

and other systems such as voice synthesizers and computerized language translators could eliminate this problem.

Another potential of the new technology for easing the individual's communication burdens is the creation and adoption of software tools to help people filter, sort, and prioritize their communication. Such tools are currently under development.¹⁸⁷ They may allow individuals to better control their information diet, to be more consistent, and to track

specific topics rather than whatever happens to present itself randomly.¹⁸⁸

Critics note that such tools will only be effective, however, to the extent that an individual's communication environment is integrated—that is, to the extent that one “navigational tool” provides access to a variety of resources and services. *89 Some have likened the current level of integration in computer-based media to having four different telephone sets on your desk, three to call different areas of town and one to call long-distance.¹⁹⁰

¹⁸⁷Malone describes some of the subtle criterion which these filters can be programmed to base their decisions: the characteristics (status, reputation, etc.) of a message's sender; the “cost” of reading a message (e.g., how long it is); and the “cost” to the sender of sending it, among others. He also acknowledges that the challenge is great: “People may have difficulty knowing what they want and do not want. . . until they have seen it.” Malone et al., op. cit., footnote 180.

¹⁸⁸“The effort required to monitor all the available media for a snippet of information or entertainment that resonates closely with one's tastes and interests is usually more than most are willing to invest,” says Neuman. “The result is that the average audience member satisfies, following primarily the most widely-publicized bestsellers in each medium.” Neuman, op. cit., footnote 8, p. 210.

¹⁸⁹Such as early telephone operators, who could tell you what was playing at the movies, where the town doctor was, what time it was, or connect you to somebody else.

¹⁹⁰Others note that existing paper catalogs like the Yellow Pages are hard to use because they lack integration. “What's needed is a thesaurus-like prompting system,” says Lloyd Morrisett, “to help the person find the information.” Morrisett, in Rice (cd.), op. cit., footnote 86.

Crosscutting Communication Issues and Alternative Policy Strategies for Their Resolution

The United States has entered a new communication era. Recent advances in information storage, processing, and transmission technologies, occurring in a partially deregulated and more competitive economic climate, are rapidly reconfiguring the Nation's communication infrastructure. The revolution in computers and communication technology has already transformed the regulatory and market structure of communication-related industries, dramatically changing the way in which information is created, processed, transmitted, and made available to individual citizens and institutions.

Changes are also taking place at the international level. Because the new technologies encourage the flow of, and the demand for, information-based products and services across national borders, they are wearing away the lines that historically have divided domestic and international communication systems and markets. Communication is now one of the fastest growing sectors in the international marketplace, and international conglomerates are increasingly being formed to provide products and services both at home and abroad.

New communication and information technologies hold promise for a greatly enhanced communication system that can meet the changing communication needs of an information-based society. At the same time, however, these technologies are generating a number of significant social problems. How

these technologies evolve, and who reaps their benefits and bears their costs, will depend on decisions currently being made in both the public and private sectors. This study provides a context for evaluating these decisions.

To assist Congress in determining an appropriate role for the Federal Government in the development and use of these new technologies, and based on the analysis presented in previous chapters, Part III will outline:

- the current problems or issues that might provoke the need for a Federal policy response,
- some alternative ways for the Federal Government to address these issues, and
- the potential effects of policy alternatives on different players and societal realms.

Other chapters identify and discuss policy issues as they relate to specific sets of players in particular realms of social life. Chapters 9 through 13 will address these issues as they overarch and cut across one another. While all five dimensions of the communication infrastructure discussed in Part III are critical, they cannot all be maximized. Trade-offs are required. For example, providing for security is often at the expense of access and interoperability; and interoperability sometimes delays innovation and modernization.

Chapter 9

Equitable Access to Communication Opportunities

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Equitable Access to Communication Opportunities

INTRODUCTION

In the United States, the government has traditionally fostered public access to information on the grounds that its widespread use was critical to a healthy polity and economy. For example, the government long permitted the postal service to charge below-cost rates for newspapers and magazines. State and Federal telephone regulators have endorsed tariffs that maintained low rates for local telephone service at the expense of higher rates for long-distance service. Similarly, commercial broadcasters were allowed to charge market-based prices for carrying advertising messages, but were required to spend a portion of these revenues on the coverage of public affairs to meet public interest standards such as the Fairness Doctrine. Until 1987, cable operators were required to carry local broadcast stations, and many of them still must provide public access to producers free of charge.

The provision of access requires a number of things. In addition to communication pathways, information content, and audiences, individuals also need to have the skills—as well as access to the navigational tools—required to locate these resources in a timely fashion and in a form appropriate for their needs. In all realms of life, unequal access to these resources leads to disparate advantage, and ultimately to inequalities in social and economic opportunities.

THE PROBLEM

OTA found that changes in the U.S. communication infrastructure are likely to broaden the gap between those who can access communication services and use information strategically and those who cannot. Moreover, the people most likely to be adversely affected will be those for whom the new communication technologies are held out as a means to improve their circumstances—the poor, the edu-

cationally disadvantaged, the geographically and technologically isolated, and the struggling small business.

One barrier to access that maybe much greater in the future is cost, given shifting subsidies due to deregulation and changes in the financing and operation of communication services. Another barrier is the discretionary power of media owners to determine what information will be disseminated. OTA found, for example, that the first amendment is being used more and more as a device to protect the economic interests of media owners. In a number of instances, this can actually compromise the goal of freedom of expression.

OTA identified five major factors that are likely to contribute to these kinds of access problems:

Factor 1: Shifting subsidies due to cost-based regulation and changes in the financing and operation of communication services.

The prices that individuals pay for communication and information services are determined to a large degree by how these services are financed and how their costs are allocated. Where there are cross-subsidies, as in the historical cases of the telephone and postal service, or where costs are borne by advertisers willing to pay for information distribution, consumers may be charged less than the actual service cost. Financial arrangements such as these can facilitate widespread access to communication and information services.

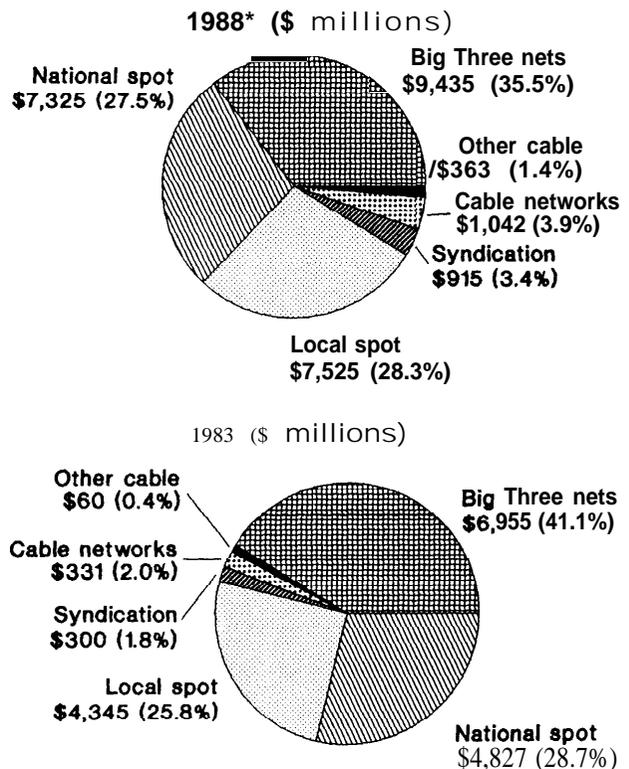
Technological change, together with changes in the regulatory structure, has led many communication providers to try to price access closer to real costs and to structure their prices based on measured usage, thereby eliminating many traditional sources of subsidies.¹ In telecommunication, for example, a regulated monopoly has been replaced by what are more or less competitive markets in which regula-

¹ It is **important** to note **that** the problems involved in identifying real costs have proven to be intractable, and they are **likely** to **become** even more difficult to solve in the future, given the deployment of the intelligent network. For a discussion of past and future problems entailed in identifying costs, see Anthony G. Oettinger, "The Formula is Everything: Costing and Pricing in the Telecommunications Industry," Program on Information Resources Policy, Center for Information Policy Research, Harvard University, Cambridge, MA, 1988. See also Roger G. Nell, "Telecommunications Regulation in the 1990s," Stanford University, Center for Economic Policy Research, No. 140, August 1988, p. 14; Alfred Kahn and William B. Shew, "Current Issues in Telecommunication: Ricing," *The Yale Journal of Regulation*, vol. 4, No. 2, 1987, pp. 191-256; Richard J. Solomon and Loretta Anania, "Paradoxes and Puzzles of Digital Networks, Part 2," *Telecommunications*, February 1987, pp. 28,30, 32; and Bruce L. Egan, "Costing and Pricing for an Integrated Digital Telecommunication Network," *Telecommunications*, November 1987, pp. 47, 49, 50, 52, and 54.

tion plays a greatly reduced role. In this deregulatory climate, where competition is not only allowed but also fostered, discrepancies between costs and prices are increasingly less tenable. For wherever prices are kept artificially high, users will seek alternative, private solutions to meet their communication needs. To avoid this kind of bypass of the public telecommunication network, the Federal Communications Commission (FCC) has begun to shift costs from interstate interexchange service to local exchange service by imposing subscriber line charges and by capping the interstate share of local plant costs assigned to interstate calls.²

Changes are also taking place in how mass media are being financed and provided. Whereas in the past much of the Nation's entertainment and news programming was sponsored and subsidized by advertisers, and thus was available to a broad segment of the population at a reduced price, today this is less and less the case.³ Given the growing number of distribution channels, there is now much greater competition for audience share and advertiser revenues, as can be seen in figure 9-1.⁴ These developments have had a significant impact on the three major broadcast networks, whose audience share has been declining over the past decade, as illustrated in table 9-1. This year, for the first time, the networks' prime-time viewing audience fell below 70 percent to 67.4 percent,⁵ while their share of total television advertising revenues is expected to decline from 36 to 30 percent.⁶ Industry pundits expect this erosion of network audiences and loss of advertising share to continue into the 1990s.

Figure 9-1-Changes in Allocation of Advertising Revenues in Television



SOURCE: *Channels/Field Guide, 1989*; McCann-Erickson; cable data from Paul Kagan Associates Inc. Reprinted with permission.

Meanwhile, advertiser-based cable service has registered significant gains, both in terms of its audience share (up by 30 percent) and advertising

²A number of people have argued that the move to bring prices closer to costs has, in fact, not proceeded quickly enough due to the resistance of State policymakers. For one such discussion, see Robert W. Crandall, "Fragmentation of the Telephone Network," Paula R. Newberg (ed.), *New Directions in Telecommunications Policy, vol. 1, Regulatory Policy: Telephony and Mass Media* (Durham, NC: Duke University Press, June 1989), pp. 222-246.

³It should be noted that exactly how much of a reduced price is an important public policy issue. As Ben Bagdikian has pointed out, advertiser-based media may not be a bargain for consumers because the costs of advertising may be passed on in terms of higher prices. These prices reflect not only direct costs of the product advertisement; they also reflect the role that advertising plays in fostering oligopoly by raising the cost of entry into established markets. See Ben H. Bagdikian, *The Media Monopoly* (Boston, MA: Beacon Press, 2d ed., 1987), especially ch. 8, "The High Cost of Free Lunches," pp. 134-151.

On the other hand, as Victor E. Ferrall, Jr., has noted, "It is often said that 'free' television is not in fact free because consumers pay for the programming they receive by paying for the cost of advertising, which is included in the price of the products advertised on television. True enough, but this 'price' for television programming is totally separate from and unrelated to use of the television service. Programs are available at no charge to viewers who do not choose to purchase advertised products and, conversely, product purchasers pay for television advertising whether or not they view the programs in which the product was advertised, or even own a television receiver." Victor E. Ferrall, Jr., "The Impact of Television Deregulation on Private and Public Interests," *Journal of Communication*, vol. 39, No. 1, Winter 1989, p. 10. For discussions of the role of advertising, see John E. Calfee, "Advertising and Market Performance: An Interpretative Survey of the Literature," University of Maryland, prepared for the National Association of Broadcasters, Jan. 12, 1988.

⁴The relationship between audience share and advertising revenues is becoming more and more pronounced, given the development and use of audience-measuring devices such as people meters.

⁵"Three-Network Viewing Falls Below 70%," *Broadcasting*, Apr. 17, 1989, p. 29.

⁶"Study Predicts Cable Ad Revenues to Triple by 1995," *Multichannel News*, Nov. 21, 1988, p. 69.

⁷Ibid.

Table 9-1-A Decade's Decline in Network Share

Year	ABC	CBS	NBC	Combined total
1978-79	34%	30%	27%	91%
1979-00	31	31	28	90
1980-81	29	30	26	85
1981-82	29	30	24	83
1982-83	28	29	24	81
1983-84	27	28	23	78
1984-85	24	27	26	77
1985-86	23	26	27	76
1986-87	22	25	28	75
1987-88	22	22	26	70

SOURCE: Nielsen Media Research. Reprinted with permission.

Table 9-2--Consumer Spending: Pay-Per-View v. Competitors

Medium	1987		1996	
	spending (\$billions)	Percent of total	spending* (\$billions)	Percent of total
Pay-per-view	0.06	0.3	2.60	6
Cable TV	6.59	32.0	17.32	40
Home video	6.18	30.0	12.99	30
Movies	3.91	19.0	5.63	13
Pay able	3.71	18.0	4.76	11

● Projected

SOURCE: *Channels/Field Guide 1989*, p. 102. Reprinted with permission.

revenues, which are predicted to triple by 1995.⁷ Also cutting into the network audience share is the growth of pay cable and pay-per-view services. Pay cable can now be found in 28.8 percent of all TV homes,⁸ while the number of homes being offered at least one pay-per-view channel now totals 6.8 million, an increase of 70 percent from 1978 to 1988.⁹ That this trend toward media fragmentation is likely to persist can be seen from table 9-2, which compares 1987 and 1996 consumer spending per medium and each medium's percentage of total media spending.

In the absence, or with the decline, of traditional subsidies, the Federal Government will need to determine if and how it should act to ensure equitable access to communication and information services. If, for example, entertainment programming is increasingly provided on a pay basis rather

than through advertiser-based distribution, the cost of access may be too high for some. This issue of increasing costs has been raised most recently with respect to cable television. At recent hearings of the Senate Antitrust Subcommittee, Senator Howard Metzenbaum, for example, claimed that, since the deregulation of the cable industry in 1984, rates for cable service have risen on an average of 32 percent, making it the highest rate increase for all service commodities.¹⁰

As described in chapter 12, the amount of subsidy available for communication services is also likely to be decreased in the future to the extent that business-users, who have traditionally subsidized residential and small-business users, migrate from the public network and set up their own telecommunication systems. Under such circumstances, fewer resources will be available for publicly shared communication services. Similarly, if communication services that were once provided through the public network, and thus served to cross-subsidize one another, are now unbundled and provided in the marketplace, many small users may have to pay considerably more for services.

Factor 2: Increased transaction costs and increases in the complexity of the tools required to access and effectively use information.

To be effective communicators, people need to know how to use the technology through which their messages are mediated. Moreover, to find information relevant to their particular needs, they must be able to locate the appropriate source. To use this information strategically—whether in politics, business, or other realms—they must be able to find it in a timely fashion. Finally, to communicate effectively with others, individuals not only need to identify their audiences and the most cost-effective means of exchange, but they must also be able to package their messages in the most appropriate technological format. These prerequisites represent the transaction costs of effective communication—costs that are often overlooked.

⁸Paul Noglows, "Hard Work pays," *Channels/Field Guide*, 1989, p. 89.

