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# Abundance and User Control: Renewing the Democratic Heart of the First Amendment in the Age of Interactive Media

Jerry Berman and Daniel J. Weitzner<sup>†</sup>

## I. INTRODUCTION

We stand at the cusp of the creation of a new medium. Throughout the industrialized world, the deployment of innovative new technologies—such as high-capacity computer networks, mobile wireless communications services, television systems with hundreds of channels, and increasingly accessible online services—heralds the arrival of new, interactive communications media.<sup>1</sup> At this formative stage in the development of these new modes of communication, it is appropriate to ask: What impact will these changes have on freedom of expression? How can these new technological possibilities be made to serve such core First Amendment values as increasing access to diverse information sources and minimizing government regulation of speech?

The shape of these new media is not yet defined. Indeed, there are still choices to be made about the “architecture”—that is, the basic design and functional capabilities—of the emerging network.<sup>2</sup> Those choices will have a

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1. Throughout this Essay, we use the terms “new media” and “interactive media” to represent a broad conception of the future communications media. While the ultimate shape of these media remains unclear, their features will most likely include: (1) digital communications, whereby sound, video, text, and other information are all transmitted as bits—or numbers—rather than in their analog form; (2) the convergence of traditionally distinct media—such as television, telephones, and computer networks—into overlapping or common modes of communication; (3) increasingly interactive communications, rather than the one-way transmissions typifying most television and radio today; and (4) new physical transport mechanisms, such as fiber optics, high-capacity copper wires, or high-bandwidth satellite transmissions, with the potential for dramatically greater capacity than is available today. The most striking representative of the new media in existence today is the Internet, the rapidly evolving “network of networks” that carries computer communications, data, text, voice, and video all over the world.

2. “Network” refers to the infrastructure that enables transmission of information in a medium. The emerging national and international information infrastructure for the interactive media will actually be made up of many smaller, interconnected networks.

“Network architecture” refers to the basic design and functional capabilities of this infrastructure. In its narrowest sense, a network architecture might describe the particular physical layout or technologies of a specific network. We use the term more generally to describe the basic capabilities and attributes inherent

fundamental impact on the First Amendment values relating to freedom of expression. We argue that two key architectural features will best serve these values: decentralized open access, and user control over content.

Our inquiry is guided by two of the enduring values that have informed First Amendment doctrine: maximizing access to diverse information sources and minimizing the government regulation of speech. The writings of Mill,<sup>3</sup> Milton,<sup>4</sup> and other Enlightenment thinkers taught the drafters of the First Amendment the importance of assuring a diversity of information sources for the citizenry of a democracy.<sup>5</sup> Political debate and public culture cannot flourish without a free, open public forum for the exchange of ideas.<sup>6</sup> Since the middle of this century, courts and legislatures have been forced to grapple with this issue as new media such as radio and television—as well as increasing economic concentration in the print medium—have threatened diversity.<sup>7</sup>

The First Amendment also guards against government efforts to choose which information sources are appropriate and which are not appropriate for any given speaker or listener. As the Supreme Court recently noted, “At the heart of the First Amendment lies the principle that each person should decide for him or herself the ideas and beliefs deserving of expression, consideration, and adherence.”<sup>8</sup> Though there are circumstances in which restrictions on expression are permissible, in general First Amendment values are best served when such restrictions are kept to an absolute minimum.

in the design of the infrastructure supporting new communications media. These attributes can be a function of technological choices as well as economic, regulatory, and legal decisions.

For example, the telephone system today has an inherently interactive, two-way architecture; with it one can send *and* receive information virtually anywhere in the world. For most users its capacity is currently low, accommodating only voice and low-speed data transmissions. By comparison, the architecture of the cable television system is fundamentally one-way and very high capacity. However, only a small number of entities—the cable programmers—can transmit information over the network.

3. See, e.g., JOHN STUART MILL, *ON LIBERTY* (photo. reprint 1992) (1859).

4. See, e.g., John Milton, *Areopagitica; A Speech of Mr. John Milton for the Liberty of Unlicenc'd Printing, to the Parliament of England* (1644), in JOHN MILTON, *AREOPAGITICA* 1 (photo. reprint 1992) (1890).

