Regulating Broadband Communication Networks

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Professor Allen Hammond argues that the impending development of broadband communication networks has the potential to expand and equalize speech rights by endowing the public with more numerous and more powerful opportunities for speech. To realize these benefits, however, Congress must design a novel regulatory scheme that will maximize the speech rights of both the owners and the users of broadband communication networks. Current regulatory schemes governing print, broadcast and cable provide media owners and editors with extensive speech rights, but fail to provide sufficient public access. In contrast, the regulatory scheme governing telephone service providers assures public speech rights only by depriving media owners of all opportunities for speech.

This article asserts that the regulatory scheme for broadband communication networks should be based on the public forum doctrine. Broadband communication networks with market-based, technology-driven, or government-sanctioned monopolies should be deemed public fora and required to provide unrestricted public access. Public forum owners should also retain the right to generate original programming or "speech" through fully owned subsidiaries. Other broadband communication networks should be permitted to choose between public and private forum status.

This novel regulatory scheme would protect the speech rights of media owners and users, and minimize the threats of private and government censorship inherent in existing regulatory schemes. The author concludes by emphasizing that Congress should eschew the licensing of regulated monopolies, and instead promote unconstrained market entry. At the same time, Professor Hammond maintains that Congress must establish the incentives needed to assure that the broadband communication networks of the future are interconnected and accessible to the public.

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Introduction

The United States is on the brink of yet another communications revolution. This time the revolution is precipitated by the merging of computer, telephone, and fiber optic technologies into broadband communications networks (BCNs). Each of these technologies contributes critical characteristics which, when combined, change the manner in which users will communicate. Computer technology contributes the ability to store, retrieve, manipulate, and control the flow of information. Telephony networking technology contributes the ability to engage in interactive communication. Fiber optics technology contributes the ability to communicate using various types of information integrated over one transmission path or network. BCN technology ultimately allows for the replacement of the currently separate information delivery modes of print, broadcasting/cable, and telephone.

These networks will interconnect many users. Large network providers such as the telephone companies could provide BCNs that are accessible to the general public. Single users or groups of private users will likely own BCNs that connect multiple communications stations in single or multiple locations. BCNs will also support the high speed transmission of integrated voice, data and video information in digital form,[1] which will integrate the transport of

1. By way of comparison, current communications networks involve either analog transmission (broadcasting and cable television) or a mixture of analog and digital transmission (telephony). Video information is delivered by broadcasting or cable networks, while voice and data information are delivered

voice, data, and video information and promote two-way interaction between users.

These two characteristics transform broadband communications technology into more than the functional sum of the computer, fiber optic, and telephone technologies and more than an extension of the existing publishing, broadcasting, cable, and telecommunications networks. When BCNs interconnect users,[2] the combined technology will change not only the manner in which information is used, but also the manner in which information is communicated. The public will be able to receive, seek out, identify, store, manipulate, compose, alter, filter, and transmit digitized data, print, video, and voice information. Moreover, users will be able to select who receives their information.

Electronic communication will no longer be a predominantly passive mode of interaction conducted via one-way, single-format information streams controlled by a limited number of senders. Instead, communication will be an interactive process conducted via two-way, multiple-format information streams controlled by users of the media. BCNs thus have the potential to shift the locus of control over communication from the privileged government-sanctioned media to a greater portion of the public.

Most important, however, this new control will allow individuals and groups to become electronic speakers and publishers. The ability to determine what information is received, how it is manipulated, and where it is sent allows the user to exercise editorial control over his or her multi-media speech. The user's capacity to send and receive interactively also provides the ability to "assemble" a group electronically. Finally, as the number of speakers increases, the diversity of available information is likely to increase as well.

BCNs have the potential to expand opportunities for speech and assembly dramatically. However, with a faulty regulatory scheme, BCNs could further centralization of control over the means of information transmission. Congress could decide to vest editorial control in the owner of BCN transmission facilities. Such a statute would severely circumscribe the public's access to the

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at varying speeds by telephone and data networks. *See generally* Robert Mercer, *The Technology of Broadband Networks, in* INTEGRATED BROADBAND NETWORKS (Martin Elton et al. eds., 1991).

The current mix of networks has been criticized as inefficient. *See* BRUCE L. EGAN, INFORMATION SUPERHIGHWAYS: THE ECONOMICS OF ADVANCED PUBLIC COMMUNICATIONS NETWORKS 168 (1991).

2. New "multi-media" devices combining the functions of computers, telephone, and television are currently being manufactured and tested. For instance, former Apple and NeXT computer employees have created the Frox computer system. Frox will play CD-ROMs, delete TV commercials, program video cassette recorders, engage in database searches, and answer the telephone. *See* George Guilder, *Into the Telecosm*, HARV. BUS. REV., Mar.-Apr. 1991, at 154.

Ultimately these devices will be capable of storing, manipulating, editing, composing, sending, and receiving video, voice, data, and stereo sound. *See* John Burgess, *Mixing Up A Revolution? Multi-Media's High Tech Blend of Sight, Sound May Reshape Information Age*, WASH. POST, July 28, 1991, at H1; Paul Yi, *The Mac/TV Connection: Desktop Video*, MACUSER, July 1991, at 124.

means of communication and thwart the realization of the potential gain in the public's speech capacity.

The legislation currently under consideration for regulating BCNs recognizes the value that broad access to BCNs provides for research, education, and business. However, while one draft bill acknowledges the potential importance of broadband networks to the public's speech rights, it does not specify the status to be accorded the providers of BCN networks or the speech rights of users.[3] Are the network and facilities providers to be deemed owners with exclusive speech rights? Do providers and users have speech, access and assembly rights on the BCNs? To the extent such rights exist, how are they to be harmonized and protected?

These are not idle questions. In merging various networks and information streams, BCNs also inherit the system's disparate regulatory schemes for controlling access and speech. Recent incidents involving personal communications media and distribution networks illustrate the tendency to apply existing models to new communication networks.

The federal government's recent seizure of computers and computer bulletin boards as part of an investigation into computer crimes raised questions about the First Amendment rights of computer bulletin board owners.[4] The nature of subscribers' rights to speak and assemble was also a contested issue when owners of the Prodigy database service prevented subscribers from using the system to communicate their protest over rate increases to advertisers and other subscribers.[5]

The First Amendment rights of service providers and users are also at issue when cable operators modify the access of regional programmers providing competitive services,[6] when telephone common carriers seek to deny access or billing services to dial-a-porn providers,[7] and when telephone common carriers with a prior history of anti-competitive behavior are granted entry into enhanced services such as electronic publishing and electronic mail.

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3. *See* S. 1200, 102nd Cong., 1st Sess. §101(14) (1991).

4. *See* Lawrence Edelman, *Kapor For The Defense In Computer Field*, BOSTON GLOBE, July 11, 1990, at 33.

5. *See* Stuart Silverstein, *Prodigy Services' Fee Setup Under Probe*, L.A. TIMES, Apr. 16, 1991, at D2; Michael Schuyler, *Systems Librarian and Automation Review: Rights of Computer On-Line Service Users*, SMALL COMPUTERS IN LIBRARIES, Dec. 1990, at 41; Geoffrey Moore, *The First Amendment Is Safe At Prodigy*, N.Y. TIMES, Dec. 16, 1990, at 3-13; Lawrence Edelman, *Is This Man Invading Your Privacy?*, BOSTON GLOBE, Nov. 20, 1990, at 25.

6. *See* Donna N. Lampert, *Cable Television: Does Leased Access Mean Least Access?, in* CABLE TELEVISION LEASED ACCESS: A REPORT OF THE ANNENBERG WASHINGTON PROGRAM IN COMMUNICATIONS POLICY STUDIES, 10-12, 15-16 (Northwest U. ed., 1991).

7. For instance, in 1989 the Association of Interactive Information Providers asked the California Public Utility Commission to reject a Pacific Bell proposal that the carrier be granted the unilateral right to disconnect any 976 service Pacific Bell believed contained harmful matter. *See Communication Daily*, June 6, 1989.

Thus the advent of BCNs will exacerbate current confusion over speech regulation. Since BCNs combine the functions, technology, and information transmission of existing media into a single communications medium, they threaten to obliterate carefully constructed regulatory and barriers between print, broadcast, cable, and telephony.

Coming at a time of heightened concern about international competition with Japan and Europe, rapid implementation of broadband technology may have competitive advantages. However, industry debates have focused on the financing of fiber's implementation and the maintenance of the United States' competitive edge in the international arena. By doing so, these debates obscure the unique value broadband technology has for freeing the flow of information, and ignore the free speech questions BCNs' integrative characteristics will produce.[8]

Congress and the FCC should defer decisions regarding the ownership and regulation of BCNs because these decisions implicitly apportion speech rights in society. Before regulating BCNs, they should identify the speech rights broadband could bestow on our society and devise a scheme for protecting these rights. Further, Congress and the FCC should consider the impact their regulations will have on the speech rights of broadband network providers and their users.

In order to protect these rights, Congress and the FCC must confront and resolve the conflict between competing interpretations of the First Amendment. According to one interpretation, the First Amendment protects only the owner's individual liberty to speak. In contrast, the social equality interpretation views the First Amendment as enhancing the public's access to the means of transmission.

This article begins to identify BCNs' potential for expanding user speech, access, and assembly rights and concludes that such rights are protected by the First Amendment. The article proceeds to question the appropriateness of applying the current regulatory models of print, broadcast and cable, or common carriage to protect the panoply of speech rights created by BCNs, and concludes that broadband technology demands a new regulatory scheme.

The article also assesses the utility of four theoretical models for regulating communication media. These models include the marketplace regulation model and models assigning speech rights by dedicating specific transmission paths (channel functionalism) or distribution networks (media functionalism) to particular types of information (print, video, voice, or data), or by separating

8. The Senate version of the Communications Competitiveness and Infrastructure Modernization Act does acknowledge the potential free speech benefits of an extensive fiber-optic broadband infrastructure. By contrast, the House companion bill, H.R. 2546, 102nd Cong., 1st Sess. (1991), does not contain a similar provision in its findings. *See* S. 1200, *supra* note 3.

transmission functions from speech functions (operational functionalism). The article concludes that these proposals are no more viable than the existing regulatory models for print, broadcast and cable, or common carriage from which the theoretical models evolved.

The article concludes by proposing a possible resolution of the constitutional dispute over the regulation of speech. The resolution favors a model in which public and private communication forums coexist. Recognizing a distinction between public and private forums will protect the First Amendment rights of both the providers and the users while limiting the potential for government and private censorship.

The proposed regulatory model would allow BCN firms to become private or public forums depending on the extent of responsibility and liability for owner and user initiated speech that the firms are willing to assume. Those firms allowing relatively unrestricted access would assume little or no responsibility for the content of transmission. BCN firms seeking status as private fora would assume significant liability for the content of transmission. Finally, the proposed regulatory model would require firms enjoying technical, economic or government monopolies to provide common carrier services but would not preclude these firms from providing content-related services via an arms length subsidiary. Upon the loss of their monopoly, such firms would have the option to choose private or public forum status. This model would endow both BCN owners and users with meaningful speech rights.

I. The Promise of Broadband

A. *Technological Synthesis and Information Abundance*

According to industry commentators, the previously deferred promise and potential of broadband communications is upon us. Various marketing tests ofIntegrated Services Digital Network[9] and Broadband[10] services are under-

9. ISDN allows users to send voice, data, and images over a single, high capacity telephone line. ISDN will allow a single call simultaneously to handle voice and document (facsimile, text and graphics) interactive transmissions. Several local exchange carriers (LECs) began providing ISDN in late 1988. *See* Bruce Keppel, *Testing a New Fiber-Optic Link to the Future*, L.A. TIMES, Feb. 11, 1990, at D1; *see also* Stephen Weinstein & Paul Shumate, *Beyond the Telephone: New Ways to Communicate*, THE FUTURIST, Nov. 1989, at 8.

10. Broadband communications networks, sometimes called Broadband Integrated Services Digital Networks [hereinafter BISDN], which rely on fiber optic cables, possess a wider bandwidth and more capacity than ISDN's copper cables. BISDN can offer "simultaneous extended-quality, on-demand video services, interpersonal communications, and high speed data and image communication among fax machines, work stations, and computers" as well as "basic telephone and telemetry services (e.g., home security alarms, utility monitoring, etc.)." Weinstein & Shumate, *supra* note 9, at 8.

Fiber-to-home trials are being conducted in 20 sites nationwide (including Cerritos, California; Ridgecrest, California; Heathrow, Florida; Perryopolis, Pennsylvania, and Princeton Gate, New Jersey) and in Britain, Canada, and Japan to determine customer interest. *See* Keppel, *supra* note 9, at D1, D6. *See also*

way.[11] As these tests progress, the list of available and potential residential and business services lengthens. These services include not only the traditional interactive voice,[12] data, and passive video services[13] that are already generally available, but also more interactive services such as home banking, home shopping, alarm and utility monitoring, climate control, pay per view, video-on-demand, two-way video, picture phones, computer assisted research, work at home, electronic voting and videotext.[14]

Many of these interactive services are currently accessible through narrowband technology to individuals with a computer and a modem. Through their computers, and sometimes, with gateways provided by the telephone company,[15] users can travel the public switched telephone network and enter thousands of publicly accessible computer bulletin boards and on-line data services.[16] Similarly, many users bank electronically using touch-tone phones or computer modems.[17] Finally, using the telephone network and the cable system, some cable subscribers are able to interact with computers at the cable operator's headend to order pay per view programming.[18]

This, however, is but a small piece of broadband's promise and potential. Users currently communicating over bulletin boards and on-line services or banking electronically are relying on a single, albeit flexible, telephone network for data transmission. Most cable subscribers must still use two independent networks, the telephone for data communication to the computer and the cable

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Dawn Bushaus & Deborah Pfeiffer, *Fiber to the Home: A Family Affair*, TELEPHONY, Nov. 27, 1989, at S27; John Markoff, *Here Comes the Fiber-Optic Home*, N.Y. TIMES, Nov. 5, 1989, § 3, at 1; John Burgess, *Wire War: Putting America on Line*, WASH. POST, Oct. 22, 1989, at C3; Cliff Probst, *The Last Mile In Fiber City*, TELECOMM. ENGINEERING & MGMT., Feb. 15, 1988, at 39.

11. For an explanation of the myriad services that may be provided to the home, see STEPHEN WEINSTEIN, GETTING THE PICTURE 86-87 (1986). *See also* Keppel, *supra* note 9, at D1; Weinstein & Shumate, *supra* note 9, at 8; Probst, *supra* note 10, at 39.

12. Two-way interactive voice and data includes "plain old telephone service" [hereinafter POTS] and other current telephony services for voice and data.

13. Passive electronic video services are characterized by one-way transmission to viewers. These services include television broadcasting, cable television, and video services provided over the new electronic video technologies such as Direct Broadcast Satellites, Satellite Master Antenna Television Service, Multichannel Multipoint Distribution Service, Instructional Television Fixed Service and Operational Fixed Service. For a definition of the technologies, see Allen Hammond, *To Be or Not To Be: FCC Regulation of Video Subscription Technologies*, 35 CATH. U. L. REV. 737, 741-48 (1986). *See also* DANIEL BRENNER ET AL., CABLE TELEVISION AND OTHER NON-BROADCAST VIDEO, §§ 13-1 to 16-35 (1989).

14. *See* Hammond, *supra* note 13; BRENNER, *supra* note 13.

15. A gateway is usually a local phone number available for modem owners to dial, a list of information providers and several help screens. *See* David Margulius, *Videotex Redux: The Current State of the Videotex Market*, PC-COMPUTING, Jan. 1989, at 190.

16. *See* Edelman, *supra* note 4.

17. Nevertheless, some commentators have declared banking by phone to be a "dismal" failure. *See* Kinsey Wilson, *The Day When Computing and Communication Are Integrated As One May Be Closer Than Most People Think*, NEWSDAY, Oct. 16, 1990, at 1.

