spectrum is neither simply nor easy. See generally FCC Spectrum Policy Task Force, *Report* (Nov. 2002), [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-228542A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-228542A1.pdf) (visited Nov. 6, 2003).

<sup>184</sup> Coase, *supra* note 177.

intellectual outriders<sup>185</sup> until the late twentieth century, and that few other countries had as many broadcasters or radios as America had, or as much competition, innovation, diversity, and freedom from political and governmental control in their broadcasting.<sup>186</sup>

That does not, however, lessen the harm done. People, ideas, and music were silenced, and some were not heard until more stations were allowed decades later. ‘Chaos’ called for American government to create and enforce property rights, not to reduce output and make qualitative judgments about who should be allowed to broadcast and the content that would be allowed. The lesson of early radio is that government, if it acts, should do the minimum that will solve the present problem (in this case, end chaos by creating property rights) and should act before so many powerful interests are dissatisfied with the *status quo* that the Jambalaya congeals and marches on Washington.

### Case History #3: Creating “Channel 2 to 83 TV” and Stunting Cable

Television, the transmission of moving images over distance, first occurred on wires and in the 1880s.<sup>187</sup> As early as the mid-1920s, the U.S. Government considered whether to have broadcast television and, if so, how to structure it.<sup>188</sup> From the start, the government was determined to avoid repeating the "chaos" of early radio. We'd get it right this time.<sup>189</sup> Government thus took on a more ambitious task than in radio, where years of free supply and demand gave regulators some idea of what consumers wanted. In television, government was going to create a business from scratch.

Only around World War II did the FCC decide that television technology was good enough to win acceptance among consumers and therefore to deserve a large and permanent allocation of spectrum. The FCC gave the final go-ahead near the War's end because the technology had improved much during the War and the most powerful incumbent in the radio industry, RCA/NBC, wanted permanent spectrum allocations and nationwide licensing of commercial TV stations. Also, post-War factories and workers needed something to manufacture lest the country lapse back into the Great Depression. Government didn't want a return to the Great Depression, either; retailers wanted new appliances to sell to post-War consumers; advertisers wanted a new medium on which to promote consumption; and, who knew, maybe consumers would buy the new product.<sup>190</sup>

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<sup>185</sup> Ayn Rand, CAPITALISM: THE UNKNOWN IDEAL at 122 (“*The Property Status of Airwaves*”) (New American Library, New York, 1967).

<sup>186</sup> See *supra* note 177.

<sup>187</sup> Bilby, *supra* note 70, at 117.

<sup>188</sup> FRC First Annual Report, *supra* note 89, at 13 (allocating spectrum for experimental work for, among other applications, “broadcasting . . . for . . . the eye”); FRC Second Annual Report, *supra* note 61, at 21-22 (noting FRC-approved experimental television broadcasts), 34 (describing the future of “radiotelevision” as “matter[] for speculation.”). Wire technology proved prohibitively expensive because hundreds of phone wires would be needed to create a satisfactory picture. Therefore, from the discovery of the radio spectrum and the government’s decision to give it away for free, almost all television was planned to occur on The People’s Airwaves.

<sup>189</sup> Hugh R. Slotten, RADIO & TELEVISION REGULATION: BROADCAST TECHNOLOGY IN THE UNITED STATES, 1920-1960 (“Slotten”) (The John Hopkins Univ. Press, Baltimore, 2000) at 156.

<sup>190</sup> Sterling & Kitross, *supra* note 68, at 253-56.

In fateful decisions made between 1945 and 1948, the FCC chose to start post-War television on Very High Frequency (“VHF”) spectrum, which we know as channels 2 through 13,<sup>191</sup> rather than Ultra-High Frequency (“UHF”) spectrum, which we know as channels 14 through, originally, 83. (I shall refer to UHF and VHF TV collectively as “Channel 2 to 83 TV.”) The best argument for choosing VHF spectrum was that technology that used VHF was “ready for prime time,” but UHF technology needed a few years more research.<sup>192</sup> Also pushing for VHF now were NBC and other companies that had patents for black-and-white television (which was how VHF would start) but not for color television (which, some people thought, would start on UHF).<sup>193</sup>

VHF had a major shortcoming, though. Although VHF technology was ready for market, VHF spectrum could accommodate few channels compared to UHF. UHF, when it was ready, would allow more channels, which would mean more competition and more diverse content. In a 1945 decision, the FCC tried to have it both ways. It acknowledged that VHF would not allow enough channels for satisfactory TV in the long term. But, the Commission said hopefully, VHF would just be the temporary starting place for TV. Soon, TV would “find its lodging” in UHF spectrum alone.<sup>194</sup>

An equally fateful FCC decision about TV was to copy the basic model of radio broadcasting, namely short-term licenses, advertiser support, and local coverage areas. The latter decision, for local coverage areas rather than regional or national ones, was especially significant. Given a finite block of spectrum and the technology that exists at any moment, the smaller (more local) each broadcast station’s coverage area is, the fewer stations there can be in local areas.<sup>195</sup> Thus, on twelve VHF channels, the FCC could

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<sup>191</sup> From time to time, the FCC requested the Defense Establishment to give over some of its VHF spectrum so the FCC could create more VHF TV channels. The requests were always refused.. See, e.g., Slotten, *supra* note 189, at 166; Sterling & Kitross, *supra* note 68, at 390; *Amendment of Part 3 of the Commission’s Rules & Regulations Governing Television Broadcast Stations*, 13 Rad. Reg. (P&F) 1571, 1574-75 (1956) ¶ 12.

<sup>192</sup> Sterling & Kitross, *supra* note 68, at 390.

<sup>193</sup> Slotten, *supra* note 189, at 190.

<sup>194</sup> See, e.g., *Amendments to the Commission’s Rules & Regulations Governing Sharing of Television Channels*, 39 F.C.C. 336, n.1 at 338 (1948); *Allocation of Television Channels*, 1 (Part 3) Rad. Reg. (P&F) 91:65, 91:67 & footnote, 91:97 (1948) (both quoting Commission decision made in 1945: “there is insufficient spectrum space available [in the VHF band] to make possible a truly nation-wide and competitive television system. Such a system . . . must find its lodging higher up in the spectrum where more space exists and where color pictures and superior monochrome pictures can be developed . . .”). One contemporary observer interpreted the FCC’s decision as giving “present participants in television manufacture and operation a small area [VHF] in which to mark time and practice programs before a small public audience, while plenty of spectrum elbow room [UHF] is available to the groups who would prepare color television and more satisfactory definition of pictures for release to the public in coming years.” Morris L. Ernst, *THE FIRST FREEDOM* at 168-69 (MacMillan Co., New York, 1946). But see Slotten, *supra* note 189, at 157 (one Commissioner saying, in 1945, that the VHF allocation should be permanent).

<sup>195</sup> Around each broadcast tower using, say, Channel 3, there is a small surrounding area in which a satisfactory TV picture can be received on Channel 3 and a larger surrounding area, a “dead zone,” in which no satisfactory TV picture can be received on Channel 3. There is also a smaller dead zone in which no satisfactory picture can be received on Channels 2 or 4. The more towers there are broadcasting on Channel 3 in different small areas, the larger the size of the combined dead zones there are in which no one can receive a satisfactory TV picture on Channels 2, 3, or 4. In sum, the smaller local coverage areas are,

have created (a) six or seven stations, each covering the whole nation, (b) four stations in each of several regions, or (c) three stations in each of several hundred local markets (and a few more stations in a few markets).<sup>196</sup> The FCC chose the latter, preferring “localism” to diversity and competition.<sup>197</sup> The preference for localism compounded the effect of the earlier decision for VHF by causing there to be few, rather than many, channels of TV in each local area.

In most local areas, each of the three stations broadcast the video content of one of the three incumbent radio networks, NBC, CBS, and ABC (the “Big Three Networks”).<sup>198</sup> Because the largest group of TV viewers in ‘50s America was middle-class, white families wanting to be entertained, and other viewers were divided into many much smaller groups, the economically rational course for each of the Big Three Networks was to target the largest group.<sup>199</sup> This is what they did, resulting in the “white bread” blandness of ‘50s and ‘60s TV.<sup>200</sup> An industry that consisted mostly of three independently owned and advertiser-supported VHF stations could not create the cornucopia of diverse content – BET, educational TV, Telemundo, home shopping channels, C-SPAN, Country Music Television, the Discovery Channels, ESPN, MTV – that has since appeared on our screens.

The Commission failed to follow through on its 1945 plan for television to leave VHF and “find its lodging” in the relatively plentiful UHF spectrum. This failure was the result of a series of unintentional, incremental steps that had the cumulative effect of limiting most Americans, for decades longer than necessary, to only three TV channels.

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the less spectrum nationwide is transmitting satisfactory TV pictures. Spectrum efficiency and “localism” are in perfect conflict; the more of one is chosen, the less of the other there can be.

<sup>196</sup> Roger G. Noll, Merton J. Peck, & John J. McGowan, *ECONOMIC ASPECTS OF TELEVISION REGULATION* (“Noll *et al.*”) at 116-20 (The Brookings Institution, Washington, D.C., 1973).

<sup>197</sup> In 1952, the FCC specifically rejected a licensing plan for four stations in each of several regions. *Amendment of Section 3.606 of the Commission’s Rules & Regulations* (“Sixth Report & Order”), 41 F.C.C. 148, 170-72 (1952).

<sup>198</sup> ABC was created in an antitrust-inspired spin-off from NBC the mid-1940s. Sterling & Kitross, *supra* note 68, at 231-32.

<sup>199</sup> If there had been six nationwide channels and if broadcasters had catered to population groups in proportion to their size, it is conceivable that there would have been a minority-oriented channel in 1950. In a six-channel market, 17% of the population may induce a channel to cater to its wants. In 1950, 10% of this country’s population was black, and a few percent were Hispanic, Asian and Native American.

<sup>200</sup> Smulyan, *supra* note 88, at 155 (“Television, in many ways and for a long time, resembled radio in 1934.”), 159. To be fair, television, did add indirectly to diversity in media. Television deprived radio of its mass audience. Forced to find new content and audiences, radio found the youth market of post-War America and broadcast rock ‘n’ roll to them. The audience had not been served before and the sounds (traceably African-American) had not been heard. This new mingling of races was pregnant with social change. Similarly, when FM finally became universal in America in the 1970s, music migrated from AM to technically superior FM. AM, again searching for new content, became the home of previously unheard talkers and unserved listeners, angry conservatives. *See also* Barnouw II, *supra* note 80, at 288-90 (as the mass audience moved to television, radio became freer, discussing venereal disease for the first time, allowing the vaguely subversive humor of Bob and Ray, and spawning “an eruption of ‘Negro’ radio stations”); Barnouw III, *supra* note 120, at 206 (after the mass audience left radio and went to television, sex and birth control were discussed on radio late at night); Bravo Profiles, *Rock & Roll Invaders: The Story of AM Radio DeeJays, Part I* (Bravo!Canada Channel television broadcast, July 19, 2003); Smulyan, *supra* note 88, at 155, 159, 162.

