Crafting Communication Policy in a Competitive Environment

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INTRODUCTION

The U.S. communication regime reflects the pattern of economic relationships that exists among and between key players as well as the public policy goals and corresponding rules that govern them. For years, the goals and rules of the system, and the balance among interested parties, were generally accepted and relatively stable. Typically, industry leaders have been the driving forces in developing and promoting communication technologies, competing among themselves for primacy. At certain periods, however, the government has intervened, crafting a new set of communication policies to bring private sector players more into line with public sector needs.

Today, the existing set of arrangements is once again being called into question, as technological and socioeconomic developments give rise to new possibilities, new players, and new types of problems. In particular, deregulatory communication policies have shifted more decisions to the market at the same time that technological advances have generated new opportunities in all realms of life. Some applaud these developments, seeing in them new possibilities for innovation and growth. Others fear that, if decisions about new technologies are made solely in the marketplace, important social, cultural and political opportunities might be lost. The contest will continue to be played out in Congress and the Courts over issues ranging from telecommunications reform to those having to do with intellectual property rights, privacy, and networking security.

Whatever the institutional choices made, they will have far reaching consequences. For, in an increasingly networked society, what is at stake in crafting communication policy

is the system of property rights itself.[1] The outcome is not predetermined; nor will it necessarily be efficient. Instead, these new institutional arrangements will evolve over time in response to pressures from economic and political actors who want to restructure the rules of the game in their favor.[2] Policy outcomes will also be irreversible, at least in the short and medium terms. For, once a decision is made, technology tends to become firmly fixed on a given trajectory. This pattern is especially evident with networked information technologies, which require vast amounts of capital and social investment.

Periods of rapid technological advances, such as we are witnessing today provide, therefore, a rare opportunity to reassess the nature of communication policy goals and the mechanisms designed to achieve them. With this opportunity in mind, this paper examines the extent to which today's deregulatory, competitive policy can be expected to meet the wide range of goals that have traditionally been associated with US communication policy and/or new goals that might be required in an increasingly networked environment. First, it lays out the challenges entailed in establishing communication policy goals. Second, it examines the historical goals that have driven US communication policy to date. Next, the paper considers the technological advances and associated social and economic changes that have led to efforts to restructure the telecommunications infrastructure along more competitive lines. Finally, it considers the goals that will be favored in a more market-oriented environment, and identifies some new tensions among goals that are likely to emerge as a result.

The paper contends that communication policy based on a strategy of competition alone will not suffice in a networked, information society. Given the enhanced role of

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[1] Information based networks will serve to coordinate economic and political activities in a knowledge-based global economy. The market choices, institutions, and policies that govern them will determine not only the nature of society and the performance of the economy, but also how wealth and power are distributed. For a discussion of the role of institutions in determining economic outcomes, see Douglass North, *Institutions, Institutional Change and Economic Performance* (Cambridge, UK: Cambridge University Press, 1990).

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communication and information in all realms of life, even greater trade-offs among policy goals are likely. Far from reconciling competing communication goals, the shift in decisions making from the political arena to the marketplace will serve to obscure these trade-offs, leading to the emergence of new—and perhaps more thorny—issues over the long run. To resolve these issues, the government must play a delicate balancing act, employing—as it has so successfully done in the past—a variety of roles and policy mechanisms.

CRAFTING COMMUNICATION POLICY

Goal setting provides a unique opportunity for policy makers to change course in response to technological advances and changing social and economic circumstances. Rarely, however, do politicians seize such an opportunity, given the dangers and difficulties involved. More often than not, policy goals are—instead—established and implemented in the context and course of "politics as usual." When goal setting does take place formally, it usually occurs within the context of major organizational and structural changes.

In the case of communication policy, the effects are likely to be especially far reaching, because communication is the basis for all interactions, and one of the means for organizing society. Given the central role of communications, policy making in this area is generally coupled to other important policy areas. Thus, for example, political concerns about freedom of speech and the free flow of information may easily come into conflict with defense related concerns, as has recently happened with respect to encryption policy. Similarly, in cases involving pornography or violent media content, concerns about cultural norms and values must be balanced against first amendment rights.

In crafting communication policy, decision-makers must also be sensitive to the importance of three interrelated sectors of the economy—transportation, communication, and information. Mirroring the role of communications in society, these industries are significant not just because of their contribution to trade and gross national product.

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Communication and information based goods and services are both intermediary goods and end products, so the impact of policies that affect their costs, availability, and use reverberate across all industry sectors as well as throughout the economy as a whole.

Consideration needs to be given not only to the impact of policy on these key industry sectors, but also on the competitive relationships among communication and information related industries. When industry players are able to translate their economic power into political leverage—as is often the case—the problem of sorting out these relationships is greatly compounded. Because political leverage is often distributed unevenly, some industry players are likely to be favored over others, with little regard for broader public policy goals.

Technology, also, complicates matters greatly. Because communication is both dependent on, as well as mediated by, a technology-based infrastructure, decision-makers have to craft communication policies with technologies and their distinct characteristics and capabilities in mind. Technologies, however, are very difficult to fathom. Not only are technologies highly complex; they are constantly changing. Crafting sound communication policies, therefore, requires considerable vision as well as technical expertise.

Even when communication policies are well designed to take technologies into account, they are highly subject to unintended consequences and events. Technology advances, for example, can easily undermine the assumptions on which policy is based. One need only consider, for instance, what can happen to policies designed to affect market structure. Technology advances can alter the rules of the game, by affecting economies of scale and scope, the availability of product substitutes, and the costs of production. By providing new opportunities and challenging conventional ways of thinking, technology advances place new demands on the system, creating the need to reassess and reconsider basic communication related goals.

The US experience in setting communication policy goals reflects the magnitude of the challenges involved. Legislative mandates laying out specific goals have been rare.

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of the American Economy (New York, NY: Cambridge University Press, 1991), p. 10.

Once the major guidelines have been established, US communication policy strategies have been derived incrementally over time through a process of administrative and judicial interpretation. This incremental approach only succeeded, however, so long as social and economic conditions were relatively stable, and there was a broad consensus on related goals. As described below, in periods of major crisis or upheaval—such as the shift from an agrarian to an industrial society, or from a peacetime to a wartime economy—new sets of rules designed to solve new challenges and accommodate new players became imperative.

COMMUNICATION GOALS—AN HISTORICAL PERSPECTIVE

Examining the US communication policy regime from an historical perspective, a number of major communication-policy goals can be identified. Established in the context of major social and economic changes—often times brought about by technological advances—these goals were broadly conceived. Recognizing the link between communication and the social and economic orders, policy makers viewed communication as a means, and not just as an end in and of itself. In pursuit of these goals, the government adopted a variety of roles and a broad range of policy mechanisms, which were designed not only to take advantage of new technologies, but also to serve the needs as they were perceived by both key stakeholders and the nation as a whole. These goals, government roles, and policy mechanisms are depicted in Figure 1, as well as briefly described and discussed below.

Figure One
Goals and Roles & Policy Mechanisms

GOVERNMENT ROLES

GOALS	Broker	Regulator	Educator	Promoter	Market Maker
Achieving Democracy	Newspaper Exchange	First Amendment		Postal Roads Mail Subsidies	Intellectual Property
National Integration	Public School Movement	Rate Regulator	Extension Service; Libraries	RFD; Land-Grants; Express Mail	
Efficient Interconnection	REA	Common Carriage Rate Regulator		Rate Averaging	Antitrust Legislation
Cultural Concerns	Voluntary Constraints	Spectrum Licensing Must-Carry	Educational TV	Public Broadcasting	Ownership Rules
Defense & Security	Standards Industry Broker	Censorship Wiretapping		R&D; Roads; ARPANET	Procurement Policies

Securing Democracy by Promoting Information Access

Some of the most far reaching and enduring communication policy goals were established at the time of the Nation's birth, in the context of a political revolution and a total revision of governmental affairs. These goals reflected the Founding Fathers' preoccupation with establishing a democracy, and the importance they attributed to communication and information in securing it.

Occurring at the height of the Enlightenment, the American Revolution was a battleground of ideas. The dissemination of these ideas, and the revolutionary fervor accompanying them, was linked to print technology and the emergence of new channels of communication, such as the religious and merchant networks associated with the growth of discursive literacy.[3] In the US colonies, for example, newspapers and pamphlets served

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as the primary vehicle for public protest and revolt, providing a network of political communication that was crucial to revolutionary activities. Thus it was that, with the onset of the revolution, printers—functioning as editors and publishers—generated and controlled the flow of public information.[4]

No one appreciated the power of the pen more fully than the Founding Fathers—the architects and ideologists of the revolution. Fearful of misinterpretation, they excluded journalists from the Constitutional Convention. Seeking to build support for the Constitution, Alexander Hamilton and James Madison disguised themselves as the columnist Publius, and wrote *The Federalist Papers*—a series of newspaper articles—on its behalf. But in the new Nation, where competing interests were institutionalized and balanced one against the other, open communication was to be the rule.

Distrusting government as much as they valued information, the Founding Fathers looked to the Federal Government to play a minimalist role. To promote the free and independent flow of communication, they relied—for the most part—on prohibitions against government interference in content, as well as on subsidies and targeted economic incentives. At the same time, however, the government was authorized to use its postal authority to promote information. For these purposes, the Founding Fathers incorporated three clauses into the Constitution. These provisions guaranteed the freedom of speech, assembly, and the press, and authorized the Federal Government to protect intellectual property and to establish a system of postal roads. Designed with print technologies in

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In 19th century England, for example, not only did the number of newspapers and periodicals grow by a factor of 10; equally important, journals were distributed more widely—beyond cities to small towns and villages where a single copy might be read and discussed by a number of persons. See Michael Mann, *The Sources of Social Power*, v. 3, *The Rise of Classes and Nation States, 1760-1914* (Cambridge, UK: Cambridge University Press, 1993).

[4] In fact, it was in their shops that many political accounts and ideas were exchanged. And, although they had strongly opposed British control of the press, they were equally prepared—during the revolution—to suppress dissenting opinions. See Richard Buel Jr., "Freedom of the Press in Revolutionary America: The Evolution of Libertarianism, 1760-1820," in Bernard Bailyn and John B. Hench, eds., *The Press and the American Revolution* (Worchester MA: American Antiquarian Society, 1980). See also Edwin Emery, *The Press in America* (Englewood Cliffs, NJ: Prentice Hall, 1962).

mind, this approach proved adequate for an agrarian society, in which people who had dealings with one another were in close proximity, and the costs of producing and distributing information were well within individual reach.