⁹Frank Lovece, "At the Crossroads," *Channels/Field Guide*, 1989, p. 102.

¹⁰*The Washington post*, Apr. 13, 1989, p. D-24. At the request of Senator Metzenbaum, the General Accounting Office undertook a study of cable rates from 1986 to 1988. The study concluded that basic cable rates in Ohio had increased during that period by 27 percent. See U.S. Congress, General Accounting Office, *Ohio Cable Television Rate Increases, 1986 to Present* (Gaithersburg, MD: U.S. General Accounting Office, September 1988). Citing figures from the Bureau of Labor Statistics, representatives of the cable industry claim that the average subscriber's bill has increased by only 14.5 percent. They note, moreover, that this increase is not particularly high, given that rates prior to deregulation were artificially low. See "The Big Chill on Capitol Hill," *Broadcasting*, Apr. 17, 1989, pp. 27-29; and "Inflation's the Limit on Basic Cable Rates," *Broadcasting*, May 22, 1989, pp. 27-28.

In the past, many transaction costs, especially in the area of telecommunication, were hidden. For example, as an integral part of the product they sold, providers of telephone services included their own technical expertise and assured interconnection and connectivity. In addition, they provided services such as directories, maintenance, protocols, and routing. Today, while residential and business users benefit from a greater choice of communication services, they must assume the corresponding transaction costs on their own.¹¹

The typical household user, for example, needs to develop the expertise to select the best provider of equipment and service, recognize problems, and negotiate or perform necessary repairs.¹² According to Carl Oppedahl, a telephone buff who advises consumers on such matters,¹³ in order to be an educated consumer of communication services one needs—among other things—to:

- understand the difference between a local operating company and an interexchange carrier and the responsibility of each for providing service;
- know the difference between central offices equipped with step-by-step, crossbar, and electronic switching systems and be aware of the kind of services available from each;
- understand the rationale and implications of choosing between measured or flat-rate services or among other classes of services; and
- know that an interface is simply another name for a jack.

Box 9-A, which outlines the steps entailed in comparative shopping for intrastate interLATA (local access and transport area) directory assistance, provides another picture of the numerous factors the consumer now needs to consider when choosing a service.

Businesses, too, will have to take greater responsibility for configuring their own communication services, and for meeting their own particular communication needs. In fact, as described in chapter 5, many businesses regard this post-divestiture development as an economic opportunity that allows them to employ their communication and information systems strategically as a competitive weapon to enhance their position in the marketplace. However, putting together and maintaining a communication network not only entails considerable expense; it also requires a high degree of expertise and technical skill, as many businesses trying to develop their own private networks have rapidly discovered.¹⁴ Whereas in the past, vendors typically performed a number of key functions—such as providing network management, developing industry standards, designing an optimum system architecture, planning the introduction of new technologies, and evaluating and assessing alternative products and services—today these tasks are either performed or commissioned by business-users themselves.¹⁵ For one picture of the problems faced by business-users, see box 9-B.

To meet the needs of business-users, new companies are emerging and old ones are reorganizing to better position themselves to take part in what is now a very lucrative systems integration market. According to the market research firm, International Data Corp., for example, the system integration market is growing at an estimated annual rate of 20 percent, with revenues increasing from \$8 billion in 1987 to \$22 billion in 1993.¹⁶ However, the costs of obtaining such services, whether by creating expertise internally or by purchasing services externally, can be considerable, especially given the lack of standards, the dearth of network management tools, and a multivendor environment. It is not surprising, therefore, that corporations are spending a steadily

¹¹Some of the transaction costs entailed in employing new technologies may be offset if the technologies reduce the cost of conducting business or carrying out other activities. For example, by using new technologies, a consumer might reduce the costs entailed in searching for the best buy.

¹²Some household users have conquered this challenge, but many others have not. See Consumer Federation of America (CFA), American Association of Retired Persons (AARP), and AT&T, *Joint Telecommunications Project*, paper presented at the annual assembly of the Consumer Federation of America, Feb. 12, 1987.

¹³See, for example, his advice to consumers in Cad Oppedahl, *The Telephone Book Getting What You Want and Paying Less For It* (Chesterland, OH: Weber Systems, Inc., 1987).

¹⁴For discussions of users whose problems led them to give up their efforts to develop private networks, see John Foley, "Merrill Shifts Gears: Solicits Network Bids," *CommunicationsWeek*, Oct. 31, 1988, pp. 1, 58; see also John Foley, "Problems Force Users to Retrench," *CommunicationsWeek*, Nov. 7, 1988, pp. 1, 57; and Kelly Jackson, "Red Ink Downs Net," *CommunicationsWeek*, Nov. 21, 1988, pp. 1, 43.

¹⁵Sandra G. Tuck and A.M. Webster, "Vendors and Users: They Need to Start Building Together," *CommunicationsWeek*, CLOSEUP, Feb. 29, 1988, pp. 12-14. See also David Gabel, "Control of Large Networks No Dog-and-Pony Show," *Computerworld*, Nov. 7, 1988, pp. 83-89.

¹⁶For a discussion, see Mark Breitbart, "Systems Integration Surge," *Computerworld Focus on Integration, Special Issue*, Feb. 6, 1989, pp. 29-33. See also Neil Watson, "Modems and Multiplexers: A Market Makeover," *CommunicationsWeek*, CLOSEUP, Nov. 14, 1988, pp. C7-C9.

Box 9-A-Comparative Shopping for Intrastate InterLATA Directory Assistance

“*These* calls, because they are to points outside of your LATA, are forbidden fruit to your LOC. Your LOC is required to give the call over to your primary long-distance carrier. Yet the rate is set by your PSC [public service commission], and the number of listings you get is set by your PSC, just as they are for LOC-handled calls. You may find that you can save money by using 10XXX codes to get a free call or two from a secondary carrier. Then again, the pricing policy set by your PSC may allow one or more free DA calls through your primary carrier.

The DA operator who answers works for an LOC (probably your LOC), yet if something goes wrong you will only be able to get credit by calling your long distance carrier.

Puzzle 1: Area Codes Straddling LATA Boundaries

Colorado is all area code 303, and is split into two LATA--the Denver LATA and the Colorado Springs LATA. Caroline lives in the Denver LATA and her exchange has converted to Equal Access. Her calls to points in the Denver LATA are routed through the circuits of her LOC, while her calls to points in the Colorado Springs LATA are routed through the lines of her primary carrier, MCI. The central office computer is programmed with a list of all the phone exchanges in each LATA, which it uses to decide, on a call-by-call basis, whether to route the calls to the LOC's own lines or to the lines of MCI. If she dials 1-303-555-1212, and she has not yet quite decided whether to ask for a listing in Denver or for a listing in Colorado Springs, is this an intraLATA or interLATA call? How does her central office know whose lines to route the call to? Are the answers different if she asks for two listings, one in Denver and one in Colorado Springs?

These questions come up only if she allows the central office to decide the routing of the call. She could use 10222 to force the central office to route the call via MCI, or could use her LOC's 10XXX code (if they have one) to force the routing to her LOC's lines. In either case the price charged for the call is determined by the PSC, but the prices may not be the same.”

SOURCE: Carl **Oppedahl**, *The Telephone Book* (Chesterland, OH: Weber Systems, Inc. 1987), pp. 135, 136. Reprinted with permission.

increasing proportion of their budgets on communication services, as can be seen in figure 9-2. Nor is it difficult to understand why, given these circumstances, the majority of business-users (with the exceptions being among the largest corporate users) have yet to develop and deploy their communication networks in an optimal fashion.¹⁷

Shifting the direct burden of transaction costs to the communication-user has significant consequences for equity. In fact, it may further increase the gap between those who can access and use information strategically and those who cannot, since not every person or every business will be equally able to assume these costs. As chapter 8 points out, many Americans do not have the technical skills required to take advantage of the opportunities afforded by new technologies. Moreover, as chapter 5 describes, many businesses do not operate on a scale that permits them to become communication experts in their own rights. In the past, these transaction costs were essentially the same for everyone; increasingly, they are the basis for gaining competitive and strategic advantage.

Factor 3: Growth in the economic power and concentration of many media.

As described in chapter 4, integration activities in the communication industries have generally been curtailed by antitrust law and the establishment of consent decrees, as well as by regulatory limitations of ownership rights. Recently, however, the FCC has sought to relax many of these rules, thereby encouraging rather than discouraging integration and multiple ownership. In the area of broadcasting, for example, the FCC has abolished the regional concentration rule, which prohibits the common ownership of three commercial AM, FM, or television stations where any two stations are located within 100 miles of the third, and where the primary service areas of any of the stations overlap. It has also eliminated the “top 50” rule, which generally prohibited those who owned or had interests in two or more very high frequency (VHF) stations in any of the top 50 television markets from acquiring VHF television stations in any of those markets. In addition, the FCC has raised the ceiling for multiple ownership from 7 to 12 in each broadcast service, provided that the audience reach of any entity in a particular service

¹⁷See, for one discussion, Steven Titch, Margie Semilof, and John Berrigan, “Missing Links,” *CommunicationsWeek*, CLOSEUP, Sept. 12, 1988, PP. C6-C9.

Box 9-B—Problems Encountered in Setting Up an Interactive Data Network

“Recently, a major retail chain formed a technology task force to study alternatives for a new interactive data network. Competitive pressures had rendered its dial-up system obsolete. Senior management wanted anew, on-line network to connect 1,000 stores for credit verification, catalog look-up and point-of-sale data collection.

Salesmen from public packet switching network providers, private packet switching equipment providers, VSAT (very small aperture terminal) satellite suppliers, modem manufacturers and leased-line providers all submitted proposals—each promoting a different solution.

After months of analysis and review, the task force selected a modem-based network, using leased long distance data lines. Six months later, a new VSAT supplier came in and demonstrated how another architecture, one combining VSAT with intraLATA (local access and transport area) local-loop lines, could save the chain \$25 million over the next 5 years, or more than 30 percent of its expected costs under the recently signed contract.

Unfortunately, it was too late to switch.

In another situation, a senior sales representative for a major network provider had champagne bottles ready to pop for the expected award of a retail network connecting 7,000 locations. More than 18 months of work—including many late nights—had gone into the detailed system plan, layout and pilot tests. Senior management, involved in the later stages of the sales process, was counting on the contract to meet upcoming booking and shipment targets.

One week before the contract was to be awarded, the salesman learned that yes, he would win a contract—but for only 300 warehouses. The retailer finally had realized that its applications and data needs did not justify interactive capability for the remaining 6,700 stores. The shrunken contract nearly cost the salesman his job and set the manufacturer’s growth plan back two years.

In these examples, the ‘losers’—in the first case, the user; in the second case, the vendor—had failed to rigorously analyze all the alternatives to determine which would be fundamentally advantaged for the required applications. In both cases, critical expectations went unmet, and significant resources were wasted.”

SOURCE: Douglas A. Cogswell, “Clearing the Obstacles Takes a Plan of Attack,” *CommunicationsWeek*, CLOSEUP, Sept. 12, 1988, p. C14. Copyright 1989 by CMP Publications, Inc., @O Community Drive, Manhasset, NY 11030. Reprinted from *CommunicationsWeek* with permission.

does not exceed 25 percent of the national audience.¹⁸

Government efforts have also been under way to alleviate a number of the antitrust constraints imposed on the regional Bell operating companies (RBOCs) as part of the Modified Final Judgment (MFJ). In its triennial review of the telecommunication industry, the Department of Justice recommended, for example, that RBOCs no longer be restricted from manufacturing and from providing information and long-distance services, a position that was supported to a greater or lesser extent by both the National Telecommunications and Informa-

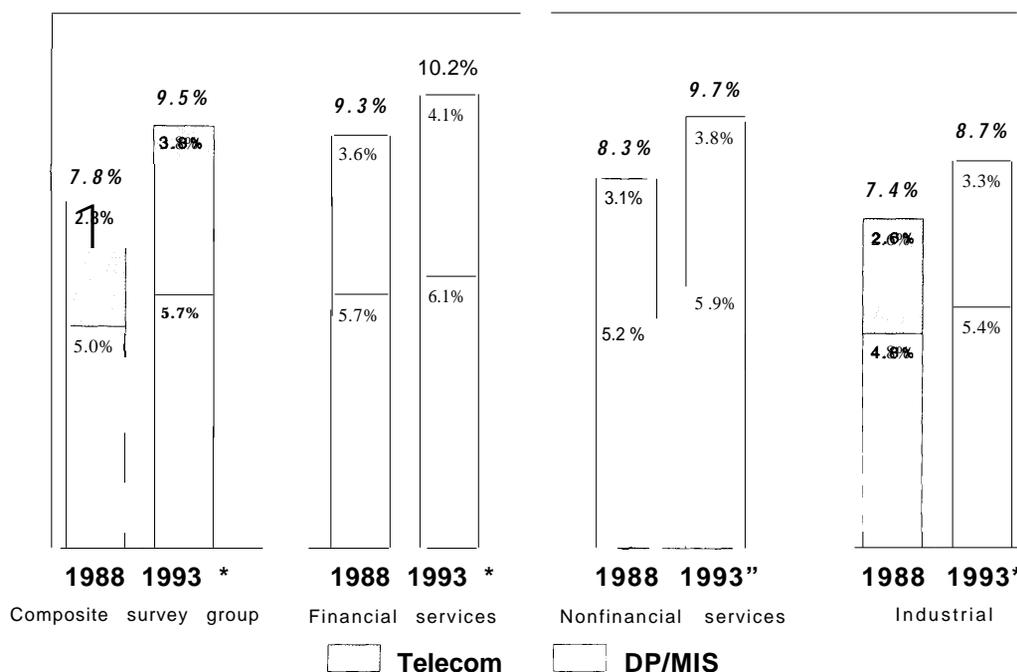
tion Administration (NTIA) and the FCC.¹⁹ More recently, Congressmen Al Smith and Tom Tauke introduced legislation in the House of Representatives, The Consumer Telecommunications Act (H.R. 2140), that would allow RBOCs to provide information services, including electronic publishing, and to engage in manufacturing, given certain safeguards.²⁰ In the Senate, Senators John Breaux, Trent Lott, and Ted Stevens cosponsored a resolution (SR Con. Res. 34) that calls on the Senate to “determine whether, or the extent to which the Bell regional holding companies should be allowed to engage in forbidden businesses of manufacturing, information services,

¹⁸Thirty percent of the national audience if a minority station. Moreover, UHF stations count as only one-half a station. See Amendment Of Section 23.3555 of the Commission’s Rules, The Broadcast Multiple Ownership Rules, 4 FCC Rcd 1741 (1988). For a discussion of broadcast ownership rules, see Stanley M. Besen and Leland Johnson, “Regulation of Broadcast Station Ownership: Evidence and Theory,” Eli Noam (ed.), *Video Media Competition: Regulation, Economics, and Technology* (New York, NY: Columbia University Press, 1985).

¹⁹Peter W. Huber, *The Geodesic Network: 1987 Report on Competition in the Telephone Industry*, U.S. Department of Justice, January 1987; *NTIA Telecom 2000: Charting the Course for a New Century*, U.S. Department of Commerce, National Telecommunications and Information Administration, October 1988; and the FCC Comments, Mar. 13, 1987, *United Mates v. AT&T*, pp. 194-195.

²⁰The bill specifically excludes changes in the ban against cable/telephone company cross-ownership as well as long-distance telephone service. It incorporates four provisions designed to prevent cross-subsidies, and calls on the FCC to draw up a number of rules and regulations to administer and enforce the law. Charles Mason, “MFJ Legislation Finally Debuts,” *Telephony*, May 1, 1989, p. 12, and Kathleen Killelte, “Bill Hits Bells’ Case,” *communicationsWeek*, May 1, 1989, pp. 8, 79.

