Chapter 4

The Impact of New Technologies on Communication Goals and Policymaking

CONTENTS

Box

Chapter 4

The Impact of New Technologies on Communication Goals and Policymaking

INTRODUCTION

The nature of the communication infrastructure reflects the pattern of economic relationships that exists among and between key players in the communication system, as well as the public policy goals and corresponding rules that govern these relationships. In the United States, government has traditionally played a minimal role in shaping the communication infrastructure. In general, industry leaders have been the driving force in developing and promoting communication technology in the marketplace, competing among themselves for primacy. Government intervened either to induce or ratify interindustry agreements, and to temper them in accordance with public or national security needs. As one communication scholar has characterized the decisionmaking process:

> Regulation is not a central driving force in the system; rather it hovers outside and to the rear of the system, reacting to problems rather than initiating policy, and generally seeming to maintain a balance among competing interests rather than promoting one specific interest.[1]

In the past, the goals and rules of the system, and the balance among interested parties, were generally accepted and relatively stable. Today, however, these arrangements are increasingly being called into question. Recent technological and socioeconomic developments are unraveling the U.S. communication regime as it has traditionally evolved, bringing new possibilities, new players, and new problems to the fore. Above all, questions are being raised about the goals of the communication system and about how, and by whom, future communication policy decisions should be made.

The divestiture of AT&T and deregulatory communication policies, for example, are shifting more and more decisions into the marketplace at a time when new technologies are generating new opportunities in all realms of life. Some applaud these policy developments, seeing in them new possibilities for innovation and growth.[2] Others fear that if decisions about new technologies are made solely in the marketplace, important social, cultural, and political opportunities will be lost.[3]

The retreat of the government from the communication decisionmaking process at the Federal level has given rise to a number of jurisdictional issues centering on the role of the States in establishing communication policy. Jurisdictional issues have also emerged among Federal institutions, as different stakeholders have sought to gain their own advantage by structuring the decisionmaking process in their favor. In addition, the rise of transnational corporations in a global economy is blurring the boundaries between national and international decisionmaking.

If the Federal Government is to develop and execute a national communication policy appropriate for this new environment, it will need to develop, and garner widespread agreement on, a common set of up-to-date communication policy goals and strategies. This requires an examination of past goals and strategies to determine whether, given changing conditions and circumstances, they are likely to remain valid in the future. To this end, this chapter will:

- describe the nature of goals, and the manner in which they are generally established;
- identify and describe the traditional values and goals that have guided U.S. communication policy in the past;
- describe and evaluate from an historical perspective how well, and under what circumstances, communication goals were achieved in the past; and
- identify barriers or changed conditions that may make it difficult to achieve such goals today, employing similar kinds of strategies.

[1]Vincent Mosco, "The Communication System From a Regulatory Perspective," OTA contractor report, December 1986.

[2]See, for example, Eli Noam, "The Public Telecommunication Network: A Concept in Transition)" *Journal of Communication*, vol. 37, No. 1, Winter 1987, pp. 30-48.

[3]See, for example, former FCC Commissioner Nicholas Johnson's comments on the Van Deerlin bill, in Timothy Haight (ed.), *Telecommunications Policy and the Citizen (New* York, NY: Praeger, 1981), pp. 1-8.

THE NATURE OF GOALS AND THE GOAL-SETTING PROCESS

To understand how communication goals might affect choices about the communication infrastructure, it is necessary first to consider the nature of goals themselves and how they are established. Goals are statements of values that serve to guide decisionmakers.[4] They are the criteria against which choices are weighed. Goals serve to signal the bounds of acceptable behavior and to legitimate the allocations of costs and benefits associated with decisions. Individuals, organizations, and nations establish goals as a way of signaling a commitment, identifying aspirations, clarifying objectives, or integrating diverse elements through a common bonds

Goals can be general or specific, they can cover a broad or narrow range of activities, and they can be long term or short term.[6] Generally speaking, the less structured the organizational context, the less agreement there is likely to be on norms and values, and thus the more vague and general the goals. Similarly, goals set higher within an organizational hierarchy tend to be more generic because the views to be reconciled are more narrow and specialized. In like fashion, the more enduring goals are intended to be, the greater the number of situations and events for which they must account, and the more ambiguous and flexible they will be.[7]

Goals can be established in a number of ways. They may be set as part of a deliberate, formal, rational process. Or they may be established inadvertently, for example, through some administrative action.[8] They may even be created after the fact, as a means of synthesizing or justifying some previous activity. More often than not, however, goals are created through an informal, day-to-day process of "organizational fighting, mutual concessions, and coalition building.'* Or they are determined indirectly by the cumulative behavior of individuals and groups acting through the push-pull mechanisms of the marketplace.

The issue of whether or not to establish or significantly alter basic goals is rarely placed on decisionmakers' agendas as a formal matter, to be considered as part of a rational decisionmaking process. It is much more likely that goals will be defined, interpreted, and/or redefined in the course of their execution and implementation. Or, if goals remain inchoate, they may be determined indirectly, driven primarily by market or technological forces. To the extent that issues about goals are resolved either indirectly or from behind the scenes, one might say that, although decisions are made, the subject of goals is never really placed on the policy agenda.

Major revision of goals is discouraged by a number of factors. One of the most important is that existing goals reflect past bargains and agreements, which may have been attained only with considerable effort and expense. By formally reopening the question of goals, existing bargains and alliances may become unglued, and a new consensus around a new set of goals will need to be developed.

Organizations also become structured around goals, and their structures may serve to constrain future choices. Within organizations, decisionmakers will generally try to deal with problems in a piecemeal fashion and with well-tried solutions. As social psychologists Katz and Kahn have described it:

> They [the decisionmakers] do not consider all possibilities of problem solution because it is of the vet-y nature of organizations to set limits beyond which rational alternatives cannot go. The organization represents the walls of the maze and, by and large, organizational decisions have to do with solving maze problems, not reconstructing maze walls. [10]

It is, in fact, this interrelationship between organizational arrangements and goals that suggests that any

[4]Herbert Simon, "On the Concept of Organizational Goals," *Administrative Science Quarterly*, vol. 9, No. 1, June 19@, p. 3.

[5]Murray Edelman, *The Symbolic Uses Of Politics* (Urbana, IL: University of Illinois Press, 1985).

[6]Daniel Katz and Robert Kahn, The *Social Psychology of Organizations (New* York, NY John Wiley and Sons, 1976), p. 479.

[7]See discussions in Simon, op. cit., footnote 4, pp. 176-178; Katz and Kahn, op. cit., footnote 6, p. 481; and Richard M. Cyert and James G. March, *A Behavioral Theory of the Firm* (Englewood Cliffs, NJ: Prentice-Hall, 1963).

[8]Simon, op. cit., footnote 4.

[9]Katz and Kahn, op. Cit., footnote 6. For a discussion of this process, see Cyert and March, op. cit., footnote 7, pp. 29-40.

[10]Katz and Kahn, op. cit., footnote 6, p 283.

basic change in an organization's goals will entail a corresponding change in its structure.

Decisionmakers may also avoid publicly raising issues about basic goals because of the potentially negative political consequences. The setting of policy goals generally serves to establish or reinforce the way in which scarce resources or values are distributed among members of a group or within society. By not questioning goals, or by speaking of them only in the broadest sense, decisionmakers can be held less accountable to those stakeholders who are losers in the goal-setting process.

Although it is rare that basic goals are totally revised, they are often adjusted in an incremental fashion over time to meet the requirements of changing circumstances and values. Such readjustments come about, for example, when the authority to define and refine goals through the process of rulemaking is delegated to a government agency.[11] Through this process, Federal administrators often have considerable leeway to "interpret" and operationalize the meaning of a law. The amount of this leeway depends on the specificity and narrowness of the law, and on the extent to which other actors are able to constrain an agency's actions. 'z

Just as issues about goals are raised by Federal agencies in the administrative process, they can also be placed on the agenda through the judicial process. In addition to adjudicating disputes, the courts have filled in the rules on "policy issues left unresolved by existing legislation, often expanding the scope of government programs in the process."[13] The judicial process has also been used by individuals and groups as a means of gaining access to the policymaking process, a development that the courts have fostered by lowering standing requirements.[14]

It should be noted that goals, once set, can subsequently be undermined. According to the "capture" theory of regulation, for example, agency administrators become co-opted over time by the very interests whose behavior they have been established to regulate. As a result, they tend to redefine the agency's original goals in a way that is favorable to the regulated industry .15 Of course, administrative agencies are more or less subject to capture, depending on the overall political climate and on the resources and behavior of other actors.[16]

When goals are undermined, or when they do not keep pace with changing circumstances, they may need major revisions. The neglect of fundamental changes over time will result in impotency, if not irrelevance. Signaling the need for change might be, for example, the breakdown of internal alliances, the recurrence of unsolved problems, and the emergence of powerful new players who may want to change not only the rules of the game, but the game itself.

Experience in the United States matches this general description of goal-setting. This is particularly true in the case of communication, where only a few major legislative decisions about goals have been made. Of course, the most important and enduring decision occurred within the context of a total revision of governmental affairs-at the Constitutional Convention when the delegates agreed to include within the Constitution three clauses that provided, in turn, for freedom of the press, the

[11]Federal agencies operate in accordance with "organic" statutes that define their specific rulemaking authority, For a discussion of rulemaking, see "Regulators and Rulemaking," ch. 4, *Regulation: Process and Politics,* Congressional Quarterly Inc., 1982.

[12]Many have argued that it is the administrative leeway that has led to regulatory failure and the "capture" of agencies by their clientele. As Cutler and Johnson have described it: "Regulatory 'failure' then, as we would define it, occurs when an agency has not done what elected officials would have done had they exercised the power conferred upon them by virtue of their ultimate political responsibility. Agencies would be said to fail when they reach substantive policy decisions (including decisions not to act) that do not coincide with what the politically accountable branches of government would have done if they had possessed the time, the information, and the will to make such a decision " Lloyd N. Cutler and David R. Johnson, "Regulation and the Political Process, ''The *Yale Law Journal*, vol. *84, No.* 7, June 1975, p. 5, For another critique of the broad administrative mandate, see Theodore J. Lowi, *The End of Liberalism,* 2d ed. (New York, NY: Norton, 1979).

[13]R. Shep Melnick, *Regulation and the Courts* The *Case of the Clean* Air *Act* (Washington, DC: The Brookings Institution, 1983), p. 1. For other works on the role of the courts in establishing public policy, see, for example, Abram Chayes, "The Role of the Judge in Public Law Litigation," *Harvard Law Review, vol. 89, 1976;* Owen M. Fiss, "Foreword: The Forms of Justice," *Harvard Law* Review, vol. 93, 1979; Donald L. Horowitz, *The Courts and Social Policy* (Washington, DC: The Brookings Institution, 1977); and Nathan Glazer, "Should Judges Administer Social Services?" *The Public Interest, No.* 50, Winter 1978, p. 64.

[14]Richard B. Stewart, "The Reformation of American Administrative Law," *Harvard Law Review*, vol. 8, 1975; see also Laurence Tribe, American *Constitutional Law* (Mineola, NY: The Foundation Press, Inc., 1978).

[15]For a discussion, see James L. Baughman, *Television's Guardians" The FCC and the politics of Programming, 1958-1967* (Knoxville, TN: University of Tennessee Press, 1957), pp. xiv-xv.

[16]As Nell and Owen point out, interest groups do not always get what they want, especially if policymakers do not behave passively in response to their activities. Roger G. Nell and Bruce M Owen, "What Makes Reform Happen')" *Regulation*, vol *7, No. 2,* March/April *1983,* pp. 19-24.

protection of intellectual property, and the establishment of postal roads.[17] It took almost 150 years, however, before the legislature debated and established additional national communication goals, first in 1912 and 1927 with the enactment of the Radio Acts, and subsequently in 1934 with the passage of the Communications Act.

Even then, the standard that broadcast communication should serve "the public interest, convenience, or necessity" was stated so vaguely as to leave room for considerable compromise. *s So, too, was the goal for providing "so far as possible, to all the people of the United States, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges;" for this definition did not provide criteria for defining adequacy and reasonableness. Although from 1976 to 1980 Congress did reevaluate communication goals, these efforts to revise the 1934 Communications Act failed for a lack of consensus.[19] Today, as a result—in the absence of clearly defined and consistent goals established either by the legislature or by the Executive—national communication policy is being set, for the most part, by the courts.

Despite past reticence in formally addressing communication policy goals, there are, today, a number of circumstances and considerations that might again place this subject on the agenda of key decisionmakers. As the boundaries between technologies, markets, and jurisdictions are realigned, many of the agreements and coalitions that have sustained traditional communication goals are beginning to erode. Not only is the balance of power among traditional stakeholders shifting; in addition, new players, eager to take advantage of the opportunities that new technologies afford, are entering the scene and placing new demands on the system. In this context, many of today's problems are no longer amenable to old solutions, and efforts to resolve them may be more difficult. With the multiplication of players and the globalization of communication markets, control over the communication infrastructure is becoming increasingly dispersed.

In reevaluating communication goals, it is useful to consider how the development of new technologies has affected communication goals in the past. Communication goals have rarely been established formally at any one moment in time, but rather have been developed over time in the course of political, administrative, and economic processes. Therefore, any analysis of their evolution requires taking a broad historical approach, focusing on the values that Americans have attached to the role of communication at different times and in different circumstances.