5. The Supreme Court explained the diversity goal in *Associated Press v. United States*, noting that the First Amendment “rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public.” 326 U.S. 1, 20 (1945).

6. See *Bose Corp. v. Consumers Union*, 466 U.S. 485, 503–04 (1984) (“The First Amendment presupposes that the freedom to speak one’s mind is not only an aspect of individual liberty—thus a good unto itself—but also is essential to the common quest for truth and the vitality of society as a whole.”); *Roth v. United States*, 354 U.S. 476, 484 (1957) (“The protection given speech and press was fashioned to assure unfettered interchange of ideas for the bringing about of political and social changes desired by the people.”).

7. See, e.g., *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 390–92 (1969); see also *Turner Broadcasting Sys., Inc. v. FCC*, 114 S. Ct. 2445, 2456–58 (1994) (discussing “scarcity rationale” for regulation of broadcast television and other media).

8. See *Turner*, 114 S. Ct. at 2458; see also *Stanley v. Georgia*, 394 U.S. 557, 598 (1969) (“[I]f the First Amendment means anything, it means that a State has no business telling a man, sitting alone in his house, what books he may read or what films he may watch.”).

How can the future interactive media best serve these values? As we demonstrate, the diversity and regulation of various media have largely been dictated by certain architectural features of those media. The architectural characteristics of new interactive media offer unique opportunities for advancing First Amendment values, as well as unique challenges to existing First Amendment doctrines. In order for interactive media to develop with the diversity-enhancing characteristics of a medium such as print—and to win strong First Amendment protections from regulation like those accorded to print—their architecture must have two key characteristics. First, the architecture must be open and decentralized, promoting a true abundance of information and communication opportunities. Second, there must be sufficient user control to enable users to choose what information they want to receive, and what they want to keep out, thus eliminating the rationale for government to step in and protect various parts of society with intrusive content regulations.

Throughout this Essay, we return to the print medium as a powerful demonstration of how to achieve diversity and limit government content regulation. For it is in print that we believe there is the greatest diversity, and the least need for (and tolerance of) intrusive regulation. In early American history, the printing press and a national mail system combined with a new communications vehicle, the newspaper, and a new legal regime, the First Amendment, to enhance the diversity of information sources available throughout the country. At the close of the eighteenth century, the diversity, flexibility, and accessibility of this new communications medium was important to the health and growth of American democracy. Now, at the close of the twentieth century, we should seek a similarly potent combination of technology and public policy that will enable interactive media to fulfill their democratic potential.

## II. ABUNDANCE: ARCHITECTURAL CHARACTERISTICS OF INTERACTIVE NETWORKS THAT PROMOTE DIVERSITY

To reach a First Amendment regime in new media that truly promotes diversity, there must be enough capacity to carry a genuine abundance of information. In the print medium there has been no limit to the number of newspapers, books, magazines, pamphlets, broadsides, and other materials that can circulate among the public. As many commentators have chronicled, the arrival of radio and broadcast television marked the first instance in the history of the First Amendment when courts found a compelling government interest in regulating access to a medium to ensure that its scarce resources would be

shared among the communicating public in a fair and orderly manner.<sup>9</sup> If a new medium were to provide an abundance of communication opportunities, and if no single entity (public or private) could control the communications access, then the means of achieving diversity of sources would be radically different: The need for intrusive government regulation would be dramatically reduced.

The limited communications opportunities available through today's mass media result from two fundamental characteristics. First, given a finite number of channels (even if the number is 500 or 1000), some entity will always have to make choices about who is allowed to use a given channel. The economic value of a channel to a network operator, such as a cable company or over-the-air broadcaster, is likely to increase under strict access conditions. Thus, independent communicators in a medium divided up into a finite number of channels will always face structural barriers to entry as speakers; diversity is not well served in such an environment. Second, the "endpoints" through which users and content providers interact with the network will restrict diversity of sources if those endpoints are not sufficiently open and accessible to both information providers and information users.