**Figure 9-2-Comparison of Growth in Telecommunication and MIS Spending, 1988 and 1993
(Percent of Total Operating Budget By Industry Sector)**



*Projected

SOURCE: Copyright 1989 by CW Publishing Inc., Framingham, MA 01701

Reprinted from *Computerworld*, Jan. 16, 1989, p. 114.

and long distance.”²¹ The FCC has also begun an inquiry on altering the Cable Communications Policy Act of 1984 to allow telephone-company entry into the cable industry,²² a subject that Congress is likely to consider during 1990.

This changed regulatory climate is only one factor affecting the market structure and the degree of integration and concentration in communication-related industries. As described in chapter 3, technological developments have also had a significant impact. The convergence of technologies has blurred the boundaries that divide one industry from the other, reconfiguring economies of scale and scope and raising new opportunities for mergers, acquisitions, and joint ventures. As one financial

analyst, commenting on these developments in the entertainment field, has noted:

Dividing lines in the entertainment businesses are blurring . . . One side co-opts the other by buying it . . . The enemy becomes your friend.²³

Seeking to take advantage of these opportunities and developments, large corporations have become owners of multiple broadcast properties in major cities, as well as cross-media owners; a number now own newspaper and radio or television stations in the same geographical area. As Ben Bagdikian has noted:

Compounding the trend [towards concentration] has been the practice of companies already dominant in one medium like newspapers, investing in a formerly competitive medium, like television. Own-

²¹Charles Mason, “MFJ Resolution Introduced in Senate,” *Telephony*, May 15, 1989, p.16.

²²CC Docket No. 87.266. In July 1988, the FCC announced that the restrictions contained in the 1984 Cable Act may no longer serve the public interest, and requested public comments on a number of proposals that include cost allocations, accounting procedures, and other financial safeguards telephone companies should have to adhere to in order to be allowed into the cable business. See, for a discussion, Jeannine Aversa, “No Surprises in FCC’s Cross-Ownership Repeal,” *Multichannel News*, Sept. 26, 1988, p. 3.

²³Hal Vogel of Merrill Lynch, as cited in “Gulf f+Western Sets Its Sights on Media Empire,” *Broadcasting*, Apr. 17, 1989, P. 31.

ership in every major medium now includes investors from other media—owners of newspapers, magazines, broadcasting, cable systems, books and movies mixed together. In the past, each medium used to act like a watchdog over the behavior of its competing media . . . But now the watchdogs have been cross-bred into an amiable hybrid, with seldom an embarrassing bark.²⁴

Also seeking to benefit from these emerging economies are the regulated telephone companies that have been dogged in their efforts to extricate themselves from the line-of-business restrictions established by MFJ. Similarly, companies that have previously been involved primarily in data communication are now increasingly forming alliances, establishing joint ventures, and acquiring companies that will enable them to enter into new and complementary markets in the area of telecommunication .25

A number of economic factors have also fostered greater concentration and integration within communication industries, as described in chapter 3. In the area of mass media, for example, many companies--faced with rising production costs and a fragmented and more sophisticated viewing audience--are trying to spread their costs and share their economic risks by entering into mergers, alliances, and other such combinations.²⁶ Commenting on the problems faced in this environment by the small, independent company, Rich Colbert, vice-president and director of programming for Television Program Enterprises, explains:

If you are not studio-based, well-capitalized and/or associated with a broadcast group, then the odds are overwhelmingly stacked against you.²⁷

²⁴Bagdikian, op. cit., footnote 3, p.5.

²⁵For some examples, see Steven Titch, "AT&T in Fiber pact," *CommunicationsWeek*, Jan. 2, 1989, p. 8; Timothy Haight, "IBM Buys Into Fiber Company," *CommunicationsWeek*, Jan. 16, 1989, p. 20; "As the Big Get Bigger the Small May Disappear," *Business Week*, Jan. 12, 1987, p. 90; Peter Purton, "Olivetti Expands Into Telephones," *Telephony*, Mar. 6, 1989; Paul Korzeniowski, "NET, Tellabs Pair Up," *CommunicationsWeek*, Apr. 17, 1989, p. 1; Timothy Haight and Glenn Abel, "HP Plans Apollo Buy," *CommunicationsWeek*, Apr. 17, 1989, p. 1; John Burgess, "IBM Ready to Enter Field of 'Caller ID' Phone System," *The Washington Post*, May 2, 1989, p. E-1; and Timothy Haight, "Novell Alliances to Extend LAN Reach," *CommunicationsWeek*, Mar. 6, 1989, p. 1.

²⁶See ch. 3 for a discussion. See also Jay G. Bumer, "The Role of Public Policy in the New Television Marketplace," Benton Foundation *Project on Communications & Information Policy Options* (1989), paper no. 1, pp. 15-26; and Neal Koch, "Shifting Sands," *Channels/Field Guide*, 1989, pp. 84-85.

²⁷John Flinn, "Reality Sets In," *Channels/Field Guide*, 1989, p. 87.

²⁸Koch, op. cit., footnote 26, pp. 84-85.

²⁹"Hostetter on Continental: Reflections on the Past, Glimpsing the Future," *Cablevision*, Apr. 24, 1989, P. 80.

³⁰For one discussion, see "Time, Inc. and Warner Communications: Media Giants Strike Merger Deal," *Broadcasting*, Mar. 13, 1989, p. 28.

³¹Vogel, op. cit., footnote *3.

³²For a discussion, see Laura Landro and Dennis Kneale, "Entertainment Giants Are Now All the Rage: But Is Big Any Better?" *The Wall Street Journal*, June 9, 1989, p. 1. See also "Paramount Muddies Waters With Time Offer," *Broadcasting*, June 12, 1989, pp. 27-28.

³³See Kelly Jackson, "Alliances: Goal Is One-Stop Shops," *Computerworld*, Feb. 20, 1989, P. 22.

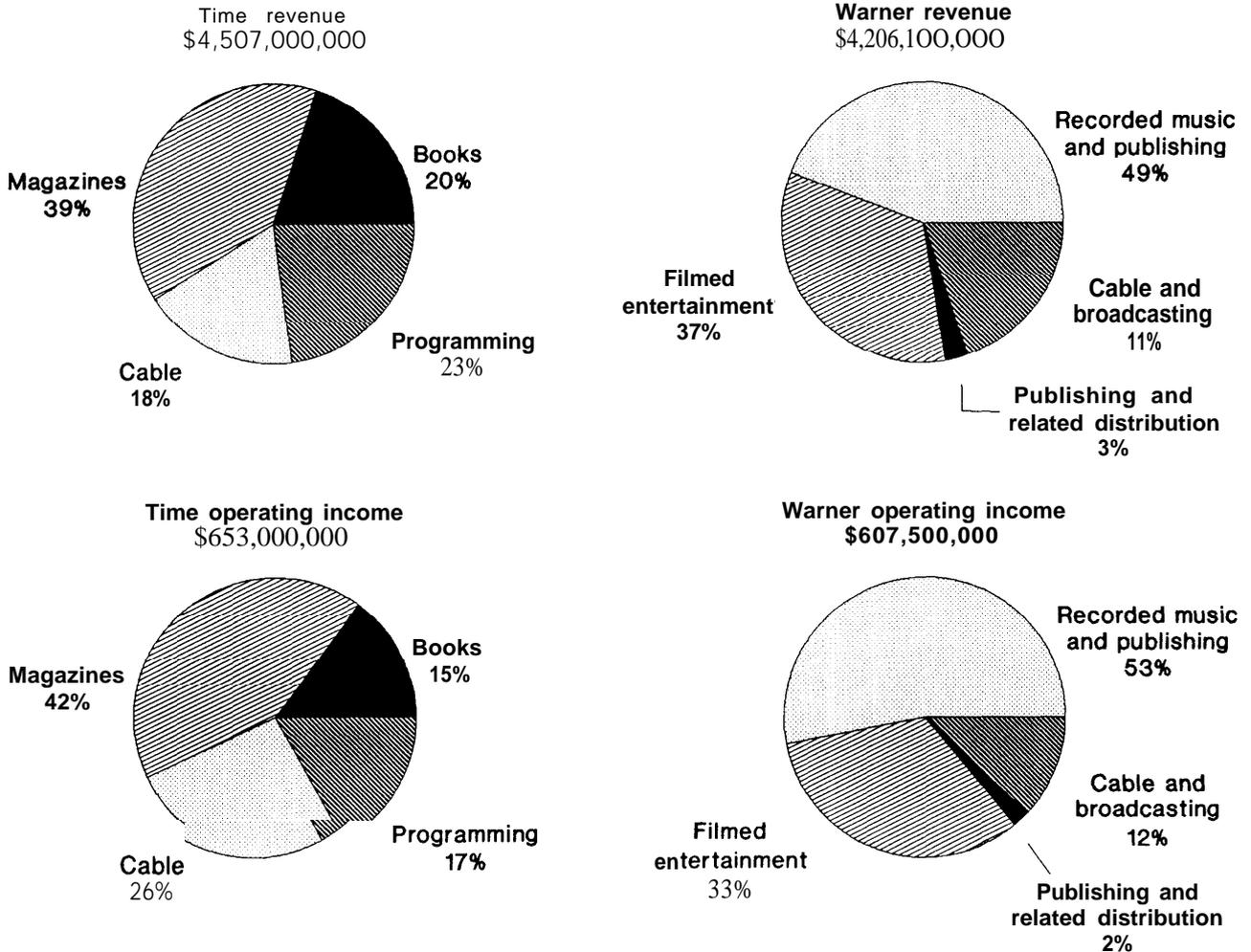
Given this context, it is not surprising that some members of the industry estimate that over the next 4 or 5 years, the number of industry program suppliers could be reduced to four or five.²⁸ At the same time, leaders in the cable industry suggest that, over the next 25 years, the number of cable companies may decline to between six and eight.²⁹

Most representative of the move towards greater consolidation in the media is the recently proposed merger between Time Inc. and Warner Communication, which would give rise to the world's largest media and entertainment company, as can be seen from figure 9-3.³⁰ Also indicative is the recent decision by Gulf+Western to sell its financial services subsidiary, Associates First Capital Corp. (the Nation's third largest independent finance company), in order to raise the capital necessary to continue the expansion of its communication operations on a worldwide basis.³¹ Ironically, now renamed and reorganized as Paramount Communications, Gulf+ Western has sought to use the money garnered from the sale to compete with Warner Communications for the purchase of Time Inc.³²

In the areas of telecommunication and data-processing, much of the incentive for integration comes from the post-divestiture shakeout and from users who, building enterprise-wide networks, are looking for a single source to link their disparate computing systems.³³ As one industry observer has described the situation:

[Users] are driving a new wave of merger mania. Strident demands for simple solutions to complex networking needs—beyond the scope of most individual companies—have spawned a wave of merg-

Figure 9-3-1988 Product, Revenue Breakdowns for Time and Warner



SOURCE: *Broadcasting*, Mar. 13, 1989, p. 29. Reprinted with permission.

ers, acquisitions, and business alliances over the past 2 years during which networking has really taken off.³⁴

This move towards partnerships and consolidations can be seen most clearly by looking at the local area network (LAN) industry, which illustrates the pattern of many new players in the communication industry. Triggered by the growth of computer

networking, there was a large number of independent LAN companies in the early 1980s, competing with one another. More recently, however, as the product has become less distinct and as users have begun to look for simpler networking solutions, growth in the LAN market has begun to slow and companies have begun to coalesce, so that each of the original LAN providers has made at least one acquisition. Some of the largest and most strategic of

³⁴Candice Wilde, "Analysts Hot on Networking," *CommunicationsWeek*, May 22, 1989, pp. 75, 88. Mergers attract money from the financial community, which in turn spurs on mergers. As the author notes: "This [development] broadens the scope of possible financial deals that could fuel stock price gains—and of course, whenever an industry starts down the acquisition trail savvy investors should follow track," *Ibid.*, p. 88.

Table 9-3--Strategic Advantages of Recent Developments in the LAN Industry

Companies	Type of agreement	Strategic advantage
Tandem/Ungermann-Bass	Acquired	Broadens Tandem's transactional processing line to include LAN connectivity for distributed customer environments. As a result of owning Ungermann-Bass, Tandem will also get access to direct sales accounts based on IBM and DEC environments.
3Com/Bridge	Merged	Makes 3Com the largest independent manufacturer of LANs, offering both low-end cluster LANs and high-performance facility-wide LANs.
3Com/Microsoft	Joint software and R&D agreement	Poses a potential threat to Novell, the leader in LAN software. Will develop network management software for the OS/2 LM, offering a variety of advanced features.
Microsoft/Ashton-Tate	Joint marketing and R&D agreement	Will develop a relational data base server software product. Directly attacks the established position of strong stand-alone desktop computer data base vendors such as Oracle.
Digital Equipment/Apple Computer	Joint marketing and R&D	Will enhance the development of third-party connectivity products between Macintosh workstations and the VAX environment. Bolsters a weakness in both companies.

SOURCE: *Telecommunications*, October 1988, p.24. Reproduced by special permission of *Telecommunications*.

these partnerships and arrangements are listed in table 9-3.³⁵

These trends toward greater concentration may lead to greater discrepancies in the ability of people to access key audiences and the most strategic communication pathways. Although the total number of media pathways is generally increasing, those that offer the most effective and efficient services seem to be coming under the control of fewer communication and information gatekeepers. As ownership of the most cost-effective media becomes more and more concentrated, the ability of such owners to structure the Nation's political agenda is likely to increase. Similarly, corporate owners will assert more control over cultural and economic agendas as well.³⁶

Factor 4: Luck of clarity about coverage of first-amendment rights.

The purposes of the first-amendment rights of free speech and free press are to prohibit the government from interfering in communication and to ensure that free and robust discussion, especially of public affairs, takes place.³⁷ First-amendment rights are not absolute, but are balanced against other competing public values, such as national security, fair trial, and public morality. Confusion (some would say incon-

sistencies) in the development of first-amendment protections has been magnified with the introduction of new forms of communication. For example, print, common carrier, and broadcast media have each been accorded a different first-amendment status.³⁸

One technology that has recently provoked a certain amount of discrepancy and disagreement about first-amendment rights is cable television. In a court in Oakland, CA, for example, the case was successfully made that cable television is entitled to essentially the same rights as the print media, and that, therefore, cable applicants could not be denied a franchise even if a city was already receiving cable service. Based on this argument, U.S. district court judges in Palo Alto and Santa Barbara, CA, went even further to argue that, given cable's first-amendment rights, most franchise requirements were unconstitutional. However, in the case *Preferred Communication v. City of Los Angeles*, the Supreme Court remanded the case back to the district, pointing out that while cable television activities implicate first-amendment interests, where a cable system's "speech and action are joined in a single course of action," first-amendment values "must be balanced against societal interests."³⁹ And the underlying question of the proper standards for

³⁵Timothy Haight, "Vendors: Mergers Mark the Industry Midlife," *CommunicationsWeek*, Apr. 3, 1989, pp. 1, 46; see also Martin Pyykkonen, "Local Area Network Industry Trends," *Computerworld*, October 1988, pp. 21-29.

³⁶For for one analysis of this phenomenon, see Bagdikian, op. cit., footnote 3.

³⁷For a discussion of the positive and negative purposes of the first amendment, see Stephen Holmes, "Liberal Constraints on Private power?" Judith Lichtenberg, *Democracy and the Mass Media* (forthcoming).

³⁸Thiel de Sola Pool, *Technologies of Freedom* (Cambridge, MA: The Belknap Press of Harvard University Press, 1983).