The First Amendment: The First Amendment to the Constitution, covering freedom of speech, religion, assembly, petition, and the press forbade Congress from any actions abridging those freedoms. The amendment gave American newspapers a degree of liberty unknown elsewhere. Applied most fully to print media, it has consistently meant private ownership, freedom from prior restraints, virtually no content controls, and relatively limited liability for the consequences of a message. Except during times of war and social stress, this value included the right to criticize government vigorously. Viewed as a centerpiece of American Government, major cases involving its applicability did not arise until after World War I with the introduction of the "clear and present danger" standard. Subsequent Court interpretations have ranged from a strict absolutist view, which interprets the first amendment literally, to a more restrictive view, which allows for exceptions in cases such as obscenity, libel and national security. However, the Court has generally adopted an intermediary stance between these two positions; while consistently holding that freedom of speech is not absolute, it has defined exceptions very narrowly.

The Protection of Intellectual Property: Article 1, section 8 of the Constitution authorizes the Federal Government to grant intellectual property protection. It's express purpose was "To Promote the progress of Sciences and the Useful Arts, by securing for limited Times to Authors and Inventors the Exclusive Right to their respective Writings and Discoveries." [5] Like the free flow of information, the promotion of sciences and the useful arts was closely linked to democracy; a democratic polity was viewed as a prerequisite for advancement in applied science, while technological achievements were expected to provide the physical means of achieving the democratic objectives of political, social and economic

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[5] Generally speaking, there are four different forms of intellectual property protection—copyright, patents, trademarks, and trade secrets—each with its own set of

equality.[6] To assure that intellectual property protection would play this dual role, the Founding Fathers made it a statutory right granted not as a reward per se but rather as an incentive to achieve a specific public policy goal.[7] Although the rights granted under the First Copyright Act of 1790 corresponded to the capabilities of the printing press, the law has been extended over time to incorporate new technologies.

Establishing Postal Roads: Like its Constitutional counterparts, Article 1, section 8, paragraph 7, which authorizes Congress to establish a system of postal roads, was intended to assure that all citizens in the burgeoning democracy had access to a broad range of information. The writers of the Constitution were acutely aware that building a nation would require a national communication infrastructure and the development and evolution of the postal system was designed to serve this end. Setting aside factional differences, Federalists and Republicans rallied behind a postal policy to encourage newspaper circulation. Favoring the exchange of political and business information over interpersonal transactions, Congress set postal rates several times higher for letters than for newspapers. The distribution of news was also encouraged through postage-free exchanges among newspaper editors. In 1936, the Post Office also inaugurated postal express services to speed the flow of market information.[8]

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rights and obligations. Of these, the copyright regime is the one that has—until recently—been most closely associated with communications policy.

[6] Lyman Ray Patterson, *Copyright in Historical Perspective* (Nashville, NY: Vanderbilt University Press, 1968). See also Bruce W. Bugbee, *Genesis of American Patent and Copyright Law* (Washington DC: Public Affairs Press, 1967).

[7] James Madison—the principal author of the intellectual property clause—was aware of the monopolistic connotations of such a governmentally granted, exclusive right. However, he distinguished the American system of intellectual property rights from previous ones that he believed were more pernicious. To avoid the evil of monopoly, Madison intended that the exclusive right afforded by copyright be narrowly circumscribed; owned by "many" and 'granted for only limited period of time." Bugbee, op cit., p. 84.

[8] Richard B. Kielbowicz, *News in the Mail: The Press, Post Office and Public Information* (Westport, CT: Greenwood Press, 1991).

Promoting National Integration by Supporting Mass Media and Education

The situation facing policy makers in the post Civil War period was radically different from that which had confronted the Founding Fathers a century before. No longer unified around a set of revolutionary goals, the Nation was coming apart at the seams. Pressing problems included the reconciliation of the North and South, the integration of the Western territories, urbanization, the absorption of new immigrants, and the shift from agriculture to industrialization.

Like the Founding Fathers, post Civil war decision-makers turned to communications policies for answers. However, instead of focusing on ways for people to exercise their individual differences and choices, they began to view communication from a more organic perspective—as a means of socializing individuals and integrating them into specialized roles within a larger community. Such a radical change in approach is understandable, given the prevailing intellectual and political thinking of the day. Support came from the Progressive Movement as well as from the burgeoning field of sociology, which stressed the role of communication.[9] These groups looked to the media not only to enhance public understanding but also to improve society. As the philosopher John Dewey described, "The duty of the present is the socializing of intelligence—the realizing of its bearing upon the social practice."[10]

Support for the Mass Media: In keeping with this perspective, the Federal Government—in the late 1800s—extended its postal subsidies to the newly emerging mass media.[11] Given the country's expansion westward, the mass media was considered

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[9] Daniel Czitrom, *Media and the American Mind: From Morse to McLuhan* (Chapel Hill, NC: University of North Carolina Press, 1984), chapter 4.

[10] John Dewey, *Outlines of a Critical Theory of Ethics*, 1871, as cited in Czitrom, ibid., p. 106.

[11] Taking advantage of technology advance and advertiser financing, publishers launched a new media genre—low cost magazines, which were geared to a mass, middle class audience. Magazines such as *The Saturday Evening Post*, and *The Ladies' Home*

essential to the development of a national market. Moreover, because the mass media could breech the social and economic cleavages that beset the Nation, many hoped it would foster a sense of national identity as well as the peaceful resolution of differences.[12] Members of the influential Progressive Movement were especially hopeful in this regard. To assure widespread access to magazines, the Government—in 1890—inaugurated the Rural Free Delivery Program.[13]

The Public School Movement: Nowhere was the new communication philosophy embraced more enthusiastically than in the realm of public education. Whereas in the early years of the republic, education was regarded as a private affair—provided for the benefit of the well to do and professional classes—in the post Civil War era, it was considered a matter of national survival.[14] Looking to education to unite the nation and preserve its social and economic integrity, politicians and educators joined together in a public school crusade. By educating American youth in public schools, they hoped to inculcate a common set of patriotic, Protestant, and republican values.[15] Moreover, they believed such schools would socialize the growing number of people from so many different backgrounds for increasingly differentiated economic roles.[16] Public libraries were likewise

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Journal, provided a mechanism, by which mass retailers—advertising brand name consumer goods—could reach out to the public. See Theodore Peterson, *Magazines in the Twentieth Century* (Urbana, IL: University of Illinois Press, 2nd ed., 1967).

12 James W. Carey, "The Communications Revolution and the Professional Communicator," *Sociological Review Monograph*, v. 13, January 1969; C. Wendell King, *Social Movements in the United States* (New York, NY: Random House, 1956), p. 24.

13 The targets of RFD subsidies were the under-served, remote, high cost rural areas. Although costly, Rural Free Delivery helped to improve access. Over the next four decades, the distribution of periodicals increased 20 times faster than the population at large. Wayne E. Fuller, *RFD: The Changing Face of Rural America* (Bloomington, IN: Indiana University Press, 1964).

14 Rush Welter, *Popular Education and Democratic Thought in America* (New York, NY: Columbia University Press, 1962).

15 David Tyack and Elisabeth Hansot, "Conflict and Consensus in American Public Education," *American Schools: Public and Private, Daedalus,* summer 1981; Robert A. Carlson, *The Quest for Conformity: Americanization Through Education* (New York, NY: John Wiley & Sons, 1975).

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targeted for support. In rural areas, book deposit stations were set up in grange halls, neighborhood stores, fire stations, and women's clubs. In cities, libraries and adult education programs were set up to provide a haven for working class immigrants.[17]

Agricultural Extension: In its educational efforts, the Government also reached out to farmers, who bore much of the brunt of the socioeconomic changes taking place.[18] To help them adjust to changes in the economy, the government began to develop and transfer modern technology to agriculture. Thus, it initiated the Agricultural Extension Service in 1914. As provided under the Smith-Lever Act, the US Department of Agriculture and the land grant agricultural colleges were charged with establishing partnerships between university extension and experiment stations, and between country extension agencies and country farm bureaus. Within a few decades, an elaborate network of public and private partners had achieved its goal of farm modernization.[19]

Land Grant Colleges and Industrial Education: Universities were also overhauled to keep pace with social and economic changes. The Land Grant Colleges, provided for under the Morrill Act of 1862, played a critical role in this regard. Under this law, land was provided to the states, the proceeds of which were to be used to teach agronomy and

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To perform this function, public schools were structured in accordance with business principles. Vocational education and guidance were introduced as part of the educational curriculum. Assuming that the majority of Americans would be working at industrial jobs, educators believed that vocational education would serve not only the best interests of individuals, but also society. See Sol. A. Cohen, "The Industrial Education Movement 1906-1917," *American Quarterly*, spring 1969; and Martin Trow, "The Second Transformation of American Secondary Education," in *International Journal of Comparative Sociology*, v. 7, 1961.

17 W. H. Matthews, *Libraries for Today and Tomorrow* (Garden City, NY: Hippocrene Books, 1976).

18 Describing this situation, Wayne Rasmussen notes, "The revolution generated by the Civil War catapulted the nation's farmers not only into a world of complex social and economic forces that were too volatile and powerful for individual farmers to confront by themselves. It seemed that the appearance of more complex and productive tools intended to guarantee the farmer's survival had made that survival more complex," Wayne D. Rasmussen and Paul Stone, "Toward a Third Agricultural Revolution, in F. Hadwiger and Rose Talbot, eds., *Food Policy and Farm Programs, Proceedings of the Academy of Political Science* (New York, NY: The Academy of Political Science, 1982), p. 179.

19 Ibid.

mechanical arts. Subsequent legislation provided federal support for research, and the operation of land-grant colleges.[20] The impact of the Morrill Act was clearly evident in the field of engineering. Before its passage, state legislatures had been reluctant to invest in technical education. By 1886, there were 110 schools of engineering.[21]

Promoting Universal Efficient Interconnection via Regulation

To meet the needs of a rapidly expanding and increasingly complex industrial economy, large-scale, integrated networks, as well as a more activist Federal policy, were called for. Although new technologies—such as the railroads, the telegraph, and the telephone—emerged to accommodate the needs of an industrial economy, the market, acting on its own, could neither generate the financing nor promote the economic coordination necessary for their ubiquitous deployment and diffusion.