The different characteristics of various media are all a function of the underlying architecture of the network used to transport the communications in question. The scarcity that characterizes today's mass media will be fully replaced by abundance only when a network with the following characteristics is in place: (1) a decentralized, open-access architecture; and (2) open endpoints, providing easy access for all potential content providers and content users.

#### A. *The Decentralized Open-Access Model vs. The One-Way Channel Model*

Today all mass media are based on a "channelized" architecture—that is, an architecture with a fixed number of available channels. There may be only a few channels, as in broadcast television, or there may be hundreds of channels, as in new systems planned by cable television companies. The channel model poses two inherent obstacles to achieving First Amendment diversity goals: scarcity of communications pathways and the presence of information gatekeepers.

As long as there is a scarcity of channels, it is likely that some viewpoints will not be heard. An increase in the number of channels may bring a partial increase in the diversity of sources available to the public; as a practical matter, however, channels will be used up by the programming that brings the channel operator the most revenue. For example, even a 500-channel cable

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9. For a comprehensive treatment, see ITHIEL DE SOLA POOL, *TECHNOLOGIES OF FREEDOM* 108–50 (1983).

television system is unlikely to offer 500 different programs to viewers. More likely, some large number of channels will be used for staggered showings of the top ten or twenty movies.<sup>10</sup> Under this model, even a large number of channels will be used up relatively quickly, and a diversity problem will remain.

The channel model poses no threat to diversity only if every potential programmer has a channel available to use. Inasmuch as this scenario would require a very large number of channels, many of which would often be idle, it is difficult to imagine the market producing such a network. It is even more unlikely given that some degree of channel scarcity drives up the price that profit-maximizing network operators can charge for any channel slot.

The scarcity of channels and the centralized nature of a channelized distribution network present another problem: Some entity, generally the network owner and operator, must decide which of the large number of potential programs will be given access to the smaller number of channels available.<sup>11</sup> This gatekeeper role is also required because the network architecture of both cable and broadcast media demands that all programming be collected at a central point for redistribution. This requirement presents a significant burden for the independent content creator, who must deliver the program content to the central facility. In addition, smaller, independent programmers are forced to incur significant transaction costs to negotiate carriage agreements with the network operator.

The decentralized, open-access<sup>12</sup> model presents a sharp contrast to the centralized, one-way channel model that typifies most mass media today.<sup>13</sup> Properly implemented, the open-access model holds the promise of overcoming the diversity problems created by the centralized channel model. The open-access model would permit a level of diversity only possible today in the print medium. Moreover, this model's potential to lower publishing costs and increase connectivity promises a diversity of sources undreamed of in the era of print. The functional architecture of the open-access network model has two important features: (1) capacity for an unlimited number of information sources, and (2) decentralized access without the need for gatekeepers.

An open-access network can accommodate a virtually unlimited number of information providers as well as information users. This is the case because

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10. For example, almost half of the channels in a 500-channel system are used up if the network operator shows the top 20 movies at regular 10-minute intervals.

11. See *Turner*, 114 S. Ct. at 2466 (recognizing essential gateway role played by cable operators).

12. In 1994, the Clinton Administration proposed the addition of a new title (Title VII) to the Communications Act that would provide incentives for the creation of high-capacity, digital "open-access" networks. *Clinton Administration White Paper on Communications Act Reform*, 18 Daily Rep. for Execs. (BNA) M-1, M-4 (Jan. 27, 1994).

13. See Mitchell Kapor, *Where Is the Digital Highway Really Heading? The Case for a Jeffersonian Information Policy*, *WIRED*, July-Aug. 1993, at 53, 57. Between 1992 and 1994 the authors worked with Kapor at the Electronic Frontier Foundation to advance open network architecture principles in the telecommunications policy debate.

the architecture of the network makes no distinction between users who are information providers and those who are information users. In fact, most users play both roles from time to time.<sup>14</sup> All who obtain access have the option of making information available to all other users on the network; thus, the sources of information available are limited only by the number of users who seek access. Cable television or satellite networks, in contrast, are designed to add users relatively easily, but those users have no ability to send information to others on the network.