18. *See* WEINSTEIN, *supra* note 11, at 81-82.

system for video communication from the cable operator, to engage in interactive communication.

In contrast, when BCNs unite the functions of publishing, broadcast, cable and telecommunications network delivery systems and combine the information formats of print, voice, video, and data, users will be able to conduct all of these activities on a single network in a multi-informational format. Moreover, they will be able to engage in activities requiring greater speeds and capacities than the current telephone, cable, or spectrum-based networks provide.

The provision of these new multi-media services through a single network is based on computer technology and fiber optic technology. An optical fiber is a strand of flexible, hair thin glass approximately 0.005 inches in diameter.[19] These glass fibers carry pulses of laser-generated light. Compared to copper cables currently used for voice and data transmission, fiber optic cables are impervious to electrical interference and can ultimately carry digitized bit streams at the speed of light, hundreds of thousands of times faster than transmission via copper.[20] When combined in multi-fiber trunks, optical fibers have virtually unlimited capacity to carry voice, video and data simultaneously.[21] Because of its capacity, fiber optics allows two-way interactive communication via video as well as voice and data.[22]

Through the use of broadband networks, users will be able to send pictures to someone thousands of miles away, and the images will be as sharp and clear as a photograph of the original object.[23] Written messages could be converted into voice for delivery to individuals in cars, while hearing impaired individuals could use speech-generated text to converse with others by phone.[24] A surgeon in one city could obtain advice from a colleague, while watching an operation transmitted over the network, as if he were in the operating room.[25]

A new generation of multi-media communications devices will combine the functions of television, computers and telephone.[26] It is predicted that the devices will "process many different forms of information, combining voice, video, data, news, education, sports, film, and photos in one interactive digital stream."[27] With these devices appended to BCNs, users would be able to talk face to face, explore potential vacation spots or plot future travel itineraries,

19. *See* Keppel, *supra* note 9, at D6; Burgess, *supra* note 2.
20. *See* Keppel, *supra* note 9, at D6. *See also* Markoff, *supra* note 10.
21. *See* Sidney Dean, Jr. & Robert Shayon, *AT&T and Fiber Optics: Grabbing an Electronic Bonanza*, THE NATION, Oct. 9, 1989, at 386.
22. *See* Keppel, *supra* note 9, at D6.
23. *See* Weinstein & Shumate, *supra* note 9, at 8.
24. *Id.*
25. *Id.*
26. *See* Gilder, *supra* note 2 and accompanying text.
27. Gilder, *supra* note 2, at 151.

and search out and retrieve audio visual information and full-motion video all on one device situated in their living room.[28]

The advent of such communication devices and broadband communications networks will expand the speech opportunities for business and personal users. As the number of users grows, the network will increasingly resemble a vast forum in which users speak, debate, and assemble.

B. *The Utility and Social Impact of Interactive Broadband Technology: Altering the Distribution of Information and the Social Structure of Society*

> [T]he use of a new medium of communication alters the distribution of information in a society and, as a consequence, its social structure.[29]

Computer-augmented broadband services change the manner in which consumers use information and the manner in which consumers communicate with one another. These services increase the number of individuals who can initiate electronic speech and the number of fora available for public assembly. Users not only participate in communications addressed to them, they also initiate communication to others. As a result, groups can communicate in a manner previously available only through face to face meetings.[30]

Use of interactive broadband technology and computers will also increase the value of the information individuals receive.[31] Users will be able to tailor the information they receive to their own needs and preferences. Searches of video or print data bases will not necessarily be limited to what a videocaster or print editor decides to videocast or publish, and the information received will only include information that was requested.[32]

As information usage becomes more individualized, consumers may become less tied to the larger community. Consumers within a particular group, class, race, industry or religious sect can have their own programs, mini networks,

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28. *Id.*

29. M. Ethan Katsh, *Communications Revolutions and Legal Revolutions: The New Media and the Future of Law*, 8 NOVA L. REV. 631, 639 (1984) (citing a major thesis in the writings of Harold Adams Innis). *See* HAROLD A. INNIS, EMPIRE AND COMMUNICATIONS (1950); HAROLD A. INNIS, THE BIAS OF COMMUNICATION (1951).

30. *See* Katsh, *supra* note 29, at 662-63; Francis Dummer Fisher, *Free Speech and High Tech*, 82 MICH. L. REV. 981, 982-83 (1984). *See also* STARR R. HILTZ & MURRAY TUROFF, THE NETWORK NATION: HUMAN COMMUNICATION VIA COMPUTER (1978).

31. Fisher, *supra* note 30, at 982.

32. For instance, an interactive cable television system in Montreal, Canada allows the viewer to interact with the programming. At the touch of a button a viewer can decide which news stories provided in the newscast he or she wishes to view. A sports enthusiast can switch camera shots or call up instant replays of a play in a game. *See* Martin Wroe, *Media: Heaven for A Couch Potato*, THE INDEPENDENT, May 23, 1990, at 19.

and data bases specifically designed to meet their needs, beliefs, and interests.[33] As a consequence, consumers will be better able to preclude the receipt of conflicting or differing points of view.[34]

This "balkanization" impact could be compounded if a significant portion of the public is denied access to broadband services because they lack wealth.[35] In such circumstances, broadband communications could augment the economic fragmentation of the public produced by the unequal distribution of wealth.[36] In this context, the usage patterns could have divisive effects on the democratic political process in the United States.[37]

By changing the manner in which information is used and communicated by individuals, computer-augmented interactive broadband technology will create opportunities for the development of new First Amendment rights for individuals. However, these gains will only be realized if individuals are assured relatively easy access to a public, switched, integrated broadband network. Using the regulatory schemes currently employed to govern print, video, or voice communication to regulate broadband would deny BCN owners and users the potential benefits of broadband technology. None of these regulatory schemes could adequately balance and protect the competing First Amendment rights of BCN owners and the public.

C. *Expression the First Amendment Was Meant To Protect*

The courts and first amendment scholars have identified at least four interrelated speech rights in the first amendment: self-expression, assembly, access, and diverse points of view. These speech rights further a variety of social purposes and values including individual self-expression,[38] the attain-

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33. M. ETHAN KATSH, THE ELECTRONIC MEDIA AND THE TRANSFORMATION OF LAW 103 (1989). *See also* Benjamin Barber, *The Second American Revolution*, CHANNELS, Feb./Mar. 1981, at 21.

34. At least one First Amendment scholar argues that "there is significant benefit in being exposed to ideas and attitudes different from one's own, though this exposure be unwelcome. If we had complete control over the expression we are exposed to, the chances are high that we would use this power to our detriment." Thomas M. Scanlon, Jr., *Freedom of Expression and Categories of Expression, in* FREEDOM OF EXPRESSION: A COLLECTION OF BEST WRITINGS 471, 478 (Kent Middleton & Roy M. Mersky eds., 1981). *But see* JEFFERY B. ABRAMSON, ET AL., THE ELECTRONIC COMMONWEALTH: THE IMPACT OF NEW MEDIA TECHNOLOGIES ON DEMOCRATIC POLITICS 278 (1988).

35. "The critical problem for contemporary First Amendment theory is the unequal access that wealth can buy. Through its guaranty of free expression, the First Amendment supposedly protects the right of each individual to communicate his or her ideas. But as the Supreme Court recognized a few years ago, 'virtually every means of communicating ideas in today's mass society requires the expenditure of money.'" Stephen Carter, *Technology, Democracy and the Manipulation of Consent*, 93 YALE L.J. 581 (1984) (book review) (quoting Buckley v. Valeo, 424 U.S. 1, 19 (1976)).

36. *See* BEN H. BAGDIKIAN, THE MEDIA MONOPOLY, 176-80 (1990).

37. *See* ABRAMSON, *supra* note 34, at 160-61.

38. *See* First Nat'l Bank of Boston v. Bellotti, 435 U.S. 765, 777 n.12 (1978). The Supreme Court emphasized that an individual's interest in self-expression is a separate First Amendment concern from that of an open and informed discussion.

ment of truth,[39] assuring participatory self-governance by consensus,[40] and maintaining the balance between stability and change in society.[41] The Supreme Court has enumerated a broad set of subject areas protected by the First Amendment, including expression of philosophical, social, artistic, economic, literary, ethical, and political matters.[42]

Freedom of self-expression has been defined as the interest of each individual in deciding what views to express[43] and in having the ability to call something to the attention of an audience.[44] As many scholars have recognized, individuals using computer augmented interactive broadband communications have the capability to become their own publishers.[45] They will have increasing control over an expanding body of information and the tools to use and mold that information into their own unique viewpoints.

Moreover, because of the broad access afforded by the public switched network and because of the predicted increases in shared-use databases, individuals will have the means to call information to the attention of a far greater portion of the public. Telephone ("the poor man's transmitter"[46]) will become, with the use of a computer and the broadband network, a more powerful transmission tool capable of turning private conversations into public discourses.[47]

Realization of one's right of self-expression often depends upon the ability to assemble and to communicate with others in public fora. Public fora are "natural locations for those seeking to reach potential listeners."[48] The interactive broadband network will provide many opportunities for the creation of public fora as users and providers are aggregated by interest.

The public also has a right to receive competing viewpoints. The Supreme Court and many scholars perceive this public right as essential to successful self-government and social stability.[49] The more open and accessible the network, the greater the opportunity individuals will have to receive diverse information.[50]

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39. *See* Red Lion Broadcasting Co. v. FCC, 395 U.S. 367, 390 (1969).
40. *See* Thomas I. Emerson, *The Affirmatic Side of the First Amendment*, 15 GA. L. REV. 795 (1981).
41. *See generally*, THOMAS I. EMERSON, TOWARD A GENERAL THEORY OF THE FIRST AMENDMENT (1966).
42. *See* Abood v. Detroit Bd. of Educ., 431 U.S. 209, 231 (1977).
43. *See* LAWRENCE TRIBE, AMERICAN CONSTITUTIONAL LAW 788 (1988) (citing Cohen v. California, 403 U.S. 15, 24 (1971)).
44. *See* Scanlon, *supra* note 34, at 475.
45. *See, e.g.*, ITIEL DE SOLA POOL, TECHNOLOGIES OF FREEDOM 250-51 (1983).
46. Carter, *supra* note 35, at 599 n.93.
47. *See* Katsh, *supra* note 29, at 639-41.
48. Emerson, *supra* note 40, at 807-08.
49. *See* EMERSON, *supra* note 41, at 11-15. *See also* Abrams v. United States, 250 U.S. 616, 630 (1919) (Holmes, J., joined by Brandeis, J., dissenting).
50. *See generally* Katsh, *supra* note 29.

Rights of speech, assembly, access and diversity naturally flow from the use of broadband technology. The manner in which the technology is regulated, however, changes the availability of speech rights. Non-discriminatory access to an interactive broadband network would enhance individual speech rights, while restricted access could reduce rights significantly.

If the benefits of the broadband infrastructure are to be realized, public and private actors must make the system's construction a priority. However, the transition from separate technology and information-specific networks to an integrated broadband network infrastructure will be complicated and controversial, requiring the resolution of multiple political and regulatory conflicts.

II. Holding Market and Regulatory Lines Against A "Sandstorm of Silicon"[51]

A. *Public Policies and Private Interests*

Presently, significant controversy has emerged in Congress, the courts, and the FCC about when and how the United States will receive the benefits of broadband communications networks. Imbedded within the larger controversy are several smaller interrelated discussions about the efficacy, timing, and locus of responsibility for stringing fiber optic cable to the home, and the advisability of allowing the Regional Bell Operating Companies (RBOCs) to enter the enhanced and information services markets.

1. *Interested Parties and Stakeholders*

Broadly defined, the groups interested in the debate include users of the currently separate information distribution networks, providers of public and private telecommunications facilities and services, resellers of network services, businesses which rely on network services to produce goods and services, and suppliers of the equipment required to develop and maintain a broadband network.

Users are individuals, firms, or groups having no ownership of the networks and services they use. They may purchase access to some of the networks over which they interact, such as the telephone network. They are most often semi-passive recipients of information transmitted one-way over broadcast or cable networks. In short, they are customer-users. The communications needs of business and residential customer-users vary substantially. For instance, many businesses already have significant needs for high-speed, high-capacity broad-

51. Peter Huber, *Telecom Apartheid*, FORBES, Nov. 27, 1989, at 268.

band communication networks.[52] By comparison, the general public has not yet generated needs sufficient to precipitate demand for greater network speeds and capacities.[53] Public network providers own most of the telecommunications network switching and transmission facilities which are part of the public switched network. They are essentially common carriers by their own election (MCI and Sprint) or by regulation (AT&T and the RBOCs). Private network providers also own switching and transmission facilities. They are interconnected with the public switched network and sometimes lease capacity from public network providers. Private network providers are essentially private carriers switching and transporting information for specific customers.[54]

2. *Infrastructure, Public Policy, and "Wiring the Last Mile"*

Currently, members of Congress and the administration, futurists, technologists, and scholars extoll the importance and virtues of a national broadband infrastructure. These parties perceive a broadband infrastructure as critical to education, medical care for the elderly, economic development, international competition, scientific research, and competition with cable television services.[55] The parties are also pursuing the political, social, and economic benefits expected to flow to those who provide the new and enhanced services.[56]

Some argue that unless a national broadband infrastructure is developed, access to new services will be limited to a small portion of the public.[57] The importance of a national broadband infrastructure can be compared to the critical role that the national highway system and the electrical power distribution network have played in linking our society. With a national broadband infrastructure in place, most members of society would be electronically accessible to one another.[58]

For others, rewiring the nation with fiber is a national priority because it is essential to maintaining American competitiveness at home and abroad. In the face of increasing international competition, the infrastructure is necessary to assure the preeminence of the United States as an international and domestic

52. *See* Michael L. Dertouzos, *Communications, Computers and Networks*, SCI. AM., Sept. 1991, at 64 [hereinafter Dertouzos, *Communications, Computers and Networks*]; Albert Gore, *Infrastructure for the Global Village*, SCI. AM., Sept. 1991, at 152; Michael L. Dertouzos, *Building the Information Marketplace*, 94 TECH. REV. 28, 31-32 (Jan. 1991) [hereinafter Dertouzos, *Building the Information Marketplace*].

53. Dertouzos, *Building the Information Marketplace*, *supra* note 52, at 31-32; Dertouzos, *Computers, Communications and Networks*, *supra* note 52, at 65.

54. There are an estimated 700,000 private networks in the United States. *See* Guilder, *supra* note 2, at 160.

55. *See* S. 1220, *supra* note 3, at §101; H.R. 2546, *supra* note 8, at §101.

56. *See* Gore, *supra* note 52, at 152-53; Nicholas P. Negroponte, *Products and Services for Computer Networks*, SCI. AM., Sept. 1991, at 108-09.

57. *See, e.g.*, Gore, *supra* note 52, at 152.

58. *See* S. 1200 *supra* note 3, at § 101(12).

telecommunications services and equipment provider. These scholars claim that the failure to move swiftly to wire the nation with broadband fiber technology would invite foreign firms to take the lead in network installation and the provision of innovative services.[59] This potential for foreign competition may be detrimental to the development of domestic industries, employment opportunities, and the nation's balance of trade. For example, the regional telephone companies argue that if they are allowed to finance fiber rewiring via entry into the video distribution and electronic services markets, their exports could help cut the United States trade deficit, and their research could bolster the United States' position as a leader in telecommunication technology.[60]

Much of the long distance infrastructure of the public telecommunications network is wired with fiber. There is still disagreement, however, over who will wire and digitize the local and regional markets and how much it will cost.[61] One commentator argues that "stringing the fiber the 'last mile' to each home will have to wait until enough video and other consumer services requiring high transmission speeds emerge to pay for it."[62] Basic interactive services are already offered over copper for less money,[63] and there is not sufficient demand for other services. The uncertain demand for new services means that telephone companies would likely finance rewiring with revenues from existing telephone services.[64] Others argue just as strenuously that financing the development of a broadband infrastructure is not problematic. The price of fiber deployment will plummet within seven years as the cost of fiber optic cable production decreases to one tenth its current level and regulations "preventing" the RBOCs from laying fiber to homes are removed.[65]

This debate should not obscure the clarity of the administration's position favoring open market competition. The Congress is presently considering bills in both houses which would establish the creation of a broadband communica-

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59. For instance, Nippon Telephone and Telegraph is reported to be planning to spend an estimated $200 billion dollars on a new fiber-based network in Japan.. *See* Gore, *supra* note 52, at 152; Burgess, *supra* note 10, at C3. *See also* Markoff, *supra* note 10, § 3, at 1.