Employing such a perspective, it becomes evident that the way a new technology evolves and the purposes for which it is deployed depend not only on the specific technical characteristics it exhibits, but also on the social context in which it emerges and the laws and public policies that exist, or are set up, to govern its use. The emergence of new communication technologies has always served to center attention on the role of communication in society. In recognizing the potential of each new technology, communication has been viewed not just as an end in and of itself, but also as a means for addressing other societal issues. In this sense, although a nation's communication system is built of technology, organizations, and personnel, its very nature reflects major social choices and values.

U.S. COMMUNICATION POLICY GOALS

Despite the fact that Congress has only rarely established communication policy goals on a formal, legislative basis, it is possible to identify a consistent set of U.S. goals that have endured over the past 200 years. The major goals have been:

- freedom of speech and freedom of the press,
- fostering the diversity of content and a marketplace of ideas,
- achieving efficiency and interconnection,
- nationwide universal service and equitable access, and

[17] Ithiel de Sola Pool, *Technologies of Freedom* (Cambridge, MA: The Belknap Press of Harvard University, 1983), PP. 16-17.

[18] This clause did not go unnoticed, however. "One commentator wrote shortly after the passage of the Radio Act that the inclusion of the phrase public interest, convenience, and necessity was of enormous consequence since it meant that 'licenses are no longer for the asking. "Eric C. Krasnow, Lawrence D. Longley, and Herbert Terry, *The Politics of Broadcast Regulation (New* York, NY: St. Martin's Press, 1982), p. 17.

[19] Krasnow et al. point out, for example, that although the proposed legislation failed to paw, the debate about it did signal the Federal Communications Commission (FCC) about the new directions a number of Congressmen were considering. They note, moreover, that many of the changes proposed in the bill have subsequently been adopted as policy by the FCC. Ibid.

. communication in support of national security and defense.

To ascertain the relevance of these goals today, and the most effective way of achieving them, this chapter will analyze each of the goals in terms of:

- the reasons, and conditions under which, they were adopted;
- the political basis of their support;
- the policy mechanisms adopted to achieve them;
- the success of these policies in achieving their ends; and
- present-day stresses and strains that may make it more difficult to employ these means or achieve these goals in the future.

Freedom of Speech and Freedom of the Press

Enshrined in the first amendment, freedom of the press is perhaps the value most closely associated with communication in the United States. Applied most fully to the 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.

This conception of press freedom has survived largely intact because of its centrality to self-government and a free marketplace. With the development of new information and communication technologies, however, questions have been raised with respect to the extent to which, and how, the first amendment should be applied to them. Some fear that if new technologies are not covered by the first amendment, American citizens' rights to free speech and a free press will suffer as more and more information is compiled, stored, and delivered electronically .20 Others contend that the development of new technologies requires a rethinking of policies to achieve traditional first amendment goals.*'

Establishing the Goal of Freedom of Speech and Freedom of the Press

To find the source of the goal of free speech and freedom of the press, it is necessary to look to the origins of printing. Introduced into an authoritarian England in 1476, printing existed under a system of strict control until nearly 1700. Society recognized the interests of the state, not those of individuals, as paramount. In keeping with this view, the monarch was sovereign—a religious leader as well as head of state. The people were not considered capable of discerning truth for themselves; thus, secular and religious leaders exercised various controls over communication. The ultimate role of the press in this system was to sustain the state.[22]

During the 1600s, the growth of political democracy and religious freedom, the expansion of free trade and travel, the acceptance of laissez-faire economics, and the general philosophical climate of the Enlightenment undermined authoritarianism and called for a new political concept.[23] Resting on an entirely different set of values, this new concept, the libertarian theory, reversed the role of the press. The press was viewed not as a means of disseminating government-approved dogma, but rather as an aid to the people in their search for truth. According to this view, the press, operating independently, should at times provide harsh criticism of government.[24]

The battle between authoritarian and libertarian conceptions of the press, which took generations to resolve in England, was reprised fairly quickly in the American Colonies where the libertarian view soon

---

[20] Pool, op. cit., footnote 17.

[21] For one discussion, see Don Le Duc, *Beyond Broadcasting: Patterns in Policy and Law* (New York, NY: Longman, 1987).

[22] Fredrick Siebert, Theodore Peterson, and Wilbur Schramm, *Four Theories of the Press* (Urbana, IL: University of Illinois Press, 1956), pp. 9-37. Perhaps the *most odious* press control was licensing. But in 1530, Henry VIII shifted some of the licensing authority to secular authorities, and 8 years later he extended licensing to all printed materials. Licensing was later supplemented by government-sanctioned craft controls. In 1557, the Crown chartered the Stationers Co., a group of master printers who monitored and controlled competition. In other words, the government authorized a private monopoly over the means of communication.

[23] Ibid., p. 3.

'Ibid., pp. 39-57.

triumphed.[25] The revolutionary struggle had itself demonstrated the value of communication in public education, persuasion, and social change, and engendered a democratic view of public opinion in the emerging republic.[26] The fomenting and winning of the war for independence also helped create a strong public sentiment for legally protecting the press. The first amendment to the Federal Constitution, covering freedom of speech, religion, assembly, petition, and the press, forbade Congress from interfering or making any law that might abridge those freedoms. The amendment gave American newspapers a degree of liberty unknown elsewhere.[27]

Interpreting and Implementing the First Amendment

Although the first amendment has served as a fundamental building block of American Government, the first major cases involving its applicability did not arise until after World War I with the introduction of the "clear and present danger" standard.[28] Subsequent Court interpretations of first amendment rights have ranged from a strict absolutist view (most closely associated with Justices Hugo Black and William O. Douglas), which takes the first amendment literally at face value, to a more restrictive, historicist view (espoused by Judge Felix Frankfurter), which allows for exceptions to the rule in cases such as obscenity, libel, and national security. The Court has generally adopted an intermediary stance between these two positions: while consistently holding that freedom of speech is not absolute, the Court has defined the exceptions very narrowly.[29] Among the justifications used for abridging first amendment rights have been:

- the existence of a clear and present danger;
- the need to balance freedom of speech against other legitimate interests;
- the fact that the nature of speech is unprotected, as in the case of obscenity; and
- the fact that speech is made in conjunction with actions that are, themselves, subject to regulation.[30]

In all of these cases, however, the Court will give precedence to first amendment considerations. As Pool has described:

> At a conceptual level, this weighting is expressed by the Court's assertion that freedom of speech enjoys a "preferred position" in the law of the land. Operationally, this preferred position means that for those who claim interference with their First Amendment rights, certain procedural burdens are waived and certain usual legal presumptions are reversed.[31]

Resolving first amendment issues has become more difficult with the emergence, and subsequent convergence, of many new communication technologies. For example, with the development of technologies that allow many people to communicate simultaneously with one another-as in the case of electronic bulletin boards-it is no longer always clear what constitutes "speech," "the press," or "assembly."[32]

The problem of defining first amendment rights is also compounded by the fact that it has not been applied equally or consistently to all communication

[25] Although British colonial authorities had tried, with modest success, to use the press as an instrument of control, they soon discovered that they needed newspapers to communicate with one another and with the people. Thus, they encouraged postmasters, presumably loyal to the Crown, to compile newspapers from official pronouncements and semi-official correspondence. There was, however. a segment of the press that occasionally needled the authorities, to the delight of readers. This group derived its support from a growing merchant class, commercial advertising, and printing contracts let by colonial assemblies. It was this latter strain of journalism, in fact, that provided an outlet for aggrieved colonists to agitate for revolution. See Thomas C. Leonard, *The Power of the Press: The Birth of American Political Reporting* (New York, NY Oxford University Press, 1986).

[26] While revolutionaries spent some time harassing loyalist editors, most of their efforts were devoted to their own public information campaigns. By all accounts, the revolutionaries were vastly more imaginative and successful than the British in using information to persuade the people. Patriotic propagandists orchestrated an information campaign that disseminated news reports (often exaggerated), along with exposés of conditions in England. Robert A. Rutland, *The Newsmongers: Journalism in the Life of the Nation* 1690-1972 [New York, NY: Dial Press, 1973), pp. 26-53; Edwin Emery and Michael Emery, *The Press in America* (Englewood Cliffs, NJ: Prentice Hall, 1978), pp. 65-73; and John Tebbel, *The Compact History of the American Newspaper (New* York, NY: Hawthorn Books, 1969), pp. 33-54.

[27] Daniel Czitrom, "Goals of the U.S. Communication System. An Historical Perspective," OTA contractor report, September 1987.

[28] Gerald Gunther, *Constitutional Law Cases and* Materials (Mineola, NY: Foundation Press, 9th ed., 1975), ch. 12.

[29] Pool, op. cit., footnote 17, p. 59.

[30] Ibid.

[31] Ibid., p. 62. AS Pool points out, at least nine different rules give first amendment rights a preferred position. These are: reducing the presumption of constitutionality; shift in the burden of proof; expedited actions; disallowance of vagueness; requirement of well-defined standards; disallowance of overbreadth; disallowance of procedural burdens, restriction on choice of means; and narrow interpretation of laws.

[32] For a discussion, see U.S. Congress, Office Of Technology Assessment, *Science, Technology and the* First *Amendment*, OTA. CIT-369 (Washington, DC: U.S. Government Printing Office, January 1988).

technologies. As Ithiel de Sola Pool has pointed out, in the United States, there have been three different regulatory systems established to deal with communication technologies.[33] The print media have been governed primarily by the first amendment; telegraphy and telephony by the law of common carriage; and radio and television by a specially developed broadcast law. The problem of applying the first amendment in a new technological context arises not only because new technologies have been developed that do not fit neatly into these three categories, but also because, with the convergence of print, carrier, and broadcasting technologies. the categories themselves do not always apply.

First Amendment Tensions: The Case of Cable

The case of cable television can serve to illustrate both of these problems. No recent technology has had such a topsy-turvy development or regulatory history. Although cable has constituted a part of the U.S. communication system for four decades, it is only recently that it has emerged as a key element in the system.

The original goal of community antenna television (CATV) was to provide a practical way of enhancing television signals for communities located on the fringe or outside of good broadcasting reception.[34] Throughout the 1950s, the Federal Communications Commission (FCC) essentially ignored CATV, viewing it as a temporary development and a mere auxiliary to the broadcasting system.[35] 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 centered on possible interference or problems for the broadcast service.[36]

This situation changed greatly in the late 1960s when small cable operators were joined by larger systems that aimed to greatly expand their markets by importing broadcast signals. These operators could offer better service and more channels of programming. In response, broadcasters began to pressure Congress to restrict cable. They also began to buy into cable systems, gaining control of 30 percent of them by 1968. With Congress and the courts unwilling to control the development of cable, the FCC reluctantly issued a series of rulings in the 1960s, which had the cumulative effect of restricting cable development. The period from 1968 to 1972 was thus marked by a curtailment of cable in major markets.[37]

In 1972, the FCC issued the *Cable Television Report and Order,* offering for the first time a somewhat comprehensive set of rules on cable. Cable systems were freed to expand to the top 100 markets, but they continued to be restricted in terms of the number and kinds of signals they could carry. Cable also had to provide channels for educational institutions, municipal governments, and public access. The cable industry began to expand in the mid-1970s when several court decisions forced the FCC to relax some of these constraints, but its growth was still limited because it was difficult for cable companies to get financing to lay cables.

Two factors served to stimulate the industry in the 1970s and 1980s.[38] First, the rise of pay-cable services such as Home Box Office (HBO) revealed an extensive latent demand for alternative programming. These channels charged a premium above the basic monthly cable rate, offering schedules dominated by old movies, live sports, and entertainment specials. Secondly, and more important in the long run, cable programming was linked to satellite for the first time in 1975 when Time, Inc. (owner of HBO) established the first national network to distribute cable programs to local operators. The success of RCA's and Western Union's communication satellites created reliable and economically feasible distribution networks for the cable companies. The availability of new and specialized pro-

[33] Pool, op. cit., footnote 17.

[34] After World War II, the typical early CATV company would build a tall master antenna on a hill or mountain to pick up the faint signals from a nearby city. These signals were amplified and fed into coaxial cables ultimately connected to the homes of people subscribing to the service.

[35] For a discussion of the FCC and the regulation of cable, see Don Le Due, *Cable Television and the FCC: A Crisis in Media Control* (Philadelphia, PA: Temple University Press, 1973).

[36] CATV 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. However, in the early years of cable, this danger appeared to be minor. Ibid.

[37] Not surprisingly, opposition t. cable expansion from broadcasters weakened as more and more broadcasters bought into cable systems.

[38] Czitrom, op. cit., footnote 27.

gramming in turn stimulated a new demand for cable systems around the country. By 1980, 22 percent of American TV households had become cable subscribers.[39]

As the cable industry's fortunes improved, and as more and more programming services became available, cable operators sought to legitimize the idea that, as an industry, cable was more analogous to the newspapers than it was to broadcasting; hence it should be deregulated and have the benefit of full first amendment rights.[40] Cable's apparent unlimited channel capacity lent considerable credibility and support to this point of view because spectrum scarcity has provided the major rationale for broadcasting regulation.[41] Cable's perspective also gained sustenance from an increasingly deregulatory policy climate. Commenting on the growing tension within the regulatory framework, Laurence Tribe noted:

> 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.[42]

Taking all of these developments into account, the Cable Communications Policy Act of 1984 was intended to reduce some of these tensions. Nevertheless, considerable confusion about the nature of cable—what it is and how it should be dealt with by government—was embodied in the act itself. For example, the Cable Act substantially deregulated the industry. Cities lost the authority to regulate subscribers' rates, and they no longer had much discretion with respect to franchise renewal. The Cable Act also prohibited the future regulation of cable as a common carrier or public utility. However, at the same time, cities were permitted not only to charge franchise fees, but also to require public access channels and certain kinds of programming.