Unlike the channelized networks of today's mass media, open-access networks are decentralized: No single point is designated for the origination of content. A single user can send information to hundreds, thousands, or even millions of other users on the networks, without any advance negotiation or special arrangement with the network operator. Moreover, information access and publication tools such as those found on the Internet can be structured to enable individuals or organizations to make their own information available upon request by any other user on the network. Without any centralized distribution point on the network, it is much harder for a network operator—or any other entity—to stifle independent information sources. More important, the decentralized nature of information distribution generates substantially lower barriers to entry for independent information providers.

The abundance generated by such an open-access network eliminates one of the key First Amendment diversity difficulties found in mass media. Instead of network operators or government regulators allocating a small number of channels among a larger number of information sources, all information providers would have the opportunity to speak on an open-access network.

### B. *Open Endpoints*

To serve diversity goals, an open-access network must also have open endpoints or, in technical terms, interfaces. Every electronic medium has unique interfaces. In the case of radio or broadcast television, the interface is principally a set of technical specifications that define the manner in which the signal is transmitted and received through the air, as well as the format of the electrical signal used to represent sound and/or pictures. Access to this technical information is critical for all who would create content for distribution over broadcast media, and for those who build the appliances (radios and televisions) that allow users to receive broadcast media.

The interfaces to future interactive networks, and to the Internet today, are considerably more complicated than the corresponding interfaces to television

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14. For example, anyone with a computer connected to the Internet can at one moment use services such as Usenet newsgroups, the FTP file transfer protocol, or the World Wide Web to "publish" information available to the whole Internet, and at the next moment use the same service to read or receive information.

and radio. They are just as important, however. Without access to critical information about network interfaces, those who seek to produce content or applications for interactive networks will be unable to do so. For example, to write a computer program that runs on an Apple Macintosh computer, the programmer must have access to technical information about how that particular computer operates. Many people have been able to develop new software, hardware, and information services over the Internet because that network is based on open, public, technical standards.

Gaining access to future interactive networks will require knowledge of the design of the endpoints of the networks. These endpoints, through which users will access the networks, have the potential to become "bottlenecks."<sup>15</sup> Certain functions and technical specifications will define critical endpoint interfaces with the network. These critical interfaces must, either by government regulation or by industry practice, be open and available to all who seek to use the network. Already much debate has occurred in telecommunications policy circles about which interfaces should be open and what "open" means.<sup>16</sup>

It is not possible to give a complete answer to the question of what interfaces should be open or closed in the abstract. For the most part, market conditions and technology have not yet developed to the point where these questions can be answered concretely. Nevertheless, it is clear that certain types of interfaces will have to be open in order to promote diversity. Designers of digital networks tend to describe their interfaces in *layers*. Lower layers provide for the movement of raw information across the networks. Higher layers control the format in which that information is presented to users and the means by which users interact with data. Openness is needed primarily in the lower layers. Control over higher layers of the interface will be more akin to creative editorial decisions that distinguish one content provider from another. As long as each content provider has open access to lower-level standards and interfaces, diverse individual providers will be able to structure their own higher-level presentation interfaces.

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15. Regulators and courts have identified the bottleneck in the telephone network of today as the central switching facility. The decentralized nature of new communications networks may eliminate the central switch bottleneck, but other bottlenecks may develop at the endpoints of the network.

16. In 1994, the House of Representatives found that:

[I]n order to promote diversity, competition, and technological innovation among suppliers of equipment and services, it may be necessary to make certain critical interfaces with such networks open and accessible to a broad range of equipment manufacturers and information providers;

. . . The identification of critical interfaces with such networks and the assessment of their openness must be accomplished with due recognition that open and accessible systems may include standards that involve both nonproprietary and proprietary technologies.

H.R. 3636, 103d Cong., 2d Sess. § 205(a)(5)-(6) (1994); see also H.R. REP. NO. 560, 103d Cong., 2d Sess. 89-91 (1994).

Perfectly open technical standards still leave other potential bottlenecks. The network operator could restrict access to critical network endpoints by setting restrictive licensing terms on intellectual property (e.g., software techniques) needed to interface with the network. This strategy has been adopted successfully by Nintendo in its bid to control the introduction of new game cartridges. Nintendo requires producers of independent game cartridges to license certain software programs that enable communication between the independently produced game cartridge and the Nintendo game player. In a long series of court battles, Nintendo's copyright claims in pursuit of this strategy have been upheld.<sup>17</sup> If such licensing practices were applied to endpoints in the new interactive media, the potential for abundance would be squandered.