As with radio in the late 1920s, one powerful force was each member of Congress who wanted a TV station in his district. Acceding to this pressure, in the first post-War years the FCC licensed stations on the same channel at smaller and smaller distances. By 1948, it was clear that the Commission had put stations so close to each other in the northeastern quarter of the country that intolerable interference would be common, with no satisfactory pictures for most viewers in a few markets. The Commission therefore stopped issuing TV licenses so it could reconsider the distances between TV towers.<sup>201</sup> This “Freeze” was supposed to last six months, but lasted for almost four years, until 1952. It lasted that long because the Commission decided to decide, in one “Monster Docket,” not only the distance issue but also several other issues (chief among them UHF technical standards, color TV standards, and educational TV policy).<sup>202</sup>

The Commission may have intended the long Freeze to enable it to make a comprehensive decision, but what happened during the Freeze was that the Commission effectively lost control of TV. During the Freeze, TV became hugely popular where it existed.<sup>203</sup> The Big Three Networks<sup>204</sup> became powerful enough to block any fourth network, not to mention a fifth, sixth, and so on, on UHF.<sup>205</sup> Politicians had become dependent on the Big Three Networks for news coverage, free “face time” on ‘public affairs’ programs, and, in campaign seasons, advertising to the mass audience.<sup>206</sup> Another enormously powerful constituency favoring the continuation of VHF was the ten million American households that, by 1952, had paid large sums of money for TV sets most of which were capable of receiving only VHF channels. Manufacturers were making millions more VHF-only TV sets a year. If all TV left VHF and moved to UHF, as the Commission had foreseen in 1945, all those sets (and the stations’ associated transmitters) would be literally useless. That would have brought into being an army of angry viewers (and voters).

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<sup>201</sup> Barnouw III, *supra* note 120, at 113; Slotten, *supra* note 189, at 160.

<sup>202</sup> Mayer, *supra* note 131, at 20-22; Slotten, *supra* note 189, at 175 (noting Congressional pressure to consider many issues at once); Sterling & Kitross, *supra* note 68, at 321-22.

<sup>203</sup> James L. Baughman, *THE REPUBLIC OF MASS CULTURE: JOURNALISM, FILMMAKING, & BROADCASTING IN AMERICA SINCE 1941* (“Baughman”) at 41-42 (in 1948, only .4% of American homes had a television set; by 1952, 34.2% had; by 1956, when many post-Freeze stations began broadcasting, 64.5% had) (The Johns Hopkins Univ. Press, Baltimore, 1992); Mayer, *supra* note 131, at 21.

<sup>204</sup> A fourth network, DuMont (later re-named Metromedia), and a handful of non-network stations limped pathetically behind in viewers, advertising, and program quality. See Ed Bergmann & Ira Skutch, *THE DUMONT TELEVISION NETWORK: WHAT HAPPENED?* at 53-55 (The Scarecrow Press, Inc., Lanham, Md., 2002) (explaining how the FCC’s allocation policies effectively made a fourth network impossible); Jeff Kisseloff, *THE BOX: AN ORAL HISTORY OF TELEVISION, 1920-61* at 207-09 (Viking, New York, 1995).

<sup>205</sup> A fourth commercial network would have been an improvement over the Big Three. When it finally arrived, the fourth network Fox had content too edgy for the Big Three – the Tracey Ullman Show, the Simpsons, *In Living Color* (a major break-through vehicle for African-Americans), *The X Files*, and *Who Wants to Marry a Millionaire*. Indeed, the third network, ABC, had new and exciting programs such as Walt Disney’s, and domestic comedies about the new social phenomenon of the ‘50s, the suburbs (*Ozzie and Harriet*, *Leave It to Beaver*, and the *Donna Reed Show*).

<sup>206</sup> Small coverage areas make for particularly efficient advertising by local politicians.

When the Commission finally resolved all the issues in the Monster Docket in 1952, it lacked the will to make UHF the ‘lodging’ of television.<sup>207</sup> Instead, it left VHF TV in place and issued more VHF licenses. It also allocated 70 UHF channels to TV, and the Commission's majority confidently predicted that diversity and competition would flower there.<sup>208</sup> So would educational television, for which the Commission set aside many UHF channels.<sup>209</sup>

In most markets, however, what occurred in UHF was bankruptcy or nothing.<sup>210</sup> With few UHF stations on the air for long, few consumers wanted UHF-capable TV sets. Manufacturers, therefore, did not make them because they had no reason to add a capability and expense that few consumers wanted. With few UHF-capable TV sets in homes, few sensible entrepreneurs applied for UHF TV channels. Adding to this no-chicken-and-no-egg problem, the Big Three Networks had signed up the best talent and built loyalty among existing viewers for VHF stations. Additional problems were the nature of UHF spectrum and the state of its technology, which caused UHF stations to have higher expenses and smaller coverage areas than VHF stations.<sup>211</sup> A smaller coverage area means fewer viewers and, in turn, less attraction to advertisers and less advertising revenue with which to create attractive programs. Thus, as created by the FCC, most UHF channels were commercially very inferior.<sup>212</sup>

It was clear to some by 1954 that having TV on both VHF and UHF channels (“intermixture”) was a disaster.<sup>213</sup> UHF spectrum sat largely unused for decades, a great deadweight loss to the country.<sup>214</sup> Nevertheless, the Commission had a psychological

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<sup>207</sup> Lee & Shosky, *supra* note 120, at 169. As late as 1956, the Commission was considering, half-heartedly, moving all television to UHF. *Amendment of Part 3 of the Commission’s Rules & Regulations Governing Television Broadcast Stations*, 13 Rad. Reg. (P&F) 1571, 1577-79 (1956) ¶¶ 16-20.

<sup>208</sup> *Sixth Report & Order*, 41 F.C.C. at 208 (“we are convinced that the UHF band will be fully utilized and that UHF stations will eventually compete on a favorable basis with stations in the VHF.”). One scholar characterized the FCC’s treatment of UHF as “characteristically ineffective, demonstrating again its Candide-like sense of network economics and broadcast technology.” Baughman, *supra* note 203, at 46.

<sup>209</sup> *Sixth Report & Order*, 41 F.C.C. at 155 (allocating spectrum for 70 UHF channels), 158-67 (allocations for educational stations). See also Sterling & Kitross, *supra* note 68, at 325-29.

<sup>210</sup> Baughman, *supra* note 203, at 47; Hilliard & Keith, *supra* note 88, at 139; Lee & Shosky, *supra* note 120, at 168-69, 241; Sterling & Kitross, *supra* note 68, at 351-53. Of the few UHF stations that survived, most broadcast low-budget local fare and old movies and had small ratings.

<sup>211</sup> *Sixth Report & Order*, 41 F.C.C. at 168, 206.

<sup>212</sup> Mayer, *supra* note 131, at 23; Sterling & Kitross, *supra* note 68, at 351-53, 387-91. UHF’s disadvantages were particularly severe in the thinly populated areas to which many UHF channels were assigned. Also many channels were set aside for “educational” television, for which no funding and other necessary inputs materialized for a generation. All the flaws in the Commission’s decision noted here and in the text above were recognized in 1952, by Commissioners Hennock and Jones. *Sixth Report & Order*, 41 F.C.C. at 583 (disadvantages of UHF), 588-604 (inadequate provision for educational TV), 606-07 (likely chronic unprofitability of UHF stations), 628.

<sup>213</sup> One Commissioner advocated “selective de-intermixture,” making all the TV stations in some communities all UHF, thinking that that would provoke the manufacture and purchase of UHF-capable TV sets. Lee & Shosky, *supra* note 120, at 169, 241; Sterling & Kitross, *supra* note 68, at 357. Lengthy “experiments” with this idea effectively killed it. Sterling & Kitross, *supra* note 68, at 390.

<sup>214</sup> Re-allocating the highest UHF channels to cellular service (a great creator of investment, jobs and competition for wire telephone service) took about a decade. The Big Three were also masters at finding potential technical problems with moving all TV to UHF and convincing the FCC to test de-intermixture

commitment to UHF, even after it was an obvious failure.<sup>215</sup> The broadcasting industry also thought of UHF as "their" spectrum. Whenever anyone proposed re-allocating it to another service, they waved the flag of "educational broadcasting."<sup>216</sup>

The beneficiaries of this sad series of events were the original holders of VHF licenses and the Big Three Networks, who in effect received an oligopoly with high barriers to entry. The sufferers included the persons who would have invested in more networks, the people who would have had jobs at them and the companies that would have created their programs, advertisers who could have afforded the lower prices of advertising in a more competitive market, and most of all viewers who would have seen more diverse content from more stations.

Government, recognizing that it had mistakenly backed into an oligopoly, tried to improve the behavior of industry by regulation. Congress attempted to revive UHF in 1963 with the All Channel Receiver Act, which mandated that all new television sets be able to receive UHF as well as VHF. It was already too late, however. VHF-only TV sets were by then in most households and UHF had a terrible reputation with the capital markets<sup>217</sup> and consumers. The principal effect of the All Channel Receiver Act may have been to increase the price of television sets by about \$25,<sup>218</sup> which was the cost of the new capability that few consumers wanted.

The FCC, for its part, began intense regulation of TV stations and the Big Three Networks. The Commission regulated the Networks' size, their ownership of individual stations, their dealings with stations they did not own but were 'affiliated' with, their program creators, the programs broadcast by individual stations and their dealings with local communities, advocates on public issues, and advertisers.<sup>219</sup> These regulations

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for several years during which their VHF power became more entrenched. See authorities cited *supra* note 213.

<sup>215</sup> Sterling & Kitross, *supra* note 68, at 353, describe the FCC's attitude towards UHF as that of "a nervous doctor who cannot pinpoint the ailment but is sure that further ministrations will help."

<sup>216</sup> The Big Three Networks originally opposed channel set-asides for "socialistic" educational broadcasting. Later, they realized that educational set-asides would leave channels unused for many years. When they finally were used, they would attract small audiences and no advertisers, and would prevent a fourth commercial network, a real rival to the Big Three, from coming into existence. Educational broadcasting also lowered pressure on the Big Three to create unprofitable 'highbrow' content. See Barnouw III, *supra* note 120, at 205; Mayer, *supra* note 131, at 314; Minow, *supra* note 120, at 190.

<sup>217</sup> Porter Bibb, TED TURNER: IT AIN'T AS EASY AS IT LOOKS at 72 ("UHF television, . . . bankers joked bitterly among themselves, seemed like nothing so much as a cynical plot perpetuated[sic] by the Federal Communications Commission to separate unsuspecting doctors and dentists from their wealth.") (Johnson Books, Boulder, Colo., 1997) ("Bibb").

<sup>218</sup> Minow, *supra* note 120, at 141.