Such ambiguity is perhaps not surprising, given that such laws are generally the product of stakeholder compromise. In the case of the Cable Act, a compromise was developed based on the cities' desire to charge franchise fees and the cable operators' wish to greatly facilitate the franchise-renewal process. But the compromise, in effect, sidestepped the issue of the first amendment.

Although separated from the political fray, the courts have been no more successful than legislators in clarifying cable's position in the present regulatory structure.[43] Although the Supreme Court has ruled in the case of *Preferred Communication v. City of Los Angeles* that cable actions have first amendment implications, it has failed to specify what these implications are.[44] Moreover, in the few years since the Cable Act was passed, a number of courts have come to contradictory conclusions about the extent of the cable industry's first amendment rights.[45] Judges in Palo Alto and Santa Cruz, CA, for example, have asserted that cable companies are entitled to the same rights as the print media,

---

[39] Ibid.

[40] For cable's argument as to why it should enjoy first amendment rights, see G. Shapiro, P. Kurland, and J. Mercurio, *Cablespeech: The Case for First Amendment Protection* (New York, NY: Harcourt Brace Jovanovich, Publishers, 1983).
Throughout cable's history, a number of people have suggested that it be treated as a common carrier, an idea that cable companies have fiercely resisted. In 1970, for example, the Sloan Commission on Cable Television toyed with the common-carrier approach, but concluded that if cable companies were given common-carrier status, they would not have enough economic incentive to develop their systems. Pool, op. cit., footnote 17, p. 169.

[41] The Supine Court upheld the constitutionality of broadcast regulation in the case of *Red Lion Broadcasting Co.* v. *FCC* on the grounds that "broadcast frequencies constituted 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." 395 U.S. 367, 23 L. ed. 2nd 371,89 S Ct 1794 (1969), quote as cited by Pool, ibid., p. 130.

[42] Tribe, op. cit., footnote 14, p. 699.

[43] Pool has described the Court's early role with respect to cable. As he notes: "The courts, however, were not totally supine. Though they gave the FCC a long leash, in bursts of occasional vigilance they puzzled about where the limits of its regulatory authority might lie. Early decisions seemed to give the FCC almost unlimited power over cable systems. Later decisions began to question that authority and to overturn a number of cable rules." Pool, op. cit., footnote 17, p. 160.

441111986, the Supreme Court sent the case of *Preferred Communication* back to the district court for trial. In so doing, it said that cable television's activities "implicated First Amendment interests," but added that where a cable system's "speech and conduct are joined in a single course of action," first amendment rights "must be balanced against social issues." The Court left open the question of how to judge first amendment challenges.

[45] For discussions, see John Wolfe, "conflictin, Rulings on Cable Rights Set Stage for Supreme Court Showdown," *Cablevision,* Sept. *28,* 1987, PP. *32-33;* "Of Cable and Courts, Franchising and the First," *Broadcasting,* May *22, 1989,* pp. 69-71; Craig Kuhl, "Franchise Fees Struck Down," Cablevision, Nov. 7, 1988; and "First Amendment Claims by Erie Cable Left Dangling by U.S. Appellate Court," *Broadcasting,* Aug. 8, 1988, p. 42.

whereas in Erie, PA, the court has ruled that the requirement of local public access channels was constitutionally sound.[46]

Quite in keeping with cable's mercurial history, the issue of cable regulation and its relationship to the first amendment is not likely to disappear. Given the industry's rising prices and increased levels of concentration, there are, for example, a growing number of people who now believe that the role of cable in the communication system needs to be reconsidered.[47] And some of the most recent first amendment cases have not been in cable's favor. The pressure to resolve this issue is likely to mount, moreover, as telephone companies seek to enter the business, perhaps on a common-carrier basis.

Fostering Diversity and a Marketplace of Ideas

The goal of fostering diversity of content and a marketplace of ideas is closely associated with the first amendment objectives of free speech and a free press. Whereas the former goal is aimed at preventing government interference with and control over the media, the latter seeks to foster public access to a broad range of information content. However, it should be noted that these two goals can often come into conflict.[48] With the advance of communication technologies, such conflicts are likely to become more prevalent and acute.

Establishing the Goal of Diversity and a Marketplace of Ideas

Like the first amendment, the goal of fostering a diverse media grew out of the age of the Enlightenment with its belief in human rationality and the ability of individuals to seek out, and discern, truth for themselves. The Enlightenment values of human equality and natural rights also lent support to this communication goal by fostering representative government, and with it the notion that citizens needed regular access to trustworthy information about public affairs. Together, these notions congealed into the influential concept of a "free marketplace of ideas." Put simply, this concept refers to the idea that communicators should be free to offer their ideas for popular acceptance in an unregulated forum; that rational human beings, exercising their faculties, will find truths in a welter of competing claims; and that only under such circumstances can the audience make informed decisions about self-government and other matters.[49]

In the United States, where the first amendment had firmly established distance in the relationship between government and the print media-and where common-carrier regulations had determined access to, and the operation of, telegraphy and telephony—the issue of the government's role in explicitly fostering the diversity of information content did not fully emerge until the advent of broadcasting. Unique in requiring the use of what appeared to be a very limited public spectrum, broadcasting seemed to require a regulatory structure all its own.[50] The general belief at the time was that, without some means of allocating the public spectrum, the airwaves would become so overcrowded and interference would become so rife as to actually preclude broadcasting.[51]

After debating alternative regulatory approaches for over a decade, Congress finally adopted a system that provided for the allocation of broadcast licenses

[46] Ibid.

[47] See "Of Cable and Courts, Franchising and the First," *Broadcasting,* May *22, 1989,* pp. 69-71; and "Appeals Court Distances Cable from Print Model," *Broadcasting,* Aug. *7, 1989,* p. 71.

[48] For a discussion of this conflict and an argument that makes a case for its rationality in public policy terms, see Lee C. Bollinger, Jr., "Freedom of the Press and Public Access: Toward a Theory of Partial Regulation of the Mass Media," *Michigan Law Review, vol. 75, No. 1, 1976,* pp. 142.

[49] John Milton's 1644 essay, *Areopagitica,* was the first Comprehensive statement of this idea, although Milton would not accord all groups full freedom of expression. An unqualified brief for this Libertarian concept of free expression was offered by John Stuart Mill in his 1859 essay, "On Liberty." In it, Mill argued that even falsehoods deserved protection, a position accepted by the U.S. Supreme Court in law governing the defamation of public officials. See John Milton, *Areopagitica (New* York, NY: Appleton-Century-Crofts, 1951), pp. 121-129; and *The New York Times v. Sullivan, 376,* U.S. 253 (1964).

[50] It should be noted, as Pool has pointed out, that policy makers greatly underestimated the amount of spectrum that would eventually become available. Pool, op. cit., footnote 17, pp. 113-116.

[51] This view was shared by policymakers and industry representatives alike. Concerned about the problems of interference, broadcasters aligned in 1922 to form the National Association of Broadcasters, whose express purpose was to get government to become more active in radio regulation. The Secretary of Commerce, Herbert Hoover, described the situation at the time as "one of the few instances that I know of when the whole industry and country is earnestly praying for more regulation. " As cited in Baughman, op. cit., footnote 15, p. 5. For an excellent discussion of the confusion of the air waves during this period, see Marvin R. Bensman, "The Zenith-WJAZ Case and the Chaos of *1926-27, ''Journal of Broadcasting,* vol. 14, *No. 4,* Fall 1970, pp. 423-440.

on the basis of a broadcaster's ability to meet public-interest standards.[52] Accordingly, on February 23, 1927, Congress passed a new Radio Act. The act established the Federal Radio Commission (FRC), granting it the authority to issue broadcast licenses when it found that "public convenience, interest, or necessity would be served by the granting thereof."[53]

This goal of broadcasting in the public interest was subsequently incorporated, almost verbatim, into the Communications Act of 1934. Employing the phrase that had first been used in an 1887 Illinois railroad statute, legislators called on broadcast regulators to determine their policies and administrative actions on the basis of what would best serve the "public interest, convenience, or necessity." What this phrase actually implied for policymakers, however, was left quite vague. Commenting on the looseness of this phrase and the problems that might be entailed in interpreting it, Don R. Le Duc notes:

> [While] it would seem relatively easy to decide when the extension of a rail line or an increase in shipping tariffs might ultimately serve the needs or interests of its customers, it was far more complex and less precise in outcome to make a similar determination in terms of audience requirements, about the factors as sophisticated and subtle as programming balance or local orientation.[54]

To implement this policy goal, Congress delegated authority to the newly created Federal Communications Commission. Set up as an independent regulatory commission, in the political fashion of the times, the FCC was authorized to use its licensing authority to gain broadcasters' compliance.[55] In accordance with this mandate, the FCC was to allocate broadcast licenses not just on the basis of a station's technical, legal, and financial qualifications, but also on the basis of its commitment to provide programming that responded to community needs. The FCC could, moreover, rescind a station's license if, after a 3-year period, the station had failed to live up to its programming commitment. As part of their responsibility to serve the public interest, broadcasters were also required to seek out controversial issues of public importance and to present them in a balanced, objective fashion, in accordance with the Fairness Doctrine.[56] In addition, under section 315 of the Communications Act, stations have to make broadcasting time available on an equal basis to all bona fide political candidates .57

The Courts, while often restraining the FCC from actions that were considered to be excessive, have generally sanctioned the structure and goals of the broadcast regulatory system. As in the case of those who had designed the regulatory structure, the notion of spectrum scarcity was a major factor influencing how members of the Court viewed broadcasting issues. 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 the 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 mandated to operate in the public interest and has assumed the obligation of presenting important public questions fairly and without bias.[58]

[52]Concerned about the possibility of government censorship, policy makers were opposed to the European model of setting UP broadcasting as a national monopoly. And the common-carrier model did not seem practical, because it would not provide broadcasters sufficient economic incentive-the same argument made later with reference to cable operators. Not surprisingly, broadcasters were as opposed to the common-carrier model as cable carriers are today. For a discussion of the national debate over options, see Pool, op. cit., footnote 17, ch. 6.

[53]Public Law No. 632, Sec.11.

[54]Le Duc, op. cit., footnote *21,* p.10.

[55]An independent regulatory agency seemed preferable to having licensing authority reside within the Interstate Commerce Commission, which appeared to be too closely associated with the Roosevelt Administration. For a discussion. see Pool, op. cit., footnote 17, pp. 118-128.

[56]Developed b, the FCC without explicit authority, many feel that the Fairness Doctrine was ratified, in effect, by Congress in a 1959 amendment to section 315 of the Communications Act. The FCC does not accept this interpretation and has repeated the doctrine.

[57]Benno C. Schmidt, Jr., *Freedom of th, press vs. Public Access (New* York, NY: Praeger, 1976), p.199. Public interest standards were made mOre concrete in March 1946 when the FCC issued a report, "public Service Responsibilities of Broadcast Licenses," commonly referred to as the Blue Book, which laid out new and more definite program standards. At the same time, the Commission ordered stations to submit annual statements describing sample weeks of programming g, and to produce certain types of noncommercial fare. See Baughman, op. cit., footnote 51, p. 11.

[58]*Red* Lion *Broadcasting* Co. v. *FCC,* quote cited in Pool, op. cit., footnote 17, P 130

Implementing the Public Interest Standard

In the years since the FCC was frost established, a number of steps have been taken to encourage the diversity of media content and the development of a marketplace of ideas. Notwithstanding these efforts, most evaluations of the FCC's performance in this area generally conclude that the agency has fallen considerably short of its regulatory goals. The explanations and accounts of the FCC's past failures have differed considerably, however. To determine what future actions, if any, the Federal Government might want to take to encourage diversity, it is necessary first to reconsider the various accounts of why the Federal Government has failed to meet its objectives in the past.

One explanation of the the FCC's failure is based on the theory of the captured regulatory agency .59 Focusing, in particular, on the 1950s when the agency was involved in a number of scandals, political scientists and other social observers concluded that the FCC, much like all other independent regulatory agencies, had fallen "captive" of the industry it had been established to regulate.[60] And, in fact, the evidence to support such a thesis was certainly available during this period. As James Baughman has described:

> If an independent agency ever needed the disinterested "experts" with whom progressives earlier had anticipated populating the commissions, it was the FCC in the 1950s. And yet, the temptations surrounding the awarding of TV franchises proved too great for the statehouse types Eisenhower named ... A pattern did emerge of ex parte contacts: commissioners fraternizing with and accepting gifts and loans from license applicants and their lobbyists. These reports wounded the FCC's already marginal reputation for judicious behavior.[61]

Under these circumstances, it is not surprising that the Landis Commission, set up by President-elect Kennedy in 1960 to assess the general performance of the independent agencies, cited the FCC specifically as a prime example of a failed agency.[62] As Landis wrote:

> The Federal Communications Commission presents a somewhat extraordinary spectacle . . . The Commission has drifted, vacillated and stalled in almost every major area.[63]

While acknowledging that the capture theory may serve to explain the FCC's conduct during the period of the 1950s, others contend that it does not account for the FCC's consistent problems in the years following. In particular, this theory cannot explain the FCC's history during the 1960s when two consecutive FCC Chairmen sought quite aggressive] y to improve the quality of broadcasting.