The public was also much less inclined to provide unquestioned support for business. Middle class reformers describing themselves as "progressives" opposed the concentration of economic power. They called on government to control corporate abuses, and reduce the negative impacts of rapid industrialization and urbanization. Farmers and others living in the West accused big business, especially the oil companies and railroads, of price gouging. In addition, labor—emerging as a movement in its own right—became increasingly critical of business.[22]

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[20] Designed to meet the role of an industrial economy, these universities were called on to expand beyond the traditional role of training gentlemen as preachers, lawyers, and doctors. Democratic and populist in origin, they were open to children of all backgrounds. Moreover, unlike traditional colleges, they were not isolated in their communities. Through their agricultural experiment stations and their service bureaus, their activities were designed to foster economic development in the states. See Clark Kerr, *The Uses of the University* (Cambridge, MA: Harvard University Press, 1972).

[21] Edwin T. Layton, Jr., *The Revolt of the Engineers: Social Responsibility and the American Engineering Profession* (Cleveland, OH: The Press of Case Western Reserve University, 1971).

[22] This decline in the support of business reflected the economic uncertainty of the time. The exceptional growth that had characterized the period from the end of the Civil War to the turn of the Century was accompanied by fierce competition. Growth in economic activity gave rise to overproduction, which led in turn to three severe economic

Seeking a more stable economic environment, business and political reformers alike called for a new transportation and communication policy regime. In developing a new strategy, the Federal Government drew on the concept of a public service company, which dated back in England to the 14th century.[23] As the term was applied in the United States, public service companies were those whose products or services were considered essential to a community's well being and way of life. Given their importance, these companies were required to provide services to everyone on a non-discriminatory basis, while government was called on to assure compliance.

US policy makers adopted this model for regulating the rapidly growing and increasingly powerful transportation and communication industries, which fit neatly into its framework. Embedded first in the Interstate Commerce Act of 1887, and later in the Communications Act of 1934, this regulatory solution allowed businesses to operate in the private sector, while providing some social control over the single mindedness of the market. Facilitating inter-and intra-industry coordination—even, when necessary, at the expense of monopoly—it promoted network interoperability, economic viability, and universal service at a time when the communication infrastructure was becoming ever more important to the American way of life.

The Railroads and the ICC: Because of its high fixed costs, fluctuating demand, scale of operations, and need for coordination and specialized engineering skills, the railroad industry was from its inception prone to exceptionally high transaction costs. After numerous failed efforts by companies to jointly develop standards, coordinate operations, stabilize prices and rationalize the industry, railroad industry magnates began to merge

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downturns, from 1873 to 1877, 1885 to 1887, and 1893 to 1897. In this economic climate, the rate of business failure was exceedingly high. To survive, businesses employed whatever measures they could—including cartels and other pooling arrangements, predatory pricing, or direct control through horizontal mergers. See Louis Galambos and Joseph Pratt, *The Rise of the Corporate Commonwealth: US Business and Public Policy in the Twentieth Century* (New York, NY: Basic Books, 1989).

[23] See Alan Stone, *Public Service Liberalism: Telecommunications and Transitions in Public Policy* (Princeton, NJ: Princeton University Press, 1991).

their operations, frenetically buying up their customers and competitors.[24] Railroad companies' competitive machinations quickly spilled over into the political arena, giving rise to demands for reform.[25] Under mounting pressure, the government established the Interstate Commerce Commission in 1987 to regulate the railroads so as to assure just and reasonable rates.

Regulating the Telegraph: Requiring large-scale technologies and national interconnection, the telegraph—like the railroads—posed questions about the industry's structure and its relationship to government.[26] Absent government involvement, telegraph firms strung wires between towns of any commercial consequence. However, with dozens of companies competing, customers were wont to secure rapid, reliable transmission. Under these circumstances, businesses preferred dealing with a few reliable national firms. Happy to oblige, Western Union absorbed its competitors, obtaining a near monopoly.[27] Concerned lest a single national telegraph abuse its power, the Government opted once again for a common carrier system. In 1866, Congress granted monopoly privileges to Western Union in return for its promise to provide, "services like a common carrier, namely to all comers without discrimination." In 1893, the United States Supreme Court ratified

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24 In their efforts to establish greater market stability, the railroad companies alternated their strategies between two extremes—cutthroat competition or pooling and price fixing. Because the economic stakes and uncertainties were so high, neither strategy proved successful. Cutthroat competition was ruinous for all, but cooperative agreements were untenable without some mechanism for enforcement. See Robert Dawson Kennedy, Jr., "The Statist Evolution of Rail Governance in the United States, 1830-1986," in L. Campbell, J. Rogers Hollingsworth, and Leon N. Lindberg, ed., op. cit.

25 Most vocal in calling for reform were small business owners and farmers in the west who had been forced, by the railroad companies, to subsidize the discounted rates offered to the large, eastern industrialists. An increasingly disgruntled and activist labor force soon joined these voices.

26 Although the Federal Government had provided $30,000 for the construction of the first telegraph lines in the United States, it was reluctant to play a more active role. The Post Office, already, burdened by deficits, was disinclined to assume responsibility for the Washington DC/Baltimore line, which appeared to have only limited commercial value.

27 Richard B. Duboff, "Business Demand and the Development of the Telegraph in the United States," *Business History Review*, v. 54, winter, 1980, pp. 459-479.

the telegraph's status as a common carrier, and Congress legislated it in the Communications Act of 1934.

Regulating the Telephone: The history of the telephone industry followed a similar pattern. By 1902, 451 out of 1,200 cities had two or more phone companies. As with the telegraph, business users found competition burdensome. At the same time, cities and States increasingly expected telephone providers to operate for the public's convenience. Responding to a serious movement for government ownership, AT&T mounted a public campaign, arguing that telephony was a natural monopoly and regulation the only way to reduce "wasteful competition," and assure universal service.[28] Congress was amenable. It gave the Interstate Commerce Commission regulatory authority over the Bell system in 1910 and shifted jurisdiction to the Federal Communications Commission in 1934 with the passage of the Communications Act.

Managing Cultural Concerns

Electronically based media presented Government with a novel dilemma, which threatened to pit public concerns about media impacts against the Constitutional guarantee of first amendment rights. Early on in American history, political thinkers and policy makers had looked to the newspapers to enlighten and empower the public. However, with the advent of popular, electronic media—such as film and broadcasting—concerns about cultural values and negative impacts came to the fore.

Electronic media was considered different in a number of respects. Capable of reaching a mass audience on a simultaneous basis, film, radio, and television broadcasting appeared inordinately influential. At the same time, their commercial nature and dependence on advertising raised concerns lest these media demean culture and stifle political discussion by appealing to humanity's lowest common denominator. Because

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[28] As Theodore Vail, AT&T's chief operating officer, described his vision of the telephone industry in the Annual Report of 1910, "The position of the Bell system is well known. . . .The telephone system should be universal, interdependent, and interconnected,

these media transmitted content directly into the home, listeners and viewers seemed powerless in defending against unsolicited messages.[29]

The fear that the mass media would unduly influence the public was fueled by its propaganda use during the Second World War. Although propaganda had proved critical to the military effort, it appeared more sinister in the postwar period. People were concerned lest the media's manipulative techniques be used against them. And, in fact, Vance Packard, in his best selling book *The Hidden Persuaders*—had accused advertisers of cynically using propaganda to manipulate American consumers.[30]

Post-war scholars and social critics reinforced these worries. Bemoaning the public's reaction to the media's "pseudo-environments" Walter Lippman called for the replacement of journalists by social scientists who—he claimed—would organize and interpret events more objectively.[31] At the same time, social psychologists—such as David Riesman in his book *The Lonely Crowd*—began to link the mass media and mass opinion to negative social and political outcomes.[32]

In addressing these concerns about content, the Government was limited by the First Amendment. However, by leveraging its ownership of the public airways, and allocating them according to "public interest criteria," the Government was able to pursue a number of content-related policy goals within the bounds of the Constitution.

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affording opportunity for any other subscriber of any other exchange. . .annihilating time or distance by use of electrical transmission."

[29] As Secretary of Commerce Herbert Hoover described the situation with respect to radio: "Radio has passed from the field of an adventure to that of a public utility. Nor among the utilities is there one whose activities may yet come more closely to the life of each and every one of our citizens, nor which holds out greater possibilities of future influence, nor which is of more potential public concern. Here is an agency that has reached deep into family life. We can protect the home by preventing the entry of printed matter destructive to its ideals but we must double guard the radio." Proceedings of the National Radio Conference, pp. 2-3, as cited in *New York Times*, October 9, 1924, p. 25.

[30] Vance Packard, *The Hidden Persuaders* (New York, NY: David McKay, 1957).

[31] John Carey, "The 'Mass' in Mass Communication," in John Care, *Communication and Culture*, op cit.

[32] Czitrom, op cit

Voluntary Censorship: Voluntary private censorship was the preferred means of influencing media content. With voluntary censorship, not only could the government achieve its public interest goals; industry wide standards also allowed media providers to appease the public without being competitively disadvantaged. Responding to it critics and the threat of government intervention, the motion picture industry was the first media provider to set voluntary content standards though the National Board of Censorship of Motion Pictures.[33] When faced with the prospect of regulation, broadcasters followed suit.[34] Although voluntary in nature, private sector content standards have proved problematic. Indeed, over the years, broadcasters have often been chastised for 'self-censorship." Critics claim that, because broadcasters' must appeal to a broad advertising base, they avoid controversy by diluting their programming. Voluntary content standards have also been challenged on both antitrust and First Amendment grounds.[35]

Spectrum Licensing: When voluntary standards have not sufficed, the Government has leveraged its ownership of the public airwaves to force broadcasters to operate stations

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33 Movie critics were concerned lest films lead to the vulgarization of daily life. As Michael M. Davis of the Russell Sage Foundation argued in 1912, "recreation within the modern city has become a matter of public concern; laissez faire, in recreation as in industry, can no longer be the policy of the state." Responding, local governments began to employ ordinances, such as those pertaining to Sunday blue laws, safety, and community morals, to censor content and—when deemed necessary—to shut theaters down. See Czitrom, op cit., p. 44.