60. *See* Mark Lewyn, *Will Congress Set the 'Bell Seven' Free?*, BUS. WEEK, Dec. 4, 1989, at 110.

61. The cost of substituting fiber for the existing copper telephone network which connects the nation's 90 million homes is estimated at $200 billion dollars. Markoff, *supra* note 10, at § 3, at 1. Currently, "equipping a home for the full video, voice and computer services that are foreseen would run $5,000-$10,000 . . ." Burgess, *supra* note 10, at C3. The cost of wiring a home with copper is approximately $1,500. Markoff, *supra* note 10, at § 3, at 1. At present, fiber remains conservatively three to seven or as much as ten to twenty times more costly to install than coaxial cable. *See Fiber Gets Closer to Home*, BROADCASTING, Oct. 16, 1989, at 34. Prices for fiber installation could fall over the next decade to approximately $1,800 per home. Burgess, *supra* note 10, at C3.

62. *See* Burgess, *supra* note 10.

63. *See* Mark Cooper, Expanding the Information Age for the 1990's: A Pragmatic Consumer Analysis, prepared for The American Association of Retired Persons and The Consumer Federation of America ES-1, ES-2, 18-21 (Jan. 11, 1990) (unpublished manuscript).

64. *See* Bushaus & Pfeiffer, *supra* note 10, at S27.

65. Guilder also suggests that when maintenance costs are included in the calculations, fiber is already as cheap as the coaxial cable used in telephony and cable transmission. *See* Guilder, *supra* note 2, at 156.

tions infrastructure as a national goal.[66] The District of Columbia district court has approved limited RBOC entry into the information and enhanced services markets.[67] Meanwhile, the FCC has issued a notice of inquiry to initiate its consideration of the removal of current cross-ownership restrictions on the co-ownership of telephone and cable facilities.[68] Thus, the entry of the RBOCs into the video and information services markets to compete with publishing, broadcasting and cable television companies is imminent. The only remaining issues are whether the RBOCs will ultimately be allowed to provide video services in their respective geographic telephone markets,[69] and how the interests of RBOCs will be reconciled with the interests of each of the current information distribution industries.

B. *Entry Into the Broadband Marketplace: The Coming Competition In Multi-Media Information Distribution*

The use of broadband technology has begun to erode the market protection previously enjoyed by the traditional information distribution industries. Further, as the technology and information-related distinctions vanish, regulatory protection of the distinct markets no longer makes sense. The removal of these protections will increase opportunities for market entry. Consequently, each industry has a significant stake in controlling the development, deployment, and use of broadband technology.

The RBOCs seek to expand into the interactive video and electronic publishing markets while protecting their voice and data markets. The print, broadcast, and cable television industries seek to protect their respective markets by opposing the entry of the RBOCs.[70] At least two of the current information distribution industries will attempt to garner competitive advantage by becoming broadband transmission providers. They may also attempt to influence the manner in which broadband technology will be regulated.

The telephone and cable television industries have the most immediate interest in controlling attempts to rewire the residential market. At present, the

66. The language in both bills would amend section 1 of the Communications Act of 1934, 47 U.S.C. § 151, by adding the following language after "at reasonable charges": "for the purpose of establishing a nationwide, advanced, interactive, interoperable, broadband communications system available to all people, businesses, services, organizations and households on or before the year 2015." *See* S.1200, *supra* note 3, at § 102; H.R. 2546, *supra* note 8, at § 102.

67. *See* United States v. AT&T, 552 F. Supp. 131 (D.D.C. 1982), *aff'd sub nom.*, Maryland v. United States, 460 U.S. 1001 (1983). *See also* Tawn Parent, *Forbidden Fruit No More? Phone Companies Gear Up for Possible Entry Into Cable TV*, INDIANAPOLIS BUS. J., July 16, 1990, § 2, at 18.

68. 47 C.F.R. §§ 63.54-63.58 (1989).

69. *See* 47 U.S.C. §§ 521-59 (1987).

70. They have opposed legislation allowing the entry of telephone companies into the video distribution market. *See* Lewyn, *supra* note 60; *See also* Harry Jessel, *Appeals Court Says FCC Erred in Cerritos Waiver*, BROADCASTING, Sept. 24, 1990, at 28.

networks of each industry connect with equipment on the premises of their users' homes. A technology which would allow one set of wires to deliver the voice and data information currently provided via telephony and the video information provided by cable is of great economic concern to both. It is not surprising that each industry takes radically different positions on rewiring the home.

The RBOCs argue that allowing them to enter the electronic video distribution and information services markets would provide the economic incentive for earlier wiring of fiber to the home. Cable companies argue that they are currently modernizing their networks consistent with consumer demand, and that the demand for new video and information services is far less than the RBOCs have predicted. They further contend that regional telephone companies would engage in anti-competitive behavior if allowed to enter the video distribution market. The history of pole attachment litigation between cable television firms and regional telephone companies lends credence to cable operator concerns.[71]

Cable companies are not alone in condemning telephone entry into the video and print information distribution markets.[72] Newspaper publishers are concerned that their classified and retail advertising base will be lured onto computer based information services provided by the RBOCs.[73] Long distance phone companies worry that allowing the RBOCs into the video and electronic information markets will lead to RBOC entry into the long distance telephone market.[74]

Broadcasters, already hard pressed by multi-channel cable and microwave systems and the specter of high definition television, are wary of seeing yet another powerful multi-channel competitor enter the video distribution market.[75] Their recent experiences in attempting to gain access to cable television channels, the telephone companies' history of anti-competitive behavior, and more recent RBOC indiscretions fuel concerns.[76]

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71. *See generally* BRENNER, *supra* note 13, at § 5.02(1)-(5), §§ 5-4 to 5-18.

72. Cable television companies and newspaper publishers as well as long distance companies and electronic equipment manufacturers allege that the RBOCs would use their revenues to compete unfairly. *See, e.g., Two Groups Rip Cable Role For Phone Firms*, L.A. TIMES, Jan. 12, 1990, at D5.

73. One of the first services the RBOCs are likely to market will be an electronic version of the yellow pages. *See* Carla Lazzareschi, *Information Revolution Is Likely to be Years Away*, L.A. TIMES, July 27, 1991, at A1. This service could erode the newspapers' hold on the $12.8 billion dollar classified advertising market. *See* Henry Gilgoff, *Dialing for Data: Ruling Lets 'Baby Bells' Compete in Info Services*, NEWSDAY, July 26, 1991, at 5; *cf.* Christy Fisher, *Bell Ruling Rings Alarm: ANPA Gets Ready to Fight Against New Phone Services*, ADVERTISING AGE, July 29, 1991, at 1.

74. *See* Gilgoff, *supra* note 73.

75. *See* Kim McAvoy, *Cable and Broadcasters Find Common Ground; Broadcasting/Cable Interface V Conference*, BROADCASTING, June 10, 1991, at 39.

76. *See* United States v. Western Electric Co., 767 F. Supp. 308 (D.D.C. 1991). *See also* Edmund Andrews, *'Baby Bells' Wait; Hope Judge Relents*, N.Y. TIMES, Mar. 10, 1991, §3, at 5; Steve Effros, *Will Users Benefit from Telco Entry into the Cable Industry?*, NETWORK WORLD, July 30, 1990, at 31.

Like the broadcasters, some providers of computer-based on-line information and other services also are concerned about RBOC attempts to limit access.[77] Finally, electronic equipment manufacturers warn that the regional telephone companies would use revenues to compete unfairly.[78]

C. *"A Regulatory Nightmare in the Making"*[79]

Given the regulatory baggage each industry brings to broadband service competition, debates over how to render such competition "fair" necessarily will include a determination of which regulations, if any, ought to be employed in the evolving broadband services market. The danger in such a debate is that policy may be formulated on economic considerations with little attention to the policy's effect on the speech rights of broadband providers and consumers. This tendency to ignore speech rights may be heightened because a significant portion of the broadband services have yet to be developed.

Historically, market entry and technological considerations have shaped the distribution of the First Amendment rights between media providers and the public. Media owners in each industry have been accorded First Amendment rights based in part on the ease of entry into each market.

In print, speech was unregulated because it was assumed that anyone could publish. There was no perceived need for the government to assure access.[80]

The initial scarcity of broadcast frequencies made acquisition of the means of transmission more problematic. All those who sought to broadcast could not do so without substantial signal interference, so the government licensed only a few broadcasters. However, by requiring the broadcast licensee to share his or her frequency with the public, government regulation sought to reduce the impact of the broadcasters' control over the channel of communication.[81]

Similarly, cable television franchises were scarce because of the physical limits inherent in the use of public rights of way. The economies of scale exacerbated this physical scarcity. Because all who sought to cablecast could

77. *See* COMM. DAILY, June 6, 1989, at 7 (reporting on request that the California Public Utility Commission reject an RBOC proposal that it be allowed the discretion to disconnect any service provider or 976 service program which the RBOC determined contained harmful matter).

78. *See id.*

79. *Regulating the Future: How Existing and Emerging Technologies Will Be Regulated is Topic of Debate at FCBA Forum*, BROADCASTING, Oct. 30, 1989, at 58 (quoting FCC Commissioner Sherrie Marshall).

80. This perception of the ease of entry into the print market no longer holds sway. However, its loss of credibility has not resulted in the imposition of access requirements on newspaper publishers. *See* Miami Herald Publishing Co. v. Tornillo, 418 U.S. 241 (1974) (holding that government regulation that intrudes on the editorial control of a newspaper violates the First Amendment).

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

not do so, the cable franchisee was required to share his or her channels of communication with the public.[82]

In telephony, the need for interconnection and economies of scale led to the creation of government-sanctioned monopolies. Government then sought to assure public access by prohibiting discrimination between customers on the basis of facilities or the price paid for the services provided. As a further means of preventing discrimination, regulations deprived the telephone company of any control over the content of the information transmitted.

There is a critical relationship between regulatory policy assumptions regarding market entry and competition and the scope of First Amendment rights afforded media owners. Therefore, any regulation of market entry and competition in broadband should include explicit recognition of its impact on the First Amendment rights of broadband providers and consumers.

> Since the lines between publishing, broadcasting and the telephone network are now being broken, the question arises as to which of these three models will dominate public policy regarding the new media. There is bound to be debate with sharp divisions between conflicting interests.[83]

The evolving regulatory "nightmare" provides the Congress, the FCC, and the courts with an opportunity to eschew the piecemeal approach to communications policy, and instead base regulation on the underlying First Amendment premises of communications and telecommunications.

D. *A Question of Balance*

The timing of the regulatory debate over BCNs is particularly propitious, because of the likelihood that the RBOCs will be allowed entry into the information services markets. Congress, the FCC, and the courts should decide whether the RBOCs and other networks have First Amendment speech rights. Further, these bodies must determine what access rights the competitors of the broadband networks should enjoy. Should access requirements restrict broadband like the regulations limiting cable television? Are such requirements a contravention of the broadband network provider's First Amendment rights? How should the First Amendment rights of users be balanced with the rights

82. *See* The Cable Communications Policy Act of 1984, Pub. L. No. 98-549, 98 Stat. 2779 (codified as amended at 47 U.S.C. §§ 531, 532 (1987) (discussing public access channels and leased commercial access channels)).

83. POOL, *supra* note 45, at 250-51.

of companies which develop, deploy, and operate interactive broadband networks?

Broadband regulation and the balancing of speech rights should not be based on traditional models of regulation. Neither should broadband's similarities to its predecessors determine the form of regulation. Rather, regulators should examine how the technology will be used, whether these uses are protected by the First Amendment, and what control parties should have over the usage rights of others.

III. Applying an Eighteenth Century First Amendment to a Twenty-First Century Technology[84]

The access afforded by communication technology has traditionally shaped regulation. Since there are supposedly few economic barriers to entry in print, regulation has been sparse. The newspaper owner enjoys almost complete freedom of speech while the public enjoys no right to access.

In broadcast or cable television, spectrum or franchise scarcity limits market entry, and so regulation tries to assure some public access. Broadcasters, for instance, must allow access to political candidates, and cablecasters of a certain size must set aside channels for public or commercial use. Entry into the common carrier market is economically difficult, and so regulators have limited common carriers' speech rights.

The courts have contributed to these models: "applying familiar analogies from the past to their lay image of the new technology, [the judiciary] create[s] a partly old, partly new structure of rights and obligations."[85] For instance, the courts have compared and distinguished broadcasting and print;[86] cable television and print and broadcasting;[87] and direct broadcast satellites and video subscription and print, broadcasting, and common carriage.[88] The courts would likely compare broadband distribution networks to print, broadcasting, cable, and common carriage and regulate BCNs based on an amalgamation of previous regulatory models.

This "common law" mode of judicial analysis has come under increasing criticism. Some commentators argue that the premise that different media necessarily invite different allocations of First Amendment rights between

84. *See* Fisher, *supra* note 30, at 981.

85. POOL, *supra* note 45, at 7.

86. *See* Red Lion Broadcasting Co. v. FCC, 395 U.S. 367, 386 (1969).

87. *See* Michael Wirth & Linda Cobb-Reilly, *A First Amendment Critique of the 1984 Cable Act*, J. BROADCASTING & ELECT. MEDIA, Fall 1987, at 396-99.

88. *See* Nat'l Ass'n of Broadcasters v. FCC, 740 F.2d 1190 (D.C. Cir. 1984); Nat'l Ass'n for Better Broadcasting v. FCC, 849 F.2d 665 (D.C. Cir. 1988) (distinguishing subscription Television Service from conventional broadcasting). This case served as the basis for the FCC to distinguish new video subscription technologies such as multichannel multipoint distribution service from broadcasting.

private owner and public speakers rests on a flawed interpretation of the First Amendment. They believe that this premise sanctions government regulation of mass media in a manner contrary to the First Amendment's prohibition against government regulation of speech.[89] Moreover, technological, physical, or economic scarcity, the primary justification for much of government regulation of electronic mass media, is diminishing as technology creates more potential media outlets.[90] However, interpretations of the First Amendment which emphasize the "private liberty" or print model fail to acknowledge the notion of equality prevalent in American political philosophy. Moreover, proponents of the "private liberty" model rely on flawed assumptions regarding the marketplace of ideas.

Other critics argue that these regulatory models tend to be inappropriate to emerging forms of the technology. For instance, broadband technology has the capacity to facilitate interactive communication between individuals irrespective of the type of information transmitted. Also, it combines distinct information streams and technology into one network or channel. As discussed below, these characteristics set broadband apart from prior technologies and render simple comparisons between broadband and its predecessors suspect.

A. *Liberty, Equality, and Electronic Speech*

> Today, the most important First Amendment issues facing American society concern the ways that disparities in economic resources affect access to the marketplace of ideas . . . . It may be the case, as many civil libertarians claim, that the average American has never been freer to speak. It is probably also the case that the average American has never had less opportunity to be heard.[91]

> [M]onpolistic practices, economies of scale, and an unequal distribution of resources have made it difficult for new ventures to enter the business of mass communications. Restriction of entry to the economically advantaged quells voices today that might have been heard in the time of the town meeting and the pamphleteer.[92]

Recently, government and academic commentators have argued that the government's role in assuring public access to the mass media should be

89. *See* JONATHAN W. EMORD, FREEDOM, TECHNOLOGY, AND THE FIRST AMENDMENT 277-95 (1991).