³⁹"Of Cable and Courts, Franchising and the First," *Broadcasting*, May 22, 1989, pp. 69-71.

judging first-amendment challenges was left unresolved.⁴⁰

In situations such as these, where much is left to interpretation, all actors in the communication process can assert first-amendment protection, and their claims will quite often be in conflict. For example, some claim that the first amendment enables them to access any communication path for which speakers can pay.⁴¹ The Supreme Court, meanwhile, has held that the first amendment protects the right of providers of some communication paths to refuse to accept paid editorials on controversial issues.⁴² At the same time, it has held that the first-amendment right of listeners to have access to balanced presentations on issues of public importance needs to be taken into account.⁴³ Where conflicts arise, the courts have attempted to balance the first-amendment claims. Such resolution, however, depends on the particular circumstances presented in the case. As circumstances and litigants change, so may a court's interpretation of first-amendment rights. Additionally, interpretations may vary from court to court and from judge to judge.

Confusion about what is covered under the first amendment allows parties to assert first-amendment protection for a variety of interests. One member of Congress noted that as technology increases the number of people who can legitimately claim first-amendment protection, there are attempts "to try and wrap any economic desire these entities have in a First Amendment cloak in order to give a false superiority to an argument."⁴⁴ For example, newspaper publishers argued that the first amendment requires that telephone companies be prohibited from delivering their own electronic information services, and the court accepted this argument, at least for the short term.⁴⁵ In the political arena, contributors to political campaigns have argued that government ceilings on campaign contributions restrict their freedom of "political speech."⁴⁶

Factor 5: Lack of consensus on the part of decisionmakers about what constitutes the minimum level of communication services that should be made universally available.

Recognizing the importance of communication services to everyday living, Congress incorporated the goal of universal telephone and radio service at an "affordable" cost into the Communications Act of 1934. This goal was reinforced in 1949 with the enactment of legislation to subsidize the extension of service to rural areas. Moreover, the goal of universal service has always received widespread, if not universal, support.

Notwithstanding this historical consensus, two major questions have emerged with respect to the goal of universal service—which services should be made universally available in an era when information has become a key, strategic resource; and how should the goal of universal service best be implemented.

Defining Universal Service

Now that achieving the historical goal of universal telephone and broadcasting service has been closely approximated, many suggest that universal service needs to be redefined to take into account new communication opportunities and a changing information environment. In the socioeconomic context of 1934, when the Communications Act was passed, access to telephone and radio services was considered to be extremely important. Similarly, it is necessary to determine which communication services might be considered critical in today's environment.⁴⁷

In its analysis, OTA sought to provide a basis for answering this question by identifying the factors (in

⁴⁰Ibid.

⁴¹Jerome Barron, "Access to the Press—A First Amendment Right," *Harvard Law Review*, vol. 80, 1967, p. 1641.

⁴²*Columbia Broadcasting System v. Democratic National Committee*, 412 U.S. 94 (1973).

⁴³*Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969).

⁴⁴Rep. Al Swift (D-Wash), as quoted in "First Amendment Spotlighted," *Broadcasting*, Nov. 16, 1987.

⁴⁵See *United States v. American Telephone & Telegraph Co.*, 552 F. Supp. 131, 186 (D.D.C. 1982), aff'd sum nom; and *Maryland v. United States*, 460 U.S. 1001 (1983). See also Richard E. Wiley, "Report on Legal Developments in Electronic Publishing," *Jurimetrics Journal*, Summer 1987, pp. 403-422.

⁴⁶*Buckley v. Valeo*, 424 U.S. 1 (1976).

⁴⁷For one example, see "The Intelligent Network Task Force Report," Pacific Bell, October 1987; and *NTIA Telecom 2000*, op. cit., footnote 19.

addition to cost) that prevent people from taking advantage of opportunities that new communication technologies afford. The two most important factors OTA identified are technological skills and access to navigational tools.⁴⁸

Technological Skills

To both communicate and use information effectively, one needs to have certain technical skills. In any particular instance, the kinds of skills required are relative to the social and technological environment in which people live and work. Given that many of the transaction costs entailed in communicating are greater and will increasingly be borne by the user, it is likely that people will need to be much more technically sophisticated in order to communicate and use information to their best advantage. Moreover, achieving this kind of sophistication is complicated by the fact that a considerable number of Americans cannot even read and write well enough to be able to act effectively in their daily lives. Although policies addressing literacy have not generally been considered in communication decisionmaking, this study highlights their relevance. At the very least, this requirement for literacy needs to be taken into account in defining what will constitute universal service in the future.

Navigational Tools

Navigational tools guide users through the maze of information, enabling them to identify and locate relevant information and communication paths. Including such things as computer menus, TV guides, and telephone directories, navigational tools are the means by which individuals and groups interact with their communication and information environment and discover the options available. In some cases, navigational tools can help to compensate for a user's lack of technological sophistication. For some people, the fact that navigational tools are not widely available represents a significant barrier to their ability to access information. Like techno-

logical skills, this factor needs to be taken into account when defining universal service for the future.⁴⁹

Implementing Universal Service

A second major question that has emerged with respect to universal service--given some agreement on what should constitute it--is how it should best be provided, priced, and paid for. Some contend, for example, that there are major economies of scale and scope in providing communication services. Hence, they believe that universal service can be provided most efficiently on a monopoly basis, with rate regulation and some form of subsidization. In contrast, others assert that economies in the communication infrastructure are insufficient to justify monopoly services. They argue that universal service can be achieved most efficiently if all communication providers, being allowed and encouraged to compete in the marketplace, are induced to lower their prices. To assure equitable access, these advocates would provide subsidies targeted to those who could not afford service under such an arrangement.

This issue is compounded by the uncertainties and lack of agreement about the nature of economic relationships within the communication infrastructure.⁵⁰ Some stakeholders see these relationships as sufficiently competitive; others do not. Reaching a consensus is likely to be even more difficult in the future, given a rapidly changing technological environment with increasing amounts of horizontal and vertical integration.⁵¹ Even in determining how best to implement universal service, decisions will be subjectively based to some extent.

STRATEGIES AND OPTIONS

If Congress wishes to affect access to communication services, it could pursue a number of different strategies. Congress could:

⁴⁸In the final analysis, however, the answer to the question of what should constitute universal service is inherently, and profoundly, a political as well as a philosophical one. Given the enhanced role of information and communication in the economy and society, access to communication services is now an important determinant of all socioeconomic opportunities. Thus, making choices about universal service is essentially making choices about equality of opportunity. Defining universal service is, in effect, making choices about the nature of society itself.

⁴⁹Some have noted, moreover, that the need for universal access to navigational tools should apply not only to users of information, but to providers of information as well. Just as users need tools to help them locate information appropriate to their needs, so information providers require tools to help them identify the most appropriate audiences. Some fear that, in the future, the providers of navigational tools may serve as a new bottleneck to competition. Access to users has already become a policy issue in the case of telephone companies' control of customer proprietary network information (CPNI). It is important to note that policies that enhance access to users can have significant privacy implications.

⁵⁰For a discussion, see ch. 3.

⁵¹Ibid.

- influence the means by which communication services are funded and financed,
- structure the prices at which such services are offered,
- provide direct government support for users to access information and communication paths,
- regulate and/or redefine the rights of media-owners,
- influence the level and availability of the tools and resources required to access communication and information services, and
- assume a more proactive role to assure robust debate on issues of public importance.

A discussion of these strategies, and options for achieving them, follows. A summary appears in figure 9-4.

Strategy 1: Influence the means by which communication services are funded and financed.

Option A: Reconsider policies for funding and providing financial support for noncommercial media.

In the United States, there has been a long history of funding media services. As described in chapter 4, in addition to subsidizing the postal service and the press and supporting public education, the Federal Government has also fostered and provided financial support for scientific research and the arts. For example, Congress supported the development of a national library system, passing legislation in 1895 to make the vast store of government publications available to the public through a network of national depository libraries.⁵² In addition, the Federal Government has provided financial support for the National Endowment for the Arts and the National Endowment for the Humanities, as well as for the production and distribution of educational and cultural television programming through the Corporation for Public Broadcasting (CPB) and direct funding of public broadcast stations.⁵³

A number of different rationales have, over time, served to encourage government funding of this kind. Subsidies have been provided, for example, to foster an informed and educated citizenry, to develop national manpower, to provide equity, and to broaden and enhance cultural experiences. Support has also been provided to encourage the production of public goods (such as research and education) which, given their particular economic nature, are generally produced in short supply. However, considering the special role that communication plays in political affairs, the question of how government should involve itself in this area has always been highly sensitive and potentially controversial, as the following example and discussion of public broadcasting serves to illustrate.

In the United States, public broadcasting has traditionally received funding from a number of different sources-Federal, State, and local governments; individual subscribers; businesses; foundations; and universities, as can be seen from table 9-4. As detailed by John Carey:

In 1987, the estimated total income for public broadcasting from all sources was 1.29 billion dollars. Federal sources provided 18.8 percent of all income, while non-federal sources provided 81.2 percent of income. Total income from federal sources has increased moderately during the last decade. However, income from federal sources has declined, as a percentage of all income, while income from members and businesses has increased.⁵⁴

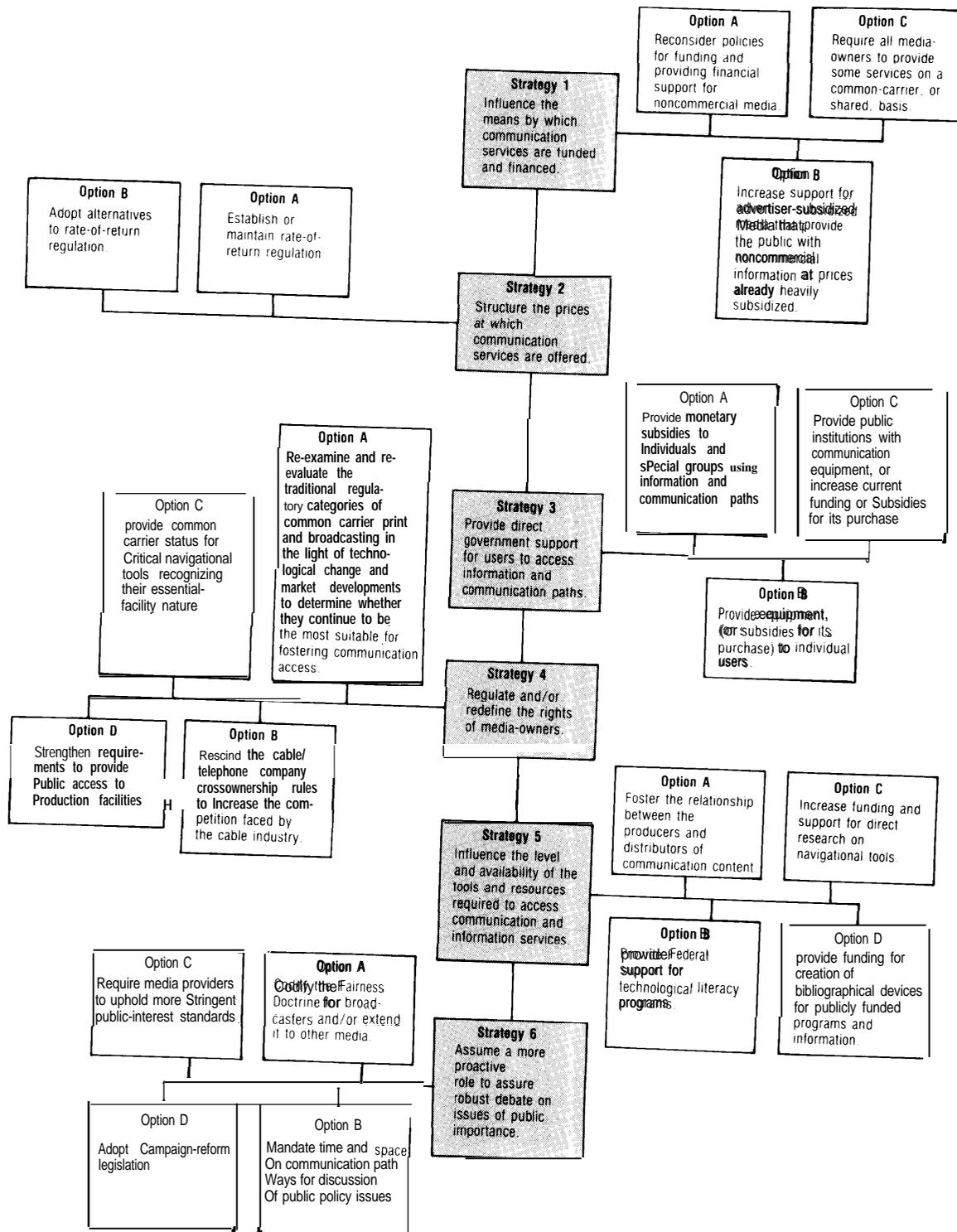
Given the ad hoc nature of these sources, there has always been some concern about the long-term viability of funding for public broadcasting. However, since 1983, Federal funding for public radio and television has increasingly become a subject of

⁵²Joe Forehead, *Introduction to United States Public Documents 58-59* (Littleton, CO: Libraries Unlimited, 2d edition, 1978). See also U.S. Congress, Office of Technology Assessment, *Informing the Nation: Federal Information Dissemination in an Electronic Age*, OTA-CIT-396 (Washington, DC: U.S. Government Printing Office, October 1988). In 1987, the Federal Government spent \$6 billion distributing about 58,000 publications to more than 1,300 depository libraries.

⁵³See William Baumol, *Performing Arts* (New York, NY: Twentieth Century Fund, 1966); and William Baumol, *in..atiort and the Performing Arts* (New York, NY: New York University Press, 1982). In 1987, the Federal Government contributed 18.8 percent of the \$1.29 billion in funding collected for public broadcasting. See John Carey, "Public Broadcasting and Federal Policy," Markle Foundation, *New Directions in Telecommunications Policy*, vol. 1, *Regulatory Policy: Telephony and Mass Media* (Durham, NC: Duke University Press, June 1989); and Michael Rice, *Public Television.. Issues of Purpose and Governance* (New York, NY: Aspen Institute, 1981).

⁵⁴Carey, op. cit., footnote 53.

Figure 9-4--Congressional Strategies and Options To Address Access to CommunicationS Opportunities



SOURCE: Office of Technology Assessment, 1990.

Table 9-4--Sources of Public Broadcasting Income, 1987 (Total estimated income= \$1.29 billion)

Source	Percentage of all income
Federal Government	18.8
State and local government, colleges and universities.	32.8
Member donations and auctions	23.0
Business and industry	15.1
Foundations	3.7
Other	6.6

SOURCE: Corp. for Public Broadcasting

congressional controversy and public debate.⁵⁵ Questioning whether it is appropriate for tax dollars to be used to support the tastes of one segment of the American audience, some have urged that congressional appropriations be replaced by private and voluntary revenue sources.⁵⁶ On the other hand, some critics have suggested that public broadcasting is beginning to stray from its original goal of providing alternative, and controversial, programming because of its increased dependence on industry and foundations for financial support.⁵⁷

Differences have also arisen with respect to how, and to which groups, Federal monies should be channeled and allocated. For example, concerned that CPB was allowing its programming decisions to be guided too much by political considerations, the

Senate Committee on Commerce, Science, and Transportation included language in one version of the funding bill for public broadcasting that called for the direction of funds to local broadcast stations rather than to CPB. Opponents of this idea, among them CPB, argued that such a plan would threaten the quality of public television's programming, undermining minority programming and speeding up the creeping commercialization of the product.⁵⁸ As passed, Public Law 100-626 ordered CPB to undertake, and provide to Congress by January 1990, a study of the funding process.⁵⁹

This problem of finding public media may become more acute in the future. Not only have the costs of production increased significantly, but competition for subscriber and production funds has also increased from pay channels offering cultural and other programming targeted to the traditional public television audience.