<sup>219</sup> Stanley M. Besen, Thomas G. Krattenmaker, A. Richard Metzger, Jr., & John R. Woodbury, MISREGULATING TELEVISION: NETWORK DOMINANCE & THE FCC ("Besen *et al.*") at 21-43 (University of Chicago Press, Chicago, 1986). One Commissioner described the Commission as "saying that we hate network dominance enough to inflict penny-dreadful programs on people who, given a choice, would not watch them, but we do not hate network dominance enough to do anything that might have a significant effect on it." *Amendment of Part 76, Subpart G, of the Commission's Rules & Regulations Pertaining to the Cablecasting of Programs for Which a Per Program or Per Channel Charge Is Made* ("1975 First Report & Order"), 52 F.C.C.2d 1, 76 n.10 (1975), *reversed sub nom. Home Box Office, Inc. v. FCC*, 567 F.2d 9 (D.C. Cir.) (per curiam), *cert. denied*, 434 U.S. 829 (1977).

employed most of the communications bar for a generation. Their subjectivity allowed for corruption. One of their chief creators and enforcers said later that the Commission's program regulations were "mush, complete mush" and were enforced according to the "three outhouse" principle, presumably meaning that the only broadcasters who were disciplined were ones in towns so small and poor that they lacked indoor plumbing.<sup>220</sup> There is little or no evidence that they made the market perform as well as a more competitive one would have.<sup>221</sup>

The eventual solution to the problem of too few channels finally came not from more free spectrum or better regulation. From the uncouth hinterlands came a new technology, television provided by cable and for a fee. During the Freeze, in towns that had no Channel 2 to 83 TV, entrepreneurs put receiving antennas atop hills and mountains and "stole" TV signals coming from nearby big cities that had TV stations.<sup>222</sup> The entrepreneurs transmitted the signals down cables they had laid along streets and into people's homes, and charged people about \$5 a month for "community antenna" or cable TV.<sup>223</sup> In this form, that of geographic extender of Channel 2 to 83 TV, cable delivered more viewers to Channel 2 to 83 TV stations, which meant that the stations could charge advertisers higher prices. The FCC and Channel 2 to 83 TV welcomed the unexpected helper.<sup>224</sup> Shortly, cable performed the same function in urban "concrete canyons," where over-the-air reception TV was poor.<sup>225</sup>

The cable entrepreneurs soon had other ideas, however. They used long-distance radio links to send the stolen signals of, say, a California baseball game to cable systems on the East Coast or to a small town where there were only one or two channels, or where

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<sup>220</sup> Talk by Henry Geller, former General Counsel of the FCC and Assistant Secretary of Commerce, at the FCC, Dec. 10, 1996, 0:9 (mush), 0:39 (outhouse). In 1998, former FCC Commissioner Robinson wrote of a Commission summary of its content regulation that it was "remarkable for its comprehensiveness, but more so for its irrelevance, for it was never meaningfully enforced. Though [it] remains the official statement of programming policy, the Commission has never bothered to bring it up to date, probably because it recognizes that it never was in touch with reality." Glen O. Robinson, *The Electronic First Amendment: An Essay for the New Age*, 47 DUKE L.J. 899, 913 (1998).

<sup>221</sup> The most readable explanations and critiques of the heavy regulation of Channel 2 to 83 TV are Besen *et al.*, *supra* note 219; Noll *et al.*, *supra* note 196; and Owen *et al.*, *supra* note 151.

<sup>222</sup> By "stealing," I mean that the cable operators received broadcast signals (for example, a Channel 2 to 83 TV station's broadcast of the CBS series, *I Love Lucy*) and transmitted them on their cable TV system to their users without any compensation to the Channel 2 to 83 TV station, CBS, or the copyright owner of *I Love Lucy*. This was held not to violate copyright law in *Fortnightly Corp. v. United Artists Television, Inc.*, 392 U.S. 390 (1968) and *Teleprompter Corp. v. Columbia Broadcasting System, Inc.*, 415 U.S. 394 (1974).

<sup>223</sup> See, e.g., Mary Alice Mayer Phillips, *CATV: A HISTORY OF COMMUNITY ANTENNA TELEVISION* ("Phillips") at 7-14 (Northwestern Univ. Press, Evanston, Ill., 1972).

<sup>224</sup> *Inquiry into the Impact of Community Antenna Systems, TV Translators, TV "Satellite" Stations, & TV "Repeaters" on the Orderly Development of Television Broadcasting* ("1959 Inquiry"), 26 F.C.C. 403, 407-09 (1959) ¶¶ 9-12.

<sup>225</sup> *Amendment of Subpart L, Part 91, to Adopt Rules & Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems*, 2 F.C.C.2d 725, 741 (1966) ("1966 Second Report & Order"), *affirmed*, *Black Hills Video Corp. v. FCC*, 399 F.2d 65 (8<sup>th</sup> Cir. 1968); Barnouw III, *supra* note 120, at 352; Phillips, *supra* note 223, at 86.

the Channel 2 to 83 TV stations were showing less popular programs.<sup>226</sup> A cable system could also tape Channel 2 to 83 TV shows from the air and show them after they appeared on Channel 2 to 83 TV, perhaps substituting its own commercials for the original ones.<sup>227</sup> A cable operator could also create its own channels and programming, too, perhaps targeted at smaller audiences or larger areas than a Big Three Network station could reach.<sup>228</sup> Cable television might someday, like telephones, even have two-way capability and provide subscribers with telephone service, PicturePhone, and access to vast libraries of content.<sup>229</sup> In all these forms, cable was a threat to Channel 2 to 83 TV. In the short term, cable TV meant fewer viewers that a Channel 2 to 83 TV station could sell to advertisers. In the long term, Channel 2 to 83 TV was an inherently inferior, channel-poor, one-way, regulated medium.

Channel 2 to 83 TV implored the Government to suppress cable (as well as proposals for fee-based TV provided on channels 2 to 83).<sup>230</sup> It claimed to be the Good Oligopoly serving all the people for free. It said:

The poor and rural are dependent on us. Cable charges money and therefore will serve only the rich.<sup>231</sup> Cable will take the most desirable sports events, movies, and other programs from the common folk who cannot afford it; will deprive Channel 2 to 83 TV of affluent viewers and lucrative advertising, making Channel 2 to 83 TV unable to serve unprofitable rural areas.<sup>232</sup> Cable might cause “the closing of theatres, sports arenas, concert halls, and other places of public assembly, adding to the decay of urban centers”<sup>233</sup> and, by making Channel 2 to 83 TV unable to pay for unprofitable news and public affairs broadcasting, might even endanger democracy.<sup>234</sup> The long-awaited flowering of UHF, on which

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<sup>226</sup> 1959 Inquiry, 26 F.C.C. at 409 ¶ 12, 414 ¶ 25; *Amendment of Subpart L, Part 11, to Adopt Rules & Regulations to Govern the Grant of Authorizations in the Business Radio Service for Microwave Stations to Relay Television Signals to Community Antenna Systems* (“1965 First Report & Order”), 38 F.C.C. 683, 702 (1965) ¶ 50; Barnouw III, *supra* note 120, at 352.

<sup>227</sup> Phillips, *supra* note 223, at 67.

<sup>228</sup> *Amendment of Part 74, Subpart K, of the Commission’s Rules & Regulations Relative to Community Antenna Television Systems* (“1968 Notice of Proposed Rulemaking & Notice of Inquiry”), 15 F.C.C.2d 417, 418 (1968) ¶ 5; Phillips, *supra* note 223, at 43.

<sup>229</sup> *See, e.g.*, Nicholas Johnson, HOW TO TALK BACK TO YOUR TELEVISION SET (“Johnson”) at 140-41 (Bantam Books, New York, 1970). Johnson was, at the time, an FCC Commissioner. *See also* Owen *et al.*, *supra* note 151, at 153.

<sup>230</sup> *See, e.g.*, 1959 Inquiry, 26 F.C.C. at 411-12 ¶¶ 21-22. Supporting them were movie theatre owners, sports interests, groups that FCC Chairman Minow described “[v]eterans groups, hospitalized citizens, and other miserales” (Minow, *supra* note 120, at 230), and the Congressional Black Caucus (Mayer, *supra* note 131, at 379). *See also* Bibb, *supra* note 217, at 139-40; Sterling & Kitross, *supra* note 68, at 354-55. It is sad that the Congressional Black Caucus sought to outlaw the kind of medium that produced Black Entertainment Television (and, in its founder, America’s first Black billionaire) in order to preserve a medium that was structurally incapable of producing Black-oriented content.

<sup>231</sup> *See, e.g.*, 1966 Second Report & Order, 2 F.C.C.2d at 775 ¶ 124.

<sup>232</sup> Phillips, *supra* note 223, at 51-52, 54.

<sup>233</sup> 1975 First Report & Order, 52 F.C.C.2d at 3 ¶ 7.

<sup>234</sup> *See, e.g.*, Note, *The Darkened Channels: UHF Television and the FCC*, 75 HARV. L. REV. 1578, 1602 n.155 (1962) (disparaging cable TV because it “may force existing local stations off the air or force assigned but as yet unused local channels to lie fallow because of the competition they may face from

you, the Commission, have staked your reputation and into which you have induced investment, will never happen. Moreover, cable is simply a thief. Under the copyright laws, cable systems' receivers can, in effect, steal programs off the air and re-broadcast them to their customers without any payment to either the program creator or the network or Channel 2 to 83 TV station that had paid for it.<sup>235</sup> Cable is "a pirhana, tearing at the flesh of broadcasting!"<sup>236</sup>

After initial hesitation,<sup>237</sup> and with some nudging from Congress,<sup>238</sup> the FCC began regulating cable television to ensure that it did not threaten Channel 2 to 83 TV.<sup>239</sup> Government's goal was to allow cable to exist, and to grow slowly into an adjunct or supplement to Channel 2 to 83 TV, but not into a competitor.<sup>240</sup> The need to protect the sickly UHF and educational stations, especially in rural areas, was the stated goal.<sup>241</sup>

The regulations that were imposed on cable television rivaled, in their complexity, the regulation of Channel 2 to 83 Television. Cable systems were required to carry, for free, all Channel 2 to 83 TV stations in the areas they served ("Must Carry");<sup>242</sup> were forbidden to carry most out-of-town stations;<sup>243</sup> were severely limited in carrying sports, movies,<sup>244</sup> and old TV series; were required to create their own local programming; were

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[cable] if they were used. This would hurt the less wealthy viewers, for whom [cable] might be too expensive."). Very similar arguments were re-cycled by the Bell System (*see infra* text accompanying notes 290-91) and, in recent years, against the Internet and Napster.

<sup>235</sup> For a good summary of the anti-cable arguments, *see* 1967 Memorandum Opinion & Order, 8 Rad. Reg. 2d (P&F) at 1710-11 (separate statement of Commissioner Cox).

<sup>236</sup> *The "Mouth From the South" Debuts*, TELECOMMUN. POL. REV. at 3 (Jan. 13, 2002).

<sup>237</sup> 1959 Inquiry, 26 F.C.C. at 423-25 ¶¶ 48-54.

<sup>238</sup> *See, e.g.*, 1966 Second Report & Order, 2 F.C.C.2d at 775 ¶ 124; *Amendment of Part 73 of the Commission's Rules & Regulations (Radio Broadcast Services) to Provide for Subscription Television Service*, 15 F.C.C.2d 466, 469-72 (1968) ¶¶ 13-18 (Congressional expressions of hostility to television for a fee on channel 2 to 83); Phillips, *supra* note 223, at 52-56. According to one historian, the FCC's crackdown on cable television coincided with the appearance of cable television near Austin, Texas, the locale of the Channel 2 to 83 broadcasting fortune of the wife of President Johnson. *Presidents & Telecommunications*, TELECOMMUN. POL. REV. at 6 (Aug. 8, 2004).

<sup>239</sup> Barnouw III, *supra* note 120, at 490 ("The FCC, indulgent regulator of the [established broadcasters'] system, had tended to hold the offspring in check in the interest of industry stability.").

<sup>240</sup> *See, e.g.*, 1965 First Report & Order, 38 F.C.C. at 699-700 ¶¶ 44-48; 1966 Second Report & Order, 2 F.C.C.2d at 781 ¶ 139. *See also* Baughman, *supra* note 203, at 173; Besen *et al.*, *supra* note 219, at 11.