### C. *The First Amendment Interest in Abundance*

If citizens around the country have access to an open, decentralized network, it may be possible to realize core democratic diversity goals without resorting to the regulatory measures that are now essential to ensure allocation of scarce channels in the public interest—measures that we believe are complex, cumbersome, and less than completely effective. The most recent example of confusion over such regulations can be found in *Turner Broadcasting System, Inc. v. FCC*.<sup>18</sup> At issue in *Turner* were “must carry” rules designed to create a right of access to cable networks for local broadcast stations and public television stations.<sup>19</sup> The *Turner* Court was confronted with the central dilemma posed by government regulation of cable system operators. On the one hand, courts have acknowledged that cable operators are bona fide First Amendment speakers, whose exercise of editorial discretion in programming selection and channel assignment deserves First Amendment protection.<sup>20</sup> On the other hand, the architectural characteristics of one-way, centralized cable networks demand some degree of government intervention to ensure a modicum of diversity and opportunity for speakers and programmers who do not own cable systems.<sup>21</sup> Regulations of the sort at issue in *Turner* are not objectionable in and of themselves, but we believe they have had only limited effectiveness in producing a true diversity of information sources.<sup>22</sup>

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17. See *Atari Games Corp. v. Nintendo of Am. Inc.*, 975 F.2d 832, 847 (Fed. Cir. 1992) (affirming injunction sought by Nintendo barring Atari from building game cartridges compatible with Nintendo's system).

18. 114 S. Ct. 2445 (1994).

19. See 47 U.S.C. § 534 (Supp. V 1993).

20. *Turner*, 114 S. Ct. at 2456.

21. See *id.* at 2466.

22. The limited effectiveness of these diversity-promoting regulations is in part a result of the closed, channelized architecture of the cable television network. See *supra* text accompanying note 11.

Again, the print realm provides an example of how to achieve diversity without extensive regulatory intervention. Decentralized architecture is a key to diversity in any medium. The great diversity of the early American press was made possible, for example, because of the architecture of the printing process and the mail system. Production of papers was easy and inexpensive. The postal system allowed information to flow in every direction, from seacoast cities to the hinterlands and back, and between widely dispersed settlements.<sup>23</sup> Thus, the news that was collected reflected information about events all over the country. Tocqueville pointed out the essential connection between a decentralized press, diversity, and democracy:

[A]mong democratic nations the exercise of local powers cannot be entrusted to the principal members of the community as in aristocracies. Those powers must be either abolished or placed in the hands of very large numbers of men, who then in fact constitute an association permanently established by law for the purpose of administering the affairs of a certain extent of the territory; and they require a journal to bring them every day, in the midst of their own minor concerns, some intelligence of the state of their public weal.<sup>24</sup>

The collection of information offered on a daily or weekly basis by hundreds of newspapers represented, for its time, a radically new way of organizing and disseminating information. This communications medium was critical for the development of early American democracy, inasmuch as the press tied far-flung early American communities together into a single polity. Because newspapers were easy to produce and distribute, no one entity, public or private, could control the discourse. The decentralized nature of the system offers a prime example of how to promote a true diversity of information sources.

The contrast between the postal system's carriage of newspapers and today's mass media could not be more striking. Whereas the decentralized architecture of the mail system enabled the development of a diverse news distribution medium, the highly centralized cable network poses substantial threats to diversity. In rejecting a strict scrutiny standard for cable television network regulation in *Turner*,<sup>25</sup> the Court acknowledged some of the

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23. An important attribute of the postal system was its ability to grow to accommodate the steadily increasing flow of news. Some dispute exists in the literature as to the exact volume of mail at this time and as to the proportion of newspapers in the mail; it is clear, however, that the mails were literally flooded with newspapers. In 1794, an estimated 70% of all mailed matter was newspaper material; by 1832, newspapers took up 15 times the weight of letters in the overall national mail flow. WAYNE E. FULLER, *THE AMERICAN MAIL: ENLARGER OF THE COMMON LIFE* 117 (1972).