Over the years, a number of alternative methods of financing public broadcasting have been proposed. These include:

- . a manufacturer's excise tax on television sets;⁶⁰
- . a cultural subscription television service;⁶¹
- . advertisement-based public television services;⁶²

⁵⁵For a discussion, see **Bernevia McCalip**, "public Broadcasting Funding: The Process and Current Issues," Library Of Congress, **Congressional Research Service**, #HE 6645 D, Apr. 22, 1986. See also Harry M. **Shooshan III** and **Louise Arnheim**, "Public Broadcasting," Benton Foundation **Project on Communications & Information Policy Options**, paper no. 2, 1989.

⁵⁶**McCalip**, *op. cit.* footnote 55, p. 1.

⁵⁷For a general discussion of the failure of public television to meet its original goals, see **Stephen White**, "Our Public Television Experiment," *Current*, Oct. 20, 1987, pp. 7, 10-11. For a discussion of why labor issues are rarely aired on public television, see **Pat Auferheide**, "The Corporatization of Public TV," *Union*, October/November 1988, pp. 11-13.

⁵⁸See, for a discussion, "Public Broadcasting Dispute Eased," *Congressional Quarterly*, Oct. 15, 1988, p. 2986. See also "Dissent in Public Broadcasting: Who Controls the Purse Strings?" *Broadcasting*, May 30, 1988, p. 25.

⁵⁹This issue is presently under study by two groups, the 30-member **National Association of Public Television Stations (NAPTS) Task Force** (which includes representatives from PBS, NAPTS, CPB, individual stations, regional, and minority groups), and by **CPB**. CPB is responsible for delivering the congressional report. How, and to what extent, it will integrate the comments of the Task Force into its report is still unclear. For a discussion, see "Public TV Reviews Budget Plans," *Broadcasting*, Feb. 13, 1989, pp. 89-91. Public Law 100-626 also created a fund to be distributed to independent producers and production entities, producers of national children's educational programming, and producers of programming addressing the needs and interests of minorities for the production of programs. CPB was also called on to create an independent production service, which would be exclusively dedicated to supporting a number of demonstration projects towards greater broadcast diversity.

⁶⁰In its 1977 report on public television, the Carnegie Commission recommended that Congress employ a manufacturer's excise tax on television sets (beginning at 2 percent and rising to a ceiling of 5 percent) to fund public television. This approach was followed by most European countries. However, Congress was strongly opposed to it. **Stephen White**, "Our Public Television," *The Public Interest*, Summer 1987, pp. 85-86. More recently, as an alternative to S.1935, the National Association of Broadcasters proposed that a public broadcasting support fee be collected by imposing a 1.5- to 2-percent tax on TV-VCR-radio sets, but the Electronic Industries Association strongly opposed that plan. *Television Digest*, Nov. 9, 1987, p. 1.

⁶¹In 1981, **Larry Grossman**, President of PBS, circulated a plan for the Public Subscriber Network, a cultural subscription-TV service that public broadcasters would use to air first-run public TV programs, but "PBS Cable" never got under way. **Richard Barbieri**, "Do Home Shopping and 'NewsHour' Belong on the Same Channel?" *Current*, May 19, 1987, p. 1.

⁶²The **Temporary Commission on Alternative Financing for Public Telecommunications**, created by Congress in 1981, recommended that Congress permit "enhanced underwriting," but not traditional systemwide advertising. For a discussion, see Subcommittee on Telecommunications, Consumer Protection, and Finance, of the House Committee on Energy and Commerce, 97th Cong. 2d sess., *Alternative Financing Options for Public Broadcasting: Report of the Temporary Commission on Alternative Financing for Public Telecommunications*, committee print, 1982.

- the establishment of a trust fund in support of public television, using fees from the sale or lease of spectrum;⁶³ and
- a trust fund using taxes on license transfers for radio and broadcast stations.⁶⁴

Although none of these proposals has generated widespread support, they may have greater appeal in the future, given government budget deficits and continued financial constraints in public broadcasting.

The history of public broadcasting serves to illustrate some of the difficulties and the kind of opposition that might arise if Congress were to adopt a similar direct-funding approach to foster the development and use of other electronic media and communication services.

Option B: Increase support for advertiser-subsidized media that provide the public with noncommercial information at prices already heavily subsidized.

With the growth of fee-based communication services, Congress might take steps to promote and/or protect media that are supported or subsidized by advertising. Congress has provided this kind of support for advertisement-based media in the past, for example, by limiting the markets in which cable services could compete with broadcasting services, and by establishing “must-carry rules” that required cable companies to carry local broadcast signals.⁶⁵ Such support was later rescinded, however, with deregulation of the cable industry in 1984, and as a result of the Supreme Court’s decision to invalidate the must-carry rules.

Today, however, the cable industry is no longer an infant industry struggling for survival. In fact, as

already noted and discussed below, the concern now is with the pace of integration and concentration in the cable industry.⁶⁶ Moreover, broadcasters, faced with the fragmentation of their market and a loss in advertising share, are no longer as dominant in the media industry.

In this changed context, there is once again a call to provide greater support to advertiser-based media services. While many media providers would welcome such support, some would want to minimize any public-interest obligations they might incur in exchange for government promotion.⁶⁷ On the other hand, such policies are not likely to be supported by fee-based media providers who are benefiting from the shift to their services. Consumers might also take issue with such policies if they were to deprive them of the choice of paying for advertisement-free entertainment, or if they led to price increases. Any congressional action in this regard would depend on the importance Congress places on the public having some common means for accessing communication content, an issue discussed in more detail in chapter 7.

One way in which Congress might act to support advertiser-based media is to reinstate “must-carry” requirements. A case for such action has been strongly put forward by the FCC Commissioner, James Quello. As he has stated:

Congress should do this not to please broadcasters, but to serve the public with assured free TV .. .⁶⁸

One problem with adopting must-carry rules is that their constitutional status has yet to be determined. The Supreme Court invalidated previous “must-carry” rules in July 1985 on the grounds that they infringed on the first-amendment rights of cable

⁶³This method, which has been supported by a number of free-market economists, was included as part of a 1987 administration budget proposal.

⁶⁴S. 1935 proposed to fund a public broadcasting trust fund with a 2-percent fee on the transfer of any license administered by the FCC, with an additional 2-percent fee due on radio and TV stations transferred less than 3 years after previous sale, and an additional 1-percent fee for transfers of licenses by those found to have “willfully” violated the Fairness Doctrine. The fee would have been based on the price paid or fair market value of the license involved, including the value of all assets used in connection with that license.

⁶⁵In 1968, for example, the FCC set up rules that governed the operation and delivery of subscription television services and over-the-air transmissions of pay TV programming that prohibited these services from competing with broadcasters for recent sporting events or feature films that were between 3 and 7 years old. Challenged in the courts by Home Box Office (HBO), these rules were eventually overturned. For a discussion of the history of cable regulation, see Don R. Le Duc, *Cable Television and the FCC* (Philadelphia, PA: Temple University Press, 1973); see also Don R. Le Duc, *Beyond Broadcasting: Patterns in Policy and Law* (New York and London: Longman, 1987); and Tom Whiteside, “Onward and Upward with the Arts,” *The New Yorker*, part 1 May 20, 1985; part 2 May 27, 1985; and part 3 June 3, 1985.

⁶⁶See, for one recent discussion, Harry M. Shooshan III, “Cable Television: promoting a Competitive Industry Structure,” Paula R. Newberg (ed.), *New Directions in Telecommunications Policy*, vol. 1, *Regulatory Policy: Telephony and Mass Media* (Durham, NC: Duke University Press, June 1989), pp. 222-246.

⁶⁷See “INTV’s Padden Says Broadcasters Must Embrace Public Interest Standard,” *Broadcasting*, June 27, 1988, pp. 52-53.

⁶⁸James Quello, “Must Carry From A Commissioner’s Point of View,” *Broadcasting*, May 28, 1988, p. 28.

owners.⁶⁹ The courts reiterated this position in 1987 when the FCC sought to introduce a new set of must-carry rules.⁷⁰ However, the court made it clear that they did not “mean to intimate that the FCC may not regulate the cable industry so as to advance substantial governmental interests.”⁷¹ Thus, the Court left the door open for Congress to make a stronger case of demonstrating that such rules would serve a “substantial government interest.”⁷²

Industry stakeholders disagree about what effect the elimination of must-carry rules has had on the availability of local broadcast programming, and thus about the need for new laws. Cable companies claim that only the marginal, unprofitable stations are being dropped from cable distribution.⁷³ While staunch in advocating their rights under the first amendment, representatives of the cable industry have, however, demonstrated a willingness to compromise in this area.⁷⁴ Broadcasters strongly urge the reimposition of must-carry rules. They claim that cable companies have dropped a significant amount of broadcasters’ programming, not because these programs were failing, but because they were too successful and too competitive with cable.⁷⁵ Data on this issue were collected in surveys by the FCC and submitted to Congress in 1988.⁷⁶

Decisions about must-carry are further complicated because they are linked to other media policy decisions. Some influential members of Congress, for example, have pointed out that they will not give positive consideration to new must-carry legislation until the issue of the Fairness Doctrine, as discussed below, has been resolved. Others have tied the issue of must-carry to that of the cable compulsory license.⁷⁷

Another way in which Congress might affect the future of advertiser-based broadcasting is through its decisions about high definition TV (HDTV). Recognizing that, if broadcasters are to remain competitive with other media, they will need to be timely in delivering a high-quality HDTV product, the FCC favored the domestic broadcasting industry with its September 1988 decision requiring that HDTV standards be compatible with existing television sets.⁷⁸ At the same time, the FCC declined to provide the additional spectrum that broadcasters would need to develop some HDTV options, such as the MUSE system proposed by the Japanese.⁷⁹

Option C: Require all media owners to provide some services on a common-carrier, or shared, basis.

The law of common carriage as it pertains to telecommunication was modeled after railroad legis-

⁶⁹*Quincy Cable TV, inc. v. FCC*, 768 (D.C. Cir. 1985), cert. denied 106 S. CT 2889 (1986).

⁷⁰In accordance with a compromise struck between major cable and broadcast interests, the FCC issued interim must-carry rules in 1986 and 1987. These rules required large cable systems to make a limited portion of their capacity (up to 25 percent) available to local TV signals, and all cable systems to offer subscribers A/B switches, which allow viewers to switch from cable to antenna reception. See Henry Geller, “Broadcasting,” Markle Foundation, *New Directions in Telecommunications Policy, vol. 1, Regulatory Policy: Telephony and Mass Media* (Durham, NC: Duke University Press, June 1989).

⁷¹*Century Communications COW. v. FCC*, 835 F. 2d 292 (C/C/ Cior.), cert denied 56 U.S. L.W. 3816 (May 31, 1988).

⁷²By basing its ruling on the failure of the must-carry rules to meet the U.S. Supreme Court’s *O’Brien* test, the court avoided the more general and problematic question of what kind of first-amendment protection should apply to cable. John Wolfe, “Appeals Court Again Invalidates Must-Carry on Free Speech Grounds,” *Cablevision*, Dec. 21, 1987, p. 12.

⁷³For example, a Price Waterhouse survey, commissioned by NCTA, found that cable systems continue to carry 98 Percent of the broadcast stations qualified to be carried under the second set of must-carry rules, that 94 percent of cable systems carry all the local broadcast signals that were required under those rules, and that 91 percent of operators have not repositioned the broadcast stations. “NCTA Study Shows Cable Carrying Most Stations,” *Broadcasting*, Sept. 19, 1988, p. 59.

⁷⁴For example, the National Association of Broadcasters and the National Cable Television Association are presently trying to negotiate a must-carry agreement between them. See “Must Carry Law Germinating in Congress May Not Survive, Predicts Attorney,” *Broadcasting*, Jan. 30, 1989, p. 60.

⁷⁵For an account by the Association of Independent Television Stations, Inc., see *Free Television Under Siege: Typical and Illustrative Case Histories of Anti-Competitive Conduct by Cable Television Systems*, submitted to the Congress of the United States and the Federal Communications Commission, May 1988.

⁷⁶Larry Jaffee, “Must-Carry Report Earns Split Decision,” *Multichannel News*, Sept. 5, 1988, pp. 1, 88.

⁷⁷Under the Copyright Act of 1976, cable companies have a compulsory license to carry all signals that are authorized by the FCC. In October 1988, the FCC recommended that Congress abolish this license, at least for distant signals. In January 1989, Representative John Bryant reintroduced legislation that could make the compulsory license conditional on whether or not cable operators carry local broadcast signals.

⁷⁸See Norm Alster, “TV’s High Stakes, High-Tech Battle,” *Fortune*, Oct. 24, 1988, pp. 161-170; David B. Hack, “High Definition Television (?IDTV) in the United States-What Does An ‘Even Playing-Field’ Look Like?” Library of Congress, Congressional Research Service, Report 88-365 SPR, May 31, 1988.

⁷⁹Advanced Television Systems, 3 FCC Rcd 6520 (1988). Broadcasters have urged the FCC not to reallocate to land mobile those parts of the UHF broadcast spectrum that might be required to develop an HDTV system. So far, the FCC has gone along with this request, although the spectrum allocation issue is still unresolved. See Geller, op. cit., footnote 70, pp. 20-21.

lation, which had been employed as a means of eliminating discriminatory or exclusionary practices. While granting the telegraph companies (and later the telephone companies) special privileges—such as the right to use public roads, to exercise the power of eminent domain, and to use the corporate form of doing business—it also imposed the obligation to provide reasonable and nondiscriminatory service to the public.⁸⁰ Moreover, as Ithiel de Sola Pool pointed out:

... though common carrier doctrine often lacks explicit reference to civil liberties, many of the same concerns are dealt with in different words. In its own way the law of common carriage protects ordinary citizens in their right to communicate. The traditional law of a free press rests on the assumption that paper, ink, and presses are in sufficient abundance that, if government simply keeps hands off, people will be able to express themselves freely. The law of common carriage rests on the opposite assumption that, in the absence of regulation, the carrier will have enough monopoly power to deny citizens the right to communicate.⁸¹

Unlike those who provide telephony-based services, owners of the mass media have almost complete discretion in determining the programming and content they distribute. For, as the court ruled in *Miami Herald Publishing Co., v. Tornillo*, even when a daily newspaper is the only daily in a city, the government cannot require it to provide a right-of-reply to someone criticized in its pages.⁸² Thus, to be guaranteed access to a wide-reaching communication platform, an individual would, in extreme cases, need to purchase a cable network, newspaper, or a broadcast station. The costs of such access preclude this option for the vast majority of Americans. In

1988, for example, the average cost of buying a stand-alone television station was \$25.8 million, up \$2 million from 1987's average,⁸³ while in some markets the cost of buying a cable system was up to \$2,500 per subscriber.⁸⁴

To facilitate broader access to communication paths for those who presently cannot afford it, Congress could require media owners to lease portions of their pathways in the fashion of a common carrier, in much the same way as some cable companies were once required to do with their public access facilities.⁸⁵ Or, as some economists have suggested, rather than granting a single broadcaster an exclusive license to use a frequency in a market for a number of years, different content producers could be given licenses to different portions of a broadcast day. In this way, the costs of access could be shared and spread over a range of pathway users.⁸⁶

Policies requiring common carriage or the sharing of pathways are likely to be strongly opposed by media owners who do not want to give up discretion over the content they provide. Such discretion not only provides them a vehicle to express their own points of view; it also allows them to select the programming that will yield the greatest financial returns.⁸⁷ In recent years, media owners have, with the support of the courts, become increasingly successful in resisting any government efforts to influence content.