It was, for example, during this period that Chairman Newton N. Minow took the lead in advocating broadcasting in the public interest. As noted by Baughman, in Minow's speech comparing television to a vast wasteland, he:

> .. aroused industry and public opinion . . . in a manner unprecedented for an FCC chairman. With one cleverly phrased speech, Minow emerged as the symbol of all of those who had so long been determined to reshape television.[64]

Claiming that he had not come to Washington to "idly observe the squandering of the public's airwaves, " Minow earnestly sought to institute a number of policy changes.[65] During his tenure, for example, the Commission began to execute the licensing process with much greater care, even trying to bring the public into the process. And Minow tried persistently and in a number of different ways to enhance and diversify programming, pressing, for example, for the deintermixture of UHF and VHF markets, increased production of children's and educational programming, and limitations on

---

[59] See, for example, Samuel Grislov and Lloyd Musolf, *The Politics of Regulation* (Boston, MA: Houghton Mifflin, 1964), p. 25; and Robert E. Cushman, *The independent Regulatory Commissions (New* York, NY: Oxford University Press, 1941).

@For example, House hearings conducted in 1958 and 1960 not only found the F('C totally ineffective; they also concluded that two commissioners had been guilty of establishing intimate tics to parties subject to commission proceedings Baughman, op. cit., footnote 15, pp. 14-16.

[61] Ibid., pp. 13-14.

[62] James M. Landis, *Report on Regulatory Agencies to the President-Elect*, Subcommittee on Administrative Practice and Procedure, 86th Cong., 2d sess. (Washington, DC: U.S. Government Printing Office, 1960).

[63] As cited i„ Baughman, op. cit., footnote 51, p. 52.

[64] Ibid., p. 54.

[65] Ibid., p. 63.

television advertising.[66] But despite his intense efforts, Minow was not particularly successful in bringing about change.

According to critics of the capture theory, in trying to explain the FCC's problems during this later period, it is not enough to look just at the relationships between the commissioners and the industry. Far more important in accounting for the FCC's behavior are the structural problems that were built into the agency's organization itself.[67] Chief among these is the FCC's lack of adequate political and administrative resources to do the job assigned to it. According to James Baughman, for instance, the FCC failed because, as an independent agency, it was too weak in the face of opposition from the three branches of government. Making a similar case, Don Le Duc cites the difficulties that the FCC has had to face when trying to execute the license-renewal process in accordance with the public interest standard. As he describes:

> Yet, even if the commission had been able to gather the type of information necessary to evaluate the quality of each renewal applicant's programming more effectively, it would have lacked the capacity to consider it. Only 350 of the commission's 2,000-member staff were assigned to the Broadcast Bureau, and the Renewal and Transfer Division handling these applications generally consisted of no more than two dozen full-time employees, Each year this group faced a workload of 3,000 renewals, with each television application requiring the analysis of a 21-page form prescribed by the commission, as well as accompanying exhibits prepared by the broadcaster to document statements in the form. To have added additional evidence in this review process and to have insisted that it be considered carefully before any contested renewal was granted would have imposed an impossible burden on the limited staff. Unfortunately, this is precisely what the much heralded United Church of Christ decision in 1966 did require of the commission.[68]

While describing many of the structural problems inherent in the FCC's organization, Le Duc also points out an additional, and perhaps even more important, factor that has prevented the agency from achieving many of its regulatory objectives. Most of the FCC's past policies, according to Le Due, fail to take economic realities and private sector motivations into account. And in a number of cases, policies and economics have been significantly at odds with one another.[69] Referring, for example, to the FCC's problem in trying to influence network fare, Le Duc notes:

> In theory, of course, the FCC did have the legal authority to end the practice of networking at any time by simply enacting a regulation barring the licensing or the license renewal of any station that agreed to transfer any portion of its own programming responsibilities to any other party. In practice, however, it was clear, virtually from the inception of broadcasting in the United States, that basic economics would make this simple act of public policy impossible to implement. The creation and widespread dissemination of polished mass entertainment depended on a large commitment of capital, which only a large organization could afford . . . Had either the FRC or the FCC tried to curtail this circumvention of public law intent, they would have faced not only the political opposition of the broadcast industry, but also the wrath of citizens suddenly denied access to their favorite programs because of this action.[70]

The consistent failure of the FCC to achieve its objectives has led many in the policymaking community to question the wisdom of trying to achieve the goal of programming diversity through regulatory means. As noted below, this disillusionment, together with the development of new technologies that expand the number of channels available for programming, has given rise to a number of tensions in the regulatory system, which focus around the issue of public interest standards for broadcasting.

Tensions in Broadcast Regulation

Challenges to the broadcast regulatory framework first got under way during President Carter's admin-

[66] Ibid. The deintermixture policy would have designated markets as either all-VHF or all-UHF. By segregating the markets, it was designed to foster the development of UHF stations, which at the time were technically inferior to VHF stations.

[67] See, for instance, Baughman, op. cit., footnote 51; Barry Cole and Mal Oettinger, *Reluctant Regulators: The FCC' and The Broadcast Audience* (Reading, MA: Addison-Wesley, 1978); Le Due, op. cit., footnote 35; Le Due, op. cit., footnote 21; and *Selected FCC Regulatory Policies: Their Purposes and Consequences for Commercial Radw and Television,* CED 79-62 (Washington, DC: U.S. General Accounting Office, 1979).

[68] The United Church of Christ decision required the Commission to allow citizens to intervene to protest the quality of service being provided by the licensee. As Le Duc points out, as in this case, it was often the Court that increased the FCC's regulatory task. However, as he is quick to add, Congress was made quite aware of the FCC's administrative burden and did little to improve its situation. See Le Due, op. cit., footnote 21, p. 55.

@Ibid., p. 13.

[70] Ibid.

istration when FCC Chairman Charles Ferris initiated a deregulatory policy, much in keeping with the direction of the administration's overall policy on deregulation. These efforts only achieved their full momentum, however, during the Reagan years, when Chairmen Mark Fowler and Dennis Patrick set out to revamp the entire regulatory structure, substituting marketplace constraints in place of regulatory controls.[71] But just as their predecessors had found themselves limited in their ability to execute policy by virtue of the FCC's organizational structure and lack of resources, so too did these proponents of deregulation. Bearing witness to these limitations, we find today, for example, the anomalous situation in which the FCC has refused to enforce the Fairness Doctrine while key members of Congress continue to champion it, promising at the frost opportunity to codify it in legislation. 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.[72]

This growing tension in broadcast regulation can only be resolved by considering whether government should continue to have a role in an electronic digital environment, where lack of channel capacity is no longer likely to be a fundamental issue. It is on the grounds of scarcity that broadcast regulation was first justified, and it is on the basis of the changing nature of this situation that advocates of deregulation now rest their case.[73]

As noted above, some of the earliest proponents of deregulation were among those who had become convinced by past FCC failures that regulation was an inappropriate way to achieve broadcast policy goals. In fact, in their analysis of the regulatory process, they had concluded that the FCC's actions had at times actually been counterproductive, as, for example, in the case of the agency's efforts to constrain the development of cable television. There were a number of economists among these critics, and it was quite natural for them to look to the marketplace for an alternative solution. Moreover, given the growth in channel capacity with the development of cable, the problem of scarcity could no longer serve as the rationale for government involvement. In addition, a market approach seemed more in keeping with first amendment principles.

Industry players also lent their support to this new perspective, although they were much more pragmatic than principled in their enthusiasm, generally favoring only those measures that were economically advantageous.[74] At the same time, the political basis for the old regulatory regime—that is, the modus vivendi that, over the years, had been established between broadcasters and the FCC—began to disintegrate as many new media players joined the fray. Clearly, the time was ripe to try something new.

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. Among the rules that were eliminated and redefined were:[75]

- *rules on advertising:* although these rules had been voluntary, the FCC eliminated all constraints on the number of minutes per hour or the spillover of paid advertising into programming;
- *rules on content:* the FCC eliminated the rules requiring that a given amount of time be devoted to different classes of nonentertainment programming (5 percent for information, 5 percent for local, and a total of 10 percent for nonentertainment programming) ;
- *ownership rules:* the FCC relaxed a number of ownership rules, including the limitation on multiple station ownership. (The limits of 7 AM, 7 FM, and 7 TV stations were increased to 12, 12, and 12); and

71 For a discussion, see Martha Derthick and Paul J. @i&, *The Politics of Deregulation* (Washington, DC: The Brookings Institution, 1985); and Jeremy Tunstall, *Communications Deregulation: The Unleashing of America's Communication industry* (Oxford, U. K.: Basil Blackwell, 1986).

72 Le Duc, op. cit., footnote 21, p. 30.

73 See, for example, Mark S. Fowler and Daniel L. Brenner, "A Market Place Approach to Broadcast Regulation," *Texas Law Review,* vol. 60,1982, p. 207.

74 For example, while the cable industry has favored deregulation for "must-carry" rides, it still calls fOr a Compulsory license. Similarly broadcasters would like to dispose of the Fairness Doctrine, but they want to maintain the must-carry rules.

75 Tunstall, op. cit., footnote 71, p. 146.

- *franchise renewal procedures: these procedures* were modified to the benefit of incumbents.

The effects of these deregulation policies to date have been somewhat disappointing. The experience suggests that the relationship between channel capacity and the diversity of programming is not as great as deregulation advocates had hoped for or anticipated. In fact, as Don Le Duc has pointed out, it is most likely that the increase in the number of transmission channels has served to encourage integration within the programming industry, and hence to reduce the variety of content available to the public. This outcome results from the economics of the media industry. According to Le Due, for example:

> ... there is virtually no correlation between the number of outlets available for dissemination of film or music and the amount of such material actually produced. Thus, for example, cable-delivered pay-TV furnished a vast new nationwide network for film distribution without having any appreciable effect on the number of new films produced each year. Instead, distributors used pay-TV competition to justify raising the network-television licensing price for existing films, a practice that is causing networks to reduce the number of films scheduled.
>
> This high-risk, high-expense industry, with only a few unchallenged distributors and a handful of acknowledged stars, has almost an infinite capacity to absorb additional funding without expanding production. New media outlets competing with one another for this relatively constant quantity of mass entertainment material will simply continue to inflate production costs to the point where many outlets will be forced to withdraw from competition.[76]

This situation is not likely to improve in the future. As Jay Blumler has pointed out, in a multichannel, highly competitive media environment, the likelihood for vertical integration in the industry becomes much greater.[77] The strategic imperatives that Blumler identifies as being responsible for this development are listed in box 4-A. Given these trends, it would appear that the policy problem of how to achieve diversity of content and a free marketplace of ideas has yet to be overcome.

Achieving Efficient, Interconnected Communication Services

The notion of a "marketplace of ideas" underscores the intimate connection between the traditional values of press freedom and laissez-faire economics.[78] As part of this tradition, it was assumed that, in a competitive, free-market economy, communication services would be provided in an optimally efficient manner.

This combined set of notions came to be challenged only later with the development of communication technologies such as the telegraph and the telephone. which enjoyed large-scale economies and required national interconnection. For the first time a conflict appeared between the goal of establishing a free marketplace of ideas and the goal of creating an efficient, interconnected, national communication system. Thus, the telegraph and telephone first provoked what has become a lively and recurring debate about how best to organize the communication media to achieve the goal of efficiency. The debate continues today, as we try to understand and make the best use of advances in communication technologies.

Establishing the Goal of Achieving Efficient, Interconnected Communication Services

The goal of providing communication services in the most efficient manner, consistent with the attainment of other communication policy goals, was formally set in the Communications Act of 1934, which called for the establishment "so far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and world-wide wire and radio communications service with adequate facilities at reasonable charges." The first recognition that government, itself, might need to take some direct measures to assure the efficiency and interconnection of service occurred earlier, however, with tile development of the telegraph. For, as Richard DuBoff has noted:

---

76 Le Due, , op. Cit., footnote 21, p. 128.

77 Jay G. Blumler, "The Role of Public Policy in the New Television Marketplace," Benton Foundation Project on Communications and Information Policy Options, paper No. 1, 1989.

78 The linkage between these values was already apparent in 1690 when—during a parliamentary debate about one of the last vestiges Of authoritarian controls, licensing of the press-some opponents of licensing justified their positron on free market grounds, Siebert et al., op. cit., footnote 22, pp. 260-263.

Box 4-A-Strategic Imperatives for Trend Toward Market Domination by Larger and Vertically Integrated Organizations

- The need to spread risk (for many programs will not succeed in the market), cover losses, and bear deficits before programs finally pay their way.
- The need to aggregate resources for large-scale production and related activity, including research, development, marketing, promotion, and sales.
- The need to operate effectively in a multi-market, domestic-global programming economy.
- A need to bring scarce, highly valued, and highly costly top talent (actors, producers, writers, directors) under one's organizational umbrella.
- Incentives to diversify, so that if certain outlets and programs disappoint, others can make up for it.
- In the case of production companies, a need to control distribution outlets in order to guarantee at least a minimal take-up of their wares.
- In the case of distributors, a need to invest in program suppliers so as more effectively to control their competitive offerings, including what they cost.
- The greater difficulty smaller companies have in raising capital in these circumstances.

SOURCE: Reprinted from *The Role of Public Policy in the New Television Marketplace,* by Jay G. Blunder, with permission from the Benton Foundation, Washington, DC.

It was in the telegraph industry that the basic unworkability of the free market on a national scale was first posed in clear and compelling terms.[79]

Requiring large-scale technologies and national interconnection, the telegraph posed a number of questions about how this communication industry should be organized and what its relationship to government should be. Should it be treated like the press and be privately owned? Should the system be owned and operated by the government, as was the postal service? Or should it be dealt with as a private, but regulated, common carrier? The answer was not simple, and it took some time to resolve.