24. 2 ALEXIS DE TOCQUEVILLE, *DEMOCRACY IN AMERICA* 490 (J.P. Mayer & Max Lerner eds. & George Lawrence trans., 1966) (1835).

25. *Turner*, 114 S. Ct. at 2464-69.

“important technological difference[s]”<sup>26</sup> between channelized cable television networks and the print medium:

Although a daily newspaper and a cable operator both may enjoy monopoly status in a given locale, *the cable operator exercises far greater control over access to the relevant medium*. A daily newspaper, no matter how secure its local monopoly, does not possess the power to obstruct readers’ access to other competing publications . . . . Thus, when a newspaper asserts exclusive control over its own news copy, it does not thereby prevent other newspapers from being distributed to willing recipients in the same locale.

The same is not true of cable. When an individual subscribes to cable, *the physical connection between the television set and the cable network gives the cable operator bottleneck, or gatekeeper control over most (if not all) of the television programming that is channeled into the subscriber’s home.*<sup>27</sup>

None of the control ascribed to the cable operator by the Court in *Turner* would exist in a decentralized, open-access network, just as none exists in the print medium.<sup>28</sup> If it were possible to create an open-access network, the diversity sought by the First Amendment could be realized without the regulatory intervention at issue in *Turner*.

Although the diversity-promoting regulations at issue in *Turner* are suited to a media regime characterized by scarcity and closed systems rather than one characterized by an open, decentralized network architecture, a rush to eliminate such regulations before each element of an open network is in place would be a grave error. For example, the *Turner* plurality mistakenly suggests that an increase in the number of channels available on cable systems would justify a change in access regulations.<sup>29</sup> The Court assumes that a mere increase in the number of channels available would increase diversity to the point that extensive access regulations could be reduced. Yet, even if a large number of channels became available, the bottlenecks inherent in a centralized network could still pose a major barrier to diversity. Furthermore, it is essential to the spirit of the diversity principle that we keep in mind the cost of access

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26. *Id.* at 2466.

27. *Id.* (emphasis added).

28. One example of a legislative effort to promote widespread development of truly open-access networks is the Open Platform Services portion of the National Communications Competition and Information Infrastructure Act of 1994, authored by Representative Edward Markey (D-Mass.). The Open Platform Services legislation would require local telephone companies to offer switched, digital telecommunications services to residential customers at a reasonable cost on a nondiscriminatory basis. Such services could become the basis for true open-access networks. The House of Representatives passed this legislation in 1994, but the Senate did not act upon it. See H.R. 3636, 103d Cong., 2d Sess. §§ 101(b)(ii), 102(d)(3) (1994).

29. *Turner*, 114 S. Ct. at 2457 (“[G]iven the rapid advances in fiber optics and digital compression technology, soon there may be no practical limitation on the number of speakers who may use the cable medium.”).

for both information users and providers. A fully open, decentralized network that is too expensive for individuals and local organizations to access cannot fulfill the promise of diversity. Indeed, new interactive media bring the possibility of a return to the *Tornillo*<sup>30</sup> model of regulation found in the print medium—where the press is largely free of government intervention—but only if the new media have the open, decentralized characteristics that mirror those of the print medium.

### III. USER CONTROL: INCREASING USER CHOICE AND ELIMINATING GOVERNMENT CONTENT REGULATION IN NEW INTERACTIVE MEDIA

As the interactive media model comes to supplement or supplant the broadcast model of mass media, the justification for content regulation will come increasingly into question. The rise of interactive technology raises urgent questions about the power (if any) of government to impose content regulations in these new media. Legislatures and courts might apply the models established for mass media and parts of the telephone system, which tolerate a great degree of government content control. Or they might conclude that the First Amendment precludes content regulation of interactive media, as is the case with the print medium. Again, the choice between these two alternatives will depend significantly on the architectural and functional characteristics of interactive media, as well as on the degree to which courts and legislatures pay heed to these characteristics.