This situation might change, however. Issues involving the rules that govern information distribution are likely to persist and be reactivated as telephone companies, which have traditionally

⁸⁰William K. Jones, "The Common Carrier Concept As Applied to Telecommunications: An Historical Perspective," Paper Submitted to the Federal Communications Commission as Appendix to the Reply Comments of International Business Machines Corp. in *Competitive Carriers Rulemaking*, CC Docket No. 79-252, filed Apr. 4, 1980, p. A-6.

⁸¹Pool, *op. cit.*, footnote 38, p. 106.

⁸²*Miami Herald Publishing Co. v. Tornillo*, 41805241 (1974).

⁸³"Changing Hands 1988," *Broadcasting*, Feb. 13, 1989, p. 46.

⁸⁴"Is Cable Cornering the Market?" *The New York Times*, Business, Apr. 17, 1988, pp. 1, 12.

⁸⁵The granting of some cable franchises, for example, was made contingent on a cable company's agreement to provide some access to members of the public who wish to produce information content. *Manhattan Cable TV*, for example, carries 150 hours of public-access programming per week. In exchange for access, producers agree to create a certain number of programs to fill a given time-slot. As might be imagined, the quality and variety of these programs vary considerably. For a discussion, see Lisa Belkin, "Public-Access TV: Behind the Scenes," *The New York Times*, Apr. 13, 1987, p. C-18.

⁸⁶See, for example, B.M. Owen, J.H. Beebe, and W.G. Manning, *Television Economics* (Lexington, MA: Lexington Books, 197A); R. M. Peck, @J. McGowan, *Economic Aspects of Television Regulation* (Washington, DC: Brookings Institution, 1973); and Mark Nadel, "Comcar: A Marketplace Cable Television Franchise Structure," *Harvard Journal on Legislation*, vol. 20, 1983, pp. 541-578.

⁸⁷As Le Duch has noted, the willingness of cable companies to provide channels for the programming of others declined as the value to be gained by doing their own programming increased. See Le Due, *op. cit.*, footnote 65.

served as common carriers, become more and more involved in the delivery of dial-up information and video services. Rethinking the role of telephone companies could usefully provide an opportunity to readdress and reassess all of the rules that govern media owners and information providers. One issue that might particularly benefit from further exploration is the relationship between content and carriage.⁸⁸

Strategy 2: Structure the prices at which communication services are offered.

Option A: Establish or maintain rate-of-return regulation.

Government has traditionally sought to assure universal access to telephone services at affordable prices by limiting market entry and by regulating the rate-of-return that telephone companies could earn on their investments. Regulation was considered necessary, given the telephone company's ability to charge monopoly prices. However, in the more competitive environment that followed divestiture, policymakers began to seek alternatives to rate-of-return regulation.

In spite of this growing interest in developing new regulatory mechanisms, there are a number of stakeholders who want to maintain rate-of-return regulation—or at least postpone any changes—until there is more evidence demonstrating their positive effects.⁸⁹ They claim that, at present, there is insufficient competition in the communication industry—and especially in the local exchange—to merit changes in regulatory policy.⁹⁰ They contend that these alternative regulatory approaches will lead to inequities and less affordable prices for communication services. Contrary to the FCC's estimates of consumer gains, for example, the International

Communication Association predicts that, if the FCC proposal to establish price caps (described below) were adopted, consumers will lose \$6.7 billion over the next 4 years.⁹¹ Similarly, the Consumer Federation of America has argued that residential customers will suffer higher rather than lower rates under the FCC plan.

Many also challenge the notion that incentive-based regulations will provide incentives for greater efficiency and innovation. They suggest that these new forms of regulation will, in fact, induce carriers to reduce the quality of their services.⁹² Moreover, some argue that, under a new system, the administrative burdens placed on the FCC will be greater than before. They question whether the FCC has sufficient staff to handle price-cap implementation. Criticizing specific aspects of the plan, some maintain that: 1) the price-cap index should not be based on present tariffs, which they claim are too high,⁹³ and 2) there is no way of figuring out what a good index would be. Others challenge the index that has been proposed to adjust for productivity increases.⁹⁴

Among those who favor maintaining rate-of-return regulation are the National Association of Regulatory Utility Commissioners, the Consumer Federation of America, CompTel, MCI, the American Association of Retired Persons, and the National Association of State Utility Consumer Advocates.⁹⁵

Telephony is not the only area where the regulation of rates is being called for. Concerned about concentration and integration within the cable industry, and recent hikes in rates being charged for cable service, a number of groups—among them the Consumer Federation of American and the Motion Picture Association of America (MPAA)—are now urging that the cable industry be made subject to

⁸⁸At present, media owners are responsible for the content they distribute. Thus, if they were obliged to provide information services "on a common-carrier basis, determinations would need to be made about who should be held responsible for obscenity, false statements, libelous statements, etc. If accorded the same immunity from liability as telephone companies and the postal service, this could increase the dissemination of such disfavored messages as dial-a-porn.

There is also the issue of whether the underlying carrier should be permitted to carry its own messages, when such carriage might enable it to disseminate its own materials on a more favorable basis than those of its competitors. This is discussed by Judge Greene in his MFJ decision.

⁸⁹Kathleen Killete, "Users U_ FCC t. Delay Price Caps," *CommunicationsWeek*, Sept. 19, 1988. See also Charles Mason, "Some Lawmakers Want Price Caps Put on Ice," *Telephony*, July 18, 1988, p. 13.

⁹⁰For one view, see Ronald J. Binz, "The Problem with Price Caps," *Telephony*, Sept. 26, 1988. See also Consumer Federation of America, "Divestiture Plus Four: Take the Money and Run," December 1987.

⁹¹Joseph W. Waz, Jr., "The Rise—and Fall?—of Price Caps," *Telematics*, vol. 5, No. 9, September 1988, pp. 8-13.

⁹²Binz, *op. cit.*, footnote 90.

⁹³*Ibid.*

⁹⁴Charles Mason, "USTA Blasts AT&T Productivity Claim," *Telephony*, Sept. 19, 1988, pp. 11-12.

⁹⁵See Further Notice in the FCC Docket 87-313 (price caps), May 1988.

increased regulation.⁹⁶ Moreover, following Senate Antitrust Subcommittee hearings in April 1989, Senator Howard Metzenbaum, the chairman, introduced two bills. One restored the authority of cities to regulate cable rates, and the other required cable operators to make their programming available to cable competitors such as wireless cable.⁹⁷

Option B: Adopt alternatives to rate-of-return regulation.

As noted, many argue that rate-of-return regulation is unproductive and no longer necessary.⁹⁸ Advocates of this position propose that telephone companies be allowed greater leeway in setting prices and earning profits. According to this view, with the ability to gain rewards for superior performance, telephone companies will have more incentives to innovate and reduce costs. Advocates contend, moreover, that the administrative costs of such an approach would be lower than for rate-of-return regulation.

One FCC alternative to rate regulation is a system of price caps.⁹⁹ Under this scheme, carriers would not be restricted in the rate-of-return they earn so long as the prices they charge for service remained within a prescribed range or band. Although the FCC price-cap proposal was originally intended to apply to AT&T alone, some have argued that it should be extended to include the local exchange carriers and independent telephone companies on a voluntary 4-year basis. In accordance with the latest version, prices would be capped on the basis of existing tariffs, adjusted over time for productivity gains so that the benefits of productivity would be shared between consumers and the telephone companies alike. The FCC estimates that, if such an approach

were adopted, consumers would reap \$1.6 billion in savings within the first 4 years.

Other incentive-based regulatory approaches have been adopted or proposed in a number of States.¹⁰⁰ Vermont, for example, has adopted a social contract mechanism that allows the Vermont Public Advocate (a member of the Department of Public Service) to negotiate a 5-year contract with New England Telephone that provides for both the stabilization of local rates and the relaxation of rate-of-return regulations. In 1986, New York State began a moratorium on rate changes, to last approximately 2 years, and announced that it would allow New York Telephone to retain one-half of all revenues earned in excess of its permitted 14 percent rate-of-return. Similarly, the South Carolina Public Service Commission has applied price caps to AT&T's intrastate interLATA services since 1984.

Incentive-based regulation has the support of NTIA, as well as the basic support of AT&T and most local exchange carriers. AT&T, however, has argued that the local exchange carriers should be subject to more regulation, given the lack of competition in their industry. Supporters have called for additional fine-tuning in a few areas, such as determining how base rates are set and the productivity assumptions that are built into rates.

These regulatory proposals have been challenged by a number of stakeholders who want to maintain rate-of-return regulation. In the face of this opposition, and in response to congressional pressure, the FCC postponed making a final decision on its price-cap plan to allow more time for consideration and deliberation.¹⁰¹ The FCC approved a revised plan for AT&T in March 1989. No decision was made with respect to RBOCs. Not entirely satisfied

⁹⁶As noted by Shooshan, "the absence of effective competition in most cable markets means that cable subscribers are forced to pay more for programming than they would in a competitive market. In those few markets where competing cable systems are being built and operated, cable rates have been reduced substantially. Op. cit., footnote 66, p. 10.

⁹⁷See S.833 and S.834.

⁹⁸For a discussion of the issue, see Further Notice in the FCC Docket 87-313 (Price Caps), May 1988, pp. 17-34; see also Waz, Jr., op. cit., footnote 91.

⁹⁹The FCC price-cap proposal was first aired in August 1987, but further revised in May 1988. The May 1988 version extended the plan to the regional Bell operating companies and independent telephone companies, and made participation voluntary for a 4-year test period beginning in April 1990. The FCC issued a 500+ paragraph notice in May 1988, requesting comments by July 26 and reply comments by August 26, 1988. The FCC was expected to approve a price-cap plan in January 1989, but delayed a decision until March 1989 to permit it to review the matter with Congress. FCC Docket 87-313, May 1988, paras. 24-56.

¹⁰⁰See Further Notice in FCC Docket 87-313, May 1988, pp. 39-40. See also, Paul Teske, "State Regulation of Telecommunications," OTA contractor report, July 6, 1987.

¹⁰¹For a discussion, see Kathleen Killete, "U.S. Bill Would Bottle price Caps," *CommunicationsWeek*, Feb. 8, 1988, pp. 1, 63; John Burgess, "the FCCA Delays Decision on AT&T Rate Plan," *The Washington Post*, Jan. 21, 1989, p. C-1; and Mitch Betts, "Price Caps: A Road to Deregulation," *Computerworld*, Feb. 13, 1989, p. 59.

with the FCC's revised price-cap plan, the Chairman of the House Telecommunications Subcommittee, Edward J. Markey, together with 13 cosponsors, introduced the Telephone Rate Verification Act. According to Markey, the act is designed to be "an early warning system" that will alert the public to any "unintended consequences" of the price-cap plan. As provided by the act, the General Accounting Office would review the FCC's reports and evaluate the effect of price caps on rates.

Strategy 3: Provide direct government support for users to access information and communication paths.

Option A: Provide monetary subsidies to individuals and special groups using information and communication paths.

Congress might take direct steps to assure access by subsidizing users. This might be done, for example, by providing funding to certain classes of people for the purchase of information or communication services (as in the form of "information stamps") or by subsidizing their rates.

The major argument for government subsidies of this kind is that, without such support, some critical groups in society—such as small-business users, the poor, and public education institutions—will be unable to afford access to communication paths. Subsidies could be targeted specifically to those groups that are most at risk, without distorting the allocation of resources within the marketplace.

If Congress were to pursue such an option, determining which services to subsidize would be a major issue. The FCC, together with a number of States and local telephone companies, has already established "lifeline" programs designed to help low-income and disadvantaged individuals afford telephone service.¹⁰² However, these lifeline services are limited to supporting "plain old telephone service." Less consideration has been given to the

idea that, in an information age, people need to do more than speak on the telephone to actively participate in society.¹⁰³

A second issue, related to the first, is how to fund the subsidies. This will be more problematic in a post-divestiture era, since efforts will need to be made to assure that subsidies do not provide incentives for uneconomic bypass of the public shared communication infrastructure. At the present time, Federal monies for lifeline programs come from the Universal Service Fund, which is funded by a portion of interstate carrier receipts. The FCC uses this fund to match State lifeline contributions on a one-to-one basis. These funds are targeted to low-income residents.

The States have adopted a number of different methods to fund their lifeline subsidies. California, for example, has imposed a tax on interLATA common carriers. In Hawaii, the local telephone companies support lifeline with monies saved from reduced State taxes. The general State budget provides the source of funds for Maryland's lifeline program.¹⁰⁴

The final issue is who should be subsidized. Traditionally, local telephone rates for all residential users were subsidized by long-distance service. Today, lifeline subsidies are limited to those below a certain income level. This level is usually derived from some percentage of the poverty level or from income levels established for receiving other social benefits, such as food stamps or Medicaid.¹⁰⁵

Option B: Provide equipment, or subsidies for its purchase, to individual users.

Instead of providing monetary subsidies for communication and information services, the government could provide, or subsidize, equipment as a means of fostering access. Such a policy would encourage access in two ways. First, by acquiring equipment, individuals would have more direct

¹⁰²According to *NTIA Telecom 2000*, "Twenty-five states and the District of Columbia have qualified for full assistance under the FCC's 'lifeline' plan, which provides for a waiver of the federal subscriber line charge (currently at \$2.60 per month), as long as states lower local rates by a concurrent amount. Recently, the FCC expanded its lifeline assistance to encourage households without telephone service to join the network by providing a \$30 credit towards the cost of installation." Op. cit., footnote 19, p. 207.

¹⁰³For an argument against including discretionary services together with "plain old telephone service" (POTS) for regulatory purposes, see Gail Garfield Schwartz, "A Scenario for Regulated and Unregulated Telecommunications," *Telematics*, vol. 3, No. 10, 1986, pp. 6-10. According to Schwartz, "If regulators do include discretionary services in POTS and continue to regulate them, the LOC's [local operating companies'] ability to serve the larger business markets at prices low enough to prevent bypass could be impaired. Also, their ability to subsidize riskier operations with earnings from less risky ones, or to subsidize price-elastic services with revenues from services that are competitive but less price-elastic, would be reduced."

¹⁰⁴Michael V. Russo, "Technology, Deregulation, and the Public Interest in Preserving Universal Telephone Service," *IEEE Technology and Society Magazine*, March 1988, pp. 4-11.

¹⁰⁵Ibid.

access to communication pathways and the information services they provide. Second, to the extent that greater access led individuals to increase their use of services, costs could be spread and prices lowered so **that** more and more people could afford service.

The Government of France has successfully pursued such a policy in its effort to foster the development of a mass market for information services. Since 1982, it has distributed over 3.7 million Minitel terminals throughout France.¹⁰⁶ In the United States, there is much less precedent for, or public acceptance of, government intervention in the private sector communication marketplace on such a scale. Less ambitious efforts to provide or subsidize equipment have been undertaken, although the recipients have typically been institutions rather than individuals.¹⁰⁷ Legislation has been introduced in the past that would have provided taxpayers an income-tax credit for computers in the home purchased for educational, professional, or other essentially nonrecreational use.¹⁰⁸ It was not passed, however, and such legislation is even less likely to find support today in the present political climate of increased budgetary concerns and competition for government funds.

Another obstacle to such a policy is that, to implement it, the government might have to favor one equipment provider over others, an unlikely prospect in a highly competitive economy.