Although the Federal Government had provided $30,000 for the construction of the first telegraph lines in the United States, it declined to take control of the new technology. The government's reluctance to play a more active role stemmed, in part, from the fact that the Post Office Department, already burdened by deficits, was not inclined to assume responsibility for the Washington, DC/Baltimore line, which appeared to have only limited commercial value. Also contributing to this outcome was the fact that the inventor of the telegraph, Samuel F.B. Morse, seemed to prefer a mixed public and private telegraph system. He not only feared that businesses would manipulate markets in a strictly private system, but also that government would use a telegraph monopoly as a weapon of despotic control.[80]

In the absence of active government involvement, the decision about the structure of the telegraph industry was initially made in the marketplace. Telegraph firms started stringing wires between towns of any commercial consequence. With dozens of competing telegraph companies, none in a commanding position, customers found it difficult to secure rapid. reliable transmission of their messages between distant points.[81] And the telegraph was quickly becoming essential to bankers, brokers, speculators, and railroads. Such businesses preferred dealing with a few reliable national firms to many small precarious ones. Consolidation was the market's answer. Western Union began absorbing competitors, emerging with a near monopoly by 1870.[82]

With the efficiencies of one major national telegraph company, however, came concerns about potential abuses of its power. Between 1870 and the early 1900s, Congress regularly entertained proposals to purchase the telegraph companies and place

[79]Richard B. DuBoff, "The Rise of Communication Regulation: The Telegraph Industry, 13 Q- 1880,'" *Journal of Communication*, vol. *34, No.* 3, Summer 1984, pp. 52-66. Quote at p. 54.

[80]Richard R. John, Jr., "A Failure of Vision'? The Jacksonians, the Post Office and the Telegraph, 1844- 1847," paper presented at the annual meeting of the Society for Historians of Technology, Pittsburgh, PA, Oct. 23, 1986; and Robert L. Thompson, *Wiring a Continent: The History of the Telegraph Industry in the United States, 1832-/966* (Princeton, NJ: Princeton University Press, 194"').

[81]Ibid.

[82]Richard B. DuBoff, "Business Demand and the Development of the Telegraph in the United States," *Business History Review,* vol.54, Winter 1980, pp. *459479.*

the system under the Post Office. Western Union lobbied vigorously against the plan, deriding government incompetence and extolling free enterprise. Furthermore, Western Union suggested that government control of telegraph wires, the press associations' nervous system, would compromise freedom of the press. By tying together the two concepts of freedom of the press and free enterprise, Western Union succeeded in justifying its private monopoly.

In 1866, Congress granted privileges to telegraph companies in return for their promises to provide, in Pool's words: "service like a common carrier, namely to all comers without discrimination." In 1893, the U.S. Supreme Court ratified the telegraph's status as a common carrier and Congress legislated it in the Communications Act of 1934.[83]

The history of the telephone industry followed a similar pattern. Before its patents expired in 1894, the Bell System established a virtual monopoly in telephony, launching service within and between sizable cities where business use and profit seemed greatest. As a result, many communities that could not afford the expensive Bell technology went without service. The patents' expiration triggered a rush to wire towns and even some rural areas. Independent telephone companies proliferated in various forms; some were for-profit corporations, others municipal utilities, and still others little more than neighborhood projects. According to Pool, by 1902, "451 out of 1,002 cities with phone service had two or more companies providing it."[84] Telephone users, notably businesses, found this competition burdensome, since they had to have two or more phones-one for each system serving the community. Thus users, public utility commissioners, and the larger telephone firms themselves, notably AT&T, argued that consolidation in the industry would foster great efficiency .85

Although most telephone systems remained in private hands, cities and States increasingly expected them to operate for the public's convenience.[86] And State Courts upheld the extension of the public utility commissions' jurisdiction.[87] Responding to a serious movement for government ownership, AT&T came out in favor of its own regulation, Mounting a nationwide public relations and advertising campaign, perhaps the first of its kind in the United States, AT&T argued that regulation was the only way to reduce the "wasteful competition" that had earlier plagued telegraphy .88 Congress agreed. I gave the Interstate Commerce Commission regulatory authority over the medium in 1910, and shifted jurisdiction to the Federal Communications Corn mission in 1934.[89]

Implementing Efficiency and Interconnection Goals

The regulatory agreement that Theodore Vail, General Manager of AT&~ worked out in 1910 gave rise to the Bell System, which had as it operational goal, "one system, one policy, universal service."[90] Comprised of AT&T and its subsidiaries and affiliates, the Bell System offered a complete range of telecommunication services including re-

[83] Pool, op. cit., footnote *17*, p. 95.

[84] Ibid., p. 102.

[85] John v. Langdale, "The Growth of Long-Distance Telephony in the Bell System, 1875 -1907," *Journal of Historical Geography, No. 2,* 1978, pp 145-159: Harry B. MacMeal, *The Story of /dependent Telephony* (Chicago, IL: Independent Pioneer Telephone Association, 1934).

[86] Increasingly typical was the point made by the Michigan Public Utilities Commission, for example: "Competition resulted in duplication c investment, the necessity for the businessman maintaining two or more telephones, economic waste to the company, increased burden, and continuou loss to the subscriber. The policy of the state was to eliminate this by eliminating, as far as possible, duplication." Michigan Public Utilities Commissio *Citizens Telephone Co. of Grand Rapids,* P.U.R.1921E 308,315.

[87] It should be remembered that concerns about the power of trusts and large corporations were at their height during this period. One increasing] common way of dealing with large utility-type corporations was not to break them up, but to control them through regulation. See Douglas D. Anderso "State Regulation of Electric Utilities," James Q. Wilson (cd.), *The Politics of Regulation (New* York, NY: Basic Books, 1980), pp. 3-41. For a discussic of this period, see also Ellis Hawley, *The New Deal and the Problem of Monopoly* (Princeton, NJ: Princeton University Press, 1989), chs. 12, 15-17

[88] Pool, op. cit., footnote 17, pp. 102-103. @ AT&T's advertising and public relations campaign to demonstrate that telephony was a natural monopol see Marvin N. Olasky, *Corporate Public Relations: A New Historical Perspective* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1987), ch. 4; an Quentin J. Schultze, "Advertising and Public Utilities, 1900-1917," *Journal of Advertising, vol.* 10, No. 4, 1981, pp. 4144,48.

[89] Gabriel Kolko, *The Triumph of Conservatism: A Reinterpretation of American History, 1900-1916* (Chicago, IL: Quadrangle Books, 1963, *According* to Kolko: "AT&T realized that its long-term objectives of political stability and economic rationality could be attained only by federa regulation." Ibid., p. 180.

[90] L.A. Schlesinger et al., *Chronicles of Corporate Change* (Lexington, MA: D.C. Heath, 1987), p. *8.* In 1913, AT&T agreed to the Kingsbu Commitment in which AT&T divested itself of Western Union, which it had acquired in 1909. In addition, AT&T agreed not to acquire any addition competing independent telephone companies and to allow "qualified" interconnection with the Bell System. N.C. Kingsbury to J.C. McReynolds, J.(McReynolds to N.C. Kingsbury, and W. Wilson to N.C. Kingsbury, Dec. 19, 1913, in FCC, Docket No. 1, vol. 65, pp. 34-40.

search and development, equipment manufacturing and sales, local and long-distance services, as well as **access** to international transmission service.[91] Having a total of $150 billion in assets in 1983, prior to divestiture, it constituted the world's largest corporation.

The regulatory framework that governed the Bell System, which remained intact for more than half a century, was decidedly American. While operating in a capitalist framework, it provided some social control over the negative impacts of the single-mindedness of the marketplace.[92] Moreover, taking the form of a monopoly, the Bell System provided for interoperability and was able to take advantage of economies of scale and scope.[93] Characterizing the Bell System as the apogee of the U.S. telecommunication "regulatory idea," Manley Irwin describes its basic form as follows:

> Bell's holding company organization, its integration of utility and manufacturing, the institution of state and federal regulation, emerged as the U.S. response to the dilemmas of natural monopoly. Boundary lines separating telephone from other industries appeared immutable and long established, and the industry paced, if not controlled, the state of the communications art. . . The relationship between state and federal regulatory institutions was marked by harmony. To accommodate the state commission's desire for minimal telephone rates, the FCC embarked on an esoteric accounting process, separations and settlements, that transferred revenues from interstate toll to local subscribers. In a word, toll subscribers subsidized local subscribers. In an era of regulatory good feeling, the telephone company was, essentially, given the power to tax. Private monopoly subject to public regulation was held as a policy model worthy of emulation if not envy.[94]

By most accounts, this system worked well. As Glen Robinson has pointed out:

> She [Ma Bell] was held in fairly high regard. In contrast to other monopolists we've loved to hate—railroads, gas utilities, broadcast stations, and countless other enterprises with protected market positions--AT&T's monopoly seemed not only natural but relatively benign . . . The system pioneered and developed by AT&T was justly acclaimed the world's finest. Telephone rates were comfortably affordable; furthermore, in the heyday of the telephone monopoly the rate system was generally perceived as fair. Service innovation, while not rapid, nevertheless did proceed more rapidly than in other sectors of the economy .95

Given this generally favorable impression of the Bell Telephone System, it is clear that its breakup had less to do with the perception that it had failed to implement its primary objectives, and more to do with the fact that it suddenly found itself operating in a greatly altered technological, economic, and regulatory environment. All and all, there were three major factors that contributed to its demise.[96]

Technological developments, for one, had a major impact on the traditional Bell System. 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 marketplace. This convergence led to a changing network architecture, with the intelligence being increasingly dispersed. As a result, network unbundling was greatly facilitated. In addition, as new technologies both increased in capability and declined in cost, the barriers to entry into the telecommunication market were greatly reduced. Under these circumstances, many newcomers were able to make significant

---

91 Angela A, Gilroy, *The American Telephone and Telegraph Company Divestiture Background, Provisions, and Restructuring*, Library of Congress, Congressional Research Service, CRS Report No. 84-58 E, Apr. 11, 1984.

92 Michael D. Reagan, *Regulation: The Politics of Policy* (Boston, MA: *Little*, Brown, and Co., 1987). *For a* history of the emergence and evolution of the Bell System, see Gerald Brock, *The Telecommunications Industry: The Dynamics of Market Structure* (Cambridge, MA: Harvard University Press, 1981).

93 As Richard A.K. Victor points out, "Although the [Communications] Act itself did not condone monopoly, legislators at the time acknowledged AT&T's monopoly power as they discussed provision of the bill. 'This vast monopoly, ' reads the Senate Report, 'which so immediately serves the needs of the people in their daily and social lives must be effectively regulated.'" See Richard A.K. Victor, "AT&T and the Public Good: Regulation and Competition in Telecommunications, 1910- 1987," Harvard Business School, unpublished paper, April 1987, revised March 1988, p. 17.

94 Manley R. Irwin, "Telecommunications and Government: The U.S. Experience," in S.S. Wilks and M. Wright (eds.), *Comparative Government: Industry Relations* (Oxford, London: Clarendon Press, 1987).

95 Glen O. Robinson, "The Titanic Remembered: AT&T and the Changing World of Telecommunication, " *Yale Journal on Regulation*, vol. *5, 1988, pp. 517-518.*

96 For accounts of the Bell breakup, see peter Temin, *The Fall of the Bell System* (*New* York, NY: Cambridge University Press, 1988); and Steve Coll, *The Deal of a Century (New* York, NY: Atheneum, 1986).

inroads into AT&T's traditionally protected market. Their chances for success were greatly enhanced, given that AT&T was required to provide universal service while its competitors could target products to the most lucrative business markets, and offer them at a lower price. Thus, their entry put pressure on the system of subsidy pricing that had been so elaborately constructed over the years.[97]

Economic developments also greatly increased the incentives for others to try to enter the telecommunication/data communication market. In particular, as information came to play an enhanced and more strategic role in the realm of business, large users began to seek alternative, more efficient ways of purchasing telecommunication services.[98] Where their needs were great or where they wanted more strategic control over their operations, users established their own internal telecommunication networks. In other cases, business users were able to make the best deal by bypassing the Bell System and purchasing services and equipment in the unregulated market. Because telecommunication could serve as a strategic business weapon, and since expenditures on these services constituted an increasing portion of their overall business expenses, large users had tremendous stakes in how the telecommunication regulatory structure evolved. Recognizing this fact, they joined forces with the burgeoning new service providers to press for greater competition.[99]

Changes were also taking place in the way the regulators thought about the regulatory structure.[100] As early as 1962, a number of regulatory economists began to question the public-utility concept. Together, their work—if it did not itself give rise to the new deregulatory climate—served at least to legitimate it.[101] This changed attitude was evident at the FCC. As former FCC Commissioner Nicholas Johnson commented on the occasion of the FCC's decision to approve MCI's application to establish a long-distance, private-line 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 competition 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 1 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.[102]

Although perhaps not fully cognizant of the ultimate outcome of its actions,[103] the FCC, in 1959, took one of its first steps toward divestiture and the Modified Final Judgment (MFJ) with its "above 890" decision. This decision, which greatly liberalized the licensing of private microwave systems, allowed the newly created Microwave Communications, inc. (MCI) to offer a new product--discount

---

[97]For a discussion, see Separations Procedures *in the Telephone Industry: The Historical Origins of a Public Policy* (Cambridge, MA: Center for Information Policy Research, 1981).

[98]For a discussion of the changing role of the large business users, see Dan Schiller, "Business Users and the Telecommunication Network," *Journal of Communication, vol.* 32, No. 4, Autumn 1982, p. 35.

[99]Ibid.