<sup>241</sup> *See, e.g.*, 1966 Second Report & Order, 2 F.C.C.2d at 737 ¶ 28, 774-7 ¶¶ 123-27, 781 ¶ 139. According to one historian, the Commission believed that mature UHF TV would destroy cable TV. Powe, *supra* note 119, at 225.

<sup>242</sup> 1959 Inquiry, 26 F.C.C. at 439 ¶ 94 (recommending legislation to that effect); 1966 Second Report & Order, 2 F.C.C.2d at 746 ¶ 49 (requiring carriage without new legislation). Must Carry was, to some extent, a victory for cable because it received the right to carry Channel 2 to 83 stations for free. Some of those stations might have preferred to 'exercise their property rights' and stay off cable systems, thus reducing what cable could offer subscribers.

<sup>243</sup> *See, e.g.*, 1966 Second Report & Order, 2 F.C.C.2d at 746 ¶ 49, 782 ¶ 141; *Amendment of Part 74, Subpart K, of the Commission's Rules & Regulations Relative to Community Antenna Television Systems*, 36 F.C.C.2d 141, 179-85 (1972) ¶¶ 92-93, 97-106.

<sup>244</sup> *See, e.g.*, Powe, *supra* note 119, at 224. Perhaps the height of the micro-regulation of cable systems was the FCC allowing them to broadcast only foreign films, mandating barely readable subtitles, and forbidding dubbing. Leaving no detail unaddressed, the Commission even added a proviso that in Puerto Rico, films

put under many of the same obligations as Channel 2 to 83 TV about covering local public affairs; and were required to adhere to technical standards, to have a minimum number of channels, to build two-way capability into their systems, and to devote minimum numbers of channels to government, educational institutions, and “public access.”<sup>245</sup>

These regulations simultaneously required cable systems to spend money and denied them the programming from which to earn that money. Their collective effect was called “infanticide by regulation.”<sup>246</sup> Other governments piled on more regulations, too. Some counties and cities saw cable systems simply as sources of revenue, “urban oil wells beneath our city streets” in the words of the New York’s Mayor Lindsay,<sup>247</sup> and demanded, as the price of the right to lay cables over and under the streets, large percentages of cable’s revenues.<sup>248</sup> Corrupt local politicians wanted free stock in the cable company.<sup>249</sup> Finally, in the late ‘60s and early ‘70s, cable television attracted swarms of ‘public interest’ advocates who proposed to further burden it with their visions of the “Wired City.” Cable, they said, should give “free” channels to the government, to hospitals, to community groups, and to other deserving speakers. If thus shaped, cable would revolutionize health care and public safety, would revive urban America and rural America, would entertain and educate, would serve small audiences that the Big Three Networks missed and would bring America together (while also empowering the

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in English would be considered foreign. *1975 First Report & Order*, 52 F.C.C.2d at 54 n.52 ¶ 177; *FCC Cable Rules Over the Years*, TELECOMMUN. POL. REV. at 5 (Feb. 29, 2004).

<sup>245</sup> *Amendment of Part 74, Subpart K, of the Commission’s Rules & Regulations Relative to Community Antenna Television Systems*, 20 F.C.C.2d 201 (1969), *reversed sub nom. Midwest Video Corp. v. United States*, 441 F.2d 1322 (8<sup>th</sup> Cir. 1971), *reversed*, 406 U.S. 649 (1972); Barnouw III, *supra* note 120, at 435; Mark Robichaux, *CABLE COWBOY: JOHN MALONE & THE RISE OF THE MODERN CABLE BUSINESS* (“Robichaux”) at 15-16, 31, 54 (John Wiley & Sons, Inc., Hoboken, N.J., 2002); Powe, *supra* note 119, at 224-25. *See also* Sterling & Kitross, *supra* note 68, at 417, 467-70.

<sup>246</sup> Besen *et al.*, *supra* note 219, at 11. *See also* Johnson, *supra* note 229, at 142 (the FCC “barricaded cable television’s headlong advance.”).

<sup>247</sup> Robichaux, *supra* note 245, at 65-66. *See also* Phillips, *supra* note 223, at 153-59.

<sup>248</sup> Robichaux, *supra* note 245, at 65.

<sup>249</sup> *See, e.g., Teleprompter Cable Systems, Inc. v. FCC*, 543 F.2d 1379 (D.C. Cir. 1976); *Teleprompter of Erie, Inc. v. City of Erie*, 537 F. Supp. 6 (W.D. Pa. 1981); Thomas W. Hazlett, *Wiring Washington*, REASON MAGAZINE (Feb. 2000), <http://reason.com/0002/co.th.selected.shtml> (visited July 15, 2003); Robichaux, *supra* note 245, at 65-66.

previously oppressed).<sup>250</sup> Some state and local governments adopted some of these proposals, thus duplicating or adding to the FCC's requirements.<sup>251</sup>

It took cable more than a decade to escape all these suffocating embraces. Most of the '60s agitators went on to other things. The Nixon White House, which hated the Big Three Networks, called for lightening up on cable TV.<sup>252</sup> In the 1970s, intellectuals and at least one Commissioner, Glen Robinson, made clear the emptiness of pro-Channel 2 to 83 TV and anti-cable economics.<sup>253</sup> The FCC began loosening its rules.<sup>254</sup> In 1976, the copyright loophole was plugged, ending the "Stop, thief!" rationale for stunting cable.<sup>255</sup> Court decisions struck down FCC regulations, either because they exceeded the Commission's authority or because their focus on protecting Channel 2 to 83 TV at the expense of consumers was fundamentally wrong-headed.<sup>256</sup> Courts also acknowledged

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<sup>250</sup> See 1968 Notice of Proposed Rulemaking & Notice of Inquiry, 15 F.C.C.2d at 419-20 ¶¶ 5-7; Mayer, *supra* note 131, at 349 (in 1971, predicting that cable tv would enable "medical diagnosis by computer"); Monroe E. Price, *Requiem for the Wired Nation: Cable Rulemaking at the FCC*, 61 VA. L. REV. 541 (1975) (describing the frothy expectations for cable TV in the late '60s and early '70s); Robichaux, *supra* note 245, at 63-66; Ralph Lee Smith, *THE WIRED NATION – CABLE TV: THE ELECTRONIC COMMUNICATIONS HIGHWAY* (Harper & Row, Publishers, New York, 1972). See also Johnson, *supra* note 229, at 139-55; Owen *et al.*, *supra* note 151, at 153.

The dreams and nightmares of the Wired City sound strikingly similar to those that accompanied the appearance of the Internet in the late 1990s. They omit, however, the most populist features of the Internet: two-way communications such as e-commerce, e-mail and instant messaging, and individuals creating their own web pages. At its most paternalistic, the Wired City sounds like the Big Three Networks and ten channels each of PBS and local government.

<sup>251</sup> See, e.g., Powe, *supra* note 119, at 232-35.

<sup>252</sup> Owen *et al.*, *supra* note 151, at 146-48; *The FCC, Politics, & Over-Arching Federal Policies*, TELECOMMUN. POL. REV. at 6 (May 11, 2003). Ironically, the first proposals to lighten up on cable tv came from the Johnson White House. Johnson, *supra* note 229, at 154.

<sup>253</sup> 1975 First Report & Order, 52 F.C.C.2d at 76 (Commissioner Robinson dissenting) ("The Commission should not be reducing viewer choice (and therefore economic value) [by prohibiting cable systems from showing certain fare reserved to Channel 2 to 83 TV] simply to maintain the level of broadcaster rents. This is a matter of internecine warfare between businessmen, which they can very satisfactorily resolve without our guidance."), 77 ("We are not dealing here with a great issue of social choice – compulsory education, for example – whose importance may justify overriding individual choice."), 82 ("our failure to relax our rules . . . is . . . a throwback to our mercantile past which would be quaint if it did not promise to work needless harm on an infant industry").

<sup>254</sup> Bibb, *supra* note 217, at 97-98; Robichaux, *supra* note 245, at 55. Sad to say, their removal occurred one regulation at a time, making the process of de-regulation itself intensely regulatory. A good summary of the FCC's progressive relaxation of its limits on cable TV is in *Malrite T.V. of New York v. FCC*, 652 F.2d 1140, 1143-47 (2d Cir. 1981), *cert. denied*, 454 U.S. 1140 (1982) ("*Malrite*"). See also *Amendment of Subpart D of Part 76 of the Commission's Rules & Regulations with Respect to Selection of Television Signals for Cable Television Carriage (leapfrog rules)*, 57 F.C.C.2d 625 (1976).

<sup>255</sup> 17 U.S.C. § 111; Bibb, *supra* note 217, at 87; *Malrite*, *supra* note 254, 652 F.2d at 1145-47.

<sup>256</sup> See *FCC v. Midwest Video Corp.*, 440 U.S. 689 (1979).

<sup>256</sup> *FCC v. Midwest Video Corp.*, 440 U.S. at 695-96, 709 n.19; *Home Box Office, Inc. v. FCC*, 567 F.2d at 33 ("the Commission has nowhere spelled out even a theory of the dynamic which could result in loss of broadcast television service to regions not served by cable."), 39 ("the Commission has not documented its case that the poor would be deprived of adequate television service and, worse, . . . the Commission . . . has virtually ensured that the price of pay cable will never be within the reach of the poor"), 40 (Commission rules "scarcely demonstrate a consistent solicitude for the poor. Thus, although 'free' home viewing relies upon advertiser-supported programming, the Commission has in this proceeding barred cable firms from advertising" on certain channels) (D.C. Cir.) (per curiam), *cert. denied*, 434 U.S. 829 (1977).

that limitations on cable TV posed the question whether its First Amendment rights were being infringed.<sup>257</sup> Finally, the Reagan accession ushered in a deregulatory era for all broadcast media, in which cable was allowed to grow in relative freedom.<sup>258</sup>

Even in its lean years, cable had been building in new areas and adding channel capacity. In the 1970s, it began showing movies and sports in some places.<sup>259</sup> Cheap satellite communications made it easy for cable systems all over the country to receive programs.<sup>260</sup> In the 1980s, it began to create its own content, in significant amounts and of quality rivaling Channel 2 to 83 TV shows.<sup>261</sup> Eventually cable's own content became a feast of sports, news, and fringe opinions that would never have been let inside a studio in the Golden Age of Edward R. Murrow, more American culture (jazz, gospel, and rock) than was ever broadcast of Toscanini and Bernstein, and more programs aimed at minorities than the most civic-minded of the Big Three Networks would ever have agreed to carry in exchange for continued oligopoly rents.<sup>262</sup> Ironically, cable proved most helpful to its greatest enemy, UHF. On a cable system, UHF and VHF pictures have the same coverage area and picture quality, thus overcoming a major historic disadvantage of UHF.

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<sup>257</sup> *FCC v. Midwest Video Corp.*, 440 U.S. at 695-96, 709 n.19.

<sup>258</sup> *See, e.g.*, 98 Stat. 2779 (1984) (the generally deregulatory Cable Communications Policy Act of 1984); Robichaux, *supra* note 245, at 72-101 *passim*; Sterling & Kitross, *supra* note 68, at 505, 559-60, 574-75. A cynic would tie the FCC's regulation of cable TV to the Kennedy Administration's activism with improving the "vast wasteland" of Big Network TV and the Johnson family's broadcast-based personal fortune. There is empirical evidence that deregulation, in addition to making way for new channel-rich media, has actually increased the discussion of public affairs on The People's Airwaves. *See, e.g.*, Thomas W. Hazlett, *Market Failure as a Justification to Regulate Broadcast Communications*, in Robert Corn-Revere (Ed.), *RATIONALES & RATIONALIZATIONS: REGULATING THE ELECTRONIC MEDIA* at 164-65 (The Media Institute, Washington, D.C., 1997).