90. *See, e.g.*, Matthew L. Spitzer, *The Constitutionality of Licensing Broadcasters*, 64 N.Y.U. L. REV. 990, 991 (1989); Jonathan W. Emord, *The First Amendment Invalidity of FCC Ownership Regulations*, 38 CATH. U. L. REV. 401, 402-03 (1989).

91. MARK A. GRABER, TRANSFORMING FREE SPEECH 13, 14 (1991).

92. Stanley Ingber, *The Marketplace of Ideas: A Legitimizing Myth*, 1984 DUKE L.J. 1, 38.

diminished or curtailed altogether. A number of government officials, most notably the current Chairman of the FCC, have repeatedly argued for a return to marketplace regulation.[93] In some cases commentators have criticized potential Congressional legislation lacking a marketplace solution as being unconstitutional.[94]

Several recent cases have questioned or rejected the viability of scarcity as a justification for government regulation of mass media.[95] These media cases, when read in conjunction with others concerning campaign finance reform,[96] suggest that significant precedent exists to argue that the First Amendment emphasizes private liberty to the exclusion of public access and equality.

Indeed, some scholars argue that First Amendment values are best protected in the absence of government regulation. For them, any government intervention in the marketplace invariably stifles speech.[97] Given a choice between private or government censorship, these scholars contend that government censorship is worse because "[i]f one private person suppresses a fact, there are many others who may publish it. Not so if the government forbids!"[98] Nevertheless, one "cannot evade the need for positive governmental action in some cases to secure meaningful opportunities for speech."[99]

The difficulty with the private liberty model of the First Amendment is what it ignores or dismisses. Large corporations controlling communication through

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93. For instance, FCC Chairman Alfred Sikes and Commissioners Sherrie Marshall and Andrew Barrett have favored marketplace solutions to a number of current regulatory issues. *See* Harry A. Jessel, *FCC Considers Restoring Must-Carry Rules,* BROADCASTING, July 22, 1991, at 32 [hereinafter Jessel, *Restoring*]; Harry A. Jessel, *Third Time May Be the Charm for Must Carry at FCC,* BROADCASTING, May 20, 1991, at 31 [hereinafter Jessel, *Charm*]. *See also* Andrew C. Barrett, *Public Policy and the Advanced Intelligent Network,* 42 FED. COMM. L.J. 413, 427 (1990).

94. Consistent with judicial precedent, Chairman Sikes has emphasized that the "must carry" solutions proposed by Congress and the FCC may be unconstitutional. *See* Jessell, *Restoring, supra* note 93; Jessell, *Charm, supra* note 93.

95. *See* Miami Herald Publishing Co. v. Tornillo, 418 U.S. 241 (1974); Quincy Cable TV v. FCC, 768 F.2d 1434 (1985); Preferred Communications, Inc. v. City of Los Angeles, 754 F.2d 1396 (9th Cir. 1985), *aff'd,* 476 U.S. 488 (1986). *Cf.* Michael Meyerson, *The First Amendment and the Cable Television Operator: An Unprotected Sheild Against Public Access Requirements,* 4 COMMENT 1, 22 (1981).

96. *See generally* GRABER, *supra* note 91, at 185-215 (discussing the effects of property ownership on expressive speech in the context of political campaigns and mass media.) Graber suggests that recent Supreme Court precedents may support a conclusion that property owners can circumvent state-mandated public access rights by claiming that the state regulations burden their right of expression. GRABER, *supra* note 91, at 195 (citing and analyzing Pruneyard Shopping Center v. Robins, 447 U.S. 74 (1980); Miami Herald Publishing Co. v. Tornillo, 418 U.S. 241 (1974); Pacific Gas & Elec. v. Pub. Util. Comm'n. of Cal., 475 U.S. 1 (1986)).

97. *See* EMORD, *supra* note 89, at 124.

98. *Id.* at 125 (quoting Louis Jaffe, *The Editorial Responsibility of the Broadcaster: Reflections on Fairness and Access,* 85 HARV. L. REV. 768, 786 (1972)). Emord's and Jaffe's assertion is misapplied to the majority of mass media. First, these organizations are usually composed of individuals collectively engaged in the pursuit of economic enterprises. They are neither economically nor socially the equivalent of "one private person." Moreover, the speech power they may assert by virtue of their economic power is far greater than that of a private person.

99. Lawrence Tribe, *Toward A Metatheory of the Free Speech, in* CONSTITUTIONAL GOVERNMENT IN AMERICA 1, 5 (Ronald K.L. Collins ed., 1980).

liberal FCC multiple and cross-ownership rules have the power to suppress speech far in excess of that possessed by a private single person. Further, large corporations have suppressed speech when their interests have benefited by suppression.[100] This corporate power is more akin to that wielded by the government than that wielded by the private individual.[101]

Further, the private liberty theory of the First Amendment rests in large part on assumptions about liberty which parallel the flawed theory of free market capitalism. The marketplace theory falsely assumes that bargainers are basically equal in power, that true competition exists, and that all bargainers possess adequate, if not perfect knowledge.[102] The marketplace of ideas also suffers from real world ailments which undermine its effectiveness. "[S]ophisticated and expensive communications technology, monopoly control of the media, access limitations suffered by disfavored or impoverished groups, techniques of behavior manipulation [advertising], irrational responses to propaganda, and the arguable nonexistence of objective truth, all conflict with marketplace ideals."[103]

The FCC's multiple and cross ownership rules concentrate private speech power in the hands of media owners. These owners decide which non-owners may have access and hence, who shall have effective speech rights. Under current circumstances, the individual citizen may have the right to speak, but lack the ability to be heard because of negligible access to a forum. Without access to a forum, the liberty to speak is an ephemeral one.

One observer believes that "the healthy vision the framers of our Constitution had of roughly equal yeomen has . . . been eroded in recent years by the conglomerate ownership of newspapers, radio and TV stations, and book publishers, as well as by the corporate veil that shrouds these companies from serious scrutiny."[104] Such a result violates the meaning of the First Amendment and the meaning of democracy.[105]

The abuse of private liberty through the exercise of concentrated media ownership may result in censorship and may frustrate the self-expression and the dissemination of truth essential to a democracy.[106] Nevertheless, an insistence that all citizens must have equality of access to the media may give the government too large a role in controlling speech.[107] The real challenge to

100. *See* BAGDIKIAN, *supra* note 36, at 90-101, 216-20.

101. *See* Owen Fiss, *Why the State?*, 100 HARV. L. REV. 781, 787 (1987).

102. *See* John Shockley, *All the Free Speech that Money Can Buy?*, *in* JUDGING THE CONSTITUTION 378, 389 (Michael McCann & Gerald Houseman eds., 1989).

103. Ingber, *supra* note 92, at 5.

104. Norman Dorsen, *The Need for a New Enlightenment: Lessons in Liberty from the Eighteenth Century*, 38 CASE W. RES. L. REV. 479, 492 (1988).

105. Tribe, *supra* note 99.

106. *See* GRABER, *supra* note 91, at 87-89.

107. EMERSON, *supra* note 41.

Congress, the court, and civil libertarians lies in the development of a regulatory scheme somewhere between absolute liberty and absolute equality. How may we assure both equal access and individual liberty to speak while minimizing the dangers of private speech and government regulation?

B. *Mass Communications, Broadband, and the Clash of Competing First Amendment Rights*

> At the center of communications policy in the United States lies an unresolved, and perhaps irresolvable, tension between two competing aspects of our free press tradition. On the one hand . . . a free . . . independent and autonomous press . . . . On the other hand, . . . an accessible [press].[108]

Congress, the FCC, and the courts have struck the balance between the fundamental speech rights of media owners and the public differently depending upon the particular technology employed.[109] In doing so, they have relied at times on the private liberty interpretation of the First Amendment and at times on the public equality interpretation of the First Amendment. The balance struck in such instances has been subject to significant scholarly review and criticism.[110]

There are inherent problems in adapting any of the regulatory schemes applied to preceding technologies to interactive broadband technology. First, except in the case of telephone regulations, the communications regulations govern one-way point to multi-point communication or transmission technologies, not two-way interactive technology. These regulatory schemes contemplate one speaker, the media owner, whose speech rights may or may not be circumscribed by the government under limited circumstances. This speaker communicates with or transmits to a mass audience composed of individuals who, although not captive, are usually passive. The audience will hear only that which the speaker wishes to tell them.

By contrast, broadband technology contemplates the existence of at least two speakers in an interactive exchange of information. Neither party is passive, as both possess the ability to communicate with one another on any of a variety of subjects. Furthermore, unlike telephony, interactive broadband technology will allow an individual speaker to communicate with large groups of people. Regardless of whether the exchange of information occurs between two or more persons, two or more machines, a person and a machine, or several persons and

108. ABRAMSON, *supra* note 34, at 293-94.
109. *See* EMERSON, *supra* note 41; POOL, *supra* note 45.
110. *See* ABRAMSON, *supra* note 34, at 239-60; POOL, *supra* note 45, at 8-15.

machines, the critical feature of broadband usage is that both parties may create, package, process, and transmit information. Furthermore, broadband communication need not be limited to voice or data, but also may include video and combinations of voice, data, and video. This capacity for interactive communication through multiple forms of information sets broadband apart from its predecessors.

Although broadband technology combines many of the capacities of its predecessors, broadband technology should not be governed by the conflicting speech regulations applied to these preexisting technologies. Regulatory solutions which work for a technology and information specific network distribution system would create chaos if applied to a single broadband communications distribution system.

1. *Print, Personal Liberty, and Broadband*

Government regulation of print media is limited. The owner's speech right is virtually absolute to protect against government intrusion. Consequently, the public enjoys no right of access to the media or to diverse points of view except at the print editor's election. A right of assembly is technically infeasible since the print media does not allow a group of individuals to address one another in real time. The pages of a print medium may serve as a forum for individuals to memorialize the substance of views previously expressed, but even this form of access occurs only at the discretion of the publisher. Competition for advertising revenue and liability under the defamation laws provide two of the few limitations on the editorial control exercised by print owners. These features make print regulation the embodiment of the private liberty model of First Amendment interpretation.

Application of the print model to broadband networks, while perhaps pleasing to a number of constitutional purists, would deny the public a right of access to the broadband network. The discretion to allow access for private as well as public speech would reside entirely with the owner/carrier. Such a development would wreak havoc upon the relatively well-ordered telecommunications common carrier market and its users. Users would find not only their private and public speech, but also their social and business activities circumscribed by broadband network providers.[111] The same broadband network provider would both own the network and decide who has access to the network and its users. Endowed with this power, a broadband network provider could demand a financial interest in any business seeking to reach subscribers on its network.

111. *See* Fisher, *supra* note 30, at 981-82.

Regulating broadband based on the print model would exacerbate the problems of private censorship and self-serving editorializing sometimes experienced in the print mass media because the broadband network provider would control a greater number of communication channels.[112] The provider would control the public's access to information and other speakers' access to the public. In effect, the broadband network provider would control the scope of individuals' speech, access, assembly, and diversity rights. Subscribers would hear, see, and receive only that information which the provider chose to allow. If the private liberty model is applied to broadband, the promise of broadband technology will be eviscerated, if not destroyed.

2. *Personal Liberty Circumscribed by Government Mandated Access*

a. *Broadcasting and the Public Interest*

Government regulations limit the editorial control of broadcast media owners. Federal political broadcast rules require broadcast licensees to make air time available to political candidates running for federal office. The licensee must also make air time available for political candidates if the licensee has provided air time to the candidates' opponents.[113] Consequently, the public, through their public officials, enjoy a limited right of access.

During the 1980s, the FCC defined narrowly the limited right of public access to broadcast facilities and to the presentation of diverse points of view.[114] Aside from the political broadcast rules and the required issues lists, the public must depend on the broadcaster's exercise of editorial discretion and the pressure exerted by competing broadcasters and cable operators to assure some diversity of viewpoint. Under these circumstances, the broadcaster is free to program exclusively to those elements of the audience that have sufficient disposable income to be of interest to advertisers.[115] The programming presented to attract desirable audiences will reflect only limited socio-economic viewpoints and interests.[116]

A right of assembly is technically feasible in the broadcast media, but depends upon broadcaster discretion. For instance, there are a number of public

112. *See* BAGDIKIAN, *supra* note 36, at 94-101.

113. *See* 47 U.S.C. §§ 315, 312(a)(7) (1991); 47 C.F.R. §§ 73.1930, 73.1940, 76.205, 76.209(d) (1990).

114. In 1985, the FCC determined that the fairness doctrine did not serve the public interest and raised doubts about the doctrine's constitutionality. *See* Syracuse Peace Council v. FCC, 867 F.2d 654 (D.C. Cir. 1989), *cert. denied,* 493 U.S. 1019 (1990). The FCC also removed a number of requirements aimed at assuring that broadcasters addressed issues of importance to the area of license.

115. *See* ABRAMSON, *supra* note 34, at 288.

116. "[D]eregulationists . . . point to the large menu of programs form which consumers may choose. But . . . [i]f more of the same sort of programming is coming from the same few sources, the aura of choice and diversity is an illusion." ABRAMSON, *supra* note 34, at 264.

affairs programming formats relying on televised interaction between individuals engaged in discussions at the studio[117] or between individuals at the studio and at remote locations.[118] Nevertheless, as a legal and practical matter the broadcaster maintains control over the selection of speakers and the information aired.

Although the broadcast model allows a minimal level of public access, its application to broadband network providers would be problematic. The access provided by the broadcast model is available only to politicians running for federal office and non-federal candidates whose opponents have received air time.[119] Allowing only limited access to a particular class of speakers denies the public direct rights of access, speech, assembly, and diversity.[120]

b. *Multi-Channel Video Subscription Technologies and Public Access*

Operators of other multi-channel services, such as cable television and many of the new video subscription technologies,[121] also have significant editorial control over their channels of communications. Many cable television franchisees are required to provide access to the public via leased access channels and through public, educational, and government (PEG) access channels.[122] By contrast, wireless video subscription services must elect common carrier status before they have any corresponding obligation to provide access to the public.[123]

While there is no legally mandated public right of assembly, wired and wireless cable television system owners may, at their discretion, allow forum programming similar to the type provided by broadcasters. Individuals or groups securing access to cable television via leased and PEG channels may also elect to transmit forum programming. However, the diversity of information received by the public is dependent upon the cable operator's editorial discretion, as

117. Examples are Agronsky and Company on WUSA Channel 9 in Washington, D.C., and the Capitol Gang produced by Fox.

118. Live newscasts and programs such as ABC's Nightline are examples of this format. The Larry King show, produced by Turner Broadcasting, allows viewers to call-in and speak with the host and guests.

119. *See* 47 U.S.C. §§ 312(a)(7), 315 (1991).

120. Some may argue that such a government mandated, class oriented restriction on speech is inconsistent with government neutrality. *See* William E. Lee, *Cable Leased Access and the Conflict Among First Amendment Rights and First Amendment Values*, 35 EMORY L.J. 563, 594 (1986).

121. Multichannel Multipoint Distribution Service (MMDS), Operational Fixed Service (OFS), and Instructional Television Fixed Service (ITFS) are microwave subscription technologies possessing the same transmission capacity as broadcast stations. These microwave based subscription services are licensed by the federal government. *See In re* Amendment of Parts 21, 43, 74, 78, 94 of the Commission's Rules Governing Use of the Frequencies in the 2.1 and 2.5 GHz Bands, 5 F.C.C.2d 6410 (1990); *In re* Subscription Video Services, No. 85-538, 1986 F.C.C. Lexis 4173 (1986).

122. Cable Communications Policy Act of 1984, 47 U.S.C. §§ 521-59 (1988).

123. *See* BRENNER, *supra* note 13, at §§ 16.02(5), 16.04(2)(a).

influenced by the market demand for subscription services, by the competition for subscribers and advertisers, and by the wired cable television access regulations.