34 Thus, as soon as the Federal Radio Commission made its intention known to scrutinize broadcast content in allocating renewal licenses, the National Association of Broadcasters (NAB) wasted no time in developing an industry code of standards. Similarly, the first NAB television code was adopted in 1951 shortly after Senator William Benton threatened to establish a National Citizen's Advisory Board, which would oversee programming and submit an annual report to Congress assessing the extent to which broadcasting served the public interest. See Mark M. MacCarthy, "Broadcast Self-Regulation: The NAB Codes, Family Viewing Hour, and Television Violence," *Cardozo Arts and Entertainment Law Journal*, v 15, n. 3, 1995.

35 In 1979, for example, the court—in *Writers Guild of America, West, v. ABC*—questioned whether the Government had unduly pressed the NAB to voluntarily agree to a one hour evening segment of programming for 'family viewing." When the Justice Department challenged the code on antitrust grounds, the NAB abandoned its standards altogether. See Forrest P. Chisman, "Achieving the Public Interest in an Era of Abundance," in "Charles M. Firestone and Amy Korzick Garner, eds., *Digital Broadcasting*

in accordance with "the public interest, convenience, and necessity," as provided for in the Communications Act of 1934. Such a proactive regulatory structure was considered justified, given the chaotic situation in the early days of broadcasting and the industry's reliance on limited public spectrum. [36] Accordingly, broadcasters have been required to provide—among other things—local content, news and public affairs programming (with adequate and unbiased coverage given to controversial issues), educational fare for children, as well as equal time for the use of stations by political candidates. While restraining the FCC from actions considered excessive, the Courts have generally sanctioned the broadcast regulatory regime on the grounds that spectrum—being scarce—needed to be rationed.[37]

Must Carry Rules: The availability of spectrum was not an issue, however, when the FCC issued the *Cable Television Report and Order* in 1972, laying out comprehensive rules for the cable industry.[38] Under this order, cable systems were freed to expand to the top 100 markets, but as a quid pro quo they were subject to 'must carry rules,' requiring

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and the Public Interest: Reports and Papers of the Aspen Institute Communication and Society Program (Washington DC: The Aspen Institute, 1998), p. 135.

36 Policy makers and industry representatives alike believed that, without some means of allocating the public spectrum, the airwaves would become so overcrowded and interference so rife broadcasting would be precluded. Thus it was, for example, that broadcasters aligned in 1922 to form the National Association of Broadcasters (NAB), with the express purpose of promoting radio regulation. Commenting on the public mood of the time, Secretary of Commerce Herbert Hoover described the situation as "one of the few instances that I know of when the whole country is earnestly praying for more regulation." James L. Baughman, *Television's Guardians: The FCC and the Politics of Programming, 1858-1967* (Knoxville, TN: University of Tennessee Press, 1967), p. 5.

37 Setting the tone for the future in the landmark case *Red Lion Broadcasting Co. v. FCC,* the Supreme Court considered the constitutionality of the Fairness Doctrine: ". . .broadcast frequencies constitute a scarce resource whose use could be regulated and rationalized only by Government. Without Government control, the medium would be of little use because of the cacophony of competing voices, none of which could be clearly and predictably heard. [Thus] Every licensee who is fortunate in obtaining a license is assumed to operate in the public interest and has assumed the obligation of presenting important public questions fairly and without bias." As cited in Ithiel da Sola Poole, *Technologies of Freedom,* p. 130.

38 In the late 1960s, small cable operators were joined by larger systems that aimed to greatly expand their markets. In response broadcasters pressured Congress to restrict cable. The FCC reluctantly issues a series of ruing that had the cumulative effect of restricting cable development.

operators to provide channels for educational institutions, municipal governments, and public access. Moreover, to assure the viability of free television and the availability of community programming, cable operators had to carry local broadcasting companies' signals.[39]

Public Broadcasting: Although public interest regulation helped to limit some of the negative aspects of broadcasting, it did little to foster high quality content. For such purposes, a more direct and concerted effort was required. In the United States, where government ownership of the media was not an option, a hybrid system of public broadcasting was devised. To preserve the system's integrity, Congress devised a decentralized structure, which placed the individual stations at its center.[40] In addition, it set up the Corporation for Public Broadcasting (CPB) with the dual purpose of developing a nationwide broadcasting system and acting as a buffer between broadcasters and government. The corporation, itself, was prohibited from owning and operating any broadcast or cable organization, interconnection system or facility, program production house, or public telecom organization. Nor could CPB produce, schedule, or distribute programs to the public.[41] At the same time, however, Congress maintained tight reigns on funding through the annual appropriations process.

Communications for National Security and Defense

Communication goals had evolved not only in response to changing social and economic needs; at times, they have been radically reoriented to meet the exigencies of war. In most countries, reordering priorities for defense purposes was relatively easy. Owned

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39 Cable posed a potential threat to the FCC's vision of a localized television system, because if cable operators began to import distant signals into local markets, they might drive local stations out of business. This danger only became apparent as cable began to grow and expand into major markets.

40 See Willard D. Rowland, Jr., "The Institution of U.S. Public Broadcasting," in Eli Noam and Jens Walterman, eds., *Public Television in America*.... (1998)

41 Monroe E. Price, "Public Broadcasting and the Crisis of Corporate Governance," *Cardozo Arts and Entertainment* Journal, v. 17, n. 417, 1999.

and operated by government, these companies were designed to serve the State's needs. In contrast, in the United States, where the first amendment precludes government interference, establishing a communication system to support national defense has been more problematic. To minimize the tension between defense and other communication-related goals, the Government has involved itself in communications related activities only on a sporadic and/or indirect basis.

This pattern was set at the time of the US involvement in the First World War. In autumn 1918, for example, Congress directed the Postmaster General to assume operation of the Nation's telephone and telegraph companies. Under the post office's management, the telegraph and telephone systems worked smoothly, although rates increased. However, shortly after government took control, the war ended and Congress restored the wires to the private sector.[42]

World War Two and the Cold War that followed led to a much more compelling and pervasive preoccupation about national security. Although government consistently turned to the private sector to promote its defense related goals, an increased emphasis on national defense and security sometimes collided with those of free speech and a free market.

Limits on Speech: Speech first became an issue during wartime with the passage of State and Federal sedition laws, which were premised on the notion that speech could undermine the war effort. Early on, convictions were common, because Courts applied a 'reasonable tendency' test. Later, justices began to fashion a standard that was more protective of free speech—the 'clear and present danger' test, which cut off speech only if it posed an imminent and substantial danger to some vital interest.[43] On rare occasions

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[42] Wayne Fuller, *The American Mail* (Chicago, IL: University of Chicago Press, 1972), pp. 187-188.

[43] For a discussion, see Paul L. Murphy, *The Meaning of Freedom of Speech: First Amendment Freedoms from Wilson to FDR* (Westport, CT: Greenwood Press, 1972).

during peacetime, the government sought to enjoin the press from publishing information whose disclosure was considered to undermine national security.[44]

Promoting Defense Technology: Communication and information technologies have generally been high on the list of technologies meriting government promotion. Recognizing the defense potential of radio, for example, the government played a critical role in its development. The US Navy, in cooperation with AT&T, not only helped to develop the emerging technology, it also spearheaded the corporate-government alliance to consolidate and centralize radio during and after World War Two.[45] The military's role in developing the computer and other advanced communication technologies was also critical, even if indirect and behind the scenes. The government not only subsidized the early research and development of satellites, computers, and semiconductor chips; it also used its procurement powers to assure that these industries had stable, guaranteed markets.[46]

Securing the Infrastructure: The government's ability to balance government and free market interests was greatly aided by the existence of a government-regulated telephone monopoly, which was renowned for quality and research in all communications fields. As

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[44] The Government's attempt to invoke national security to stop publication of the *Pentagon Papers* failed when the Supreme Court, acknowledging that national security was sufficient reason to impose prior restraint on publication, ruled that in this instance the government had failed to show that anything more than embarrassment would result. In effect, the door was left ajar. Where atomic secrets have been involved, the government has been better positioned to justify a prior restraint. In 1970, for example, the government obtained a district court injunction that stopped publication of an article by *The Progressive* magazine, which depicted the making of a hydrogen bomb.

[45] The Wilson Administration's goal was to challenge British domination of international communication and to protect US military and commercial interests. After failing to get Congress to pass legislation that would make wartime government control of wireless permanent, the administration pursued a different strategy. In 1919, British Marconi was the only company negotiating with General Electric to buy exclusive right to the Alexanderson Alternator, a high-powered radio transmitter used for transoceanic work during the war. Through a series of delicate negotiations, the government stepped in and served as the midwife to the birth of the Radio Corporation of America. RCA, with GE as the major stockholder, bought out Marconi (which had been controlled by the British, thus assuring America a powerful position in world communication. See Czitrom, op cit., p. 70.

[46] See Kenneth Flamm, *Creating the Computer: Government, Industry and High Technology* (Washington DC: The Brookings Institute, 1988); and David Mowery and

the only company supplying end-to-end telecommunications service to the Defense Communication Agency, AT&T was directly involved in formulating national security telecommunications specifications and requirements, and in making adequate provisions governing robustness, ubiquity, and restorability. Nonetheless, believing AT&T's centralized, hierarchical structure to be vulnerable to attach, government researchers at the Advanced Research Project Agency developed a packet switched network based on a decentralized architecture. By 1971, the ARPAnet—precursor to the Internet—linked defense scientists and engineers at 15 university-based nodes. To ensure their seamless and transparent interconnection, the Defense Department also sponsored two key networking standards—the transmission control protocol (TCP) and the Internet Protocol (TP).

TRANSITION TO A COMPETITIVE ENVIRONMENT

As this short history illustrates, despite periods of upheaval and change, US communication policy regime—like the Constitution in which it is grounded—has proven to be quite flexible and stable over time. Old rules survived even as new ones were added. Multiple goals coexisted—even when they competed with one another—because each goal was associated with a particular communication technology, which had unique technical characteristics and imperatives as well as its own set of industry players. Thus, for example, first amendment goals have generally been associated with print technologies, whereas universal service goals have been more closely linked to telephony and the transportation infrastructure. And if—as was sometimes the case—the boundaries among technologies began to blur, policymakers intervened to reinforce the lines of demarcation.

Today, however, achieving flexibility in this way in increasingly problematic. Not only have new technologies been developed that do not fit neatly into old categories; with the convergence of print, carrier, and broadcasting technologies, old categories themselves no longer applied.