[100]For one discussion, see Alfred E. Kahn, "The Passing of the Public Utility Concept A Reprise," Eli Noam (ed.), *Telecommunications Regulation Today and Tomorrow (New* York, NY: Harcourt Brace Jovanovich Publishers, 1983), ch. 1. For an account of these changes in attitude as seen from within the regulated industry, see Temin, op. cit., footnote %, who argues that changes in ideology were in many ways more important than changes in technology. He notes, moreover, that with the emergence of competitors, the nature of the relationship between the FCC and AT&T was radically changed.

101 As Roger Nell has described: "Economists generally entered the study of regulation with the naive 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 that 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. Nell, "Regulation After Reagan," *AEI Journal on Government and Society, No. 3, 1988,* pp. 13-20.

[102]*Microwave Communications, Inc.*, 18 FCC 2d, 953,971-972. As cited in Victor, op. cit., footnote 93, p. 46.

[103] Although AT&T protested this sequence of events, claiming that they suffered damage through cream-skimming, the FCC minimized this problem. For a discussion, see Temin, op. cit., footnote 96. Commenting on the FCC's naivete in these matters, Steve Coil points out that it was an AT&T lobbyist who first explained the implications of the Execunet decision to the FCC. See Coll, op. it., footnote 96, pp. 83-85.

private-line service.[104] With the subsequent Carterphone decision in 1969, the FCC also opened the customer-premises market to entry. And finally, with the decisions on Execunet in 1976 and 1978, requiring AT&T to provide connections to MCI, the FCC struck a final blow to the 100-year-old" AT&T monopoly by opening the long-distance telecommunication market to competition.

Continuing Tensions Under the New Regulatory Regime

After the divestiture of AT&T on January 1, 1984,[105] the MFJ replaced the old regulatory framework that had governed the Bell System for so long. Based on the antitrust settlement that had been negotiated between William F. Baxter, Assistant Attorney General, and Charles L. Brown, Chairman of AT&T,[106] the MFJ was approved and revised by Judge Harold Greene.[107] The basic premise underlying the MFJ is that regulated monopoly needs to be isolated from potentially competitive, and hence potentially unregulated, markets. '08 Accordingly, AT&T was divested of its local telephone operations. However, it was authorized to provide long-distance telephone service and to retain Western Electric, the dominant telephone equipment manufacturer. In addition, it was to keep all of its international subsidiaries as well as Bell Labs. As a quid pro quo for its losses, AT&T was permitted to offer data transmission and processing service.

The 22 divested Bell operating companies were consolidated to form 7 regional holding companies, but they were prohibited from offering long-distance and information services and from manufacturing customer-premises equipment. In recognition of the fact that communication technology and markets are in a state of flux, the MFJ established a waiver process as well as a process for reevaluating the structure of the market on a triennial basis. Serving as a blueprint for bringing competition to the telecommunication industry, this new arrangement was considered to be much more in keeping with the times.

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 are inherent in telecommunication regulatory policy. No sooner had the affected parties agreed to the MFJ when these issues began to reemerge in the waiver process, the triennial review, and more recently in the debate about the open network architecture process and integrated services digital networks (lSDN).[109] Perhaps this is to be expected. For, as Roger Nell 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. One 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

---

[104] Allocation of Frequencies in the Bands Above 890 MHz., 27 FCC 359 (1959) 29 FCC 190 (1960).

[105] The stow of the AT&T divestiture has been widely documented, and it will no(be reviewed here. For discussions and accounts, see Temin, Op. Cit., footnote %, and Coil, op. cit., footnote 96.

[106] In 1974, the Justice Department brought an antitrust suit against AT&T, accusing it of having illegally manipulated its dominant position in all three segments of the telecommunication market in order to monopolize the whole industry It was not until 6 years later, however, that it brought the suit to trial. Moreover, no sooner was it under way when the trial was postponed in an effort to reach a settlement. By agreeing to settle out of court, AT&T did not have to admit to any wrongdoing. In December 1981, without notice, AT&T made a settlement offer, volunteering to divest itself of its operating companies and to limit its business to long-distance and overseas operations, to the manufacture and sate of telephone equipment, and to telecommunication research. In the final agreement that was worked out, AT&T agreed to competition in long-distance service and in the customer-premise market in exchange for the freedom of entering into unregulated markets For a detailed history, see Coil, op. cit., footnote 96.

[107] Concerned about the eventual fate of the Bell regional holding companies, the Court added 10 amendments to the MFJ. One of these provided for the waiver process; another transferred the lucrative yellow-pages business to them.

[108] Roger *Nell,* "Telecommunications Regulation in the 1990s," Paula R. Newberg *(ed.), New Directions in Telecommunications Policy* (Durham, NC: Duke University Press, 1989), p. 16. Describing what is called the "quarantine theory, " Nell notes: "In its purest form, it means preventing a regulated monopoly from participating in potentially competitive markets in order to protect the latter from the abuses encouraged by rate-of-return/residual-pricing regulation. It accepts the danger of protecting inefficient competitors who legitimately should be destroyed by the local service monopolist. In return it guarantees that inefficient monopolists will not retain a market solely by taking advantage of their regulated status. Of course, such a stark choice, one way or the other, is required if one accepts the premise that price regulation must create incentives to engage m such behavior and that regulators are ineffective (and perhaps uninterested) in preventing it. " Ibid., p. 31.

[109] These issues are described and discussed m detail in ch. 11.

actions by the people who lost the last time around-who are not, and probably cannot be convinced that deregulated competition is the best policy.[110]

Universal Service and Equitable Access

Universal service and equitable access are relative terms whose meanings change in different times and circumstances. In the United States, for example, it was clear by the turn of the 20th century that the notion of universal service entailed equitable access to the postal system, the mass media, and the educational system, as well as to the existing services that could be provided by the telegraph and telephone. However, as the United States moves further away from an industrial era into an age where knowledge and information play a greatly enhanced role, it is no longer clear what these terms should mean. In this new environment, where the number and variety of information and communication services are continually evolving, it will be necessary to reconsider, as a society, which opportunities should be made available on a universal basis.

Establishing the Goals of Universal Service and Equitable Access

Although the goal of universal service was not formally adopted until after enactment of the Communications Act of 1934,[111] government policymakers have promoted information distribution since the earliest days of the Republic. Officials in the newly constituted government were acutely aware that if they were to build a nation they had to establish a communication infrastructure. It was, in fact, for this reason that the Founders authorized Congress to establish a communication public utility or common carrier in the form of the postal system. And the development and evolution of American postal policy also reflect this goal.

A sense of the post office's intended mission can be gleaned from the extensive policy debates that began with the First Congress. *12 Most of these debates dealt with underwriting the dissemination of public information, especially newspapers. Federal officials and political theorists of the time, including Washington, Jefferson, and Madison, recognized the fragile nature of American nationalism. They doubted that a republic as geographically and socially diverse as the United States could maintain sufficient popular consensus to remain one nation. Thus Federalists and Republicans alike set aside their factional differences to rally behind a postal policy that encouraged the widespread circulation of newspapers.[113] Towns clamored for their own post offices to facilitate commerce and reduce isolation, and Congress usually obliged.[114] However, favoring the exchange of political and business information over interpersonal transactions, Congress set postage rates several times higher for letters than for newspapers.[115]

Another provision of postal policy—postage-free exchanges among newspaper editors—reflected similar societal values and concerns. Long before the advent of press associations, editors obtained nonlocal information by culling out-of-town newspapers, their so-called "exchanges." In an arrangement that today's journalists might find foreign and offensive, the government in essence operated the Nation's newsgathering service. This postal privilege was of particular importance to political parties and government. Early parties maintained their cohesion and coordinated activities by sharing like-minded papers. And through exchanges, a

---

[110] Noll, Op. cit., footnote 108, p. 233.

[111] As Ken Gordon and John Haring note, "The term 'universal service' appears in no public law and there is no authoritative source defining precisely what it means . . . it is a shorthand expression generally used to refer to [the policy articulated in] Title I of the Communications Act of 1934, " See Ken Gordon and John Haring, "The Effects of Higher Telephone Prices on Universal Service," FCC Office of Planning and Policy working paper series, 1984.

[112] Some scholars have described the early post office as part of the revenue-raising machinery of government because of its placement in the Treasury Department (it did not become a Cabinet-1evel agency until Andrew Jackson's administration). But, as the following discussion makes clear, this administrative arrangement was highly deceptive. For the former perspective see, Pool, op. cit., footnote 17, p. 77. See also Wesley E. Rich, *The History of the United States Post Office to the Year 1829* (Cambridge, MA: Harvard University Press, 1924), p. 113.

[113] The Whiskey Rebellion and other signs of the frontier's disenchantment with the central government underscored the severity of this problem. Keeping readers apprised of political intelligence, the staple of all but commercial newspapers, justified below-cost postage. For a discussion, see Richard B. Kielbowicz, "The Press, Post Office, and Flow of News in the Early Republic," *Journal of the Early Repul.die*, vol. 3, Fall 1983, pp. 255-280.

[114] See Richard B. Kielbowicz, *News in* the *Mail: The Press, Post Office and Public Information, 1690-1863* (Westport, CT: Greenwood Press, forthcoming), ch. 3.

[115] Ibid.

small-town paper was tied to the county seat, the State capital, and the seat of Federal Government.[116]

The public school movement also served to boost the notion that information and knowledge should be made universally available. [117] Emerging in the wake of the Civil War, the commitment to public education was so intense that it gave rise to a national crusade to establish public schools. Concerned about the problems of reconstruction in the south, the influx of Catholic immigrants, and the advent of industrialization in the north, Americans saw public schooling as a way of preserving the social, economic, and political system. By educating American youth in common, public schools, they hoped to inculcate a common set of patriotic, Protestant, and republican values.[118] With the industrialization and urbanization of American society, it was expected that schooling would serve not only to prepare American youth for a common political role as citizens, but also to prepare a growing number of people from increasingly different social, economic, and ethnic backgrounds for an increasingly differentiated set of economic roles.[119]

Concerns about equity of access continued to grow in the late 1800s with the emergence of a mass society and the mass media. The media became the most important mechanism, cutting across structural divisions and linking heterogeneous publics.[120] Moreover, with the trend toward national distribution and the growth in advertising as the basis for media distribution, access to the media came to be equated with access to national cultural fare and national consumer goods and markets.[121] The mails were crucial in delivering these publications, and the inauguration of Rural Free Delivery (RFD) in the 1890s enabled magazines to flow from publishers in urban areas to farms on country lanes. [122] The high cost of building roads and maintaining regular deliveries in sparsely populated areas made RFD unpopular with some lawmakers, and revenues from country post routes rarely, if ever, covered their expenses But rural advocates pointed to the social and economic benefits derived from universal access to the postal system and, in turn, the information and goods that came by mail.[123]

Support for the idea of equitable access also came from social reformers, many of whom were associated with the Progressive Movement. Believing that the press mediated the flow of information and symbols among segments of society, they looked to

[116] Richard B. Kielbowicz, "Newsgathering by Printers' Exchanges Before the Telegraph," *Journalism History*, vol. 9, Summer 1982, pp. 42-48. At a time of limited commercial activity and a small pool of potential subscribers, a newspaper's continued survival always seemed in doubt. Political parties, often using government resources, buttressed the press. As long as the political system remained dynamic—that is, a variety of factions and viewpoints were represented in different branches of government--the system worked.

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

[118] David Tyack and Elisabeth Hansot, "Conflict and Consensus in American Public Education," *America's Schools: Public and Private, Daedalus*, summer 1981; Robert A. Carlson, *The Quest for Conformity: Americanization Through Education (New* York, NY: John Wiley & Sons, 1975); "Public Education as Nation Building in America: Emollients and Bureaucratization in the American States, *1879- 1930, ''American Journal of Sociology, vol. 85, No. 3,* November 1979.

[119] To perform this economic function, the public schools were restructured 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 the individual, but also the best interests of society. For a discussion, see David K. Cohen and Barbara Neufeld, "The Failure of High Schools and the Progress of Education," *America's Schools: Public and Private, Daedalus*, Summer 1981; Tyack and Hansot, op. cit., footnote 118; Sol Cohen, "The Industrial Education Movement, 1906- 1917," *American Quarterly*, Spring 1969, pp. 95-1 10; and Martin Trow, *'The Second Transformation of American Secondary Education," *International Journal of Comparative Sociology*, vol. 7, 1%1.

[120] James W. Carey, "The Communications Revolution and the Professional Communicators," *Sociological Review Monograph, vol.* 13, January 1969, pp. 23-28; C. Wendell King, *Social Movements in the United States (New* York, NY: Random House, 1956), p. 24.

[121] The trend toward national distribution of printed matter culminated with the emergence of inexpensive popular magazines. Entrepreneurs launched national magazines in the 1880s and the 1890s expressly to serve as vehicles for advertising brand-name consumer items featured by mass retailers. This new geme of magazines, epitomized by Curtis Publishing Co. *Saturday Evening Post, Ladies' Home Journal,* and *Country Gentleman,* cut subscription rates to attract a mass middle-class audience. With advertising-filled periodicals blanketing the Nation, the heavily subsidized second-class mailings grew 20 times faster than the population in the four decades after 1880. See Theodore Peterson, *Magazines in the Twentieth Century* (Urbana, IL: University of Illinois Press, 2d cd., 1964), pp. 1-49.

[122] While city and village residents enjoyed daily carrier service, farm families typically picked up their mail in a weekly trip to town. The Grange and other rural groups complained about this inequality. Once RFD began in 1897, daily newspapers could be delivered to the country, alleviating rural isolation and drawing farm families into regional, national, and even international communities. For a discussion of the history of RFD, see Wayne E. Fuller, *RFD: The Changing Face of Rural America* (Bloomington, IN: Indiana University Press, 1964).