In the case of cable television, federal and local government regulations limit the media owner's ability to control public access to the transmission paths. The rationale for balancing the personal liberty and public equality models through regulation of the cable industry is based on cable television's status as a monopoly using public rights of way. By contrast, owners of subscription mass media relying on new applications of spectrum based technologies retain the right to choose the extent of public access based on the type of media business the owners wish to conduct. Thus, owners of subscription mass media may elect to be in the transmission business and eschew editorial control over information content. Alternatively, an owner may choose common, or to a lesser extent private, carriage and surrender some portion of his or her personal liberty to government regulation of access.[124] Finally, owners of subscription mass media may elect to enter the information business and maintain control over both transmission facilities and information content. In this case, personal liberty is retained due to judicially sanctioned FCC reluctance to impose broadcast related access requirements on the owner speakers.[125]

Like extensions of the print and broadcast models, application of the cable model to broadband network providers also has significant problems. The cable model requires some measure of public access. Cable television systems of a certain size must provide commercial leased access channels.[126] However, the cable operator may effectively control the content on the leased access channels via price, tier placement, or the withholding of marketing, billing, or other services.[127] The net effect of a cable operator's control of these variables may

124. For example, MMDS operators may elect noncommon carrier or common carrier status. If they elect common carrier status, they are regulated as non-dominant common carriers, which affords the MMDS operator substantial control in defining the class of eligible subscribers and the manner in which he or she offers services. *See* Multipoint Distribution Service, No. 86-179, 63 R.R.2d 398 (1987). If MMDS operators choose non-common carrier status, they may exercise control over both the transmission and programming aspects of their business without fear of the imposition of broadcast regulation. National Ass'n for Better Broadcasting v. FCC, 849 F.2d 665 (D.C. Cir. 1988). *See generally* BRENNER, *supra* note 13, at §§ 16.02(5), 16.04(2).

125. *See Better Broadcasting*, 849 F.2d 665.

126. *See* Cable Communications Policy Act of 1984, 47 U.S.C. §§ 531 (authorizing local franchising authorities to establish franchise requirements for the designation or use of public, educational and governmental channels), 532 (establishing the criteria under which cable systems with more than thirty-five channels must offer commercial leased access channels) (1991).

127. *See* Lampert, *supra* note 6, at 8, 12-15. Lampert argues that the leased access provisions of the Act afford little viable protection to outside programmers seeking commercial access to cable television systems. Given the cable operators' ability to increase profits by restricting access, the burden of proof is imposed on the complaining party. Courts are prohibited from examining the agreements between the cable operators and their affiliated programmers.

be to foreclose effective access to some programmers. This ability to foreclose access supplements the cable operator's power to prevent the transmission of programming services in which it has no financial interest.[128]

Franchising authorities also may require cable systems to provide PEG access channels.[129] The individual members of the public, therefore, may secure limited access to certain cable systems on a non-discriminatory, first come, first served basis. Public rights to speech and assembly also flow from this limited access. While this right of access is greater than that afforded under the print or broadcast models, an individual's ability to speak may be limited by the imbalance between the number of channels available and the number of people seeking access to them.

The number of channels the cable television owner operates and the leased and mandatory access channels programmed by other parties arguably provide a certain degree of diversity. However, the indirect controls a cable operator can exercise over leased access channels may seriously undermine the diversity which might otherwise be realized. Further, an expanded menu of programs may not constitute meaningful diversity if all the programs are targeted to the same class of potential users.

Unlike broadcasting and cable television, wireless video subscription service owners have no corresponding duties to provide public access. Absent an owner's election to assume common or private carrier status, the public has no access right to the facilities. Thus, although the wireless video subscription systems use the public airways and the electromagnetic spectrum in the same manner as broadcast station licensees, system owners retain complete control over access to this media.[130]

3. *Telephony: Equality and Non-Discriminatory Access*

Under principles of telecommunications common carriage, the owner of the transmission facilities exercises no editorial control over the content of communications.[131] Thus, in this communications arena, ownership is completely separated from control over the content communicated. Conversations over the public switched telecommunications network are labelled private rather than public because they most often occur between two parties. Some scholars

128. *See* Henry Gilgoff, *Report Card on Cablevision: Mixed Signals: Programs Praised, Fees Criticized,* NEWSDAY, Sept. 10, 1990, at 2; Chuck Stogel, *Amid Cable TV Tangle, Is Viewer Being Served,* SPORTING NEWS, Aug. 27, 1990, at 45; *States News Service, Congressional Help for Cable Fight,* N.Y. TIMES, Apr. 22, 1990, § 12, at 1.

129. *See* Cable Communications Policy Act of 1984, 47 U.S.C. § 531 (1991).

130. *See* BRENNER, *supra* note 13.

131. *See* 47 U.S.C. § 3(h) (1991). *See also* DONALD E. LIVELY, MODERN COMMUNICATIONS LAW 289 (1991).

maintain that such conversations are protected by privacy rights rather than First Amendment law.[132]

However, the categorization of telephone communications as private is changing. For example, telemarketing and 800 and 900 number information services all seek to reach large audiences. To the extent the private versus public distinction is dependent upon the number of individuals a party seeks to address, the enhanced service provider, by communicating to a mass audience, arguably has a First Amendment right to communicate. At least one First Amendment scholar supports this proposition and maintains that, if the telephone becomes a significant source for the communication of public information, the First Amendment would apply to telephone communication.[133]

In exchange for a fee, the public enjoys non-discriminatory access to the transmission paths on the public switched network. Access is regulated by tariff, a contract between the carrier and the subscriber, which establishes the subscriber's eligibility, class, and charge for telecommunications services. Business and residential subscribers may assemble with others through use of available conference call and teleconferencing features. Data users sharing a common data base or switch also may interact with one another simultaneously.

Interactive telephony comes closest to approximating the scope and flexibility of the information transmission and use which may be achieved through broadband technology. Subscriber access to diverse points of view is constrained only by the interests of other subscribers resident on the system, the technical limitations of the network, and the legal and technical limitations on access to services such as dial-a-porn.[134] However, while telephony provides the public with non-discriminatory access within specific user groups, it does so at the expense of the medium owner who has no corresponding speech rights.

C. *Application of Other Regulatory Theories to Broadband Communications*

At least three other broad regulatory theories may be suggested to manage the allocation and protection of speech rights of broadband users and providers. These schemes previously have been employed in or proposed for broadband's antecedent technologies. They are deregulation, functional regulation, and public forum regulation.

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132. *See, e.g.*, Scanlon, *supra* note 34, at 474-75.

133. *See id.* at 475. The categorization of this type of speech as public may have to be squared with FCC policies and court cases categorizing such speech as private. *See In re* Subscription Video Services, No. 85-538, 1986 F.C.C. Lexis 4173 (1986).

134. *See* Sable Communications v. FCC, 492 U.S. 115 (1989) (upholding a prohibition against obscene interstate telephone communications).

Deregulation is essentially a formulation of the print model of regulation resting on an analogous economic justification. It suffers from the infirmities of the marketplace and threatens to produce unchecked, economically sanctioned private censorship. Functionalism is essentially a multi-faceted articulation of the current status quo of mass media regulation. There are three models of functional regulation: channel functionalism, media functionalism, and operational functionalism. Regulation by channel or media function and content describes the current approach in which regulations vary depending on the technology employed and the information distributed by a communications network. Channel function regulation cannot be applied to broadband because broadband networks will integrate the network and information functions of existing communications media.

Media specific regulation fails for the same reasons that the current regulation of print, broadcasting, cable, and common carriage fail. Current models diminish or eliminate the speech rights of either the public or the owner. Moreover, media functionalism fails to address the detrimental impact on public access of multiple and cross-ownership of information distribution media or networks. Finally, operational functionalism is based on a cogent articulation of the rationale for maintaining the separation between transmission and content currently found in common carrier regulation. Nevertheless, this model of regulation fails because it would undermine the owner/speaker's speech rights and involve the government in judgments regarding the value of various types of speech.

1. *Deregulation*

Proponents of deregulation maintain that increased competition within the marketplace provides increased diversity at lower cost to the consumer. As a consequence, government regulation to achieve greater diversity and access becomes unnecessary and actually may thwart the realization of First Amendment rights and goals. Supporters of the deregulation model argue that telco entry into the video marketplace, along with the entry of DBS and wireless cable, will reduce video service prices, increase alternative programmer access to the video marketplace, and increase the diversity of program choices available to consumers.[135]

If, however, public rights of speech, access, assembly, and diversity are the cost for an increase in limited classes of programming diversity, the price may

135. *See* Harry Jessel, *Sikes: Cable Competition, Not Regulation,* BROADCASTING, Mar. 25, 1991, at 80 (mentioning Sikes' preference that Congress consider legislation that would promote competition rather than further regulation of cable system prices).

be too high. The public's enhanced speech opportunities should not be sacrificed or treated as mere byproducts of the speaker/owner's editorial largesse.

Reliance on the economic marketplace assures that diversity of programming will be no broader than the number of financially attractive audiences or groups of subscribers. Competition will not assure service to those who lack sufficient wealth or popularity to justify the owner/editor's carriage of their ideas. While such a result would be consistent with much of the history of mass media development in the United States,[136] it is inconsistent with the protection and enhancement of society's First Amendment freedoms.

2. *Functionalism*

Scholars have suggested several function related methods which one might use to regulate mass media technology. One method would allow government regulation based on the type of information provided over a channel of communication. A second method would allow government regulation based on the medium of transmission employed. Yet another method seeks to peg regulation to the transmission function, leaving information content unregulated. Each method seeks to retain elements of the private liberty theory and the public access theory of speech in the process of balancing the speech rights of media owners and the public.

a. *Channel Functionalism*

Channel functionalism would allow the government to regulate the use of channels or transmission paths based on the type of information transmitted on that channel. Speech rights, therefore, would differ depending on whether a channel transmitted print, video, voice, or data.[137] Some maintain that channel functionalism resolves the intractable problems caused by the ". . . fruitless search for one legal category applicable to all of [a communications medium's] divergent functions."[138]

Channel functionalism acknowledges the transmission medium owner's capacity either to operate as an electronic speaker or to afford access to other speakers. The model assumes, however, that the decision between being a speaker and being a provider of access to other speakers can be made on a channel by channel or shared channel basis. Thus, in the case of direct broadcast satellites (DBS), the FCC premised early regulation on the basis of the

136. Carter, *supra* note 35, at 581.

137. *See* Donald Le Duc, *"Unbundling" the Channels: A Functional Approach to Cable TV Legal Analysis*, 41 FED. COMM. L.J. 1, 4-5. *See also* Meyerson, *supra* note 95, at 26.

138. Le Duc, *supra* note 137, at 12.

DBS operator's election to be a broadcaster or a common carrier.[139] Similarly, the FCC premised its early regulation of Multichannel Multipoint Distribution Service (MMDS) on the MMDS operator's election to be a subscription service videocaster or a common carrier.

Cable television is arguably regulated on a functional basis as well. The operator, by election or by requirement of law, determines the channels over which he or she will speak and those over which broadcast, commercial, or public programmers will speak. As a legal matter, however, cable operators are not considered broadcasters or common carriers.

Some scholars have argued for the express regulation of cable operators on a functional basis.[140] They suggest that when cable retransmits broadcast signals it should be regulated as a broadcaster. When originating programming, the cablecaster should be regulated under the print model. Finally, provision of access via the lease and public access channel requirements should essentially transform the cable operator into a common carrier.[141] Using slightly different analyses, other scholars also suggest that passive relay transmission of broadcast signals should be treated like common carriage and receive no First Amendment protection.[142]

The functional approach to hybrid technology regulation has significant limitations which make it an inappropriate choice for broadband communication networks. It presumes that the facility owner has already allocated channels by function. This may be true in the case of cable, DBS, and MMDS, but what happens when allocation of function is the issue? For instance, if Congress decides to allow telephone company entry into the electronic print and video markets, the telephone companies may be regulated as speaker/owners under the print model. As such, a telephone company could deny access rights to the business and consumer/user public. Moreover, when a single channel can simultaneously carry multiple types of information reduced to indistinguishable digitized bit streams, regulators will be unable to ascertain what information is traversing which channels at what times. Thus broadband technology would render channel regulation obsolete.

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139. NAB v. FCC, 740 F.2d 1190 (D.C. Cir. 1984).

140. *See generally* Le Duc, *supra* note 137; Meyerson, *supra* note 95, at 24-26.

141. Henry Geller & Donna Lampert, *Cable Content Regulation and the First Amendment*, 32 CATH. U. L. REV 603 (1983). The Cable Communications Policy Act of 1984, however, expressly distinguishes cable carriage from common carriage. *See* 47 U.S.C. § 611 (1991).

142. Le Duc, *supra* note 137, at 13. This proposal does not acknowledge that to the extent a cablecaster may choose which broadcast stations to carry, he or she is exercising editorial choice. The decision of whom to carry is no more passive than a decision to carry certain programmers. To the extent that the cable operator is required by law to carry certain broadcast signals, passive carriage constitutes a forced act of editorial forbearance, not editorial indifference.

b. *Media Functionalism*

The second method proposed is regulation by media type.[143] The medium functionalism model seeks to assure both private liberty and public access by relegating realization of these rights to separate although functionally interchangeable media. One scholar has proposed retaining the print medium as the bastion of unregulated speech while retaining broadcasting as the vehicle for assuring public access.[144] For Bollinger, the current bifurcated regulation of print and broadcasting is constitutionally correct because it permits access regulation in part of the media while not making access to the press universal.[145] Similarly, Ingber suggest that preservation of the free press in an age of access regulation may be achieved by deregulating radio while maintaining access regulation for television.[146]

The solution of partial regulation which leaves a portion of the electronic media unregulated and another subject to access requirements is an attractive accommodation to current realities.[147] However, even efforts to minimize the abuses of press and government through regulatory bifurcation are subject, in moderate degree, to the same deficiencies as the constitutional models and regulatory schemes they seek to subsume. Three interrelated developments make this seemingly pragmatic and practical solution problematic.

First, the technologies on which various forms of media are based increasingly carry other forms of information. Spectrum-based broadcast channels can carry print information as well as video information.[148] Many spectrum technologies can also carry interactive voice traffic. Indeed, some already do.

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143. *See* Lee C. Bollinger, *Freedom of the Press and Public Access: Toward a Theory of Partial Regulation of the Mass Media*, 75 MICH. L. REV. 1 (1976); *See also* Stanley Ingber, *The First Amendment in Modern Garb: Retaining System Legitimacy—A Review of Lucas Powe's American Broadcasting and the First Amendment*, 56 GEO. WASH. L. REV. 187 (1987).

144. *See* Bollinger, *supra* note 143.

145. *See id.*

146. Ingber, *supra* note 143, at 235. The FCC was ultimately successful in removing a significant portion of radio regulation.

147. Such a solution recognizes the distinction between government regulation of print and broadcast affirmed by the Supreme Court in Red Lion Broadcasting v. FCC, 395 U.S. 367 (1969) and Miami Herald Publishing Co. v. Tornillo, 418 U.S. 241 (1974). The proposed solution would do nothing to solve the apparently intractable difficulty the courts have had in determining the constitutional status of cable public, leased and mandatory access regulations. *See* Preferred Communications v. City of Los Angeles, 754 F.2d 1396 (9th Cir. 1985), *aff'd*, 476 U.S. 488 (1986) (substituting cable operator's right to program entire cable system with sharing access to mandatory and leased access channels on one's system diminishes the cable operator's freedom of expression); Quincy Cable TV v. FCC, 768 F.2d 1434 (1985); Berkshire Cablevision of Rhode Island, Inc. v. Burke, 571 F. Supp. 976 (1983), *vacated as moot*, 773 F.2d 382 (1st Cir. 1985) (holding that mandatory access rules are constitutional).