<sup>259</sup> The Cable Center, *Cable History, Hall of Fame 2000 Members, Charles F. Dolan*, [http://www.cablecenter.org/history/hall\\_of\\_fame/hof\\_member.cfm?year=2000&ID=16](http://www.cablecenter.org/history/hall_of_fame/hof_member.cfm?year=2000&ID=16) (visited Nov. 6, 2003).

<sup>260</sup> Bibb, *supra* note 217, at 96-97. 100-04; CED Magazine, *50 Years of Technology: Landmarks of Technology in the Cable Television Industry, The 1970s*, <http://www.cedmagazine.com/retro/seventies.html> (visited Aug. 9, 2004); David J. Whalen, *Communications Satellites: Making the Global Village Possible*, <http://www.hq.nasa.gov/office/pao/History/satcomhistory.html> (visited Aug. 9, 2004). A satellite industry independent of the Bell System was created by the FCC, over Bell's opposition. *Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities*, 35 F.C.C.2d 844, 846-50 (1972) ¶¶ 5-15, *reconsideration denied*, 38 F.C.C.2d 665 (1972).

<sup>261</sup> Sterling & Kitross, *supra* note 68, at 417.

<sup>262</sup> Even severe critics of American broadcast media concede the democratic, populist potential of more channels. Michael Hardt & Antonio Negri, *EMIPRE* at 299 (Harvard Univ. Press, Cambridge, Mass., 2000) ("The Internet . . . is the prime example of [a] democratic network structure."); Edward S. Herman and Noam Chomsky, *MANUFACTURING CONSENT: THE POLITICAL ECONOMY OF THE MASS MEDIA* at 307 (Pantheon Books, New York, 1988) ("The rise of cable and satellite communications, while initially captured and dominated by commercial interests, has weakened the power of the network oligopoly and retains a potential for enhanced group access. There are already some 3,000 public-access channels in use in the United States, offering 20,000 hours of locally produced programs per week, and there are even national producers and distributors of programs for access channels . . . Grass-roots and public-interest organizations needs to recognize and try to avail themselves of these media (and organizational) opportunities." ). *See also* note 308 *infra*.

Each of the U.S. government's early decisions about television – in 1945, to start TV on the inadequate VHF spectrum, in 1948 to let the Monster Docket drag on as the Big Three Networks grew so powerful that they stopped the move of all TV to UHF, and in the '60s and '70s to suppress cable instead of welcoming it as a superior replacement for the government's own creation – was reasonable at the time it was made. Its harmful consequences could not have been predicted with certainty. The net effect of government's decisions about television, however, was very harmful to American consumers. Government allowed the three radio networks to extend their oligopoly into television and protected them from competition, new technology, and having to satisfy small groups of consumers. From about 1930 to about 1980 – through boom and bust, war and peace, Republicans and Democrats – no government decision challenged the Big Three Networks. Over the decades of heavy regulation, American consumers received an un-American poverty of channels, competition, diversity, and free speech.<sup>263</sup> Only a relatively unregulated medium, cable after 1980, gave the American people the freedom and choices they had had before heavy regulation, when radio was young and “chaotic.”

Government's fundamental error in television was trying to do too much: to create a vast new business from nothing, and to cause it to produce just the right amounts of entertainment *and* education, local *and* national content, for the mass market *and* worthy minority tastes, free *and* valuable, all on just three channels. Government also erred in falling for the Good Oligopoly story, for lacking humility in persisting with the obvious failure of UHF, and for taking too long to loosen up on cable TV. Cable's ability to steal Channel 2 to 83 TV programs from the air called for fair compensation, not for suppression. If cable threatened Channel 2 to 83 TV with extinction because it was a better product and if that was a problem for government to solve, then the solution was to bring the better product to everyone rather than to suppress it. To borrow a metaphor, when cars began driving blacksmiths out of business, there was an undoubted hardship on people who still had horses and could not afford to buy a car.<sup>264</sup> If that was a problem for government to solve, promoting low-priced cars might have been a better policy than banning all cars in order to preserve the neighborhood blacksmith. The latter, however, is what the U.S. government did with television.

On the other hand, for all of government's error, Channel 2 to 83 TV was extremely popular. As with radio, most other countries had fewer TV channels at the time and they were government-owned or -controlled.<sup>265</sup> The Big Three Networks were unprofitable for many years due to high start-up costs; maybe more channels would never have achieved profitability.<sup>266</sup> There was no reason to foresee, in 1948, how popular VHF television would be<sup>267</sup> and, therefore, how big any mistakes would become.

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<sup>263</sup> See authorities cited *supra* note 221.

<sup>264</sup> Owen *et al.*, *supra* note 151, at 144 n.a.

<sup>265</sup> See, e.g., Noll *et al.*, *supra* note 196, at 208; Anthony Smith, ed., TELEVISION: AN INTERNATIONAL HISTORY at 1642-63 (2d. Edition, Oxford Univ. Press, New York, 1998). Some other countries' relatively few channels may also be due in part to their lesser size and wealth.

<sup>266</sup> Quello, *supra* note 141, at 78, 101; Sterling & Kitross, *supra* note 68, at 279. ABC remained financially weak until the late 1950s. Sterling & Kitross, *supra* note 68, at 357.

<sup>267</sup> Many experts, in their predictions of what television would become and how popular it would be, made hilarious errors. Boddy, *supra* note 120, at 18-24, 44 (experts predicting that television would not succeed

Perhaps only a suicidal regulator or politician would have had the courage, in 1952, to move all TV to UHF and thus to feel the wrath of the Big Three Networks, manufacturers, and their friends in Congress, not to mention more than ten million voters whose television sets would go dark. No one outside academia in the 1960s opined that Channel 2 to 83 TV should die if it could not survive against cable's competition, even if that meant that significant numbers of Americans would have no television at all for significant periods of time. It is unrealistic to expect the FCC in particular, when cable emerged, to say:

Congress told us to make sure that every American gets good communications.<sup>268</sup> We thought that Channel 2 to 83 TV was the answer, we induced many millions of investment in it, and most consumers seem very happy with it. But we were wrong! The best form of television is actually cable, so we're going to let Channel 2 to 83 TV die, rendering worthless much of the investment that we induced. And we're going to depend, to do the job with which Congress has entrusted to us, on an industry that barely exists yet, that produces no programs of its own, over which we arguably have no authority,<sup>269</sup> and whose only product at present is stolen.

To adopt that as government policy would have required a leap of faith in free markets worthy of Evel Knievel.

Nor would early cable TV, had it become the country's main multi-channel video medium, have been a market that government could have easily left unregulated. Almost every cable system was a monopoly in its area, without even the modest rivalry of the Big Three Networks.<sup>270</sup> Such monopolies often call forth regulation of entry and exit, service offerings, rates and profits, and many internal corporate affairs. Government involvement in the management of cable systems might be needed, it was widely thought, to allocate cable's scarce channels among different types of content.<sup>271</sup> Cable television today, even in a non-regulatory climate and with competition from two satellite-based systems and perhaps other media, is thought to need some regulation.<sup>272</sup>

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until it was color, that eye-strain and darkened rooms would limit viewing, that viewers would not accept advertising, that television programs would need to be as absorbing and expensive to produce as movies, and that television would succeed only in movie theatres, not in homes).

<sup>268</sup> See *supra* note 3 (quoting 47 U.S.C. § 151).

<sup>269</sup> The FCC wrestled for years with the question whether it had authority to regulate cable TV. See, e.g., 1967 Memorandum Opinion & Order, 8 Rad. Reg. 2d (P&F) at 1698-1703 (dissenting opinion of Commissioner Loevinger chronicling the Commission's legal decade-long path to asserting authority over cable TV); Powe, *supra* note 119, at 217-23.

<sup>270</sup> Competition from satellite broadcasting did not arrive until the mid-1990s.

<sup>271</sup> See, e.g., Charles O. Verrill, Jr., *CATV's Emerging Role: Cablecaster or Common Carrier*, 34 L. & CONTEMP. PROBS. 586 (1969).

<sup>272</sup> See, e.g., 47 U.S.C. §§ 601 *et seq.*; Arlington Cable Television & Information Technology Advisory Commission, <http://www.co.arlington.va.us/chan31/newcharge.htm> (visited July 25, 2003).

A fair criticism is to fault American government for promoting Channel 2 to 83 TV and stunting cable an unnecessarily long time.<sup>273</sup> As early as 1967, one Commissioner had realized that moving TV to cable would put spectrum to better use; that cable TV, given its many channels, was “the best hope of television program diversity in many communities;”<sup>274</sup> and that the government was “forbidding a service which a large segment of the local public is demanding and willing to pay for.”<sup>275</sup> A mentally athletic and reasonably courageous Commission would have resisted Congress and the Big Three Networks and would have (a) allowed cable to grow naturally, (b) imposed Must Carry to continue Channel 2 to 83 TV in existence, at least as content on cable TV screens,<sup>276</sup> (c) devised a compensation scheme for cable companies to pay program creators or other copyright holders, (d) perhaps funded a Rural Cable Bank for those too rural and/or poor to afford it, and (e) been willing to see Channel 2 to 83 TV die and free up all that spectrum for other uses. This, although far from *laissez-faire*, would have been less than what the FCC did. It would have allowed the new channel-rich technology to grow faster than it did and would have made better use of the radio spectrum. It would have helped only those viewers who needed help and would have helped them by moving them from old, relatively impoverished technology to the new enriching one.

#### **Case History #4: Taming the Bell System**

The Bell System emerged from World War II as the largest, most respected, and most successful business corporation in the country.<sup>277</sup> Everyone agreed that it and the Independents ran the best telephone system in the world. Bell was doing a great thing, putting a plain black telephone in every home.

The problem was that putting black telephones in homes was about all that Bell did. With its task clearly defined (wiring the last 50% of American homes for Plain Old Telephone Service or “POTS”), with profits and monopoly virtually guaranteed by regulation, and with most residential customers satisfied, Bell became stodgy and complacent.<sup>278</sup> Bell Labs had an impressive record of invention, but the Bell telephone

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<sup>273</sup> Less sympathetic critics say that the main flaw in government’s treatment of television is its “meddling ad-hocery,” viewing “cable successively as an insignificant nuisance, a vague threat to its cherished UHF-TV plans, a major threat to TV station profitability, poor people, and others, and an opportunity to mandate some of its favorite public-service objectives,” but never seeing cable “as what it really is – a chance to expand viewer choice, a chance to increase freedom of expression, and a chance to reduce the intrusion of government into the marketplace of ideas.” Owen *et al.*, *supra* note 151, at 145-46, 153.

<sup>274</sup> 1967 Memorandum Opinion & Order, 8 Rad. Reg. 2d (P&F) at 1704 (dissenting opinion of Commissioner Loevinger).

<sup>275</sup> *Id.* at 1705.

<sup>276</sup> The Big Three Networks would have easily won carriage on cable systems with their allegedly unique news and public affairs programming and their mastery at attracting the mass audience.