A proper understanding of interactive media leads to the conclusion that heavy-handed content control by any level of government is inappropriate and violates the basic First Amendment guarantee of freedom of speech. Whatever one might conclude about the wisdom of content regulations in today's mass media, such regulations would be inappropriate for developing interactive media. Interactive media differ from mass media in that they offer users a great degree of control over the content that users and their children receive. Therefore, individual users, not the government, should be entrusted with the task of controlling the content to which they and their families are exposed.

#### A. *Background of Content-Based Regulation in Mass Media and the Telephone System*

The lack of user control has been the basis for an evolving tradition of intrusive government regulation of mass media communications. In *FCC v. Pacifica Foundation*,<sup>31</sup> the Supreme Court held that comedian George Carlin

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30. *Miami Herald Publishing Co. v. Tornillo*, 418 U.S. 241, 254–58 (1974) (supporting expansive view of freedom of the press from government intrusion or coercion).

31. 438 U.S. 726 (1978).

was properly barred from repeating “seven dirty words” over the radio even though they were not obscene, but only indecent.<sup>32</sup> The Court did not analyze application of the FCC regulations to Carlin under the standard of strict scrutiny; rather, the Court concluded that, given the nature of the broadcast media, more deference was appropriate. The words might unexpectedly “assault” a listener spinning the dial past the Pacifica station in question.<sup>33</sup> *Pacifica* upheld the FCC regulations based on the dual finding that: (1) radio has a “uniquely pervasive presence”<sup>34</sup> that intruded—dirty words and all—into peoples’ homes; and (2) the only way to protect children from exposure to objectionable content was to keep it off the air altogether.<sup>35</sup> Thus, the Court relied on a key architectural characteristic of the broadcast medium—lack of user control over content—to justify intrusive content regulation.

The lack of user control was also used to justify government restrictions targeted specifically at indecent audiotext services—so-called “dial-a-porn” or 900-number services. In considering this issue Congress relied heavily on a belief that government-imposed access restrictions were the only means available to protect children from exposure to indecent material.<sup>36</sup> In 1983, Congress first amended § 223 of the Communications Act of 1934 to proscribe the making by telephone of “any obscene or indecent communication for commercial purposes to any person under eighteen years of age or to any other person without that person’s consent.”<sup>37</sup> Subsequent FCC regulations required that dial-a-porn providers restrict minors’ access to indecent services by securing some form of age verification before permitting a caller to receive such services. Through several years of litigation, courts considered and rejected a number of government regulatory schemes requiring providers to shield minors from access to indecent information.<sup>38</sup> Shortly after the Second

32. *Id.* at 735–38.

33. *See id.* at 748–49. The *Pacifica* Court recognized that the radio station in question—WBAI in New York City—had actually broadcast a warning as to the possibly objectionable content, *id.* at 730, but held that such warnings failed to protect those who tuned in after they were given, *id.* at 748.

34. *Id.* at 748.

35. *Id.* at 749–50.

36. This view was perhaps best captured by the remarks of Representative Thomas Bliley (R-Va.) during a 1988 congressional debate on the issue: “[Dial-a-porn] constitutes an *attractive nuisance* in every home in America where children are present. There is no completely effective way to prevent children from being exposed to ‘indecent’ or ‘obscene’ dial-a-porn so long as it is lawfully and commercially marketed.” 134 CONG. REC. H1693 (daily ed. Apr. 19, 1988) (emphasis added). Bliley went on to note:

Telephones are precisely like radio and television because of their easy accessibility to children and the virtual impossibility for parents to monitor their use. . . .

. . . [D]ial-a-porn is presently in the home whether the homeowner wants it or not. Today one cannot have telephone service in the privacy of one’s family environment without being required to have dial-a-porn with it. Families with children must give up telephone service to be “left alone” from exposure of their children to this “intruder”.

*Id.* at H1694 (emphasis added).

37. FCC Authorization Act of 1983, Pub. L. No. 98-124, § 8(a)(3), 97 Stat. 1467, 1469–70 (1983) (codified as amended at 47 U.S.C. § 223(b) (Supp. III 1991)).