148. "In today's rapidly developing communications industry, the distinction between these converging media [of print and broadcasting] is unstatable and inadequate." Mark S. Nadel, *A Unified Theory of the First Amendment: Divorcing the Medium from the Message*, FORDHAM URB. L.J. 163, 166 (1982).

Should the medium over which the information travels determine First Amendment rights in such circumstances?

Second, multiple technologies are being combined to deliver the same or multiple types of information. A publishing company may use spectrum, wire and traditional print technologies to deliver a national daily newspaper. Cable companies rely on spectrum and wire technologies for delivery of video product. Even the term "media," takes on a multi-dimensional meaning which technically precludes a media-function-oriented regulatory approach.

Third, cross-ownership of all forms of mass media whether print, broadcast or cable television is extensive.[149] Print companies own broadcast stations; television companies own radio stations; and cable companies may own broadcast and print companies. As a result, government may indirectly influence unregulated media through licensing decisions made regarding regulated media subsidiaries[150] and editorial decisions of unregulated media owners may affect public access and the flow of information over their regulated media subsidiaries.[151] This has historically proved to be the case.[152]

Bollinger's answer is that while the government may chill the speech of regulated media and their subsidiaries, unregulated and unaffiliated media are still able to speak in an unregulated environment.[153] To the extent that media cross-ownership, coupled with increased concentration of ownership, becomes the dominant form of media structure,[154] however, the check against government abuse diminishes because an ever increasing number of speakers may be indirectly influenced by government actions regarding their regulated subsidiaries. Meanwhile, the threat of private abuse would grow because of the increasing concentration of economic and editorial power.

As relatively interchangeable competitive media are increasingly cross-owned, absolute concentration of media ownership increases. This process increases the opportunity for private censorship. And, as private censorship increases, pressures for government protection from private censorship increase as well. Given cross-ownership and media concentration, media functionalism fails to provide a viable resolution to the threats of government and private censorship.

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149. *See generally* BAGDIKIAN, *supra* note 36, at 239-51.

150. *See id.* at 99.

151. *See* Greater Boston Television Corp. v. FCC, 444 F.2d 841 (D.C. Cir. 1970), *cert. denied* 403 U.S. 923 (1971).

152. *See generally* BAGDIKIAN, *supra* note 36, at 208-22.

153. Bollinger, *supra* note 143, at 33.

154. *See* BAGDIKIAN, *supra* note 36, at 3-26.

c. *Operational Functionalism*

The third model, operational functionalism, would separate the transmission medium from the message transmitted.[155] The transmission medium would be regulated but the message arguably would not be regulated.[156] Speech is defined as the act of creating or editing a message entitled to copyright protection.[157] The act of creation would encompass the right to include or exclude information. Such activities would enjoy absolute First Amendment protection from government regulation.

By contrast, the owner of the medium of transmission would not be entitled to direct First Amendment protection. The owner's ability to include or exclude messages would be defined as an economic right attached to the ownership of the transmission medium.[158] As such, the owner's discretion to control access would be subject to government regulation. Media owners would be subject to government regulation if they possessed enough economic or technological monopoly power to enable them to censor messages.[159] However, the owner would be allowed to assert speech rights of inclusion on behalf of creators using his or her medium.

Operational functionalism is based in large measure on the public forum doctrine.[160] As such, user speech rights are dependant on the owners' election to make access available to the public. The private owner need not elect to make his or her medium available to the public. Only economic necessity will compel an owner to open up the privately owed medium. To the extent privatization of more and larger portions of the public switched network continues at its current pace, a substantial number of owners will enter into private switching and transport arrangements which may exclude significant portions of the public.[161] And, those members of the public who do have access to a medium may find their rights circumscribed by contract, practice or law.[162]

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155. *See* Nadel, *supra* note 148.

156. *Id.* at 177-94.

157. *Id.* at 181-82.

158. *Id.* at 177-80.

159. *Id.* at 192.

160. *See infra,* notes 168-78 and accompanying text.

161. Private networks such as metropolitan area networks (MANs), local area networks (LANs), and value added networks (VANs) are often owned and operated by private entities which act essentially as private carriers or foreborne common carriers offering switching and transport services for specific customers. *See* EGAN, *supra* note 1, at 72; Terrence P. McGarty, paper presented to the Information Infrastructure for the 1990's Workshop at John F. Kennedy School, Harvard University. It is estimated that there are as many as 700,000 private networks in the United States. Guilder, *supra* note 2. *See also* Michael Schuyler, *Systems Librarian and Automation Review: Rights of Computer On-Line Service Users*, SMALL COMPUTERS IN LIBRARIES, Dec. 1990, at 41. Schuyler argues that the American right to assemble is endangered by the increasing privatization of public fora.

162. The FCC forebears from substantial regulation of private carriers on the theory that they lack sufficient market power to require regulation.

Aside from the practical considerations mentioned above, reliance on the public forum doctrine to support operational functionalism is problematic. The caselaw on which it is based can be cited for and against the proposition that ownership of the medium of transmission can be separated from the message transmitted, and the proposition that an owner's exercise of editorial control does not rise to the status of protected speech.[163]

The ambiguity in the caselaw is understandable. It is theoretically difficult to distinguish an owner's editorial control over his or her channel from an author's ability to edit what will appear in his or her creation. The exercise and function are basically the same. In both instances the actor determines, by exercise of choice, what will be said and how it will be stated. The only difference is one of degree. In one instance, the constructed message is created and owned by the creator-author. In the other, the message is constructed by the owner from creations produced by others. Is one form of construction or creation to be afforded less speech protection than the other? Is rap music or an art collage less of an art form because it is composed from other music or art? And, is the government the appropriate arbiter of whether and where that line is to be drawn? Alexander Meiklejohn and other First Amendment scholars would answer these questions in the negative.[164]

Finally, to draw arguably identifiable but administratively difficult, and constitutionally suspect lines of demarcation regarding speech jeopardizes much of the promise of computer-augmented broadband communication. Many potential electronic publishers would be engaged in activity similar to those for which the media owner would be accorded less First Amendment protection. These publishers would be combining images, data, text and sound into new creations as well as creating entirely original transmissions.

Nevertheless, a media owner's aggregation of economic power or his or her acquisition of government sanctioned monopoly power sufficient to censor the messages of others, is a matter of grave concern. Absent a technological solution enhanced by a gradual but permanent change in public habits of communication, some form of government mandated access may be the only viable solution.

3. *Public and Private Fora*

Certain commentators have suggested that the public forum doctrine might provide an excellent tool for allocating speech rights in the context of hybrid

163. The Court has failed to define the term "editorial" to exclude pure business decisions. *See* Nadel, *supra* note 148, at 182-83.

164. Alexander Meiklejohn, *The First Amendment is an Absolute*, SUP. CT. REV. 245, 262 (1961).

technology.[165] They argue that the doctrine is useful where the hybrid technology possesses similarities to existing technologies, as well as unique characteristics of its own.[166] Because the doctrine is not premised on the particular characteristics of a technology, it facilitates the analysis of speech rights in the context of new technologies like broadband.

a. *Traditional Public and Private Speech Fora*

As a practical matter, speech fora exist in several guises and classifications. Among them are traditional public fora such as public streets, sidewalks and parks which have traditionally been associated with expressive activity,[167] as well as public facilities or institutions created for the primary purpose of public communication. There are also quasi-public fora, which are usually public facilities, such as schools and libraries, created for other purposes but having a close relationship to expression. The openness of these facilities to expressive activity is often a function of whether the government has designated them as public fora.[168] However, the Supreme Court has upheld the constitutionality of state regulations preventing owners of some private fora from restricting public speech on their property.[169]

Under current definitions of public and private fora, media of communication may be argued by analogy to be public fora, quasi-public fora or private fora open to the public.[170] For instance, the public switched networks may be argued to be public fora because traditionally they have been regulated to be open to the public at large on a non-discriminatory basis. Broadcasting and cable television may be argued to be quasi-public fora in that they are designated as open to the public under limited circumstances.[171] By comparison, print media could be categorized as private fora because absent the election of the publisher/owner, print media are not open to the public.

Alternatively, if the use of scarce public resources is the criteria for identifying a public forum, telephony, cable and broadcasting would all be classified as public fora. For example, both telephone and cable television firms make use of public streets and rights of way, and broadcasting makes use of the electromagnetic spectrum.

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165. Wirth & Cobb-Reilly, *supra* note 87, at 401-04; Meyerson, *supra* note 95, at 31-40.

166. Wirth & Cobb-Reilly, *supra* note 87, at 402.

167. TRIBE, *supra* note 43, at 688.

168. Heffron v. Int'l Soc'y for Krishna Consciousness, 452 U.S. 640, 655 (1981) (holding that the regulation of written material at a state fair does not unnecessarily limit the right of citizens to reach the minds of listeners).

169. Pruneyard Shopping Center v. Robins, 447 U.S. 74, 88 (1980).

170. Meyerson, *supra* note 95, at 36-37; Nadel, *supra* note 148, at 175-76.

171. Broadcasters must make some time available for federal candidates running for public office. Cable casters of a certain size are required to provide mandatory public access and leased access.

Under the media-oriented definition of speech fora referenced above, a public forum may be argued to exist where an individual owner or entity has monopoly control over a medium of communication or possesses sufficient economic power to effectively censor messages of others seeking access to the forum (telephone, cable and arguably broadcasting).[172] A quasi-public forum exists where essentially private facilities are opened to the public for limited purposes, as in the case of broadcasting and cable. A private forum exists where a private individual or entity is not required to open its facilities to the public, but nevertheless elects to do so, as in the case of certain subscription technologies.[173] Print media do not fit neatly into this formulation of the doctrine, because despite their economic status as local monopolies, they are deemed private fora, not subject to any access requirements.

The public/private forum doctrine has met with significant criticism in the non-media context. First, the distinction between government and private property is said to obscure the fact that the issue is access to property,[174] by non-property owners.[175] This distinction also ignores the effects that the exercise of property rights by a government or private owner have on the realization of public speech rights. Increasingly, communication via electronic technology is more effective than communication by traditional means. As a result, access to communications technology is critical to the realization of effective speech.[176]

Second, to the extent that government or private owners may withdraw the designation of a forum as "public," that portion of the public with insufficient wealth or an unpopular message may be effectively precluded from speech.[177] This second criticism applies equally to electronic media.

b. *Application of the Public/Private Forum Doctrine to Broadband Communications*

Before the public/private forum doctrine can be applied to broadband communications, interactive broadband networks and on-line databases should be designated as "public forums." Such a designation might follow from the broadband provider's use of the public streets and rights of way,[178] or the

172. Nadel, *supra* note 148, at 176.

173. Id.

174. Balkin, *Frontiers of Legal Thought II, The New First Amendment: Some Realism About Pluralism*, 1990 DUKE L.J. 375, 397-400.

175. *Id.*

176. Carter, *supra* note 35; Balkin, *supra* note 174.

177. Balkin, *supra* note 174, at 397; Ingber, *supra* note 92, at 42.

178. *See* Tele-communications of Key West v. United States, 757 F.2d 1330 (D.C. Cir. 1985); Preferred Communications v. City of Los Angeles, 754 F.2d 1396 (9th Cir. 1985), *aff'd*, 476 U.S. 488 (1986).

electromagnetic spectrum.[179] In either instance, the government could presumably license one or more broadband providers to operate over or under certain public streets and rights-of-way, or, on certain frequencies to the exclusion of others seeking access to the same government provided resources.

Another critical component would be a determination that the privately owned fiber optic cables and assorted digital equipment resident in or over the streets "are an essential part of the public forum and subject to the same First Amendment mandates and the same limits on government regulation."[180] The RBOCs and the cable television systems, the most likely providers of interactive broadband services, already enjoy the use of public rights of way and streets.[181] Historically, the quid quo pro for use of these public resources has been public use of the facilities of common carriers, and more recently, public use of the facilities of cable operators for public communication and expression.[182]

Public forum status could also be justified on the grounds that the switching and transmission provider possesses an economic or natural monopoly.[183] This rationale would require the legislature to provide the courts and the FCC with guidelines for determining when market-based, technology-driven, or government-sanctioned economic control is so great that it allows the owner to effectively censor the speech of others seeking access to the forum.

Quasi-public forum status may apply to private providers of switched transmission services and owners of private on-line data services. The rationale for classifying these communication modes as quasi-public fora would be that the owners, in order to conduct business, have elected to open their media of communication to the public.[184]

The public/private forum doctrine could provide an appropriate foundation for a skeletal regulatory framework to balance speaker-owner and public-user speech rights. However, in order to do so effectively, it must address several important issues. Congress should establish an easily accessible public forum

179. Emerson, *supra* note 40, at 823; Wirth & Cobb-Reilly, *supra* note 87, at 402; Meyerson, *supra* note 95, at 24, 36-37.

180. Wirth & Cobb-Reilly, *supra* note 87, at 402.

181. *See id.* at 400-02; Meyerson, *supra* note 95, at 24-26.

182. *See* Lavey, *infra* note 214, at 184-85; Meyerson, *supra* note 95, at 41.

183. *See In Re* Policy and Rules Concerning the Furnishing of Customer Premises Equipment, Enhanced Services and Cellular Communications Services by the Bell Operating Companies, 95 F.C.C. 2d 1117, 1123-39 (1983), *aff'd sub nom.* Illinois Bell Tel. Co. v. FCC, 740 F.2d 465 (7th Cir. 1984). *See also*, Frank Lloyd, *Cable Television's Emerging Two-Way Services: A Dilemma For Federal and State Regulators*, 36 VAND. L. REV. 1045 (1983).

184. It might be argued that the FCC has taken a contrary position with regard to the regulation of video subscription services such as multi-channel multipoint distribution. *See* note 130 and accompanying text. Under the FCC's reasoning, making services available to a mass audience does not constitute opening one's facilities to the public as long as each individual customer enters into a separate contract with the provider.

as an alternative to private forum speech, develop incentives to assure the continued cost effective existence of public forums, and identify workable criteria for determining whether a forum should be deemed public or private. The criteria should also address transitions between public and private forum status. Finally, the public/private forum model must protect against private and government censorship. Within the public forum, the owner's exercise of property rights and the government's exercise of the licensing power must be circumscribed in order to limit the risk of government and private censorship. The goal of this type of regulatory scheme would be to create and preserve meaningful opportunities for public access and public speech, while also preserving the speech rights of media owners.[185]

4. *A New Model for Public and Private Fora*

a. *Developing a Viable and Accessible Public Forum*

The creation of viable and enduring public fora will depend on several factors. First, entrepreneurs must have incentives to create and maintain them. This can be accomplished in part by extending the limited liability protections currently enjoyed by common carriers to the providers of broadband public fora. Limitations on liability would include the absence of responsibility or liability for the speech of any user of the forum and a limitation of liability for service failures to the charge made for the service provided. Liberal tax and financing incentives would also encourage the development and maintenance of such network fora.[186]

Second, the fora must be accessible to the general public and have significant utility to the average user. In this regard the government incentives mentioned above may have a constructive impact on the development of the fora. In any event, the fora must be widespread and interconnected to insure their accessibility to the general public. Aside from government incentives, efforts must be made to encourage public use of the network and services by creating a minimum service configuration that assures all prospective users effective use of the network.[187]

185. Emerson, *supra* note 40, at 823.

186. Alternative incentive structures have been proposed. Some argue that advanced network features be provided on a demand and cost sensitive basis, with targeted subsidies where necessary. *See* NAT'L TELECOMMUNICATIONS & INFO. ADMIN., U.S. DEP'T OF COMMERCE, TELECOMMUNICATIONS IN THE AGE OF INFORMATION, 307-14 (1991) (discussing universal service and Advanced Universal Service Access "Advanced USA") [hereinafter NTIA Infrastructure Report]; Barrett, *supra* note 93, at 429-30.