Nathan Rosenberg, *Technology and the Pursuit of Economic Growth* (Cambridge, UK:

In the light of such convergence, pressures have mounted to create a more level playing field, and to establish a uniform regulatory regime based on market competition. As early as 1962, for example, a number of regulatory economists began to question the public utility concept. Together their work—if it did not give rise to the new deregulatory climate—served at least to legitimate it.[47] At the same time regulators—impressed by the potential of new technology to reduce costs and increase capacity—were also willing to experiment with competition.[48] Equally important, the growing importance of telecommunications and media-related industries within the economy changed the way communication came to be conceived. Instead of being perceived as a means to an end, communication was viewed increasingly as commodity much like any other, to be bought and sold in the marketplace.[49] In the process, the public interest came to be measured not by the quality of

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Cambridge University Press, 1989).

47 As Roger Noll has described: "Economists generally entered the study of regulation with the naïve view that regulatory institutions were set up for the purpose of rectifying market failures. Unfortunately, and almost without exception, the early empirical studies—those commencing in the late 1950s and continuing into the 1970s—found the effects of regulation correlated poorly with the stated goals of regulation. By the early 1970s, the overwhelming majority of economists had reached consensus on two points. First, economic regulation did not succeed in protecting consumers against monopolies and indeed often served to create monopolies out of workably competitive industries or to protect monopolies against new firms seeking to challenge their position. Second, in circumstances where market failures were of enduring importance (such as environmental protection) traditional standard-setting regulation was usually a far less effective remedy than the use of markets and incentives." Roger G. Noll, "Regulation After Reagan," *AEI Journal on Government and Society*, n. 3, 1988, pp. 12-22.

48 As former FCC Commissioner Nicholas Johnson commented on the occasion of the FCC's decision to approve MCI's application to establish long-distance service: "On this occasion three Commissioners are urging a perpetuation of more Government regulation of business, and four want to experiment with the market forces of American free private enterprise as an alternative to regulation. 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. . . .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." *Microwave Communications, Inc.* 18 FCC 2d 953, 971-972.

49 Footnote with Chairman Fowler's quote comparing televisions to toasters.

social and economic life, but rather by the state of the media industry and consumer demand. [50]

Tensions and discrepancies within the old system first manifested themselves in the case of cable—a hybrid technology. But it was not long before they emerged in more traditional arenas such as telephony and broadcasting. Early attempts to address these tensions within the old regulatory framework were short lived.

Fitting Cable into the Regulatory Regime

The inherent tension in broadcast regulation—between first amendment rights and the public interest standard—became increasingly apparent with the advent of cable television, which did not fit well in either category. With its multiplicity of channels, cable was, moreover, the first technology to defy the long held belief in scarcity.

Cable was originally intended to enhance television signals in communities located outside of good broadcasting reception. At first, the Federal Communication Commission ignored CATV, viewing it as an auxiliary to broadcasting.[51] However, the situation changed in the late 1960s, when cable operators sought to expand their markets by importing broadcast signals. Under pressure from broadcasters, the FCC issued rulings curtailing cable growth. Then, in 1972, the FCC reversed itself, allowing cable to expand on the condition that it provided community programming and adhere to 'must carry rules.' [52]

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50 Patricia Aufderheide, *Communications Policy and the Public Interest: The Telecommunications Act of 1996* (New York, The Guilford Press, 1999).

51 Seeking to avoid the administrative burden of regulating another industry, the FCC pointed out that CATV was neither a common carrier (because the subscriber did not determine the nature of the signal being carried) nor a form of broadcasting (because signal transmission was completely by wire). Thus, what attention the FCC did pay to CATV in the early years was centered on possible interference or problems for the broadcast sector. For a history of the FCC and the regulation of cable see, Don LeDuc, *Cable Television and the FCC: A Crisis in Media Control* (Philadelphia, PA: Temple University Press, 1973).

52 Two factors served to stimulate the industry's growth. First, the rise of pay-cable services such as Home Box Office revealed an extensive latent demand for alternative programming. Secondly, and more important in the long run, cable programming became linked to satellite. Communication satellites created reliable and economically feasible

As cable's fortunes improved, and programming became available, operators characterized the industry as analogous to newspapers rather than broadcasting.[53] On this basis, they called for deregulation and full first amendment rights.[54] Because spectrum scarcity had been used to justify broadcast regulation, cable's multichannel capacity lent credibility to its demands.[55]

Seeking to rectify the situation, Congress passed the Cable Communications Policy Act of 1984, deregulating the cable industry. Nevertheless, considerable confusion about the nature of cable was embodied in the act itself. Cities lost the authority to regulate subscribers' rates and much of their discretion over franchise renewal. The Act also prohibited the regulation of cable as a common carrier or public utility. At the same time, however, cities were allowed to charge franchise fees and require public access channels and other kinds of programming.[56]

Thus, the issue of cable regulation, and its relationship to the first amendment, did not disappear. In fact, given rising cable prices and increased concentration, Congress re-regulated the industry in 1992, under the Cable Television Consumer Protection and

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distribution networks, while the availability of new and specialized programming stimulated nation-wide demand.

53 See Wilhelma M. Reuben-Cooke, "Rethinking Legal and Policy Paradigms," in Charles M. Firestone, ed., *Television for the Next Century: The Next Wave* (Washington DC: The Aspen Institute, 1993).

54 See for examples of this argument, G. Shapiro, P. Kurland, and J. Mecurio, *Cablespeech: The Case for First Amendment Protection* (New York, NY: Harcourt Brace Jovanovich, Publishers, 1983).

55 As characterized by Laurence Tribe: "The clear failure of the 'technological scarcity argument' as applied to cable television amounts to an invitation to reconsider the tension between the Supreme Court's radically divergent approaches to the print and electronic media. Indeed, since the scarcity argument makes little sense as a basis for distinguishing newspapers from television even in the late 1960s and early 1970s, such reconsideration seems long overdue. Laurence Tribe, *American Constitutional Law* (Mineola, NY: The Foundation Press, Inc. 1988), p. 699.

56 The outcome represented a compromise between the cities, which wanted to continue to charge franchise fees, and the cable operators', who wanted to facilitate the franchise-renewal process. But the compromise sidestepped the issue of the first amendment.

Competition Act. The new law reinstated rules for common carriage and rate of return regulation. In addition, it prohibited exclusive franchise agreements between cable and municipalities as well as affiliations between cable programmers and cable operators.

Subsequent court cases also failed to resolve the question of how cable should be handled from a regulatory perspective. In fact, while acknowledging that scarcity was no longer a problem, the courts—in the cases of Turner I, Turner II, and Denver Area—upheld the must carry rules.[57] Looking at the cable industry's structure, and noting Congress' concerns about over-the-air broadcasting, the Court departed from a traditional doctrinaire interpretation of the first amendment.[58] Instead, it argued that first amendment cases must be decided on a case-by-case basis and with reference to the context involved. Only by looking at the context—said the Court—is it possible to balance the vendor's first amendment rights to provide information against the user's first amendment right to access it.[59]

Tensions in the Telecom Regime

As in the case of cable, technology advances helped to undermine the long-standing common carrier regime. Given the convergence of information and communication technologies, there was no longer a clear distinction between what constituted a monopoly—and hence regulated—service and what constituted a competitive service to be provided in the market. Convergence also gave rise to a new network architecture, in which

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57 Turner Broadcasting System Inc., v. FCC, No. 95-992 1997, WL 141375 at 19-20 (U.S. March 31, 1997).

58 As one critic of the decision characterized it: "In Denver Area Educational Telecommunications Inc. v. FCC, the plurality assiduously managed not only to avoid defining the first Amendment status of cable within fairly well-established boundaries, but seemed to grope at a new ad hoc constitutional approach somewhere between intermediate and strict scrutiny." See Laurence H. Winder, "The Red Lion of Cable, and Beyond?—Turner Broadcasting v FCC, *The Cardozo Law Journal*, v. 15, 1997.

59 See Monroe Price and John F. Duffy, "Technological Changes and Doctrinal Persistence, Telecommunications Reform in Congress and the Court," *Symposium: Unscrambling the Signals, Unbundling the Law, The Columbia Law Review*, v. 976, May 1997.

intelligence was dispersed. As a result, the network could more easily be unbundled, allowing users to purchase, and new providers to offer, separate portions of it. Barriers to entry were also reduced given technology advances that increased performance but greatly reduced costs.

Economic developments also generated incentives for new entrants. As information came to play a greater and more strategic role in business, large users sought alternative ways to meet their telecommunications needs. In some cases, they set up their own internal networks; in others, they simply bypassed the Bell system, purchasing services in lower-priced, unregulated markets. Equally important, from a political perspective, business users joined forces with burgeoning new service providers to press for greater competition.

In light of these developments, policy makers were more receptive to the idea of competition. In 1959, the FCC took a first step toward breaking up the Bell system with its "above 890" decision. This decision liberalized the licensing of private microwave systems, allowing the newly created Microwave Communications, Inc. (MCI) to offer a new product—discount private line service. With the subsequent Carterphone decision in 1969, the FCC opened the customer-premises market. And finally, with its Execunet decisions in 1976 and 1978. requiring AT&T to connect to MCI, the FCC struck a final blow to the 100-year old AT&T monopoly.

In 1982, AT&T entered into a consent decree with the Justice Department, following a decade long antitrust suit. A Modified Final Judgement (MFJ) went into effect early in 1984, clarifying and expanding the terms of the 1982 consent decree. The basic premise of this divestiture was that the Bell System's competitive markets should be separated from their noncompetitive markets to prevent unfair monopoly abuses. Accordingly, AT&T was broken into eight companies: the reorganized AT&T and several regional holding companies. The Bell system's 22 local telephone companies were separated from the parent company, and grouped into seven regional Bell holding companies (RBOCs), which were prohibited from the three lines of businesses deemed competitive and therefore assigned to AT&T.

These were designing and manufacturing telecommunications networks and customer premises equipment; providing information services (such as electronic yellow pages), and providing long distance service.

While the MFJ settled the Department of Justice's antitrust suit, it could not resolve the tension between the goals of efficiency and competition that is inherent in any telecom regulatory policy.[60] No sooner had the parties agreed to the MFJ when these issues reemerged in the waiver process, the triennial review, and in public policy debates about how open the telephone network should be.