<sup>277</sup> Both Ronald Reagan and the leftist John Kenneth Galbraith praised the company. Steve Coll, *THE DEAL OF THE CENTURY: THE BREAKUP OF AT&T* (“Coll”) at 185, 221 (Atheneum, New York, 1986); John K. Galbraith, *THE NEW INDUSTRIAL STATE* at 324-25 (New American Library, New York, 1986).

<sup>278</sup> Temin & Galambos, *supra* note 9 at 6 (“‘Universal service’ having been achieved, it was not at all clear where the System should go.”), 58 (“internal barriers to change had grown up”), 143 (“If marketing

companies were often slow to put innovative technology in consumers' hands lest they render Bell's existing network obsolete.<sup>279</sup> Once Bell had put a plain black telephone in a home, it had no incentive to substitute a better phone (much less something new like a computer) there until the plain phone's useful life – forty years – was over. Having laid a copper line to every home, Bell had little incentive to substitute radio or fiber until the copper corroded from old age. Bell built enough microwave towers in the late 1940s and early '50s to meet the country's foreseeable need for long distance, so it had little incentive to use satellites much. Adding to Bell's reactionary attitude were its huge factory, Western Electric, where hundreds of thousands of employees made its network, and the huge work force of local Bell telephone workers, who installed its lines and phones. Any new labor-saving technology was a threat to labor peace within the Bell System, and to a large part of organized labor. Bell was also big enough to have a public relations staff so big that it convinced most other people, and even Bell itself, that the network as it then existed was a good in itself, floating serenely above the pain of daily life.<sup>280</sup>

Starting in the 1950s, Bell's largest customers (governments and Fortune 500 corporations) became dissatisfied with its plain black telephones. They wanted specialized equipment and services that used new technology, especially to provide data communications in the suburbs and between distant offices.<sup>281</sup> The specific capabilities these customers wanted first were answering and recording devices, specialized telephones, switchboards, and other "terminal" or "customer premises" equipment tailored to a customer's particular needs. Second were local, long distance, wire, and radio lines that were oriented to one-way bursts of data rather than two-way simultaneous voice communications. Users of these lines also wanted long distance that was not priced high to subsidize home phones for rural folk. Third was something entirely new, using phone lines for "information services," which were stock market quotations, credit card verification, payroll and accounting calculations, and as many other kinds of number-crunching as the mind of business could conceive.

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reported that a customer was unhappy, they were told to go back and explain to the customer why he should be happy."), 150 ("The Bell engineers were not interested in what the salesmen reported that customers wanted"). See also Henck & Strassburg, *supra* note 52, at 127, 129, 258 (referring to AT&T as having "costly layers of operating fat that grew from generations of complacency and indifference typical of the monopolist"); Katie Hafner & Matthew Lyon, *WHERE WIZARDS STAY UP LATE: THE ORIGINS OF THE INTERNET* ("Hafner & Lyon") at 62-63 (Simon & Schuster, New York, 1996).

<sup>279</sup> For example, Bell Labs invented cellular service, for example, but the System originally deployed it as a car-bound luxury service – a supplement to POTS but not a competitor to it.

<sup>280</sup> Concerning why it may be rational, in the short term, for large established firms to ignore new, disruptive technologies, see Clayton M. Christensen, *THE INNOVATOR'S DILEMMA: WHEN NEW TECHNOLOGIES CAUSE GREAT FIRMS TO FAIL* at xx-xxi ("the larger and more successful an organization becomes, the weaker the argument that emerging markets can remain useful engines for growth"; "Small organizations can most easily respond to the opportunities for growth in a small market."), 54-55, 132-33, 136, 173, 208-10 (Harvard Business School Press, Boston, 1997).

<sup>281</sup> See, e.g., Brock I, *supra* note 14, at 212.

The large customers asked Bell for these capabilities, and Bell largely ignored them.<sup>282</sup> Although Bell had invented many of the technologies that customers wanted,<sup>283</sup> it was busy achieving universal service, and what could be more important than that? So, the large customers found other companies that would meet their needs. Dealings between these willing buyers and sellers, however, would be sensible only if they could connect their equipment and lines to Bell's lines and make information services work on Bell's lines. Bell refused such interconnection. On top of its earlier refusal to provide those services itself, Bell's refusal to interconnect meant that America's largest telecommunications users could not have the capabilities and new technology they wanted.<sup>284</sup> The Bell System, for all its noble deployment of POTS to every home, was becoming a major intestinal blockage in America's body economic.

The customers asked the FCC to let them provide the new capabilities to themselves on private networks, to allow new companies to come into existence that would offer the new capabilities, and to require Bell to allow them to connect to its network.<sup>285</sup> New companies such as MCI and Sprint appeared, wanting to meet these customers' demands and creating another constituency for liberalization.

The Bell System, lobbying and litigating to the hilt at the states and the FCC, opposed all these interlopers and their requests for new entry and interconnection. Bell's chief executive officer in the 1970s, John deButts, had to fight back tears at the thought of 'divided responsibility.'<sup>286</sup> The struggle against competition was taken up in the 1980s by the Republican Secretary of Defense Weinberger, who associated the unified Bell System with the national defense,<sup>287</sup> and by the Republican Secretary of Commerce Baldrige, who associated the Bell monopoly with American jobs.<sup>288</sup> Strange to say, the forces favoring competition were liberals within the FCC who had become disillusioned with the regulated monopoly paradigm,<sup>289</sup> businesses too small to interest the pro-big

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<sup>282</sup> The present author, as one of AT&T's in-house counsel, was briefly attached to AT&T's sales team for a very large business customer in the late 1970s. The main activity of the sales team was to study the customer's requests for months and then refuse to satisfy them on grounds that they violated Bell policy. The main job of counsel was to frustrate any attempt by the customer to get its requests satisfied by its own efforts or another company's or the FCC. *AT&T et al. Interconnections with Private Interstate Communications Systems*, 71 F.C.C.2d 1, 7 (1979) ¶ 17 (describing AT&T's position as "strained, unconvincing, and incorrect.").

<sup>283</sup> These include the transistor, coaxial cable, microwave, and cellular.

<sup>284</sup> Building an entirely new network to compete with Bell was unthinkable complex and costly.

<sup>285</sup> See, e.g., Stone, *supra* note 152, at 148 (participants in one FCC proceeding, siding with non-Bell provider of terminal equipment, included the American Petroleum Institute, utilities, the U.S. Air Force, NASA, and the National Retail Merchants Association).

<sup>286</sup> Coll, *supra* note 277, at 378-80.

<sup>287</sup> Ironically, at the same time Secretary of Defense Weinberger was defending centralized control as essential to the national defense, people within the defense establishment were creating the Internet, which was based on the assumption that lack of centralized control was essential to the national defense. Hafner & Lyon, *supra* note 278, at 243-46.

<sup>288</sup> Coll, *supra* note 277, at 216, 220-21.

<sup>289</sup> For example, Bernard Strassburg, when he was an FCC staff lawyer in the mid-1950s, supported the Commission's decision in the *Hush-A-Phone* case, *infra* note 292, which all but sanctifies the Bell monopoly. Twenty years later, sadder but wiser and Chief of the FCC's Common Carrier Bureau, he provoked major Commission decisions allowing entry by competitors. The long-haired Democrat

business Reagan cabinet, and libertarian economists and lawyers in the first Reagan Administration's Justice Department.

Publicly, Bell struck the familiar pose of the Good Monopoly.<sup>290</sup> There was no demand for these new capabilities, Bell said; if there were, Bell would have thought of them. Bell had devices and services, some left over from World War II, that were practically as good as the ones the new companies proposed to offer. The new companies' technologies were untried and might not work. Connection to Bell's network of anything that was not controlled by an established company like Bell might cause "harm to the network," impairing the service of innocent Bell customers, killing Bell installers, and even endangering the national defense. Every Bell device and service that the large customers and new entrants wanted to stop using was subsidizing universal service for the urban poor and the hinterlands, which could be put in mortal peril by customer choice, competition, and technology advancing faster than Bell's dignified shuffle. Besides, Bell told the FCC, the new devices and services were mostly used for intrastate communications and were therefore beyond the FCC's authority.<sup>291</sup>

In a series of decisions stretching over forty years, the FCC granted all of the customers' and newcomers' basic requests, allowing entry into segment after segment of telecommunications and granting the new companies and their customers interconnection to Bell's network. Customers were allowed to connect their own terminal equipment to Bell's network as long as it passed a simple "shake and bake" test that showed it wouldn't hurt the network.<sup>292</sup> Large customers were allowed to build their own internal

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Commissioner Nicholas Johnson supported the licensing of MCI to compete with AT&T, in *Microwave Communications, Inc.*, 18 F.C.C.2d 953, 978 (1969) (citations omitted):

No one has ever suggested that Government regulation is a panacea for men's ills. It is a last resort; a patchwork remedy for the failings and special cases of the marketplace. Some have urged the case that Government regulation results in higher prices and less technological innovation and that, in almost every instance, the country would be better off with unregulated and unprotected monopolies. I am not prepared to go quite so far. But I am not satisfied with the job the FCC has been doing. And I am still looking, at this juncture, for ways to add a little salt and pepper of competition to the rather tasteless stew of regulatory protection that this Commission and Bell have cooked up.

<sup>290</sup> The ultimate self-expression of the Bell System as doer of all things good, genuinely hurt by all the criticism of it, is Alvin von Auw's *HERITAGE & DESTINY: REFLECTIONS ON THE BELL SYSTEM IN TRANSITION* ("Von Auw") (Praeger Publishers, New York, 1983).

<sup>291</sup> Bell's formal declaration of war on the FCC, in which he called for "a moratorium on further experiments in economics," was in a 1973 speech by its Chairman, John deButts to state regulators. Von Auw, *supra* note 290, at 422. The state regulators "stomped and cheered in celebration." Coll, *supra* note 277, at 43.

<sup>292</sup> See, e.g., *Hush-A-Phone Corp.*, 20 F.C.C. 391 (1955), *reversed*, *Hush-A-Phone Corp. v. United States*, 238 F.2d 266 (D.C. Cir. 1956), *on remand*, 22 F.C.C. 112 (1957); *Use of the Carterfone Device in Message Toll Tel. Serv.*, 13 F.C.C.2d 420 (1968), *reconsideration denied*, 14 F.C.C.2d 571 (1968); *AT&T "Foreign Attachment" Tariff Revisions ("Tariff Revisions")*, 15 F.C.C.2d 605 (1968); *Telerent Leasing Corp.*, 45 F.C.C.2d 204 (1974), *affirmed*, *North Carolina Utils. Comm'n v. FCC*, 537 F.2d 787 (4th Cir.), *cert. denied*, 429 U.S. 1027 (1976); *Proposals for New or Revised Classes of Interstate & Foreign Message Toll Tel. Serv. & WATS*, 56 F.C.C.2d 593 (1975), 58 F.C.C.2d 736 (1976), *affirmed*, *North Carolina Utils. Comm'n v. FCC*, 552 F.2d 1036 (4th Cir.), *cert. denied*, 434 U.S. 874 (1977). See also *AT&T Co.'s Proposed Tariff Revisions in Tariff FCC No. 263*, 53 F.C.C.2d 473 (1975), *affirmed*, *Mebane Home Tel. Co. v. FCC*, 535 F.2d 1324 (D.C. Cir. 1976). See also Brock I, *supra* note 14, at 234-53; Brock II, *supra*

communications networks and to interconnect them with Bell's network.<sup>293</sup> New companies, such as MCI in long distance<sup>294</sup> and Teleport in local,<sup>295</sup> were allowed to build new networks, to rent use of them to customers too small to build their own, and to interconnect them with Bell's network. Non-Bell satellites added more long distance capacity.<sup>296</sup> Bell was required to let its lines be used for information services,<sup>297</sup> the latter becoming a vast industry that was unregulated.<sup>298</sup> Bell was allowed into new and competitive markets once protections were in place to prevent it from using its local service monopoly to hurt competition.<sup>299</sup> Large parts of Bell itself – terminal equipment, information services, and cellular service – were de-regulated or not regulated at all.<sup>300</sup> Bell's competitors were never regulated meaningfully. Through all this change, universal service was preserved, and even expanded in the 1990s to wire classrooms and libraries for Internet access.