[123] Ibid. The early 20th-century roads movement, which finally won Federal appropriations for road construction, was both directly and indirectly linked with rural postal service. See also Daniel J Boorstin, *The Americans" The Democratic Experience* (New York, NY: Random House, Vintage Books, 1973), pp. 118-136.

the mass media to foster peaceful social reform by connecting segments of society with the whole. They claimed that access to mass circulation publications was necessary to get their concerns placed on the national agenda. To reach a cross-section of society and influential policymakers it was no longer enough to simply issue one's own publication. To be effective, they argued, one had to get the message into the commercial press, which at the time usually meant making the groups' concerns newsworthy enough to attract the attention of reporters.[124]

It was within the context of these growing concerns about access to information and communication services and the uneven deployment of the telephone that regulatory issues surrounding the telephone first emerged.[125] Not surprisingly, Theodore Vail faced little opposition when he proposed tying the goal of universal service together with a regulatory structure legitimizing AT&T as a natural monopoly. As Vail 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 intercommunicating, affording opportunity for any subscriber of any exchange to communicate with any other subscriber of any other exchange . . . annihilating time or distance by use of electrical transmission.[126]

Nor, given the environment, is it surprising that Congress incorporated this goal in the Communications Act of 1934, which states:

> IT]o make available, so far as possible, to all the people of the United States, a rapid, efficient, nation-wide and world-wide wire and radio communications service with adequate facilities at reasonable charges .. .127

It should be noted, moreover, that this goal takes on special significance because it represents the only major change from past policy that the Communications Act brought about. As Richard Victor has pointed out:

> The most significant change in the Communications Act may have been its statement of purpose. If Congress meant what it said, then national policy was redirected towards a single, great social objective.[128]

This general mandate reappeared more concretely in a 1949 law that directed the Rural Electrification Administration (REA) to promote telephone service [129]

Implementing the Goal of Universal Service and Equitable Access

Prior to the telephone's development, the government had relied heavily on Federal subsidies to

[124]For instance, citizen groups working for urban change tried to forge alliances with city newspapers in the 1890s. Where groups were able to get their messages into a city's papers, reforms resulted; where papers closed their columns to reformers, change was stalled. For a brief period at the beginning of the 20th century, social crusaders enjoyed remarkable success in working with reform-minded reporters-the muckrakers. On the importance that social theorists of the Progressive Movement attached to communication, see Jean B. Quandt, *From the Small Town to the Great Community · The Social Thought ofl'regressive [intellectuals (New* Brunswick, NJ: Rutgers University Press, 1970). On the importance of communication to reform movements, see Richard B. Kielbowicz and Clifford Scherer, "The Role of the Press in the Dynamics of Social Movements, ''Research *in Social Movements, Conflicts and Change: A Research Annual* (Greenwich, CT: JAI Press, 1986), and David P. Nerd, *Newspapers and New Politics: Midwestern Municipal Reform, 1890-1900 (Ann* Arbor, MI: UMP Research Press, 1981). One of the better accounts of muckraking and its relationship to early 20th-century reform is Louis Fuller, *Appointment at Armageddon: Muckraking and Progressivism in American Life* (Westport, CT: Greenwood Press, 1976).

[125]At least for the first several decades of telephony, businesses headquartered in the northeastern corridor stood to make the best use of the new technology. Although patented in 1876, it took 12 years for the lines to reach Chicago, and transcontinental service was not inaugurated until 1915. The telegraph, in contrast, had linked both coasts in a mere 17 years. Of course many communiques outside the northeast developed their own local and regional *systems,* but for the most part they *were* not effectively integrated into the network. The pattern for establishing telephone links, in fact, largely followed the deployment of postal and telegraphic services: first major trunks linking northeastern cities, followed by lines to smaller towns in their immediate hinterlands, then connections to major Midwestern cities, and so forth-a sequence of connecting ever lower-order cities. For discussions, see Kenneth J. Lipartito, "The Telephone in the South: A Comparative Analysis, 1877- 1920," Ph.D. diss., Johns Hopkins University, 1986; and John V. Langdale, "The Growth of Long-Distance Telephony in the Bell System, 1875 -1907," *Journal of Historical Geography, vol. 4, No. 2,* pp. 145-159.

[126]As cited in Victor, op. cit., footnote 93, p. 3.

[127]As Vietor has pointed out, a number of States had already adopted subsidies encouraging residential service. As he notes: "During the 1920s, public utility commissions throughout the country adopted value-of-service pricing and statewide average rate-making. Under the value-of-service concept, business users paid more than residential customers, since the benefit of service to them was greater. Likewise, rates were higher in large exchanges (despite lower costs) than in small ones, since service (the number of possible connections) was superior. Similarly, statewide averaging of rates (for like-sized exchanges and toil calls of equal distance) appealed to public utility commissions on several counts: it encouraged new residential service through cross-subsidization, simplified administrative procedure, and gave the impression of fairness. Ibid., pp. 10-11.

[128]Ibid., p. 17.

[129]For a discussion, see Don F. Hadwiger and Clay Cochran, "Rural Telephones in the United States," *Agricultural History, vol. 58,* July 1984, pp. 221-238.

promote the goal of universal service. In accordance with the regulatory framework established by the Communications Act, however, major responsibility for the task of implementing universal telephone service was shifted to AT&T, although the FCC and the State regulatory commissions were charged with assuring that overall costs were equal to overall prices, and that rates and profit levels were kept within a reasonable range.

To encourage the development of universal service, AT&T needed to develop a subsidy system of its own. Left to the determination of the marketplace, telephones were deployed quite slowly and in a very uneven fashion. In 1921, only 35.3 percent of American households had telephones. This figure climbed to 41.6 percent in 1929, dropped to a Depression-era low of 31.1 percent in 1933, and rebounded slightly to 39.3 percent in 1941 .[130] Costs of terminal equipment deterred some households from purchasing telephones, and fees proved too steep where expensive lines had to be strung in sparsely settled areas.

To subsidize the expansion of telephone services, AT&T adopted a pricing structure that was based not on cost of usage, but rather on value of use.[131] Such a system assured that toll users (disproportionately represented by business users) would pay some proportion of the nontraffic-sensitive costs of the local exchange. Because the formula for establishing the amount and distribution of these costs was to a large extent arbitrary, the tendency over time was to shift more and more of the costs of service from local exchange users to toll users. To an ever increasing extent, this formula fostered the development of residential service at the expense of long-distance users.[132]

In the early years of the telephone company, State regulators adopted what was called a "board-to-board" approach to allocating costs between local exchange and interexchange services-that is, between State and Federal jurisdictions.[133] According to this formula, the entire cost of the local exchange was recovered from local rates, while interexchange costs equaled the cost of toll interconnection from one switchboard to another.

A new formula was adopted in 1930, after the Supreme Court ruled, in the case of *Smith v. lllinois Bell,* that toll users should pay some proportion of the local exchange's fixed costs. The Court declined, however, to specify what a fair proportion would be. To determine how to allocate costs based on the Court's prescribed "station-station" formula, the National Association of Regulatory Utility Commissioners (NARUC) established a task force with the aid of AT&T. The separations manual that NARUC subsequently released called for accounting procedures that provided station-to-station separations based on actual usage. Using this formula:

> . . . state by state, non-traffic sensitive plant actually used to make long distance calls would be allocated to the interstate jurisdiction in proportion to interstate, long-distance usage. 134

Pressure from State regulators to revise this formula developed, however, when advances in transmission technology allowed the cost of long-distance service to decline more rapidly than that of local service. To adjust for this situation, NARUC sought to add a "subscriber plant factor" to the

[130]Richard A. Schwarzlose, "Technology and the individual: The impact of Innovation on Communication," Catherine L. Covet and John D. Stevens (eds.), *Mass Media Between the Wars* (Syracuse. NY: Syracuse University Press, 1984), p 96.

[131]To establish just and reasonable rates in accordance with the Communications Act of 1934, some formula had to be worked out to allocate costs and to separate the rate base (including the fixed, nontraffic-sensitive plant) between Federal and State jurisdictions. However, as Anthony Oettinger has pointed out, since any formula is to some extent arbitrary and will have a different effect on stakeholders, the decision about what pricing and cost strategy to adopt will depend to a considerable degree on the prevailing public policy goals For a discussion, see Anthony G. Oettinger, "The Formula Is Everything: Costing and Pricing in the Telecommunications Industry," Program on Information Resources, Center for Information Policy Research, Harvard University, Cambridge, MA, P-88-2, October 1988.

[132]Some have argued that, in the long run, given technological changes and efforts to upgrade the network for the business user, this subsidy has actually worked in reverse. According to Patricia Aufderheide, for example: "Cost shifting is justified on the grounds that the individual user is the 'cost-causer' and that the local loop must now 'pay for itself.' This rationale ignores the changing pattern of technological costs. More elaborate and sophisticated digital switching equipment, making possible services of" great immediate value to large users and increasing capacity to carry huge data transmission demands, incurs tremendous investment costs whale lowering the cost of switching and transmission. Technological innovation challenges the traditional (though traditionally arbitrary) distinction between non-traffic-sensitive (NTS) and traffic sensitive (TS) costs and poses challenges of separating costs of rate-based and nonrate-based services. Certainly the residential and small-business user has not caused these problems. The need for reassessment of cost allocation is being interpreted as a problem requiring cost shifting to 'end users.'' Patricia Aufderheide, "Universal Service: Telephone Policy in the Public Interest," *Journal of Communication,* vol. 37, No. 1, Winter 1987, p. 83.

[133]For a discussion, see Vietor, Op. cit, footnote 93, pp. 20-30. See also Oettinger, op cit, footnote 131.

[134]Vietor, op. cit., footnote 93, p. 22.

measure of relative usage, the effect of which would have been to transfer approximately **$200** million from the State to the interstate jurisdiction.[135] At first, the FCC refused to approve this change. Later, under pressure from Ernest McFarland, Chairman of the Communications Subcommittee of the Senate Commerce Committee, it agreed to a compromise that went a long way toward accepting NARUC'S original position.[136] By continuing to adjust the cost allocation formula in favor of the local exchange, the FCC and AT&T created a situation over the years whereby the costs and prices of telecommunication services were increasingly dissociated from one another. Contributing to this situation, the FCC, in 1941, adopted a policy of "equal charges for equal service," which was designed to eliminate interstate rate differentials.[137]

These subsidies served well as means of fostering the development of universal telephone service. By 1952, AT&T operated almost entirely under a nationwide average pricing system.[138] Moreover, by 1950, the prospect of attaining the goal of universal service was well in sight, with 80 percent of American homes equipped with telephones.

However, for political as well as economic reasons, a system of subsidies such as this could only be sustained given the conditions of a regulated monopoly. As Gerald Faulhaber has described the unique relationship existing between the Bell System and its regulators:

> By announcing a common goal, universal service, Bell gave the regulator the political justification to brush aside potential competitors, barring their entry into the regulatory game. Only two players were involved: Bell and the regulators. They often scrapped over who would get how much, but they seldom argued over who was to sit at the table. Over the years, Bell's regulatory compact with the commissions was broadened to include key parties: rate averaging greatly benefited rural and small-town customers at small cost to urban customers; separations benefited local residential users at the expense of toll and business users; settlements benefited the independents in return for political support for the system as a whole. Just as Bell sought to deny others access to its markets, it sought to deny access to the regulatory game. In fact, the nature of regulation demanded that it do so to maintain its monopoly market position.[139]

The system was also increasingly untenable from an economic point of view. As new competitors entered the telecommunication market, they were able to price their products much closer to real costs, and hence to undercut AT&T. AT&T's strong reaction to even minor threats of competition make it clear that AT&T was well aware of its inherent vulnerability in this regard.

Tensions in Achieving the Goal of Universal Service

In the minds of some, the goal of achieving universal service has, by and large, already been achieved.[140] And, in fact, it was precisely because this goal seemed to have lost much of its urgency that many began to question the old regulatory arrangements.[141]

Assuming that the goal of universal service has essentially been accomplished, the role of government would appear to be greatly simplified. Under such circumstances, for example, all that needs to be done is to assure that everyone can continue to afford "plain old telephone service." And this objective can best be achieved, according to many of those who adhere to this view, either by providing direct subsidies to the poor—as in the case of lifeline service-or by adopting special pricing schemes such as social contracts that cap, or limit, price increases for basic services. Moreover, each of these approaches is basically compatible with a deregulated, competitive, telecommunication environment.

Others, however, question the basic premise that universal service has already been achieved. Emphasizing the relative nature of the concept, they view the basic task for government as one of redefining the notion of universal service to take into account

---

[135] Ibid., p. 23.

[136] Ibid.

[137] Ibid., p. 25.

[138] Ibid.

[139] Gerald R. Faulhaber, *Telecommunications in Turmoil: Technology and Public Policy* (Cambridge, MA: Ballinger Publishing Co., 1987), P. 46.

[140] As of July 1989,93.3 percent of Americans had access to a telephone in their homes Universal penetration statistics are compiled periodically in "Telephone SubscriberShip in the United States," Industry Analysis Division, Common Carrier Bureau, FCC.

[141] Faulhaber, op. cit., footnote 139, ch. 3.

the greatly enhanced role of information in society.[142] However, if this latter perspective were eventually to prevail, new kinds of pricing mechanisms and subsidy schemes would need to be developed, since those presently under discussion—such as incentive-based pricing, for example—would most likely be unworkable, given an expanded definition of essential services.