In this context, the FCC—eager to promote competition in the local exchange—devised a plan allowing RBOCs to enter new markets in exchange for opening their networks. To assure compliance, the local telephone companies had to make their basic network services (referred to as Basic Service Elements) available in a uniform and non-discriminatory fashion. Subsequently, in 1987, the ban against providing information services was amended, and then in 1991—following continued challenges by the RBOCs in court—all information service restrictions were eliminated. In an effort to promote innovation and greater competition in the cable market, the FCC also established video dial tone rules that allowed local exchange companies to provide video services on a common carrier platform. However, none of the telephone companies saw it in their interest to pursue this option. Like cable companies, they wanted to be released from the yoke of regulation, and to be brought within the first amendment regime.

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As Noll has emphasized, "Pending regulatory issues reflect an enduring characteristic of telecommunications policy; neither the pricing nor the structural issue has ever been or is likely to be resolved. The telecommunications system is not, and never was, broken. Rather, its underlying technical and economic characteristics create an enduring policy dilemma. Once can regulate prices and structure to encourage maximum feasible competition, or to promote an integrated monopoly. What is infeasible is a 'neutral' formulaic policy regarding prices and structure that will assure the right mix of monopoly and competition. The current policy agenda continues the futile search for better regulatory instruments, and also includes rear guard actions by the people who lost the

Efforts to Deregulate Broadcasting

Broadcasting had long been a target for deregulation.[61] Citing past FCC failures, opponents claimed that regulation was inappropriate for achieving broadcast policy goals, and at times counterproductive, as in the case of the FCC's efforts to constrain cable TV. Regulatory critics argued, moreover, that—with the development of high capacity cable—scarcity no longer justified government intervention. Deregulation, they argued, was also more in keeping with first amendment principles. Industry players echoed this claim, although they were much more pragmatic than principled in their enthusiasm, generally favoring only those measures that were economically advantageous.

To bring about a more competitive media market, the FCC began to undo the elaborate structure of rules and regulations that had been set up over the years.[62] Thus, the FCC eliminated most advertising constraints as well as rules requiring broadcasters to devote a given amount of time to different classes of non-entertainment programming—even fair use. At the same time, the agency relaxed a number of ownership rules.

Despite these changes, tensions persisted in broadcasting. Although broadcasters favored deregulation, they wanted to maintain the benefits—particularly access to free spectrum and the congressional favor that the public interest regime had afforded. Moreover, broadcasters could anticipate an even greater need for congressional support in the future, given the emergence of new technologies competing for spectrum. Relying heavily on broadcasters for financial and political advantages, members of Congress were

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last time around—who are not, and probably cannot be convinced that deregulated competition is the best policy." Noll, op cit., p. 233.

[61] Challenges to the broadcast regulatory framework first got underway during President Carter's administration when FCC Chairman Charles Ferris initiated a deregulatory policy, much in keeping with the administration's overall policy on deregulation. These efforts only achieved their full momentum, however, during the Reagan years, when Chairman Mark Fowler and Dennis Patrick set out to revamp the entire regulatory structure, substituting marketplace constraints in place of regulatory controls. See, Martha Derthick and Paul J. Quick, *The Politics of Deregulation* (Washington DC: The Brookings Institute, 1985).

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also unwilling to unravel the public interest regime. Thus, there occurred the anomalous situation in which the FCC refused to enforce the Fairness Doctrine while key members of Congress championed it, and promised to codify it at the first opportunity.[63]

THE TELECOMMUNICATIONS ACT OF 1996

Despite these tensions and mounting pressure for reform, efforts to fundamentally restructure the regulatory regime lacked an overriding vision and a set of guiding principles. Without such a vision, reformers were unable to generate a broad political consensus in support of their efforts. [64] As a result, reform proposals typically fell victim to the hassling and squabbles of the legislative process, and to Congress' reluctance to offend powerful interests. In the absence of legislative guidelines, and in the face of rapid technology advance, decisions about communication policy were often relegated to the courts. It was only when Vice-President Gore successfully captured the unique potential of the Internet in his vision of a National Information Infrastructure (NII) that a ground swell for reform emerged.

The Internet Vision

The rapid rise of the Internet provided a unique opportunity, as well as the necessary momentum, to generate a new vision of communication policy for the future. Providing a digital platform for all forms of electronic communication, the Internet defied the technology and industry boundaries that had sustained three distinct regulatory regimes.

Jerremy Tunstall, *Communications Deregulation: The Unleashing of America's Communication Industry* (Oxford, UK: Basil Blackwell, 1986).

[63] As described by Le Duc, "At the moment, then, the broadcast deregulation has reached an impasse. Congress refuses to release the commission from its obligation to regulate American broadcast service, while the agency refuses to discharge this obligation with any more diligence or dedication than absolutely required by law." Don Le Duc, *Beyond Broadcasting: Patterns in Policy and* Law (New York, NY: Longman, 1987).

[64] Henry Geller, "Reforming the US Telecommunications Policymaking Process," in William J. Drake, *The New Information Infrastructure: Strategies for US Policy* (New York, NY: The Twentieth Century Fund, 1995), chapter 4.

From a regulatory perspective, the most promising feature of the Internet was its open architecture and decentralized organizational structure. Viewed in these terms, the Internet could best be described as a very loosely coupled "network of networks." [65] Given a common suite of protocols, interconnection is seamless, allowing traffic to flow easily and to be exchanged across disparate networks and applications.[66]

According to this vision, in an Internet environment, public policy goals could be achieved with minimal government interference.[67] For example, with nonproprietary, widely available interfaces, interconnection and access would not a problem. Thus, competition and innovation would be fostered. Moreover, diffusion would be rapid and widespread, given low costs and positive externalities resulting from shared provisioning and usage. Consumers also would be empowered. Because interoperability allows applications and intelligence to be unbundled and extended outward, individuals could control of the provisioning and use of networks and applications.

When the Democrats came to power, Vice President Al Gore incorporated this vision in the Administration's National Information Infrastructure Initiative, which was launched in September 1993. The initiative emphasized the hope of achieving broad-based social, economic, and political goals in the context of a competitive environment. The key principles included the need to: 1) encourage private investment; 2) promote and protect

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65 Given common interfaces, networks on the Internet can be interconnected while they are at the same time operated and managed independently of one another. Thus, control is decentralized and horizontally structured.

66 As described by the Computer Science and Telecommunications Board: "Most users of the Internet see it through experiencing its applications, most obviously the World Wide Web, but also the ubiquitous electronic mail, remote login, file transfer, and other applications. But from the perspective of the Internet designers, the essence of the Internet is not the applications, but rather the more basic functionality that makes the Internet a suitable place for those applications to operate. The structure of the Internet reflects two major design objectives: first, to support as many sorts of applications as possible, and second, to operate over as many sorts of network infrastructures as possible." " Computer Science Telecommunications Board, National Research Council, *The Unpredictable Certainty: Information Infrastructure Through 2000* (Washington DC: The National Academy Press, 1996), p. 124.

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competition; 3) provide for open access to the networks; 4) avoid the creation of a society of haves and have-nots; and 5) encourage network flexibility.[68]

The NII Initiative was intended not only to foster an open network architecture, but also to provide a more open communication policy-making process. To support this process, the President established the Advisory Council on the National Information Infrastructure, which was comprised of thirty seven members—two thirds from business and the remainder from the non-profit sector, organized labor, and state and local government.[69] Even more unprecedented, the Government took advantage of the Internet, itself, to include the broader public in the debate.

The NII Initiative served as a catalyst to bring together public interest groups and citizens who shared a common vision of a public-oriented infrastructure. In October 1993, they created the Telecommunications Round Table, a peak organization to lobby on behalf of their goals. Inspired by the Internet and the range of possibilities that it allowed, they called for a national information infrastructure that would provide support for universal access, two-way communication, active and participatory public debate, competition and diversity of information, an equitable workplace, privacy protection, network security, and democratic policy making. While favoring market solutions, the coalition wanted proof of competition and consumer choice, as well as assurances that there would be no redlining, before Government took steps to deregulate the industry. Equally important, they advocated that 20 percent of the bandwidth of the NII be reserved for public use, as a public 'right of way." [70]

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[68] For this perspective, see Lee McKnight, Russell Newman, and Richard Solomon, *The Gordian Knot* (Cambridge, MA: MIT Press, 1996).

[69] Al Gore, "Our Vision of Telecommunications," *The Aspen Institute Quarterly*, spring 1994, v. 6, n. 2, p. 18.

[70] William J. Drake, "The National Information Infrastructure Debate," in William J. Drake, ed. *The New Information Infrastructure: Strategies for U.S. Policy* (New York, NY: The Twentieth Century Fund, 1995), chapter 12.

Ibid., p. 328.

The national debate on the NII engendered enough momentum to break the congressional logjam, which had dashed all previous efforts at reform. However, once the center of action shifted to Congress, the public interest groups generating this momentum had very little impact on the final legislative outcome.

The Missed Opportunity

Although the Communication Act of 1996 was generally welcomed as being long overdue, none of the parties to it were totally satisfied with the results. Arrived at through intense congressional lobbying, the law that was eventually adopted represented a carefully crafted compromise rather than a blueprint for the future. Concerned primarily lest technology advance deprive them of some strategic competitive advantage, most key players ultimately preferred retrenchment to reform. A major opportunity was lost as a result.

Defeat in the 103rd Congress: In 1993, three bills relating to industry restructuring were introduced in Congress: the Brooks-Dingell Bill (H.R. 3626), the Markey-Fields Bill (H.R. 3636), and a companion bill in the Senate, the Hollings-Danforth Bill (S 1822). Focusing primarily on industry deregulation, the Brooks-Dingell Bill was the most narrow and permissive.[71] Strongly influenced by both the Administration and the increasingly vocal, public interest coalition, the Markey-Fields Bill went much further. Stressing the importance of an open network, the bill had much more stringent conditions for telephone company entry into other markets.[72] At the same time, the Markey bill mandated open interfaces for set top boxes and outlined steps to achieve social and economic goals, such as the provision of services to schools, health care centers, and libraries. In the summer of

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[71] As originally written, the Bill called for a three stage process of entry by which the local telephone companies could enter into long distance services. However, under pressure from the RBOCs, the Bill was modified to allow local telephone companies to seek authorization to enter log distance from the Justice Department and the FCC on the same day the law took effect.

[72] According to the bill, local exchange carriers could enter other markets, but only after they had sufficiently opened up the local loop to competition. Telephone companies were also authorized to provide video services, but on a common carrier basis. In addition,

1994, the House passed a somewhat watered down version of H.R. 3636 by an overwhelming vote of 420 to 4, while the Senate moved to take up the companion bill, S 1822.