Option C: Provide public institutions with communication equipment, or increase current funding or subsidies for its purchase.

The precedent for providing funding or subsidies to institutions (particularly schools, libraries, and research labs) for the purchase of equipment is well established in the United States. For example, funding for educational technology is available to States, districts, and schools through various programs administered by the Department of Education. Funds may be appropriated specifically for educational technology, obligated for technology

projects through existing program areas, or applied from other grants and awards. Federal block grants and other grants to States and school districts support the use of technology at their discretion.¹⁰⁹

This option would increase the numbers of people who have access to communication pathways and services and might contribute to an increase in overall computer literacy. However, it faces the same obstacles as option B, including budgetary concerns, competition for government funds, and—in the case of providing actual equipment—the problem of designating equipment providers.

Strategy 4: Regulate and/or redefine the rights of media-owners.

Option A: Reexamine and reevaluate the traditional regulatory categories of common carrier, print, and broadcasting in the light of technological change and market developments to determine whether they continue to be the most suitable for fostering communication access.

The evolution of communication regulatory policy in the United States responded to each new technology as it came along. Three bodies of regulatory law emerged—print, common carrier, and broadcasting. Although different in approach, a common element of each was the goal of promoting diversity of and access to information and communication.¹¹⁰

Today, historical boundaries that once existed among both technologies and markets are increasingly becoming blurred, raising questions about whether or not these three distinct sets of rules still represent the best means of fostering their intended policy goals. Given these changed circumstances, Congress may want to consider a new regulatory approach that would more accurately reflect technological and market conditions, and thus better meet the goal of providing diversity and access.

One approach would be to base regulatory rules strictly on market structure. This approach assumes

¹⁰⁶Ellis Booker, "Vive Le Minitel," *Telephony*, Aug. 8, 1988, Pp. 24-32.

¹⁰⁷H.R. 5573, 97th Cong., 1982.

¹⁰⁸H.R. 2531, the **Family Opportunity Act**, was introduced by Rep. Newt Gingrich in April 1983. It would have allowed an income tax credit for 50 percent of the expenses paid for computers in the home, limiting the amount for a taxable year to \$100, multiplied by the number of qualified members of the taxpayer's family.

¹⁰⁹For a discussion of the Department of Education's principal programs providing funds for technology in education, see U.S. Congress, Office of Technology Assessment, *Power On! New Tools for Teaching and Learning*, OTA-SET-379 (Washington, DC: U.S. Government Printing Office, September 1988), app. C.

¹¹⁰Pool, *op. cit.*, footnote 38.

that market structure is the principal factor determining access. It is based on the notion that, in a competitive situation, there will always be a number of pathways open to individuals seeking information or an audience, and that, under such circumstances, the cost of access will not be prohibitive. Media pathways that are subject to effective competition would be free to set their own prices and exercise discretion over the information they carry; those that exhibit monopoly characteristics would be required to operate as common carriers.

One benefit of this approach is its relative clarity and consistency. With three distinct and historically based categories of law to draw on and guide them, legislators and regulators have had to spend considerable time and effort trying to categorize new technologies, segregate economic activities, and keep media organizations confined to their appropriate turfs.¹¹¹ And stakeholders have often been able to use this confused situation to stifle competition, and thus to actually limit or reduce diversity and access. Finding satisfactory solutions to regulatory problems like these is likely to become even more difficult in the future, given the rapid convergence of communication technologies and markets and the development of new products and services that defy the traditional categories. In contrast, agreement about the definition of monopoly conditions is not likely to change with every new technological development.

However, altering the conceptual basis for regulating content-based communication would be extremely difficult, given the weight of the first amendment and the entrenched interests and property rights of present-day media owners. As demonstrated in *Miami Herald Publishing Co. v. Tornillo*, the Court has denied the government the right to regulate a newspaper on first-amendment grounds,

even when it had monopoly power. And, as recent history has clearly shown, media-owners have been quick to draw on the protection of the first amendment to defend their interests.

Another difficulty is reaching agreement on what constitutes monopoly conditions and when effective competition exists. It is clear that there can be considerable disagreement on these standards, based on the diversity of opinions exhibited in recent stakeholder testimony and comments on the structure of the cable industry¹¹² and telephone company line-of-business restrictions.¹¹³ Also, definitions of “monopoly” can differ, depending on whether economic or political criteria are used. Whereas an economic analysis will look at power over suppliers who compete in the market, a political analysis will concentrate on “who,” under the circumstances, can gain access to information or use the media.¹⁴

Given the development of electronic markets, bulletin boards, online data services, videotex, and electronic publishing, the issue of regulatory categories, although deeply troublesome, is likely to persist. If, in the future, everyone is to enjoy access to the benefits of these technologies, Congress may need to act now to reevaluate the most appropriate rules for their use.

Option B: Rescind the cable/telephone company cross-ownership rules to increase the competition faced by the cable industry.

As already noted, the cable industry has become considerably more concentrated and integrated since its deregulation under the Cable Act of 1984.¹⁵ Concerned that these market changes will limit access to cable services, a number of policymakers and others have recommended that the telephone companies be allowed to become more involved in

¹¹¹ *Ibid.*

¹¹² See Janusz A. Ordovery and Yale Braunstein, “Does Cable Television Really Face Effective Competition?” In “Competitive Issues in the Cable Television Issue,” hearings of the Subcommittee on Antitrust, Monopolies, and Business Rights of the Senate Judiciary Committee, 100th Cong., 2d. sess., Mar. 17, 1988, pp. 192, 235, and *passim*.

¹¹³ Huber, *Op. Cit.*, footnote 19.

¹¹⁴ For this distinction, see Pool, *op. cit.*, footnote 38. See also Charles E. Lindblom, *Politics and Markets* (New York, NY: Basic Books, 1977).

¹¹⁵ For discussions of the market structure in the cable industry, see ch. 3; see also Shooshan, *op. cit.*, footnote 66. According to the author, the major public policy issues surrounding cable television in the 1990s will relate to industry structure and competition.

offering cable services.¹¹⁶ In its June 1988 report, *Video Program Distribution and Cable Television: Current Policy Issues and Recommendations*, NTIA recommended that telephone companies be freed to provide video dial tone and act as video common carriers, leasing channels to all video programmers. The report urged the removal of current requirements that telephone companies lease channels only to franchised cable operators or franchising authorities. It did not recommend, however, that telephone companies be allowed to provide video services directly to subscribers in their own service areas, their activities being limited in these areas to providing transport, maintenance, and billing services.¹¹⁷

The FCC, however, went even further in its proposals, calling for the elimination of the cable/telephone company cross-ownership and video-service restrictions.¹¹⁸ Support for this position within the FCC has subsequently waned, however. Having dissented from the original the FCC decision, Commissioner Dennis has continually questioned the value of changing the cross-ownership rules. She has suggested, for example, that, if telephone companies are free to own cable systems in their own service areas, they may simply buy out existing plants rather than build competing ones.¹¹⁹ More recently, Commissioner Quello, reevaluating

his position in the light of public comments, now calls for a full en banc FCC hearing on the issue.¹²⁰

Those who advocate the elimination of the cross-ownership rules argue that, having become monopolies in their own rights, cable companies no longer require the kind of market protection intended by the 1984 cross-ownership ban. In addition, they anticipate that increased competition will have a positive effect on service rates. Moreover, as described in chapter 12, many people argue that by allowing telephone companies to provide video services, they will have a greater incentive to move quickly to deploy fiber optics to the home.¹²¹ Some also note that, to the extent that telephone companies are required to provide video services on a common-carrier basis, access will be extended for all.

The outgoing FCC chairman, Dennis Patrick, was outspoken in his support of this position. Viewing deregulation as inevitable if more competition is not interjected into the industry, he came down squarely in favor of allowing telephone-company entry into the cable area, subject to safeguards.¹²² According to Patrick, everyone has something to gain. Not only will there be a greater incentive to develop information services and deploy fiber optics, but program developers and syndicators also will have more

¹¹⁶For discussions of this development, see Larry Jaffee, "Cable Comes Under Fire at Senate Antitrust Hearing," *Multichannel News*, Mar. 21, 1988, p. 1; John Wolfe, "Malone Bears Brunt of Hill Hearing," *Cablevision*, May 23, 1988, pp. 12-13; "Cable Has Its Work Cut Out for It," *Broadcasting*, Mar. 28, 1988, p. 31; and Margaret E. Kriz, "Cable's Comeuppance," *National Journal*, Mar. 26, 1988, pp. 807-811. As Shooshan has noted, in the past "problems related to cable's market power have been handled on an ad hoc basis, if at all, by the FCC and other Federal agencies." *Op. cit.*, footnote 66, p. 226.

The telephone companies are prohibited from owning cable systems within their own service areas under the Cable Telecommunications Policy Act of 1984. Moreover, MFJ prohibits the telephone companies from providing information services.

¹¹⁷*Video Program Distribution and Cable Television: Current Policy Issues and Recommendations*, NTIA Report 88-233 (Washington DC: U.S. Department of Commerce, June 1988). For discussions, see also "NTIA Opens Pandora's Box for Change in Cable—Beginning With Telco Entry," *Broadcasting*, June 20, 1988, pp. 37-40; and Kathleen Killelte, "Commerce: Ease Curbs, Telcos Eye Options Under NTIA Proposal," *CommunicationsWeek*, June 20, 1988, pp. 1,46.

As NTIA argues, with telephone companies limited to providing common-carrier video dial tone, there would be no danger that they would stifle the development of new programming material. In fact, they would benefit from maximum traffic due to the large number of competitive information product suppliers.

¹¹⁸On Sept. 22, 1988, the FCC released a "Further Notice of Inquiry and Notice of Proposed Rulemaking" in CC Docket No. 87-266, which seeks additional comment on a commission proposal to recommend to Congress the abolition of the statutory ban on telephone companies providing cable service within their local telephone service areas. Because the cross-ownership rules are codified in the Cable Communications Policy Act, the FCC cannot repeal them on its own authority. For a discussion, see "FCC Advances Repeal of Networks-Cable Ban," *Broadcasting*, Aug. 8, 1988, pp. 23-24; Fred Dawson, "In Subtle but Sure Ways, Telco Entry Into Cable Goes Beyond 'If' to 'How,'" *Cablevision*, Feb. 15, 1988, pp. 20-22; Melinda Gipson, "FCC Proposes Allowing Telcos to Provide Cable," *Cablevision*, Aug. 1, 1988; and Sam Dixon, "FCC Prepares to Tangle With Cable-Telco Cross-Ownership," *Telematics*, vol. 5, No. 7, July 1988, pp. 12-16.

¹¹⁹See Jeannine Aversa, "FCC's Dennis Rejects Telcos' Cable Entry," *Multichannel News*, Nov. 21, 1988, p. 11; and Charles Mason, "Dennis Knocks FCC Cable/Telco Assumptions," *Telephony*, Nov. 21, 1988, p. 15.

¹²⁰See "Quello Having Second Thoughts About Telco Entry," *Broadcasting*, Jan. 16, 1988; see also "Quello Calls for FCC Hearing on Entry of Telcos Into Cable," *Broadcasting*, June 12, 1989, p. 67.

¹²¹For the presentation of these arguments see, for example, Nicholas P. Miller, "Yes—Telcos Can Provide Better and Less Expensive Service," *Telematics*, vol. 5, No. 12, December 1988, pp. 7, 11.

¹²²See "FCC's Patrick Urges Telco Entry Into Cable," *Broadcasting*, June 12, 1989, p. 57.

outlets for their products, while broadcasters will have less need for must-carry legislation.¹²³

Some stakeholders, while not opposed to telephone-company entry, are much more cautious and tenuous in their support. Broadcasters have been open to the idea of allowing telephone companies to become more involved in delivering cable services, but only on the grounds that transmission services be provided to them on a common-carrier basis and at no cost. On the other hand, they are divided with respect to whether the elimination of cross-ownership rules should be applied to the television networks as well. While the networks would welcome such a change, affiliates fear that it might lead to anticompetitive behavior on the part of the networks.¹²⁴ Moreover, as the Association of Independent Television Stations has told the FCC, there are:

... serious problems of horizontal concentration and vertical integration in the cable industry, and, critically, their injurious effects on cable carriage of local television stations are hardly served by the promise of still greater ownership concentration and vertical integration inherent in network ownership of cable systems.¹²⁵

This perspective, as it pertains to network-cable cross-ownership, has been echoed by MPAA.¹²⁶

Like broadcasters, representatives of the cities, while generally interested in considering such a policy, have their own reservations. Members of the National Association of Telecommunications Officers and Advisers, for example, have expressed the concern that if telephone companies are allowed to operate cable systems in their own service areas, the cities would very likely lose their local regulatory authority over cable service.¹²⁷

Having been highly vocal in their criticisms of integration and concentration within the cable industry, representatives of program suppliers such as MPAA have called for government measures to either deregulate cable, or to bring the telephone companies into the market as competitors. Testifying before the FCC, the representative of a group of producers argued that cable television is a classic bottleneck, and said:

Incumbent cable monopolies control the delivery of broadband video services to the American consumer. There is a crying need for full and fair competition in the delivery of such services. Producers are hopeful that telephone company entry into cable, under *specified* conditions, may hold the answer.¹²⁸

With some exceptions, members of the cable industry are strongly opposed to changes in telco/cable cross-ownership rules. In response to the FCC decision, for example, the National Cable Television Association voted to temporarily increase its membership dues by 15 percent to enable it to wage a more effective campaign against telephone-company entry.¹²⁹

Pointing to the competition from other video program distributors, cable companies deny that they constitute a monopoly.¹³⁰ In fact, they argue that the real dangers of monopoly still reside with the telephone companies who, if allowed into the cable business, would use their favored access to poles and conduits to behave in an anticompetitive fashion. To the extent that vertical integration in the cable industry has occurred, cable representatives argue that it has been generally beneficial, leading not to anticompetitive behavior but rather to greater diver-

¹²³Ibid.

¹²⁴"Choosing Sides on Network-Cable Crossownership," *Broadcasting*, Oct. 31, 1988, pp. 57-58.

¹²⁵Larry Jaffee, "Big Three, Affiliates Differ on Cable Ownership," *Multichannel News*, Oct. 31, 1988, p.18.

¹²⁶"Choosing Sides on Network-cable Crossownership," op. cit., footnote 124.

¹²⁷For a discussion, see Larry Jaffee, "Telcos' presence Conspicuous at Telecom Convention," *Multichannel News*, Oct. 3, 1988, p. 14.

¹²⁸Joseph W. Waz, Jr., "Cements of Buena Vista Pictures Distribution, Inc., MGM/UA Communications Co., Orion pictures Corp., Paramount Pictures Corp., Twentieth Century Fox Film Corp., and Universal City Studios, Inc. Before the Federal Communications Commission, Washington, DC., CC Docket No. 87-266, Dec. 16, 1988.

¹²⁹See "NCTA Blasts Bureau's Telco-Cable Decision," *CommunicationsWeek*, May 22, 1988, p. 40; and "NCTA Votes 15% Dues Surcharge to Fund Telco Fight," *Broadcasting*, Oct. 3, 1988, p. 29.