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note 51, at 79-93; Henck & Strassburg, *supra* note 52, at 32-39, 104-07, 126-41; Stone, *supra* note 152, at 121-25, 146-52, 216-35.

<sup>293</sup> See, e.g., *Allocation of Frequencies in the Bands Above 890 Mc.*, 27 F.C.C. 359 (1959), 29 F.C.C. 825 (1960); *AT&T et al. Interconnections with Private Interstate Communications Systems*, 71 F.C.C.2d 1 (1979). See also Brock I, *supra* note 14, at 202-05; Brock II, *supra* note 51, at 102-111; Henck & Strassburg, *supra* note 52, at 82-85; Stone, *supra* note 152, at 125-34.

<sup>294</sup> See, e.g., *Microwave Communications, Inc.*, 18 F.C.C.2d 953, 18 F.C.C.2d 979 (1969), *reconsideration denied*, 21 F.C.C.2d 190 (1970), *modification granted*, 27 F.C.C.2d 380 (1971); *Specialized Common Carrier Services in the Domestic Public Point-to-Point Microwave Radio Service*, 29 F.C.C.2d 870 (1971), *affirmed*, *Washington Utils. & Transp. Comm'n v. FCC*, 513 F.2d 1142 (9th Cir.), *cert. denied*, 423 U.S. 836 (1975); *Bell System, Tariff Offerings*, 46 F.C.C.2d 412 (1974), *affirmed*, *Bell of Pennsylvania v. FCC*, 503 F.2d 1250, 1282 (3d Cir.1974), *cert. denied*, 422 U.S. 1026 (1975). See also Brock I, *supra* note 14, at 210-27; Brock II, *supra* note 51, at 111-46; Phillip L. Cantelon, *THE HISTORY OF MCI: 1968-1988, THE EARLY YEARS* at 15-296 (Heritage Press, Dallas, 1993); Coll, *supra* note 277, at 47-52; Henck & Strassburg, *supra* note 52, at 98-104, 143-53, 156-74; Stone, *supra* note 152, at 153-94, 241-60; Temin & Galambos, *supra* note 9, at 131-42, 107-09.

<sup>295</sup> See, e.g., Richard G. Tomlinson, *TELE-REVOLUTION: TELEPHONE COMPETITION AT THE SPEED OF LIGHT: A HISTORY OF THE CREATION OF A COMPETITIVE LOCAL TELEPHONE INDUSTRY 1984-2000* (Penobscot Press, Glastonbury, Conn., 2000).

<sup>296</sup> See, e.g., *Establishment of Domestic Communication-Satellite Facilities by Nongovernmental Entities*, 35 F.C.C.2d 844, *reconsideration denied*, 38 F.C.C.2d 665 (1972). See also Brock I, *supra* note 14, at 256-66; Henck & Strassburg, *supra* note 52, at 153-54; Stone, *supra* note 152, at 142-44.

<sup>297</sup> See, e.g., *Amendment of Section 64.702 of the Commission's Rules & Regulations (Second Computer Inquiry)*, 77 F.C.C.2d 384 (1980) ("Computer II"), *on reconsideration*, 84 F.C.C.2d 50 (1980) and 88 F.C.C.2d 512 (1981), *affirmed*, *Computer and Commun. Indus. Ass'n v. FCC*, 693 F.2d 198 (D.C. Cir. 1982), *cert. denied*, 461 U.S. 938 (1983). See also Henck & Strassburg, *supra* note 52, at 141-42; Stone, *supra* note 152, at 195-216, 260-72.

<sup>298</sup> This industry includes AOL, Yahoo!, thousands of other Internet Service Providers and portals, and millions of business web pages. All these businesses and their tens of millions of customers use telephone lines with virtually no objection by Bell or complex regulation by any level of government. See, e.g., Julia L. Wilkinson, *MY LIFE AT AOL* at 8 ("But how are [two computers] connected," asked Dave, a friend who was hanging out with us. "Telephone wires," shrugged my boyfriend, as if he's been asked what color the sky was.") (1<sup>st</sup> Books, 2001).

<sup>299</sup> See, e.g., *Cellular Communications Systems*, 78 F.C.C.2d 984 (1980), 86 F.C.C.2d 469 (1981), *modified*, 89 F.C.C.2d (1981), *further modified*, 90 F.C.C.2d 571 (1982), *petition for review dismissed*, *United States v. FCC*, No. 82-1526, slip op. (D.C. Cir. Mar. 3, 1983); *Advanced Mobile Phone Serv., Inc. (Pittsburgh)*, 52 Rad. Reg. 2d (P&F) 1104 (1982), *affirmed*, *MCI Cellular Tel. Co. v. FCC*, 738 F.2d 1322 (D.C. Cir 1984). See also Henck & Strassburg, *supra* note 52, at 87-95; Stone, *supra* note 152, at 134-40.

<sup>300</sup> *Computer II*, *supra* note 297, 77 F.C.C.2d at 388; Brock II, *supra* note 51, at 93-98.

These decisions can be viewed as line-drawing and right-creating. The FCC drew a line to shave off part of the Bell monopoly and to declare it a separate market, such as “terminal equipment” or “long distance,” that was open to entry and competition. Where the Commission drew the line, such as at the wall jack (where “terminal equipment” ended and “local service” began), it gave consumers rights to connect what new technology they wished (a non-Bell phone or a computer) to the remaining Bell monopoly (“local service”).

Bell appealed the FCC's decisions, often accompanied by state regulators who believed in the Good Monopoly.<sup>301</sup> The FCC almost always won.

Eventually, the Antitrust Division of the Department of Justice (“DOJ”) despaired of the FCC’s small steps and took up the chain saw of the antitrust laws to break up the Bell System.<sup>302</sup> Bell asked Congress to stop the FCC and DOJ, but Congress never reached a consensus on whether to intervene and, if so, how.<sup>303</sup> Exhausted with seemingly endless litigation, Bell surrendered and accepted the Break-Up in 1984. The general idea of the Break-Up was to separate the last monopoly, Bell's local service by wire, from the rest of the System, which became the post-Break-Up AT&T.<sup>304</sup> Slightly more than a decade later, in the Telecommunications Act of 1996, Congress wrote a recipe for enabling competition for Bell’s local service and allowing Bell to re-enter long distance.<sup>305</sup>

Since competition began in long distance, prices have fallen by about three quarters.<sup>306</sup> With the added capacity and low prices that new long distance networks brought into existence, hundreds of new channels have been created on Channels 2 to 83, cable and satellite television.<sup>307</sup> Mobile telecommunications has become an important part of most Americans’ lives. Local competition for many business customers exists, and competition for residence customers has begun from wireless carriers, cable TV, and Voice Over Internet Protocol companies. An explosion of new terminal devices and information services has made possible new magazines and newspapers, the Internet and the World Wide Web.<sup>308</sup> Faced with this abundance of choices, diversity, free speech,

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<sup>301</sup> See, e.g., Henck & Strassburg, *supra* note 52, at 134-37, 233-34. See also *supra* note 291.

<sup>302</sup> Coll, *supra* note 277, *passim*; Stone, *supra* note 152, at 273-338.

<sup>303</sup> The “Bell bill” was titled The Consumer Communications and Reform Act of 1976, H.R. 12,323, 94th Cong., 2d Sess. (1976). See Brock I, *supra* note 14, at 289-94; Brock II, *supra* note 51, at 151-52, 164-67; Coll, *supra* note 277, at 92-100; Henck & Strassburg, *supra* note 52, at 204-15; Temin & Galambos, *supra* note 9, at 113-31.

<sup>304</sup> *United States v. AT&T*, 552 F. Supp. 131 (D.D.C. 1982), *affirmed*, *Maryland v. United States*, 460 U.S. 1001 (1983). See also Brock II, *supra* note 51, at 152-72; Henck & Strassburg, *supra* note 52, at 216-43.

<sup>305</sup> The Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996), codified at 47 USC §§ 251-57 (encouraging entry into local service), 271-72 (providing for Bell re-entry into long distance).

<sup>306</sup> Trends, *supra* note 5, Table 14.3 at 14-5.

<sup>307</sup> Until there was an alternative to AT&T's monopoly of long distance, poor newcomers like PBS or CNN could rarely achieve nationwide reach and rival the Big Three TV networks. James Ledbetter, MADE POSSIBLE BY . . . ; THE DEATH OF PUBLIC BROADCASTING IN THE UNITED STATES at 31 (New Left Books, New York, 1997); Reese Schonfeld, ME & TED AGAINST THE WORLD: THE UNAUTHORIZED STORY OF THE FOUNDING OF CNN at 37-39, 66-67 (HarperCollins Publishers, Inc., New York, 2001).

<sup>308</sup> Even arch-critics of free markets have conceded that “the Internet is certainly changing a great deal about our lives. There is some extraordinary material online, . . .” Robert W. McChesney & John Nichols,

jobs and fortunes, the old critics of the government's "experiments" with competition for Bell have fallen silent.

In its early decisions allowing competition, the FCC acted without any comprehensive ideology or plan.<sup>309</sup> It reacted to requests by customers, dealing with each one as it arose and, in each case, letting a new technology come into use and connect to the Bell network. The FCC has been criticized for not having allowed more entry and new technology sooner and for not enacting an early, explicit, and comprehensive policy favoring competition and deregulation.<sup>310</sup> Proceeding piecemeal was probably the wiser course, however. Competition and deregulation in telecommunications had no record of success. Their successes, when they occurred, often took more than a decade to become clear. Each incremental act of line-drawing and right-creating required years of implementation.<sup>311</sup> Doing them all at once would have been exponentially more complicated than the sequence of individual acts was. Major, sudden change might have made Bell's complaints about irresponsible experiments credible enough that Congress would have halted all change. Simply deregulating Bell and allowing entry, without ensuring the new entrants' access to Bell's network, would have probably resulted in a more entrenched monopoly and lots of bankrupt competitors with dubious antitrust suits. Moreover, Bell was far from a failure needing massive and immediate change. Residential and small business customers were satisfied with the old Bell System and might have been concerned by more radical change than they experienced. One electrocuted installer or a drop in residential penetration might well have stopped all the experiments and discredited deregulation for a generation. It was wise to protect what Bell did well, the basic public utility function of providing basic service to the residential market, and to let others deploy new technology. Finally, some of government's steps were bold, most notably the sudden deregulation of terminal

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OUR MEDIA, NOT THEIRS: THE DEMOCRATIC STRUGGLE AGAINST CORPORATE MEDIA at 34 (Seven Stories Press, New York, 2002).