As fate would have it, a number of events intervened to bring Senate passage to an abrupt halt. The coalition supporting the legislation began to disintegrate in committee, when Senator Daniel Inouye amended it, attaching S. 2195, which required carries to allocate up to 20 percent of their capacity to non-commercial information suppliers in exchange for using public rights of way. This amendment was strongly opposed by industry players, who successfully lobbied to reduce reserved bandwidth to five percent. The public interest coalition was similarly riled when Senator James Exxon introduced an amendment requiring the FCC to monitor and censor the Internet for pornographic materials. However, the final blow to the legislation came when the RBOCs withdrew their support protesting a provision that denied them access to competitive markets absent "actual and demonstrable" facilities-based competition. Unwilling to compromise on this point, and faced with increasing Republican opposition, Senator Hollings, Chairman of the Senate Commerce Committee and sponsor of the bill, allowed it to die in committee.[73]

Retreat in the 104th Congress: In the November 1994 elections, Republicans returned to Congress with a mandate calling for deregulation. In keeping with the mood of the country, the leadership wanted to take immediate steps to deregulate the cable industry, and greatly relax the limits on broadcast station ownership. However, disagreements among industry players and concerns about a presidential veto made them more cautious.[74] Although most members of industry were staunch supporters of deregulation and greater competition, they strongly disagreed about how best to achieve these goals. Long distance carriers and cable operators, for example, called for more stringent

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the bill required the FCC to study the costs and benefits of the telephone companies providing an open network platform.

[73] Ibid.

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prohibitions on local phone companies, while the RBOCs argued that competition was being impeded by MFJ restrictions. Broadcasters, in turn, contended that, for competition to survive, they needed free spectrum.

Faced with such difficult choices, the Republicans looked to industry to help them write reform legislation. With this objective in mind, they invited top industry CEOs to Washington to find out precisely what they wanted to incorporate in a bill.[75] Hustling and jockeying for advantage continued right up to the end of the congressional debate. In the last six months before passage, for example, the top three long-distance companies contributed $2.1 million in political campaign funds to member of Congress, while the seven regional Bells gave $2.3 million.[76] Not surprisingly, in light of the outcome, the RBOCs favored the Republicans with their contributions, the long-distance carriers the Democrats.[77]

The Legislative Outcome: Winners and Losers

Despite Congressional gridlock over the budget, Republicans and Democrats joined together to pass the telecommunications reform legislation in early February 1996 by a vote of 414 to 16 in the House, and 91 to 5 in the Senate. On February 8th, President Clinton, having originally threatened to veto the bill for being too lax, signed it into law. The stated purpose of the new legislation was to promote deregulation and competition. Hailed as a major step forward, the reform bill was, essentially, a well-honed, bi-partisan, political

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David J. Lynch, "Strategic Errors Offset Contributions," *U.S.A. Today/International Edition*, October 17, 1995, p. 7B.

75 Ibid.

76 Gautam Naik, "Landmark Telecom Bill Becomes Law, *The Washington Post*, February 4, 1996, p. H8.

77 As reported in *Business Week*, changes in political fortunes had a significant impact on the flow of campaign funds. When the Democrats controlled the Congress, the money from political action committees was evenly divided between parties. In contrast, after the elections, the Republicans received $1,267,122 while the Democrats received only $473,289. Similarly, Congressmen who had the greatest political leverage in the telecom debate—such as Senator Larry Pressler, Chairman of the Senate Commerce Committee—

compromise, providing some concessions to just about all. However, sorely missing from the law was an overriding vision of the role of communications in society, and a clear set of principles linking deregulation and competition to a larger set of social and economic goals.

The stakeholder group that could, perhaps, be most pleased with the outcome was the Regional Bell Operating Companies. Eager to enter the competitive fray, the RBOCs boycotted the previous Democratic-sponsored legislation on the grounds that it was too restrictive. The Republican legislation went much further in meeting their needs. According to the law, local telephone companies no longer had to prove the actual existence of facilities-based competition before entering competitive markets. Instead, they only needed to gain approval of the FCC and state regulators, based on a somewhat vague set of criteria outlined in the legislation.

For cable companies, there was also much to boast about. Four years previously, the FCC had ordered them to cut their rates by up to 17 percent. Under the 1996 Act, all cable rates were to be deregulated after three years; in small communities, regulation ended immediately. With greater cash flow, cable companies could compete more easily in telephone company markets. And some companies were already upgrading their systems to provide phone service as well as consolidating their businesses to establish a better geographic fit with telephone company markets.[78]

The fate of the broadcasters under the new law was less certain. On the positive side, the law relaxed the previous cross-ownership rules, allowing broadcasters to own as many stations as they wanted, so long as they did not exceed 35 percent of the US market. Broadcasters failed, however, to eliminate a legislative provision requiring them to equip television sets with devices to block violent or sexual programs. Nor did broadcasters receive a clear mandate for free spectrum, as they had wished. Last minute opposition from Senator Dole led to the postponement of this decision.

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received the larger shares." See "Influence Peddlers Reach Out and Touch Some POL." *Business Week*, March 4, 1996.

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Nor did the long distance companies fare as well as they had hoped. From their point of view, the longer the RBOCs could be restrained from providing long distance services the better. Given the status quo, long distance carriers could gradually gain access to local exchange markets while local operating companies would still be precluded from entering long distance markets. Thus, the new legislation, which provided less stringent criteria for determining competition in the local loop, was generally viewed as a major setback.[79] On the other hand, with the opening of the local loop to competition, long distance carriers gained an opportunity not only to enter this lucrative market but also to bypass local exchange carriers by providing end-to-end services.

Society-at-large was perhaps the real loser in telecom reform. The primary focus of the bill was limited to deregulation and competition. However, even when measured solely in terms of this narrow set of goals, the new legislation was sorely lacking. In contrast to the Markey bill, which had sought to promote open, two-way access, the Telecommunications Act eliminated most of the explicit requirements for interconnection and open interfaces. Instead of addressing the issue of competition head-on, it postponed the debate, delegating the thorny problems entailed in determining what constitutes "competition" to the Federal Communication Commission and the Department of Justice.[80] Thus, for example, the law required the FCC to write no less than 80 rules determining how the transition to competition would take place, and how the costs and benefits among industry players would be distributed.[81]

Social considerations were not totally absent from the new legislation. For example, the Act mandated the delivery of advanced of advanced telecommunications services to

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"Telephone Vote Signals Competitive Free-for-All: Likely Mergers Herald an Era of Megacarriers," *The Wall Street Journal*, February 5, 1996, p. B4.

79 "Telecom's New Age: The Giants Aren't Sleeping," *Business Week*, April 7, 1996.

80 Gautam Naik, "Bell Companies Ready to Charge Into Long Distance," *The Wall Street Journal*, February 5, 1996, p. B4.

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rural schools, libraries, and health care facilities at rates that are discounted to assure affordable access and use of such services. However, while reiterating the goal of universal service, the Act charted a new course for achieving it. In contrast to earlier efforts, which relied almost exclusively on price averaging and other subsidies, the new legislation sought to achieve the goal of universal service—"to the extent technically feasible and economically reasonable"—in the context of a competitive market environment. The Act also called for restrictions on content. It required television equipment providers to embed technological filtering devices —V-chips—into all new television sets, and Internet providers to monitor and censor content on the Web in order to prevent juveniles from accessing pornography.

The passage of telecom reform legislation in the United States was heralded as a major step forward in bringing communication policy into line with technology advances. Admidst the high-minded congratulatory statements and general sighs of relief, a few dissident voices could be heard. Focusing on the lack of competitive safeguards, these skeptics were concerned lest the law provide the means and incentives for the communications industry to reintegrate itself along vertical lines. Perhaps the most disturbing and prescient in this regard was the assessment of Judge Harold H. Green, who had overseen the 1984 consent degree governing the breakup of the American Telephone and Telegraph Company. As he confided:

> I'm a little concerned [whether] there are sufficient safeguards against the kinds of mergers and acquisitions that might give some small group of companies or individuals a strong hold over US markets. . . .I 'd hate to see the AT&T monopoly be reconstituted in some form. It would be like I'd wasted the past 18 years.[82]

Recent events and speculations about the future suggest that Judge Green's concerns were not without foundation.

Bryan Gruley, "The FCC is Besieged as it Rewrites Rules in Telecommunications," *The Wall Street Journal*, Marc 29, 1996, p. A1; and "Telecom's New Age: ShowTime for the Watchdog," *Business Week*, April 8, 1996.

[82] Leslie Cauley, "Telecom Czar Frets Over New Industry Rules," *The Wall Street Journal*, February 12, 1996, p. B1.

COMPETITION IN RETROSPECT

The 1996 Telecom Act aimed to achieve a level playing field among industry players, so that the market—rather then government—might effectively set the basis for interconnection among competing providers. The law, however, has proven much easier to write than to implement. Instead of promoting competition among communication services—as was intended—it has led instead to a rash of mergers and the industry's reintegration. Equally discouraging the promise of new, inter-industry competition has dwindled, as providers have begun to fully comprehend the costs and risks entailed in invading each other's markets.[83] Not surprisingly, under the circumstances, many consumers are now paying more for their phone and cable services than they did prior to the Act.[84]

Nor has the Communications Act led to the deregulation of the communications industry, or to the demise of the Federal Communication Commission, as so many of its proponents had hoped. To the contrary, in its effort to establish competition, the FCC has found it necessary to "re-regulate." Thus, it has become more embroiled than ever in creating an elaborate set of detailed prescriptions to govern competition among the converging communication industries.[85]

The problems entailed in implementing the 1996 Act have been exacerbated not only by the high stakes involved, and the complex and controversial nature of the issues, but also by the fact that the act itself left so much unresolved. To fulfill its mission, for example, the FCC was charged with carrying out three interrelated tasks; setting access

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83 See, for instance, Deborah Solomon, "AT&T Trims Plan to Offer Interactive TV," *The Wall Street Journal,* June 8, 2001.

84 Rebecca Blumenstein, "Reform Act Hasn't Delivered Promises to Customers," *The Wall Street Journal*, May 3, 2001, p. B1; also Sharon Young, "Complaints Rise as Phone Service Problems Mount," *The Wall Street Journal*, May 3, 2001, p. B1.