187. *See* Dertouzos, *Communications, Computers, and Networks*, *supra* note 52, at 65-67; Dertouzos, *Building the Information Marketplace*, *supra* note 52, at 31-34.

b. *Public and Private Fora Defined*

Public and private fora may exist on at least two if not three levels. Some fora will exist at the transmission channel and/or network level. Some will exist at the equipment or receiver/display level. Finally, some will combine both the transmission and communications equipment levels. Regardless of level, public and private fora should be constructed to possess distinct criteria.

Public fora would be deemed to exist in two major categories, per se public fora and voluntary public fora. Transmission providers possessing natural, physical or economic monopoly power, or possessing essential facilities would be regulated as per se public fora.[188] Monopoly status would be defined by statute and agency regulation, subject to modification or expansion through the adjudication process. Voluntary public fora would consist of entities possessing no monopoly or essential facilities status, but electing to be public fora by making their transmission or speech facilities available to the public for expressive activity.

In either case, public fora would enjoy limited liability for service degradation or outages absent gross negligence or evidence establishing an attempt to censor user speech. The public fora would also enjoy immunity from liability for the content of any user speech carried, presented or displayed over public fora facilities. Finally, the public fora would be eligible for tax incentives and other financial incentives to encourage system and service upgrades.

Private fora would be composed of firms or services without monopoly power or essential facilities. For the most part, these entities would be using dedicated or leased facilities providing service to distinct, specialized users. These entities would provide public notice of their intent to offer private forum services. They would maintain full control over access to their channels and/or networks and full editorial control over any speech conducted through their facilities. Consequently, they would have full liability for any loss of service (subject to their ability to negotiate a lesser liability with users) and full liability for what is said over their facilities. To the extent they rely on interconnection to public fora facilities to provide service, they would have to make available

188. NTIA has conceded the utility of this approach in its recent infrastructure report "[R]ecognition of First Amendment rights for [local telephone companies] would not be inconsistent with continuation of their long-standing common carrier obligations in other respects . . . . [B]ecause it is well established that a firm can be a common carrier for some purposes and not for others, there is no legal or policy reason why a [local telephone company] could not be a common carrier with respect to its distribution facilities, and also one of the First Amendment speakers using those facilities . . . . Indeed, imposing an obligation on the [local telephone company] to provide 'equal access' to its underlying transmission facilities would seem to be a legitimate, narrowly tailored way to ensure that a [local telephone company's] right to 'speak' is consistent with its common carrier obligations and impedes neither competition nor the First Amendment Rights of others." NTIA Infrastructure Report, *supra* note 186, at 234 n.840, 243 n.884 (citing FCC v. Midwest Video Corp., 440 U.S. 689, 701 n.9 (1978); National Ass'n of Reg. Util. Comm'rs v. FCC, 533 F.2d 601, 608 (D.C. Cir. 1976); Associated Press v. United States, 326 U.S. 1 (1945)).

some portion of their transmission capacity to other interconnected entities and users on the public fora networks.

Congress, the FCC, or the courts would have to establish procedural and evidentiary rules governing requests for a change from public to private or private to public status. At a minimum, prudence would require allowing transitions from private to public fora status where the provider voluntarily seeks public fora status, or, where users and/or representatives of the public successfully allege that a private entity has acquired monopoly power or essential facilities. Similarly, a public forum or interested parties could petition to change a public forum's status. In this case, the parties would have to establish that the forum no longer possessed monopoly power or essential facilities. In proceedings to determine public or private fora status, concerns over the content of user speech would be insufficient basis for a transition proceeding, and evidence tending to show such a motivation for a petition would constitute sufficient grounds for the petition's dismissal.

c. *Limitations on Government and Private Censorship*

With regard to public fora, government regulation would have to protect owners and users against government and private censorship. Public fora owners would exchange access and content control over significant portions of their facilities for limited liability for the foreseeable and consequential damages arising out of their provision of service. They would also be absolved of liability for the content of user speech. Any residual control of access or speech by public forum owners would be in the form of content-neutral determinations of the adequacy of available channel or network capacity and access or speech queing. The government would not be authorized to penalize or hold the public forum provider liable for any user-initiated and conducted speech, and a potential public fora user could not be denied access to a public fora absent constitutionally neutral criteria.

Public fora owners, through a fully owned subsidiary, would have the right to communicate over their facilities or those of any other public fora. Users of the public fora facilities would be allowed to petition at any time alleging inappropriate censorship activities on the part of public fora owners. Congress and the FCC would develop standards regarding the burden of proof and the burden of going forward in such proceedings.

D. *Summary*

Reliance on any of the current regulatory schemes of print, broadcast or common carriage has inherent flaws. Application of these models would ignore

the continuous blurring of distinctions between technologies and the information they deliver. Why should the legal status of the same information turn on the manner in which it is delivered? Print may be distributed in hard copy or by wire or microwave, and video may be transmitted over different portions of the electromagnetic spectrum, by wire or by satellite. Nonetheless, the resulting communication is the same.

Furthermore, use of these schemes places too great a burden on one or another class of speakers. Either the public (print) or the owner-speaker (common carrier) finds its respective rights diminished or usurped. Finally, these models do not reflect the full range of broadband technology's interactive capacity and utility. Broadband's capacity to provide interactive communication between individuals or groups of individuals, irrespective of the type of information transmitted, distinguishes it from its predecessors. Extending the capacity for electronic speech to individual users may be the mechanism for equalizing the speech rights of media users and owners.[189]

Reliance on the more general theoretical regulatory models also has its limits. Deregulation, or marketplace regulation is essentially the economic analogue to print regulation. It is an abdication of responsibility which leaves the problem of private censorship unaddressed. At best, the public is left to inherit whatever haphazard speech rights a significantly skewed marketplace may develop. Given the growth in media cross-ownership and ownership concentration, reliance on marketplace regulation will exacerbate the inequalities of access generated by inequalities of wealth, and by the existence of economic, technological and government-authorized monopolies.

Various function-related models also have limited value. Channel functionalism, in which regulation is based on the information carried, is simply nonresponsive to the new reality of fiber optic digital transmission of information. Media functionalism is also unrealistic since it does not address the impact of media cross-ownership and the increasing concentration of ownership. Although operational functionalism comes closer to providing an appropriate framework for regulation, it fails because it would remove significant speech protection from the speaker owner and require governmental judgments on the relative value of various types of speech activity.

Of existing regulatory models, the public forum doctrine provides the most appropriate framework for the construction of a constitutional regulatory model that structurally accommodates both private and public speech rights. However,

189. Katsh, *supra* note 29, at 663. "Computers allow each individual to make his or her ideas available to others, to 'publish' ideas in ways that were not previously possible. The model of the future is one in which information will be moving around the country, if not the globe, faster than ever before among individuals and groups who could not previously communicate with each other. . . . [I]ndividuals . . . will be able to collect, manipulate and communicate information in new ways. . . . The pressures of the new media will be to demand actual equality." *Id.* at 662-63.

the doctrine must be modified to encompass new communication media and to assure the creation and preservation of viable public forums. Inherent in the modified doctrine must be a recognition that the threat of private censorship is as dangerous as government censorship and should therefore be prevented. Such a formulation of the doctrine arguably limits government power to infringe upon the rights of speakers, but also requires the government to limit private infringement of speech rights.

The concededly general proposals for a modified public/private forum model set out above constitute a modest attempt to address the speech-related issues likely to arise in the context of broadband services. This modified public/private forum model attempts to move beyond the regulatory morass which could result from an attempt to regulate the new communications media under the old regulatory schemes. The model also attempts to address some of the criticisms of the current public/private forum doctrine.

Specifically, efforts to institutionalize viable public fora and distinguish them from private fora are aimed at preserving the existence of an inexpensive electronic public forum alternative. When combined with government and industry initiatives to make public fora widely accessible public utilities, efforts at institutionalization should make the benefits of broadband technology available to the vast majority of American society.

The model also incorporates a modest attempt to address some of the concerns raised by the anticipated provision of integrated broadband services by vertically integrated broadband service providers.[190] In particular, the model proposes that public fora exchange their access and content controls for substantially limited business and speech liability. This proposal addresses concerns regarding private censorship precipitated by attempts on the part of RBOCs, on-line database providers, and cable companies to deny, control, limit, or censor the access and use of certain classes of users.

The model also attempts to address concerns about government censorship. Under the proposal, government determinations of access and speech entitlement are premised on relatively objective, noncontent oriented, evidentiary considerations of whether a firm possesses monopoly power or essential facilities. The only other way an entity may be deemed a public forum is through voluntary election of this status. Beyond determinations of forum status, the government may only work to assure equality of access in terms of facilities and services. This proposal incorporates the thrust of the government's current

190. The separation of a vertically integrated service provider's competitive information services from its switching and transmission facilities which provide essential services reflects the basic philosophy of the FCC's goals of preventing discriminatory access to telephone networks and preventing cross-subsidization of competitive activities with monopoly profits. *See* People of California v. FCC, 905 F.2d 1217, 1232-33 (1990) (discussing the FCC's structural separations policy).

open network architecture (ONA) and comparably efficient interconnections (CEI) policies.

Finally the government may not penalize or hold a public forum provider liable for user speech, nor may a public forum be required to exercise control over user access or speech beyond making capacity and services available on a non-discriminatory basis. Government or public attempts to modify a forum's status which appear to be motivated by an intent to control or modify the content of speech would be per se illegal.

IV. Toward a New Theory of Electronic First Amendment Regulation for Broadband Technology

> Quality thinking does not come from putting problems in stark, black and white terms. It comes from having the flexibility, subtlety and nuance to navigate in seas of gray.[191]

Interactive broadband communication networks can facilitate the realization of individual speech rights of owners and non-owners alike. These rights are vulnerable, however, and require adequate protection that does not come at the expense of the speech rights of media owners or members of the public. Put another way, neither the press mode nor the common carrier mode of regulation should provide the sole basis for broadband communication regulation. Congress should eschew the "curious judicial blindness"[192] attributed to the courts. Rather, accommodation of both owner and public speech rights can and must be made in an interactive broadband switched network environment.

However, in the process of making accommodations, regulators should expand the classes of access and hence speech entitlement available through broadcasting and limit the opportunities for private censorship found in cable television and other subscription technologies. As mentioned above, the creation of a regulatory model based on the private/public forum dichotomy may be an appropriate way to balance the competing interests in personal liberty and in greater equality in speech opportunities. Moreover, the public/private forum dichotomy best assures the realization of broadband technology's potential benefits.

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191. Rodney A. Smolla, *Legacy: A Conversation with James Madison*, 77 A.B.A. J. 50, 52 (1991).

192. "The problem . . . is how courts have interpreted the Constitution. 'These decisions reveal a curious judicial blindness, as if the Constitution had to be reinvented with the birth of each technology.'" Don Clark, *27th Amendment Proposed For High-Tech*, S.F. CHRON., Mar. 27, 1991, at C1 (quoting Professor Lawrence Tribe).

A. *Steering Between Scylla and Charybdis*

Scholars and jurists have long pondered and argued about the independent private press and government-required public access. Some, relying on the "literal" meaning of the First Amendment,[193] the "original intent" of those who drafted it,[194] or its underlying "functional intent,"[195] have argued that free speech is possible only in the absence of government regulation.[196] Others, pointing to the relative differences between the exercise of speech in the eighteenth and twentieth centuries, argue that the government must act affirmatively to insure the exercise of free speech given the current inequalities of wealth and access which have been exacerbated by the advent of high cost technology.[197] Finally, others have argued that to the extent that a state's contract and property laws aid in determining access to the means of communication, the state is interfering with speech or somehow sanctioning it.[198] Consequently, the state may have some corresponding responsibility to assure access.

The debate regarding the meaning of the First Amendment remains insoluble in the final analysis because the actual intentions of the collective authors of the First Amendment are not apparent. What has become increasingly clear, however, is that reliance on either an unregulated private speech right or government-arbitrated access can leave substantial portions of the public vulnerable to the specter of censorship. The loss of speech rights is equally detrimental to American society, whether it stems from the abuses of the private press exacerbated by government or market-based inequalities of wealth,[199] or from the oftimes well-meant actions of an overzealous government. What matters is that speech may be irreparably lost.

As a matter of practical public policy, it may be advisable to curtail the irresolvable debate over whether private speech or equal access is constitutionally preferable. The establishment of a regulatory scheme that allows the public to take greater, more direct control of their speech rights and the flow of information would be far more valuable. Such a scheme could also minimize the twin threats of private and government abuse. At present, for a variety of reasons mentioned above, no full-fledged scheme exists.

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193. EMORD, *supra* note 89, at 101 (citing Edmond Cahn, *Justice Black and the First Amendment "Absolutes": A Public Interview*, 37 N.Y.U. L. REV. 549 (1962)).

194. *Id.* at 102-05.

195. *Id.* at 119-29.

196. *See id.* at 126-29.

197. *See* Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 HARV. L. REV. 1641, 1678 (1967); Ingber, *supra* note 92, at 201.

198. *See* Balkin, *supra* note 174, at 411-12.

199. *See* BAGDIKIAN, *supra* note 36, at 94-101.

The advent of computer augmented broadband switched networks, however, may present American society with a new opportunity to restructure the relationship among the public, private media owners, and the government. In the process of this restructuring, the potential for abuse by private owners and the government may be reduced without losing the benefits of privately-exercised speech or government-mandated public access.

1. *The Root of the Problem*

Under current regulatory schemes, the twin threats of private and government censorship remain high. One source of these threats is the high cost of access to the wire and spectrum technologies and the hierarchical nature and social use of these technologies. Except for telephony, where federal and state governments have sought to make public access affordable, most current technologies require substantial amounts of capital to acquire relatively unfettered access. This is because unfettered access or editorial control has often been viewed as part of the panoply of rights which accompany ownership of the medium.

Most current applications and uses of the technologies are, and have historically been hierarchical or one-way: traveling from an originating point to one or many other points.[200] Put another way, information flows "down stream" from the source.[201] Consequently, the speech rights of owners are further enhanced by the actual nature of the technological application.

The confluence of ownership and orgination of the information flow necessarily invites regulation at the source of control, the owner. The owner is the point at which such regulation can be most efficient. This is especially true when the source of control is the locus of the speech right as well. It is this confluence of owner rights and government regulatory efficiencies which creates the constitutional problem.

2. *The Broadband Public/Private Alternative*

Computer augmented broadband communications technology provides an opportunity to decentralize the locus of the speech right. When the majority of

200. Electronic communications technology has evolved from point to point service (ship to shore radio and telephony) to point to multipoint services (television, cable television and conference calling). The signals of most microwave technologies such as broadcasting and cable television are omni-directional absent antenna shielding, physical obstructions, and political and power limitations. Omni-directional signals are those with the ability to reach all points in a geographical area.

201. Perhaps this is partly a function of the manner in which the technology was conceptualized. Much of the science of communication rests on the behavior of spectrum energy sources such as electrical, radio, micro and light waves. These energies possess similar characteristics: they are generated at a source and emanate to other points whether in a straight line or omni-directional path.

society is interconnected, the locus of speech potentially shifts to and resides in every subscriber as well as in the medium owner. Consequently, a portion of the right to speak is separated from the ownership and control of the medium, thereby undermining regulatory efficiency. The government simply cannot censor the speech of so many as easily as it can censor the speech of a few.[202]

By the same token, owner-speakers of the switched broadband network may find it difficult to program all their capacity. Consequently, economic incentives may motivate owners to allow substantial access. Moreover, a statute absolving owners of any liability for the speech content of those to whom they grant access would remove a significant disincentive to allowing an unimpeded flow of speech.[203] This development would be of critical importance. As public access increases, the political pressure for access should diminish. As it does, government regulation of owner speech, which carries the threat of possible government censorship, diminishes as well. Thus, whatever scheme of regulation is ultimately selected, it must allow for non-discriminatory access to the facilities of communication and limited liability for providers of non-discriminatory access.[204] The public/private forum model proposed herein incorporates these proposals.