<sup>309</sup> Coll, *supra* note 277, at 46 (the FCC's Common Carrier Bureau Chief "would have been the first to admit that he had no clear vision of where his bureau's pro-competition policies were heading"); Temin & Galambos, *supra* note 9, at 338 ("The FCC . . . embarked on a cumulative process with almost no understanding of the forces it was setting in motion."). Only around 1980 did a consensus emerge in the Commission that competition was preferable to regulated monopoly in all communications markets.

<sup>310</sup> See generally Peter Huber, *LAW & DISORDER IN CYBERSPACE: ABOLISH THE FCC & LET COMMON LAW RULE THE TELOCOSM passim* (Oxford Univ. Press, New York, 1997). In *Tariff Revisions*, 15 F.C.C.2d at 614-617, Commissioner Johnson joined many parties in protesting the Commission's slow pace in allowing customers to supply their own terminal equipment. Judge Greene was sympathetic to the Commission for being simply overwhelmed by the size and spread of the Bell System. *United States v. Western Elec. Co.*, 673 F. Supp. 525, 530 (D.D.C. 1987) ("the FCC, with its relatively small staff and other resources, and with its limited authority, would never be able to cope successfully with the Bell System's powerful monopoly position and its ever-changing strategies.").

<sup>311</sup> On exactly what terms would the new devices and services connect to the Bell network? How to decide between the onerous terms Bell would want and the overgenerous ones the newcomers would want? What to do about Bell's obvious desire, in newly competitive markets, to use its remaining monopoly to favor its own services over the new entrants'? Should the new entrants be regulated as much as Bell, or not at all? Should Bell be allowed to stay in the newly competitive markets – what was the tradeoff between the benefits it could bring consumers by being there and the risk of anti-competitive favoritism? How to safeguard the technical quality of the network and universal service, assuming that new entry endangers them at all? Should the newcomers make any contribution to universal service? If yes, what is a contribution that would be fair without killing them financially?

equipment and the decision to make information services a deregulated business from the beginning. Fortunately, both were hugely successful.

### **Summing Up: Six Lessons of History**

Do these four histories teach any lessons about how government can help bring new technology to all Americans?

Yes. First and most generally, Lesson One is that the best thing government can do is to preside over a country that values technology, innovation, and fluidity in business and social life, and in which the vast majority of homes are prosperous enough to buy new technologies for themselves and to be generous to the homes that can't afford them.

A second lesson of history, and one that is specific to communications, is that what government did in telecommunications (universal service and taming the Bell System) was more efficient and successful than what it did in broadcasting (early radio and television). In its two telecommunications projects, government accomplished much and made no major mistakes. On the other hand, in both of its broadcasting activities, government made significant mistakes.<sup>312</sup> These were making the number of broadcasters and broadcasts fewer than was necessary and suppressing unorthodox speech and other content that appealed to small audiences. The greatest suppression of speech and entertainment content was in the government's suppression of cable TV.

Government's fundamental error in broadcasting was taking on too large a task. In achieving universal telephone service, government was filling in a few blanks, extending a known and successful thing to areas that did not have it yet. In taming the Bell System, government was acceding to specific requests by customers and companies to bring known concepts (property rights, choices for consumers, new technology and competition) into a part of the American economy that did not have them. In broadcasting, however, government took on grand and vague missions – in radio, re-arranging the entire business in a few years and, in television, creating a major business out of nothing. In both of its broadcasting adventures, government allowed few outlets and then felt duty-bound to pick many of the speakers and, in some cases intentionally, to suppress certain content.

The bigger the task that government took on, the more room it had for mistakes and the more mistakes it made.<sup>313</sup> Limiting speech and niche-oriented content are particularly regrettable mistakes in a country that has the First Amendment and values diversity. Although government could have done far worse than it did, it could have accepted the radio business as it existed in 1927 and let market mechanisms (sales of radio rights) decide what changes, if any, would occur. Perhaps a market in radio rights would have evolved into the homogenous, bland entertainment-dominated medium that

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<sup>312</sup> This is not to say that government did no good in broadcasting. It did good there. The ratio of mistakes to accomplishment was relatively high in broadcasting, however.

<sup>313</sup> The more mistakes were not, in my opinion, matched by more good effects.

government created; or perhaps the relatively populist, democratic, spicy business that existed in the mid-1920s would have continued. It would have been better, however, if markets, not government, decided what Americans heard. In television, government, instead of suppressing cable, could have let it grow naturally into the fount of diversity and free speech it has become.

Therefore, Lesson Two is that government should, if possible, limit its role to fixing obvious, persistent, and substantial problems, especially entrenched and unresponsive monopolies. Government should avoid grand and vague missions because, history suggests, they will end in oligopoly and the suppression of free speech and content for small audiences.<sup>314</sup> Government should, as much as it possibly can, leave broadcast content to the interplay of broadcasters and consumers.

A third observation is that government, when confronted with a monopoly (or oligopoly), should avoid regulating it in hopes of making it the Good Monopoly. Instead, government should promote competition for the monopoly. Regulation of the Big Three Networks and Bell took decades to create. To create competition for them took decades more, and dismantling their regulation is still going on.<sup>315</sup> They produced, under regulation, three channels and long distance at thirty-two cents a minute. Competition from new technology produced hundreds of channels and long distance at less than ten cents a minute – the “good results” defined at the start of this article.<sup>316</sup> Government brought competition into existence by loudly welcoming entry and new technology, making available the necessary inputs that government and others had (*e.g.*, spectrum, conduit and roof space, interconnection with the monopoly, very popular programs) and preventing the Good Monopolies from crushing the new entrants.

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<sup>314</sup> In recent decades, some foreign governments have succeeded in bringing, by state intervention, new communications technologies to millions of their people. The South Korean broadband ‘miracle’ is the most cited example. Does this suggest that the above-drawn lesson is too broad? I doubt it. The recent triumphs owe something to other factors such as high population density, and in all cases they come after decades of governmental lethargy and hostility. No doubt, in the short term, government can command resources that no private enterprise can – physical spaces (government buildings, public lands, streets and other public ways), capital (through taxes or printing money) and labor (through hiring or drafting) – and can produce better results. In the long term, however, government tends to become even more entrenched in obsolete technologies, mentally resistant to change, and politically untouchable than the Bell System and the Big Three Networks. Government and the financial markets can regulate the worst private enterprise to some extent, but what government can regulate itself?

<sup>315</sup> The history set forth in this article indicates that the decision to regulate, once made, is likely irreversible for a generation. Especially if government creates the Good Monopoly, as it did with the Big Three Networks, it tends to see them as its children and to protect them against entry. When one recalls the seriousness with which the FCC took Bell’s warnings about harm to the network and the shackles in which the Big Three Networks convinced government to hobble cable TV for a decade, one wonders who was regulating whom. Taming the Good Monopoly by regulation may take decades, during which unregulated competition and new technology would probably have yielded better results for consumers. By the time effective regulation is in place, the Good Monopoly may be passive and scared of its own shadow. It may have paid so much attention to the regulators – and so little to its customers, to competition, and to new technology – that it needs a government bailout to save it from bankruptcy. Examples are Western Union, the Big Three Networks, and the Bell companies that have been absorbed by merger.

<sup>316</sup> Trends, *supra* note 5, Table 14.3 at 14-15.

Therefore, Lesson Three is that government's scarce resources are best devoted to creating competition and abundance and not to regulating the Good Monopoly and the scarcity that it usually creates.<sup>317</sup>

A fourth observation is that American government helped consumers by waiting until a technology had matured and been accepted by millions of real consumers before it declared it to be a universal entitlement,. Telephone service and television were not made entitlements until they had been maturing for many decades and, in the case of the telephone, until millions of individual consumers had decided to adopt it.

Therefore, Lesson Four is that, if government must make a new technology a right,<sup>318</sup> it should wait until the technology has matured and succeeded in the marketplace. This avoids the risk of government picking a new technology that fails, is a passing fad, or is overtaken by a better one (as cable threatened to overtake Channel 2 to 83 TV).

A fifth observation is that government has committed some major mistakes, specifically suppressing unorthodox stations and niche-oriented content in radio broadcasting and stunting cable TV. On the whole, the effect of government action on broadcast speech has been to limit it, not to free it.

Therefore, Lesson Five is that government should cultivate the virtue of humility, especially concerning broadcast content. It should be alert to the possibility that it is harming consumers rather than helping them when it suppresses speech and creativity. Probably the best thing government can do for freedom of expression is nothing, bearing in mind that the First Amendment directs government not to promote 'localism and diversity' in speech and press, but to keep its hands off speech and the press.<sup>319</sup> Specifically, government should watch for consumers showing that they don't want what government has created for them, that they prefer the new, unregulated media and channels, that some uncouth stranger has found a need among consumers that neither government nor the Good Oligopoly foresaw. Government should welcome newcomers as a chance for improvement in consumer welfare and should overlook that their diction and table manners are not those of the impeccably bred broadcasters.

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<sup>317</sup> Consistent with this Lesson, I think most people would say that cellular service and the Internet have improved this country enormously in the last ten years. Compared to POTS and traditional broadcasting, however, their regulation has been minimal – allocating spectrum for several competing cellular systems and ordering recalcitrant incumbents to give favorable access to their essential inputs so that the new services can come into existence.

<sup>318</sup> Neither cable television nor cellular service has yet been declared a right, like POTS and “free” Channel 2 to 83 TV.

<sup>319</sup> See *supra* note 67. An exception could be government-mandated set-asides of channels for educational broadcasting, public access, and the like. These are similar to governments setting aside land and money for schools and parks. The more commercial channels create educational content and outlets for free speech, however, the less such channels will be needed. Set-asides can also become country clubs for lazy educators and speakers. Because they avoid the commercial marketplace of ideas, their intellectual muscles atrophy and they become immaterial.

A sixth and final observation is how beneficial new technology has been for ordinary people in the last fifty years.<sup>320</sup> The first federal promotion of universal telephone service was made possible by new, low-cost technologies for long distance service. A decade or two later, other new, low-cost technologies brought long distance calling within the reach of even poor Americans. The telephone, radio, television, and today's cornucopia of terminals and information services were disruptive technologies that, though they destroyed many a gilt-edged investment, have all improved our lives. Telephone and radio technologies until the 1950s were mostly scarce, expensive, and difficult to manage. Arguably, they needed to be allocated cautiously or granted as monopolies in order to promote their development and 'fair' distribution. The new technologies of the last fifty years, however, have created abundant, cheap, and user-friendly resources that allow competition and perform well for consumers if government does little or nothing.<sup>321</sup>

Therefore, Lesson Six is that government in this era should welcome disruptive, unpredictable, even chaotic new technologies. Suppressing them, or even phasing them in gracefully so as not to disturb the Good Monopoly, is likely to reduce the welfare of consumers in the long run. Given the power to delay change that incumbent technologies usually have, welcoming new technologies will require government to think of the long-term and to have courage.

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<sup>320</sup> Judge Posner, explaining the success of deregulation since 1970, noted "accelerating technological change favorable to competition." As recent technologies have been deployed, "[n]atural monopolies have crumbled; even the local natural monopolies, which are based on the inefficiency of duplicating a local grid of wires or pipes, may soon go the way of the former natural monopoly of long-distance telephone service." Richard A. Posner, *NATURAL MONOPOLY & ITS REGULATION* ("Posner") at viii (Cato Inst., Washington, D.C., 1999).

<sup>321</sup> There are reasons to believe that even natural monopolies will perform best for consumers if left unregulated. See Posner, *supra* note 320.

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**ISBN 879716909**

ISBN1879716917