85 Richard Klinger, *The New Information Industry: Regulatory Challenges and the First Amendment* (Washington Dc: The Brooking Institute, 1996).

charges, establishing the rule for interconnection, and establishing a mechanism for meeting universal service requirements. To meet the legislative requirement for non-discriminatory access and pricing, the FCC had—in each case—to establish a means of determining real costs. The bane of all past regulatory proceeding, determining costs is anything but an exact science, and thus it has always been done in a somewhat arbitrary fashion. The problem of pricing is especially challenging in the case of universal service, given both the historical ties between pricing and universal service, as well as the inherent tension between competition and universal service goals.

Given the uncertainties entailed in working out these issues, the FCC encountered political maneuverings and judicial litigation at every turn.[86] No sooner had the Act been passed, for example, when AT&T petitioned the FCC to bar the Bell companies from sharing market data with their out-of-region, long distance companies; Ameritech complained that Time-Warner's Home Box office had refused voice and video on the Internet; competitive access providers complained that the RBOCs were holding up negotiations on access charges, and the Bell Companies contended that their competitors were using the regulatory process to block their entry into the long distance market.[87]

Disappointed by the FCC's performance, many have chastised the agency for overstepping its authority. Challenging the FCC's carrier interconnection order in court, for example, the States have claimed that the FCC lacks the authority to establish interim proxy prices, or to prescribe the pricing methodologies that they might use. Politicians have similarly gotten involved, threatening to pass legislation constraining the FCC's future actions. By far the most outspoken legislator has been Senator John McCain, Chairman of the Senate Commerce Committee. Proposing legislation to limit the FCC's role in determining antitrust cases, McCain has criticized the FCC in the following terms:

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86 See, for example, Deborah Soloman, "Everyone's Got a Solution for Industry's Woes," *The Wall Street Journal*, May 3, 2001, p. B1.

87 Byran Gruley, op cit.

> . . .a majority of this Commission places too little confidence in competition and way too much in regulation. It tends to ignore the demands of making orderly, efficient and fair decisions on the matters before it, preferring to pursue issues that are within neither their expertise nor their jurisdiction. In has shown a distressing tendency toward inconsistent and ad hoc decision-making, and toward picking and choosing which parts of the law it will chose to follow.[88]

Market realities have also served to undermine the basic assumptions underlying the Telecom Act. Thus, for example, the Act was based on the premise that the local loop was the only remaining network bottleneck. Today, however, with convergence, and the development of internet-based e-commerce, new bottlenecks have appeared. By integrating infrastructure services and applications, providers can benefit not only from economies of scale and scope, but also from the many positive externalities associatedwith networked technologies. Equally important, integrated networks command higher service prices because businesses need a seamless networking platform to link their operations. In addition, by offering an integrated platform, providers can gain a first-mover advantage, using the network as a barrier to entry. Offering a wide range of business services, they can also position themselves best to collect, and make optimal use of transactional data.[89]

Not surprisingly, network providers are scurrying to take advantages of these opportunities. Mergers and acquisitions in information technology, communication, and media industries jumped 97 percent in 1998 to $488 billion.[90] Nor are Internet companies immune to these developments. In fact, given the lack of barriers to market entry, they are far more inclined to engage in mergers and acquisitions than established, lower tech

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88 "McCain Canes FCC, Proposes Merger Limitation Bill," *CNN Financial News*, May 26, 1999.

89 Perhaps the best example continues to be Microsoft. Building upon the Internet, Microsoft has pieced together an entire suite of business applications, ranging from accounting to procurement. See Jay Greene, "Microsoft: How it Became Stronger than Ever." *Business Week*, June 4, 2001.

90 See Andy Reihnardt, "The Main Event: Bernie vs. Mike," *Business Week*, October 18, 1999, p. 44.

companies.[91] This kind of integration will not be limited to large scale, infrastructure industries. As described by Hof:

> That could prove all the more true thanks to a rapidly emerging new class of net middlemen in a wide range of consumer and industrial markets. Online, with few limitations of time and geography, these new market makers can quickly generate a virtuous loop of buyers and sellers whose very presence attracts yet more buyers and sellers. For this reason, they're expected to dominate many industries from chemical suppliers to rolled steel.[92]

Equally disturbing, where competition among providers has been rampant, it has had major unintended consequences. Thus, for example, network providers—competing to be the first to fiber the country—have generated a major glut in capacity. According to one source, these companies spent $90 billion to lay approximately 39 million miles of fiber optic cable, of which only 2.6 percent is in use. Not surprisingly, many of these companies are verging on bankruptcy.[93] The failure of these companies has taken a major toll on related industries, such as equipment manufacturers, venture capital, and the stock market.[94] The impact on the economy as a whole has yet to be measured. Estimates are that the recession generated by the collapse of the high tech sector may not show signs of recovery till late in the year 2002.

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91 As noted by one consulting firm, for the top 25 Internet companies, the average number of years before significant merger and acquisition activity take place is 6 years as compared to 72 years for the top 50 US companies. See "Internet Companies: Merging Young," *Business Week*, December 6, 1999, p. 8.

92 Robert D. Hof, "A New Race of Giants?" *Business Week*, July 26, 1999, p. EB 72.

93 Rebecca Blumenstein, "How the Fiber Barons Plunged the Nation into a Telecom Glut," *The Wall Street Journal*, June 18, 2001, A1, A8.

94 Gregory Zuckerman, "Telecom Debt Debacle could Lead to Loses of Historic Proportions," *The Wall Street Journal*, May 11, 2001, p. A1. See also Heather Timmons, "Telecom Meltdown," *Business Week*, April 23, 2001. As the author notes: "Nearly every technology sector is linked with telecom: Phone companies buy networking equipment to route Internet traffic, computer servers to offer Web hosting, software to dish up services, and fiber-optic gear to transport bits of information. Last year, spending on communications gear in the U.S. totaled $124 billion, or 12 % of business spending on

THE MARKET AS MEDIATOR

Much of the criticism of the Telecom Act of 1996 has been directed at the problems and side effects associated with its implementation. Over the long term, however, even more serious problems are likely to emerge, which can not be mediated within the framework of a competitive marketplace. The market works best to allocate resources when such resources are fungible—that is to say, when their values can be reduced to an equivalency or common denominator. Notwithstanding recent efforts by policy-makers and industry stakeholders to characterize communication as a commodity, communication resources are highly problematic in this regard. [95]

One need only consider, for instance, the multifaceted nature of communication. Communication resources serve not only to meet consumer needs but also social and economic goals, which are much more difficult to measure adequately. Often, the prices consumers are willing to pay for communication as a commodity diverge significantly from its social and economic value. Declining public support for the First Amendment provides a case in point. Notwithstanding the First Amendment's central role in the US political system, a growing number of Americans now believe that the media has "too much freedom."[96] Imagine how much less support there would be if consumers were called upon to pay for this freedom directly!

Compounding the problem of measurement is the fact that the value of communication is not constant; to the contrary, it is highly dependent on time and

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equipment and software, according to the commerce Department. Moreover, it accounted for one-quarter of the rise in business spending." Ibid., p. 102,

[95] For example, harking back to former Chairman Fowler's comparison of televisions and toasters, the present chairman of the FCC—William Powell—recently analogized the "digital divide" to the inequities associated with car-buying. As he said, "----"

[96] A recent survey conducted by the First Amendment Center found, for example, that 39 percent of the respondents believed the First Amendment "goes too far in guaranteeing rights, compared with slightly more than 22% last year." Joe Strupp, "Americans Less Supportive of 1st Amendment Poll: Many Think Press Has Too Much Freedom," *Editor and Publishers Magazine*, http://www.mediainfo.com/ephome/news/newshtm/stories/070301n1.htm.

circumstances. As the survey of US communication goals clearly illustrates, the priorities that policy makers give to certain communication goals, and the way in which they seek to implement them, are highly contingent on historical conditions and the social and economic problems that loom large at the time. Thus, just as the Founding Fathers' reluctance to involve government in media affairs is traceable to their experiences during the Revolutionary War, so too the government's willingness to take a more proactive approach in the later half of the 1800s can be attributed in part to the perceived need to heal the wounds left by the Civil War.

We should expect no less today. As our social and economic circumstances change, new tensions and problems are likely to emerge that call for communication-related policy responses. Certainly, for example, the rise of Web-based networked commerce will provide a major stimulus in this respect. With the convergence of networks, markets, and firms, issues that were at one time clearly situated in the realm of economic policy will become enmeshed with those in the realm of communications.[97] Already, a number of privacy issues are emerging that span these two realms.[98] Other likely candidates include issues related to taxation, licensing, property rights and antitrust. Crosscutting issues in the area of defense and security are also likely, given the decentralized nature of the Internet, and the ability of users to circumvent traditional lines of authority.

Globalization will also present new policy problems and choices. As the recent WTO conflict over audiovisual content makes clear, the task of valuing communication resources and making trade-offs among communication-related goals is greatly exacerbated by cross cultural differences. Whereas US policy makers consider audiovisual materials to be commodities, which should be freely traded, Canadians and French policy makers view

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97 For a more detailed discussion, see D. Linda Garcia, "Networks and the Evolution of Property Rights," paper presented to the International Studies Association, Chicago, Illinois, March 2001.

98 According to one recent industry-sponsored study, new privacy rules will cost industry between $9 billion to $36 billion. See "Internet Privacy Rules Cost Business as Much as $36 Billion," *The Wall Street Journal*, May 8, 2001, p. B1.

them as cultural heritage to be protected and supported by government. Even when there is general agreement among countries with respect to goals, policy makers may interpret goals differently and/or choose alternative ways of implementing them. Thus, for example, whereas in the United States antitrust decisions are typically determined based on the potential harm to consumers, in Europe they are decided based on the potential harm to competitors.

In a capitalist society, the market mechanism will always play an important role in sorting out communication policy issues. However, as the history of US communication policy makes clear, the market is only one among several policy tools that government can call upon to implement its goals. In fact, by employing different policy mechanisms in the past, the government was able to avoid making difficult trade-offs among competing goals; freedom of expression, ubiquitous infrastructure deployment, and education could all be accommodated. Conflicts among policy goals are likely to be even greater in the future, given the enhanced role of communications and information in all aspects of life. To resolve emergent communication issues, while taking full responsibility for our choices, we cannot simply defer to the marketplace. In addition to its role as "market maker," government must—depending on the circumstances—continue to play the supporting roles of broker, educator, regulatory, and promoter.