¹³⁰See, for this argument, John M. Draper, "The Telco Cross-Ownership Restrictions: A Cable Perspective," paper presented at the Media Institute luncheon series, Washington, DC, Apr. 19, 1989. See also, Charles Mason, "Who Are the Real Monopolists? Telcos, NCTA Trade Charges," *Telephony*, Dec. 26, 1988, pp. 10-11. As noted by Shooshan, the problem in determining the extent of competition on the basis of the existence of other video program distributors is "that there is no fixed standard to define how close the competitive substitutes must be in order to provide workable competition. Thus, conclusions tend to be extremely subjective." Op. cit., footnote 66, p. 230.

sity in programming.¹³¹ Countering the argument that telephone-company entry will lead to reduced rates, cable companies contend that, on the contrary, with the elimination of the cross-ownership rules, telephone ratepayers will be overcharged to help defray the costs of telephone company entry into the television business. They also take issue with the argument that the cross-ownership rules discourage modernization, arguing that fiber will be introduced within a reasonable timeframe without the revenue support from cable television. *32 There are, however, some multiple service operators who support telephone-company entry, viewing the telephone companies as potential bidders who, having plenty of money to spend, are likely to raise the price of purchasing their systems.

Option C: Provide common-carrier status for critical navigational tools, recognizing their essential-facility nature.

As already noted, navigational tools are becoming increasingly important for effective communication. Information users need such tools to help them locate information in a form and format that is most useful to them. Information providers need navigational tools not only to help them identify the most efficient modes of transmission, but also to assist them in identifying and making themselves known to potential audiences. Moreover, because the value of such tools is likely to increase in the future—together with the amount of available information, its growing strategic importance, and the development of new transmission modes—new rules governing access to them may be required. In particular, Congress may want to provide common-carrier status for critical navigational tools, recognizing their essential-facility nature. Such a policy assumes not only that such tools are becoming increasingly critical, but also that the structure of the market is such that effective competition is lacking and access is limited.

Providers of navigational tools are unlikely to favor the status of common carrier. Like other

providers of information media, they would most likely view such restrictions as infringing on their first-amendment rights and depriving them of significant market opportunities. To date, this status has been granted only when it has been established that facilities are essential. Individuals who might otherwise be excluded from gaining access to information will argue that they are being deprived of an essential service. Thus, the issue might hinge on what constitutes first-amendment rights, as well as an essential service, in the economic realm, given the enhanced role of information in society.

Option D: Strengthen requirements to provide public access to production facilities.

The Cable Communications Policy Act of 1984 included provisions that grant franchise bodies the authority:

... to enforce any provisions of the franchise for services, facilities, or equipment proposed by the cable operator which relate to public, educational, or governmental use of channel capacity.¹³³

Public-access channels have had mixed success, as program producers often suffer from lack of funding, inadequate equipment, and viewer apathy. While some have been pleased with the quality of programming,¹³⁴ others have viewed it as marginal.¹³⁵ Conditions are changing, however, and such a policy might now be more successful. Not only is there more user-friendly equipment available for producing content, but the cable audience is now large and perhaps diverse enough to encourage more varied programming.

Reinforcing such a policy would be strongly opposed by the cable industry if it were expected to bear the costs of additional facilities. It also raises the question of whether such a policy might also be extended to other forms of media. This issue might become much more complex if telephone companies were allowed into the information-services business. Congress would need to decide whether telephone companies, too, would have special obligations to

¹³¹Draper, *op. cit.*, footnote 129. See also Benjamin Klein, "The Competitive Consequences of Vertical Integration in the Cable Industry," June 1989, University of California, Los Angeles.

¹³²For one account of these arguments, see "Should the FCC Modify Its Policies Concerning Cable/Telco Cross-Ownership?" Frank W. Lloyd, "No: We Should Fear a Single Information Pipeline to the Home," *Telematics*, vol. 5, No. 12, December 1988, pp. 8-10.

¹³³611(c), codified at 47 U.S.C. 531(c).

¹³⁴See discussion of cable community access channels in ch. 7.

¹³⁵Thomas Streeter, "Cable Fable Revisited: Discourse, policy, and the Making of Cable Television," *Critical Studies in Mass Communication*, vol. 4, 1987, p. 195.

provide the public with access to production facilities and assist them in producing content.

Strategy 5: Influence the level and availability of the tools and resources required to access communication and information services.

Option A: Foster the relationship between the producers and distributors of communication content.

Congress could act as a facilitator by brokering the relationship between the independent and minority producers and distributors of information. Such a function might be assigned to, for example, the National Endowment for the Arts or the National Endowment for the Humanities. The major constraint of this option is the cost. In addition, traditional producers may oppose assistance to independent producers if they see them as potential competitors. On the other hand, they might view this option as beneficial if it serves to enrich the overall creative environment.

Option B: Provide Federal support for technological literacy programs.

The Federal Government might provide support for the development of programs to train individuals in the use and ethics of using new communication technologies and in evaluating content. One way of doing this would be to tap into the expertise that the Department of Defense has developed in technology training.¹³⁶ Since a comprehensive policy might be extremely costly-involving equipment support, teacher training, and the establishment of new centers for learning-one argument against this policy would be cost constraints. However, these could be ameliorated by supporting training efforts that are already under way. Assuming a role in coordination might be the most effective way to leverage Federal dollars. Another argument against this option would be that it is impossible to deal with technological literacy without addressing the underlying problem of the lack of basic literacy.

It is unlikely that the educational community would oppose this option; however, some would

argue that government support for literacy should be funneled through State and local authorities in order to minimize bureaucracy and to best target local needs.

Option C: Increase funding and support for direct research on navigational tools.

Present government support is limited primarily to designing navigational tools to assist scientific, military, and technical research. Given the enhanced role of communication in the political, cultural, and economic realms, government may want to develop a more aggressive policy to assure the transfer of this expertise to other sectors.

Support for or opposition to such a policy would depend on how it was implemented. Opposition will develop if some groups are favored at the expense of others; for example, government support for one kind of equipment standard will put other vendors at a disadvantage. On the other hand, users will benefit. To the extent that this option served to equalize opportunities for gaining access to communication paths, it might be opposed by those who currently can use navigational tools to gain strategic advantage.

Option D: Provide funding for creation of bibliographical devices for publicly funded programs and information.

The Federal Government already provides a variety of bibliographic services, such as the Department of Education's ERIC (Educational Resources Information Center) and AGRICOLA, compiled by the National Agricultural Library. Those who wish to provide alternative services in the marketplace would be opposed to this option. The information industry argues that these services can be better provided in the marketplace. These issues are discussed in considerable depth in the OTA study, "Informing the Nation,"¹³⁷ and will not be discussed here.

¹³⁶An example of such an arrangement is provided in the Training Technology Transfer Act of 1988 (20 U.S.C 509). To take advantage of the investment of public funds already made in the development of education and training software, particularly in the Department of Defense, this act facilitates the transfer of education and training software from Federal agencies to the public and private sectors and to State and local governments and agencies, including educational systems and educational institutions, in order to support the education, training, and retraining of industrial workers, especially workers in small business concerns.

¹³⁷OTA, *op. cit.*, footnote 52.

Strategy 6: Assume a more proactive role to assure robust debate on issues of public importance.

A major purpose of the first amendment is to protect the free discussion of governmental affairs.¹³⁸ At this time, the government's role in assuring a diverse "marketplace of ideas" is ambiguous. In the print media, the government plays almost no role in promoting debate on public issues. In broadcasting, although the FCC has ruled that the Fairness Doctrine is an unconstitutional infringement on the first-amendment rights of broadcasters,¹³⁹ the Equal Time Requirement and the Public Trustee Standard still appear to be in force. A more proactive government role might include congressional options such as the following.

Option A: Codify the Fairness Doctrine for broadcasters and/or extend it to other media.

Most broadcasters and other media providers, as well as the present FCC, are opposed to this option. They claim that there is now an abundance of media channels, and thus the Fairness Doctrine is no longer justified on the grounds of spectrum scarcity. They also maintain that the Fairness Doctrine does not promote the diversity of messages, but in fact has a chilling effect because broadcasters are reluctant to broadcast controversial materials and risk being accused of providing unbalanced coverage. This argument, however, ignores the fact that the Fairness Doctrine itself requires coverage of controversial issues.

A number of public interest groups—such as the Media Access Project, the American Civil Liberties Union (ACLU), and the United Church of Christ—favor the Fairness Doctrine because they believe it gives them leverage in getting public issues aired. Two broadcasters, Fisher Broadcasting Inc. and Westinghouse Broadcasting and Cable Co., assert that the Fairness Doctrine does not inhibit their coverage of controversial issues of public importance.¹⁴⁰ If the Fairness Doctrine were reinstated, however, the public-trustee status of broadcasters might be less open to challenge, enabling them to argue against spectrum licensing or any proposal to give them common-carrier status.

One criticism of the Fairness Doctrine has been that it singles out the broadcasting media and requires them to give a certain type of coverage to issues of public importance. Such a standard has not been imposed on the print media.¹⁴¹ Although cable is legally required to comply with the Fairness Doctrine, the FCC has not enforced the doctrine since 1974.¹⁴² Given the difficulties certain groups have in accessing communication paths and the lack of diversity in messages carried (see chs. 6 and 7), Congress could extend the Fairness Doctrine to all media. However, many would oppose this approach, fearing that such government regulation would lead to government control over content. The Supreme Court's Miami Herald ruling,¹⁴³ which invalidated Florida's right-of-reply statute as a violation of the first amendment's freedom of the press, would be a precedent for invalidating an extension of the Fairness Doctrine to the print media.¹⁴⁴

¹³⁸The Supreme Court has recognized the special status for first-amendment protection of communication related to political affairs in a number of instances. In *Roth v. United States*, 354 U.S. 476, 484 (1957), the Court stated that the first amendment affords the broadest protection to political expression in order "to assure [the] unfettered interchange of ideas for the bringing about of political and social changes desired by the people." Similarly in *The New York Times v. Sullivan*, 376 U.S. 254, 270 (1964), the Court spoke of the "profound national commitment to the principle that debate on public issues should be uninhibited, robust, and wide open."

¹³⁹On Aug. 4, 1988, the FCC declared the quarter-century-old Fairness Doctrine unconstitutional. Rep. John Dingell (D-Mich) and Senator Ernest Hollings (D-S. C.) have led efforts to reinstate the Fairness Doctrine and give it statutory status; however, they did not have enough votes to override a threatened veto by President Reagan. Prior to the FCC's action, Congress had passed a bill to codify the Fairness Doctrine (S.742 was passed by the Senate on Apr. 21, 1987, and H.R. 1934 was passed by the House on June 3, 1987), which was vetoed by President Reagan on June 19, 1987.

¹⁴⁰The FCC's Meredith decision as quoted in Broadcasting, Aug. 10, 1987, p. 39-F.

¹⁴¹The argument for this discrepancy has been based on broadcasting's scarcity of spectrum. See *Red Lion Broadcasting v. FCC*, 395 U.S. 367, 1969.

¹⁴²FCC imposed the Fairness Doctrine on cable systems in 1969 (sec. 76-209 C.F.R.). See George H. Shapiro, Philip B. Kurland, and James P. Mercurio, *Cable Speech* (New York, NY: Law & Business, Inc., 1983), pp. 49-75; and Daniel L. Brenner and Monroe E. Price, *Cable Television and Other Nonbroadcast Video* (New York, NY: Clark Boardman Co., Ltd., 1986), pp. 6-72-6-74.

¹⁴³In *Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241 (1974), the Supreme Court held unconstitutional a Florida law that gave political candidates a right of reply to newspaper criticism on the grounds that the first amendment freedom of the press prohibits any governmental regulation of the press that would require it to print something it would not otherwise print. One of the Court's concerns was that editors might not print political editorials in order to avoid controversy.

¹⁴⁴Thomas M. Durbin, "Extending the Fairness Doctrine to the Print Media," Library of Congress, Congressional Research Service, CRS Report 87-584 A, June 17, 1987.

Option B: Mandate time and space on communication pathways for discussion of public policy issues.

Rather than regulating the content of media, as the Fairness Doctrine does, Congress could instead regulate the structure of media access in order to provide more diversity.¹⁴⁵ For example, Congress could subsidize those wishing to use existing media for public affairs discussions, designate certain cable channels for such discussions, prohibit multiple ownership or require diversity of ownership, or establish new public forums, such as computer bulletin boards and publicly supported broadcasting stations. Henry Geller has proposed that broadcast station-owners be charged a "spectrum fee" that would be used to subsidize public-affairs programming on public radio and television. The National Association of Broadcasters (NAB) has suggested that revenue to improve access to media for public affairs programming--specifically access to public broadcasting--should come not from the broadcasters, but from consumers in the form of taxes on TVs, radios, and VCRs.¹⁴⁶

Owners of private media would probably oppose this option to the extent that they would lose advertising revenues. One argument against this option is that most people do not watch public affairs programming and that increasing the amount of coverage or improving the quality of coverage will not change public behavior.

Option C: Require media providers to uphold more stringent public-interest standards.

At present, there are no explicit public-interest standards. One option, therefore, would be for Congress to establish explicit standards and measures for what constitutes public-interest programming. For example, Congress could establish quantitative measures for particular programming categories, such as children's programming and local public affairs.¹⁴⁷ However, there have been problems with such policies in the past, particularly in

formulating, overseeing, and actually enforcing guidelines. Broadcasters and civil libertarians have been strongly opposed to any government intervention in program content. For example, the 100th Congress passed a bill (H.R. 3966) to reimpose limits on the amount of advertising on children's television shows. The bill was opposed by the FCC and the Department of Justice, but NAB said that broadcasters could live with this measure. The bill was supported by Action for Children's Television and many public interest groups concerned about family values.¹⁴⁸ President Reagan pocket-vetoed the bill, saying that "this bill simply cannot be reconciled with the freedom of expression secured by our Constitution." ¹⁴⁹

Alternatively, Congress could relax antitrust regulations to allow the media to cooperate in developing voluntary standards for certain program areas. Such legislation has been proposed with respect to violence in programming.¹⁵⁰ The ACLU opposed the bill on the grounds that it represented congressional control over portions of TV content. Although the networks opposed the bill, NAB did not; however, they expressed concerns about how the guidelines would be implemented. Children's advocates, including many in the medical profession, support controls on violence on TV.¹⁵¹

Option D: Adopt campaign-reform legislation.

As chapter 6 points out, the costs of political campaigns restrict access to communication paths for both potential candidates and citizens who want to influence the electoral process through campaign contributions. Accompanying the increase in campaign expenditures has been a decrease in voter turnout, an increase in political cynicism, a decrease in the importance of political parties, and an increase in the influence of political action committees (PACs) and political consultants. Part of the increasing cost of campaigns can be attributed to the high costs of waging a media campaign.

¹⁴⁵"Freedom and Fairness: Regulating the Mass Media," *Philosophy and Public Policy*, vol. 6, No. 4, Fall 1986, pp. 1-5.

¹⁴⁶John Burgess, "Broadcasters Offer Plan to Tax Sales of TVs, Radios and VCRs," *The Washington Post*, Nov. 10, 1987, P. F3.

¹⁴⁷For a discussion of past efforts to establish quantitative standards for broadcasters, see Douglas Ginsburg, *Regulation of Broadcasting* (St. Paul, MN: West Publishing Co., 1979), pp. 142-149.

¹⁴⁸Paul Starobin, "Bill to Boost Quality of Kids' TV Clears Despite Veto Possibility," *CQ Weekly Reports*, Oct. 22, 1988, P. 3065.

¹⁴⁹"Reagan Pocket-Vetoes Bill on Children's TV," *The Washington Post*, Nov. 6, 1988, p. A6.

¹⁵⁰S. 844 was passed by the Senate, but H.R. 3848 did not pass the House. "ACLU Attacks TV Violence Bill," *TV Digest*, Oct. 10, 1988, p. 6.

¹⁵¹Jody W. Zylke, "More Voices Join Medicine in Expressing Concern Over Amount, Content of What Children See on TV," *JAMA*, Oct. 7, 1988, vol. 260, No. 13, pp. 1831, 1835.