B. *The Broadband Infrastructure and the Free Market/Monopoly Provider Continuum*

As previously mentioned, a public policy debate currently rages over the importance of a broadband network infrastructure and the means of financing such a network.[205] While there is growing agreement on the need for such an infrastructure,[206] there is significant disagreement over how and by whom the infrastructure is to be developed. Some, including at least two current commissioners of the FCC and the former Assistant Secretary of NTIA, favor a free market solution.[207] They argue that the free market solution best assures

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202. *See* KATSH, *supra* note 33, at 113-19.

203. *See* Mitchell Kapor, *Civil Liberties in Cyberspace*, SCI. AM., Sept. 1991, at 162.

204. *See id.*

205. *See supra* notes 55-78 and accompanying text.

206. *See* Barrett, *supra* note 93, at 414-15; Gore, *supra* note 52, at 153; NTIA Infrastructure Report, *supra* note 186, at 21-85.

207. *See* Chairman Alfred C. Sikes, Remarks before the Research Institute on Electronics and Automation, Venice Telecommunications Conference (May 15, 1991) (transcript available from author); Commissioner Andrew C. Barrett, Remarks before the Northern Telecom, Inc.'s Executive Marketing Symposium (June 19, 1991) [hereinafter Barrett/Northern Telecom]; Commissioner Andrew C. Barrett, Fiber Technology and Video Services: Regulatory Challenges for the 1990's, Remarks before the Fiber Optics 1991 Conference sponsored by the Society of Cable Television Engineers (January 9, 1991) [hereinafter Barrett/SCTE). *See also*, Lawmakers Question Setting Date for National Fiber Network, Phillips Publishing, Inc. Vol. 11, No. 27, at 1 (1991).

the development of market disciplined businesses responding to articulated demands for services.[208]

Others prefer a "public" infrastructure solution that recognizes a monopoly provider. This solution would avoid further privatization of the public switched network. Citing the historical precedents in telecommunications, transportation, and electronic communications, these experts suggest that a public infrastructure solution can yield long range economic and social benefits.[209] They argue that a regulated monopoly provider is more likely to assure the realization of the social goals of equality in the services available to the public.

The current status of the national telecommunications policy, like the marketplace, lies somewhere in between these two extremes. In the national long distance market, AT&T is still regulated as the carrier of last resort for the majority of the nation's voice and data transmission needs. A number of other privately owned "public" networks such as MCI and Sprint also provide long distance voice services. In the local exchange market, the RBOCs are the carriers of last resort, required by regulation to provide non-discriminatory voice and data service. Increasingly, private networks will siphon off lucrative portions of the customer base for local or national voice, data and video services.[210] Thus the national market already consists of a mix of regulated "monopoly" providers and private "competitive" carrier providers. These voice and data networks exist apart from the video distribution networks previously mentioned.[211] As noted earlier, all of these players are sparring over who should be allowed to become the broadband provider to residential customers.

Some argue that the lack of a clear policy renders decision making risky and provides opportunities for warring industry interest groups to delay the adoption of a national policy and the implementation of an infrastructure solution.[212] The nation may be losing the opportunity for an efficient transition to the increasingly desired infrastructure and may end up with numerous high quality private networks and a low quality, high cost public network.[213]

On the other hand, selection of either the purely market-driven solution or the regulated monopoly solution may bode ill for the realization of enhanced public speech rights. The assumption that a free market solution alone assures

208. *See* Sikes, *supra* note 207, at 4; Barrett/Northern Telecom, *supra* note 207, at 1, 2.

209. *See* EGAN, *supra* note 1, at 174.

210. This phenomenon has been called the "tragedy of the common network." Large volume users, who had encouraged new user entry onto the common network, are now leaving the network because their sophisticated service needs are too different from those of the average user. Also, the large users create economies of scale and cost savings which are easier to realize in user-specific arrangements rather than in a common network environment. *See*, Eli M. Noam, *Network Pluralism and Regulatory Pluralism, in* NEW DIRECTIONS IN TELECOMMUNICATIONS POLICY 69-70 (Paula R. Newberg ed., 1989).

211. *See supra* note 130 and accompanying text.

212. EGAN, *supra* note 1, at 165.

213. *Id.* at 166.

the socially beneficial deployment of technology may be unrealistic and historically inaccurate.[214] Such policies tend to exacerbate current inequities in wealth and education.[215] To the extent the benefits of computer augmented broadband technology are privatized and provided exclusively to those with sufficient disposable income to demand and purchase new or enhanced services, the potential for an interconnected public forum is exchanged for a host of private ones. Under these circumstances, electronic speech rights become the province of speaker-owners and their customers, the wealthier individuals in our society. Those with limited property or wealth, as well as those with unpopular or unorthodox ideas, may find the electronic exercise of their speech rights threatened.

If the current policy stalemate results in the development of numerous higher quality private networks responsive to high demand and a low quality-high cost public network,[216] the majority of the public is less likely to receive access to the technological innovations necessary to facilitate the computer augmented interactive broadband services that enhance speech rights.[217] This result would be suboptimal for American society, for,

> [a]s more and more of our communication becomes electronic, standing on the street corner and handing out leaflets may become an increasingly pointless means for getting an idea across . . . . In the world that is rushing at us so swiftly, the minimally necessary tool will be not a photocopying machine or a printing press, but a computer terminal or home computer linked to the emerging electronic networks.[218]

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214. The history of the national, public, switched, telephone network belies the trickle down assumption of the free market proponents. The "semi-competitive," pre-regulation phase of telephone network development, roughly from 1893 to 1915, was characterized by economic waste, additional cost burdens for consumers, and unsatisfactory service quality. During this phase, multiple facilities-based carriers often competed for the more profitable business and residential customer markets, leaving less desirable markets with little or no service.

Where service was provided in these less profitable markets, high charges denied access for many people. These charges were often out of sync with the provider's revenue requirements for efficient operation. In some cases they were too high even in the face of competition. In other cases they were insufficient to provide for improvement of facilities and the extension of phone lines to new customers. *See* Warren G. Lavey, *The Public Policies that Changed the Telephone Industry Into Regulated Monopolies: Lessons from Around 1915*, 39 FED. COMM. L.J. 171, 176-84 (1987).

215. *See* EGAN, *supra* note 1, at 176.

216. *See id.* at 166.

217. *See generally* Dertouzos, *Building the Information Marketplace, supra* note 52. Michael Dertouzos has suggested that a fully developed broadband infrastructure would possess three main characteristics: flexible transport capabilities, common communications conventions, and common servers.

The concept of flexible transport addresses the elements of speed, reliability, and security of transmission. Common communications conventions would include common, uniform terms and forms as well as software for transacting a variety of communications activities over the infrastructure. Finally, common servers are conceived as basic information services available at all times to all who are interconnected to the infrastructure.

218. Carter, *supra* note 35, at 599.

Currently, the public infrastructure solution would seem to hold significant promise for facilitating the equitable distribution of the potential benefits of computer augmented broadband communications services to the American public.[219] It holds better promise for providing universal access,[220] facilitating the cooperative ventures necessary to develop common standards,[221] and minimizing the extent and effects of privatization of the network infrastructure.[222] This solution, however, is fraught with other problems. A public infrastructure solution could constrain the development of new product and service options that a purely competitive market would likely provide. Moreover, to the extent that the regulated local exchange companies are allowed to compete for the provision of information services, some concerns regarding anti-competitive activities and cross-subsidization may become a reality.[223] If RBOC competition produces this kind of behavior, the result could be significant limitations on user speech.

Thus, selection of the public infrastructure solution may, in time, bring us full circle to the concerns which led to the break-up of AT&T not so long ago. Ultimately, the arguments that government regulation of such monopoly providers would be inefficient in assuring the delivery of innovative services responsive to consumer demand and ineffective in controlling the exercise of monopoly power in the current partially competitive environment, retain significant merit.[224] Moreover, a pure regulated monopoly approach would tend to approach the traditional common carrier regulatory solution, depriving transmission providers of speech rights.

The alternative scenario which combines features of the public infrastructure and free market alternatives may be the least objectionable solution. In principal this hybrid model is certainly the most politically expedient solution given the realities of the current marketplace. In order to be viable, however the solution should incorporate a number of government, industry, and consumer-sponsored initiatives to stimulate the development of a minimally supportive national broadband infrastructure. There is growing agreement that such a solution should incorporate proposed initiatives including the adoption of a national policy favoring universal service and access;[225] national interconnection and equipment standards;[226] and flexible transport, common communication con-

219. *See* EGAN, *supra* note 1, at 174-75.

220. *See supra* notes 57-58 and accompanying text.

221. *See* Dertouzos, *Building the Information Marketplace, supra* note 52, at 38.

222. *See id.* at 39.

223. *See supra* notes 70-78 and accompanying text.

224. *See* Barrett, *supra* note 93, at 426-27. *See also* NTIA Infrastructure Report, *supra* note 186.

225. *See* NTIA Infrastructure Report, *supra* note 186; Barrett, *supra* note 93, at 420-23; Dertouzos, *Communications, Computers and Networks, supra* note 52, at 65-67; Lavey, *supra* note 214, at 187-89.

226. *See* Dertouzous, *Communications, Computers, and Networks, supra* note 52, at 65-67; NTIA Infrastructure Report, *supra* note 186, at 132.

ventions and common servers.[227] The creation and maintenance of viable, accessible public fora should also be added to this list.

Finally, the call for relatively unfettered competition between firms at the local loop and national transmission and switching levels is understandably desirable. Nevertheless, proponents of the public infrastructure (regulated monopoly) solution are right in emphasizing that more desirable social (as opposed to economic) benefits are likely to accrue from implementation of that solution. One way to achieve some measure of the benefits of the public infrastructure approach is to develop government incentives to encourage the large regulated phone companies to build substantial portions of the interconnected broadband infrastructure and work with users in developing access and utility protocols. Recent court decisions and the recommendations of NTIA are moving in this direction.[228] Other firms such as the long distance phone companies and cable television firms should also be encouraged to enter the market. Market forces would then generate a variety of information services.[229] In this way, the public infrastructure solution would shape the development and use of broadband technology and assure the benefits of access, usage and interconnection. Adoption of this policy agenda would reduce a significant portion of the risk which attends current efforts to plan investment and competitive entry strategies. This governmental policy would also facilitate the realization of the benefits associated with responsive product and service innovation.

C. *Infrastructure, Access, and Speech*

The broad parameters of the nation's broadband infrastructure policy will emerge within the next few years. In this time frame, the appeals and legislative initiatives[230] of opponents to RBOC entry into the information services markets most likely will have been completed and/or resolved. The FCC, the Congress and the public will have responded to the NTIA's Infrastructure Report. The FCC will have issued its findings on removal of the telco-cable

227. *See* Dertouzous, *Communications, Computers, and Networks*, *supra* note 52, at 65-67.

228. *See supra* notes 66-69 and accompanying text.

229. *See* Lavey, *supra* note 214, at 187.

230. The American Newspaper Publishers Association is supporting legislation recently introduced by Congressman Jim Cooper, D-Tenn. The bill would prohibit an RBOC from providing electronic publishing services within its local market unless: a) 50% of the residences and businesses have access to an alternative local carrier which offers comparable services on a price, quality and geographic basis; b) 10% or more of the residences and businesses subscribe to the alternative carrier; and c) the RBOC establishes that it lacks sufficient market power to impede competition. *See* 137 CONG. REC. E3308 (daily ed. Oct. 8, 1991) (statement by Congressman Jim Cooper); *Cooper Bill Sets Baby Bell 'Bottle-neck' Test*, NAT'L J. CONG. DAILY, Telecommunications Section, Oct. 8, 1991. *See also* Henry Gilgoff, *For Whom the Bells Toll; Ruling Could Be a Boon for Baby Bells, Curse for Papers*, NEWSDAY, July 28, 1991, at 3.

cross-ownership rules[231] and reconciled its open network architecture and structural separations policies with the Ninth Circuit's Computer III opinion.[232] Congress will have amended the Cable Communications Policy Act of 1984 and either passed infrastructure legislation or deferred the hard decisions for judgment by the FCC.

It is still too early to suggest the results of these determinations. Regardless of the precise economic and public service features of the policy resolution, however, the resolution must allow for government exercise of its obligation to make some minimum level of interactive broadband communications available to all potential participants in the system, whether they be media owners or users, speakers or receivers. Moreover, the mechanism for government intervention must be minimally intrusive. Current proposed legislation, as well as FCC and NTIA pronouncements, address the need for a national infrastructure and even acknowledge the necessity to make the infrastructure accessible to research groups, educational institutions, small businesses, and the public. However, current proposals do not address the constitutional status to be accorded the national broadband infrastructure, or the need to assure and protect the speech rights of all providers and users seeking access to the infrastructure. As argued earlier, these omissions constitute a major policy blind spot in the government's infrastructure debates and policy formulation.

Given the potential speech benefits which can accrue to American society through the creation and universal availability of the broadband network, the Congress, the NTIA, and the FCC must facilitate debate and comment on the scope of the speech rights to be allocated to broadband providers and users. Moreover, legislative and regulatory policies must incorporate and protect the speech rights of broadband providers and users.

At a minimum, the broadband infrastructure legislation and policies should recognize that both the private owner of transmission facilities and the public have constitutionally discernable and legitimate First Amendment speech rights. The pronouncements should also acknowledge that current regulatory schemes are incapable of adequately protecting public and private speech rights.

Owner and user speech rights may be protected by resort to a public/private forum regulatory scheme which incorporates a number of regulatory elements of existing models. The FCC should designate a broadband provider as a public forum when it possesses monopoly power via economic, physical, or natural means or via essential facilities. A public forum may also be deemed to exist where private owners choose to hold their media of communication open to the

231. Telephone companies are prohibited from owning cable television systems in their local markets. *See* 47 U.S.C. § 533(b) (1988) and 47 C.F.R. §§ 63.54-63.58 (1990). NTIA has argued that the restrictions should be lifted. *See* NTIA Infrastructure Report *supra* note 186, at 211.

232. California v. FCC, 905 F.2d 1217 (9th Cir. 1990).

public. In order to protect against private censorship whether for economic or other reasons, public forum broadband providers should exercise their speech rights through separate subsidiaries. These subsidiaries should not receive interconnections or transmission or switching services which are superior to those provided to other comparable speakers.

Thus, where the private owner possesses essential or monopoly facilities which a substantial portion of the public must use (for example, the public switched network), the government would be able to legislate some form of structural public access in exchange for reducing the owner's liability for transmission and user speech. The government would be authorized to preserve the "public" and "open" nature of the facilities. The owner would also have rights of access and speech. Neither the government nor the public would be allowed to regulate on the basis of content.

Under such a regulatory scheme, the non-owning public gains access to the larger telecommunications infrastructure while speaker-owners retain a right of speech circumscribed only when they possess monopoly power or essential facilities. This scheme is arguably consistent with the current thrust of public policy and technological development. It is also flexible enough to accommodate future changes in policy, technology and industry structure as they occur.

The list of potential opportunities, benefits and expectations appended to the much anticipated national broadband infrastructure is extensive, far reaching, and daunting. Yet, current Congressional legislation and the raging national debate neglect the question of how this new infrastructure can or might be used to define, extend, or enhance the speech rights of the facilities and network providers, the service providers, and the public users.

Congress, through hearings and legislation, is intent upon providing the FCC and the courts with direction concerning the scope of national communications policy in the twenty-first century. In the process it should also articulate its vision of how this national technological and economic treasure should affect the speech rights of American citizens and institutions. If our representatives do not address the evolution of our collective speech rights at this juncture, it is possible that these rights may not be addressed at all. It would be ironic if during the debate over the critical role of the infrastructure, we as a nation failed to confront its potential effect on one of our most cherished and fundamental rights.

Although our attention may be directed to the risks posed by European and Japanese competitors abroad and to the spirited clash of interest groups at home, we must not lose sight of the potential to expand speech opportunities through new technology.