Communication in Support of National Defense and National Security

In most countries, national systems of communication were developed only after the authority of the State had been firmly established. Under such circumstances, it was quite natural for communication systems to serve, frost and foremost, as appendages of government. The goal of establishing a communication system in support of national defense and national security was much less problematic than in the United States where first amendment concerns called for maintaining a wide breach between government and the communication system. Today, the difficulties entailed in providing integrated communication in support of national defense and national security are even greater, given the enhanced role of communication in defense, together with an increasingly deregulated, competitive, communication environment.

Establishing the Goal of Communication in Support of Defense and National Security

In the United States, given the value placed on frost amendment goals, the government's involvement in promoting communication for defense and national security has historically been much more sporadic and indirect than in other countries. Perceived threats to the Nation's survival in the 20th century have led to a greater emphasis on the goal of national security, an emphasis that has at times collided with the goals of free speech, the free flow of information, and the ideal of a free market.

The exigencies of war have often given rise to a short-lived reordering of national values. In autumn 1918, for example, Congress directed the Postmaster General to take over operation of the Nation's telephone and telegraph companies. The traditional preference for private enterprise in communication gave way to concerns about the importance of the wires for national security. Those who had long sought to convert the U.S. Post Office Department into an agency along the lines of the postal, telegraph, and telephone ministries common in Europe seized the opportunity created by exaggerated fears of domestic subversion. Under the post office's management, the telegraph and telephone systems worked smoothly, although rates increased. Shortly after government took control, however, the war ended and Congress restored the wires to their companies. As Wayne Fuller has described:

> The Post Office once more assumed its traditional nineteenth-century role: a supporter of free enterprise but never a competitor.[143]

Clearly recognizing the defense potential of radio, the government also played a critical role in its development.[144] The U.S. Navy, in Cooperation with AT&T, helped to develop the emerging technology, and it spearheaded the corporate-government alliance that consolidated and centralized radio during and after World War 1.[145]

World War I spurred intensive wireless research. Armed forces all over the world demanded radio units for airplanes, ships, and infantry. After America entered the war in April 1917, the government

[142] For this point of view, see, for instance, U.S. Department of Commerce, National Telecommunications and Information Administration, *NT/A Telecom 2000: Charting the Course for a New Century*, NTIA Special Publication 88-21 (Washington, DC: U.S. Government Printing Office, October 1988).

[143] Wayne Fuller, *The American Mail* (Chicago, IL: Chicago University Press, 1972), pp. 187-188. Proponents and opponents of public ownership Of the means of communication pointed to this short-lived experiment as evidence supporting their positions. See also Lindsay Rogers, *The Postal Power of Congress: A Study in Constitutional Expansion* (Baltimore, MD: John Hopkins University Press, 1916), pp. 156-157.

[144] Amateur wireless operators, by interfering with naval and commercial service, made government regulation imperative. The report Of the so-called Roosevelt Board in 1904 recommended a three-way division of authority over the American wireless. The Department of Labor and Commerce would supervise commercial stations, the War Department of Labor and Commerce would supervise commercial stations, the War Department would have charge of military stations, and, most importantly, the Navy would control coastal stations. This report, while not law, established the dominance of the U.S. Navy in the American wireless field, enabling it to build its own system and pour millions of dollars into research. Not until the Radio Act of 1912 did government produce a comprehensive plan with the goal of regulating wireless. Czitrom, op. cit., footnote 27, p. 23.

[145] The perfection of wireless telephony—the transmission of speech without wires-grew largely out of research and development by several large corporations and the Federal Government. AT&T, wary of possible competitive threats from wireless telephony, launched a massive research and patent purchasing effort, acquiring all rights covering the use of vacuum tubes in wire and wireless telephony. AT&T and the U.S. Navy cooperated in 1915 in the first successful tests of transcontinental wire telephony and transoceanic radio telephony. General Electric also entered the field in these years, focusing on the construction of high-frequency transmitters for long-distance wireless and on the perfection of vacuum tubes. Ibid., p. 24.

took over all wireless stations, and, more importantly for future events, guaranteed manufacturers protection against legal action over patent infringements. This action permitted a vast coordinated effort in the manufacture of radio parts and stimulated a boom in radio research.[146]

The Federal Government also took a strong interest in radio's postwar future. The Wilson Administration's goal was to challenge British domination of international communication and to protect U.S. military and commercial interests. After failing to get Congress to pass legislation that would make wartime government control of wireless stations permanent, the administration pursued a different strategy. In 1919, British Marconi was the only company negotiating with General Electric (GE) to buy exclusive rights to the Alexanderson Alternator, a high-powered radio transmitter used for transoceanic work during the war. Through a series of long and delicate negotiations, the government stepped in and served as the midwife to the birth of the Radio Corp. of America (RCA). RCA, with GE as the major stockholder, bought out American Marconi (which had been controlled by the British), thus assuring America a powerful position in world communication. 147

The military's role in the development of the computer was also critical, even if indirect and behind the scenes. As Kenneth Flamm notes:

> It was no accident that the military services largely financed the postwar development of the computer in the 1950s, for computing technology had played a pivotal role in the Allied war effort. The military indirectly bankrolled even the Eckert and Mauchly computer projects, and these relatively open projects were only the tip of a much larger, and sometimes hidden, technological iceberg.[148]

The role of the Navy was particularly important. Its interest in computing and advanced communication technologies went back as far as World War I when technological advances in naval warfare created a whole range of new technical problems for military strategists. 149 As Flamm points Out:

> By the end of 1948, the ONR (Office of Naval Research) employed one thousand in-house scientists, funded about 40 percent of basic research in the United States, and was working on research contracts amounting to $43 million ($20 million of its own money, $9 million from other federal agencies, and $14 million of university money .)150

Defense support for the computer industry was also directed through the National Bureau of Standards (NBS) which, as in the case of other government agencies, was redirected towards military objectives during World War II. Although NBS played a significant role in the development of the computer, its funding was drastically cut in 1954. Not surprisingly, this timing coincided with the emergence of a burgeoning commercial computer industry. Much in keeping with the U.S. Government's historical approach to dealing with the communication industry in times of peace, Secretary of Commerce Weeks justified these budget cutbacks on the grounds that "the National Bureau of Standards has not been sufficiently objective because they discount entirely the play of the marketplace ''151

Issues involving limits on expression for national security reasons have also become exacerbated during times of war. They first arose when opponents to World War I, in particular socialists and German immigrants, risked prosecution under State or Federal sedition laws. The laws were premised on the notion that speech could undermine the war effort and hence endanger the Nation's security. A number of cases wound their way to the Supreme Court and convictions were common because the Court often applied a "reasonable tendency" test. Using this standard, expression opposing the war was found punishable merely for having a tendency to produce behavior that Congress or a State legislature proscribed. At the same time, however, some justices began fashioning a standard that was more protective of free speech rights, the "clear and

---

l~s$_{own}$ J. Douglas, *Inventing American Broadcasting,* 1899-1922 (Baltimore, MD: The Johns Hopkins University Press, 1987), chs. 7 and 8.

147See Daniel J. Czitrom, *Media and the* American *Mind: From Morse to McLuhan* (Chapel Hill, NC: University of North Carolina Press, 1982), p. 70. See also Hugh G.J. Aitken, *The Continuous Wave: Technology and American Radio, 900-/932* (Princeton, NJ: Princeton University Press, 1985).

148Kenneth Flamm, *Creating the Computer: Government, Industry and High Technology* (Washington, DC: The Brookings Institution, 1988), ch. 3. Quote at p. 29.

149Ibid., p. 34.

150Ibid., pp. 42-43.

151As cited in ibid., p. 73.

present danger" test. This test, which would only cut off speech that was highly likely to pose an imminent and substantial danger to some vital interest, proved more influential in the long run.[152]

On rare occasions during peacetime the government has sought to enjoin the press from publishing information whose disclosure was seen by some to undermine national security. 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 a 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 1979, for example, the government obtained a district court injunction that stopped publication of an article by *The Progressive* magazine that depicted the making of a hydrogen bomb.[153]

Implementing the Goal of Providing Communication in Support of National Defense and National Security

The government's ability to balance first amendment and free market goals against national security goals was greatly aided by the existence of a government-regulated telephone monopoly, which was renowned for the quality and extent of its research in all communication-related fields. The importance of the Department of Defense's (DoD's) dependence on AT&T stems from the fact that national policy has required the Federal Government to procure all of its telecommunication services, including those for national defense, from the commercial sector, unless special circumstances dictated otherwise. Thus, 85 percent of Federal Government and 94 percent of critical U.S. national security needs within the continental United States (CONUS) are reported to be leased from the commercial telecommunication carriers. In total, the Defense Communications Agency (DCA) leased approximately $530 million in long-haul domestic telecommunications in 1981.[154]

As the only company effectively supplying end-to-end telecommunication services to DCA, AT&T has historically been closely and directly involved in the formulation of national security telecommunication specifications and requirements; telecommunication research and development; the planning, routing, and installation of networks; and in making adequate provisions governing robustness, ubiquity, and restorability. With AT&T having a monopoly, it could guarantee end-to-end connectivity. In addition, the sheer size of AT&T, and the extent of its network, meant that it was able to meet the more demanding requirements of the U.S. Armed Services. The relationship that thus developed between AT&T and DoD was strictly one-to-one. Thus, infrequently, AT&T would install a telecommunication line or circuit for DCA, reroute or harden a cable to enhance survivability, or retain redundant lines without managing a direct charge to the defense budget; the cost would be defrayed by being absorbed in the overall rate base to AT&T subscribers.[155]

The operational advantages to DCA of having a single, central communication system were summed up by William Taft IV, General Counsel to DoD, when testifying about the prospect of divestiture before a Senate Judiciary Committee on August 6, 1981. As he said:

> The central system has incentives to respond and plan in a coordinated manner that a fragmented system would not . . . divestiture could cause substantial harm to our national defense and security and emergency preparedness capabilities . . . the telecommunications network cannot properly be artificially divided between inter-city and local exchange functions.[156]

Surprisingly, little attention was given to the national security aspects of the AT&T divestiture during the 1974 antitrust suit. The Department of

[152]For a discussion, see Zechariah Chafee, Jr., *Free Speech in the United States* (Cambridge, MA: Harvard University Press, 1941); and Paul L. Murphy, *The Meaning of Freedom of Speech: First Amendment Freedoms from Wilson to FDR* (Westport, CT: Greenwood Press, 19'72).

[153]A circuit court eventually dismissed the case as moot, but many observers thought that government could have satisfied a court that "grave and irreparable darnage" to the Nation would have resulted from publication. See *New York Times v. United States 403* U.S. 713, 1971 (Pentagon Papers case); see also A. De Volpi et at., *Born Secret: The H-Bomb, the "Progressive" Case and National Security (New* York, NY: Pergamon Press, 1981).

[154]Martin Edmonds, "Defense Interests and United States Policy for Telecommunication \," OTA contractor report, June 30, 1988, p. 19.

[155]U.S. Senate, Committee on the Judiciary, hearings on DoD Oversight: U.S. v. AT&T 97th Cong., Aug. 6, 1981. p. 42.

[156]Ibid.

Justice's (DOJ's) case was based almost exclusively on AT&T's past anticompetitive behavior, with supporting evidence being sought only from telecommunication and data-processing companies such as IBM and MCI—all eager to see AT&T's domination of the domestic market reduced or terminated. However, it was not as though DOJ was unaware of DoD's position. In March 1981, at an early stage in the AT&T antitrust case, Secretary of Defense Weinberger wrote to Attorney General William French Smith urging that the suit against AT&T be dropped on national security grounds. At the least, according to Weinberger, DOJ should:

> . . . not require or accept any divestiture that would have the effect of interfering with or disrupting any part of the existing communication facilities or network of the AT&T Company that are essential to defense command and control.[157]

Notwithstanding these concerns, the divestiture of AT&T basically followed DOJ's vision, giving antitrust concerns priority over national security goals. Moreover, this set of priorities was established at the very same time that the Administration was revising strategic policy, shifting its focus from one of deterrence to one that placed the very highest importance on military Command, Control and Communications and Intelligence (C^3I) invulnerability, with respect to both strategic policy and national security emergency preparedness.

Failing to prevent divestiture, DoD responded in a pragmatic way by seeking waivers from the regulatory agencies and structural modifications to the terms of divestiture to ensure the integrity of the public switched network on which it had relied so heavily. To make certain that the President had the necessary telecommunication capability to fulfill his statutory obligations in times of war or emergency, an all-industry advisory committee, the National Security Telecommunications Advisory Committee (NSTAC) was established by Executive order, to be supported by the National Communication System. Comprising 27 of the chief executive officers of the telecommunication and data-processing industries, and reporting directly to the President, NSTAC is in a unique position to find consensus not merely on national security issues, but on the health and direction of the communication industry as a whole.

Present Tensions With Respect to Defense-Related Communication Goals

How long the present arrangements involving NSTAC, and the partnership between government and industry, can continue is uncertain. So, too, in the longer term, is the effect of national security considerations on the commercial U.S. telecommunication scene. There are legal implications if the current arrangements are taken further, and there is a limit to how far the umbrella of national security interests can be extended. The implications are therefore clear: in the absence of any explicit guidance on telecommunication priorities for the United States (other than the further encouragement of open competition), and given the polycentric nature of telecommunication policymaking and the uncertainty that still surrounds the industry, some central policy initiative will be needed in the future.

[157] G. Bolling, AT&T: *Aftermath of Anti-Trust* (Washington, DC: National Defense University, 1984), p. 51; and Coll, op. cit., footnote 96, P. 187.