38. For example, the Second Circuit first struck down time channeling rules, 49 Fed. Reg. 24,996 (1984), which required services to be accessible during hours when children were asleep, because they had

Circuit finally upheld the 1983 statute and the FCC's third set of implementing regulations,<sup>39</sup> Congress tried to broaden the restrictions by enacting a total ban on *all* obscene and indecent telephone communications, for adults as well as minors.<sup>40</sup>

In *Sable Communications of California, Inc. v. FCC*,<sup>41</sup> the Court considered a First Amendment challenge to these new dial-a-porn restrictions. The Court noted that obscenity is not protected by the First Amendment, while indecent communications—those that do not rise to the level of obscenity—are protected.<sup>42</sup> As a threshold matter, the *Sable* Court found that the constitutional bases for upholding indecency regulations as articulated in *Pacifica* were not applicable to any media other than over-the-air broadcasting.<sup>43</sup> *Sable* rejected *Pacifica*'s finding of a “uniquely pervasive” medium as “emphatically narrow” and irrelevant to other media such as telephone audiotext services.<sup>44</sup> The Court held that indecent communications can only be limited in order to serve a compelling state interest, and then only by using the “least restrictive means” possible.<sup>45</sup> The Court did find that protecting minors from exposure to indecent materials is a compelling state interest, but held that the statute's broad terms—eliminating any age and consent exceptions—were not narrowly drawn enough to serve this interest: “[I]t is not enough that the Government's ends are compelling; the means must be carefully tailored to achieve those ends.”<sup>46</sup> The *Sable* “least restrictive means” standard became the test by which regulations on access to constitutionally protected indecent material were judged.<sup>47</sup>

The constitutionality of the current § 223 and its implementing regulations was finally upheld by the Second Circuit in *Dial Information Services v.*

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the effect of denying access to adults as well as children. *Carlin Communications v. FCC*, 749 F.2d 113, 121 (2d Cir. 1984). Next, the Second Circuit rejected a requirement, 50 Fed. Reg. 42,699 (1985), that carriers provide access to indecent services only once customers entered access codes or passwords, which were to be issued after verification that the customer was over 18 years old. *Carlin Communications, Inc. v. FCC*, 787 F.2d 846, 847 (2d Cir. 1986).

39. *Carlin Communications, Inc. v. FCC*, 837 F.2d 546, 556 (2d Cir.), *cert. denied*, 488 U.S. 924 (1988) (upholding 1983 amendment to § 223 and FCC regulations permitting access to dial-a-porn where restricted with credit cards, access codes, or scrambling devices); *see* 52 Fed. Reg. 17,760 (1987).

40. Pub. L. No. 100-297, § 6101, 102 Stat. 130, 424 (1988).

41. 492 U.S. 115 (1989).

42. *Id.* at 124–27.

43. *Sable*, 492 U.S. at 127.

44. *Id.* The Court distinguished audiotext services from over-the-air broadcasting as follows: “[U]nlike an unexpected outburst on a radio broadcast, the message received by one who places a call to a dial-a-porn service is not so invasive or surprising that it prevents an unwilling listener from avoiding exposure to it.” *Id.* at 128.

45. *Id.* at 125–26 (holding speech regulation acceptable provided government chooses “the least restrictive means to further the articulated interest”); *see also* *O'Brien v. United States*, 391 U.S. 367, 377 (1968) (justifying government regulation if furthers important government interest unrelated to suppression of free expression and if restriction on expression is no greater than necessary to further interest).

46. *Sable*, 492 U.S. at 126; *see also* *Carlin Communications, Inc. v. FCC*, 837 F.2d 546, 555 (2d Cir.), *cert. denied*, 488 U.S. 924 (1988).

47. *See, e.g.*, *Dial Info. Servs. v. Thornburgh*, 938 F.2d 1535, 1541–42 (2d Cir. 1991), *cert. denied*, 502 U.S. 1072 (1992).

*Thornburgh*.<sup>48</sup> The court rested its holding on the legislative determination that telephone company blockage of service pending age verification or use of a credit card was the *only* means available to restrict children's access to indecent audiotext services.<sup>49</sup>

Interactive media are materially different from telephone and audiotext technology in that they offer users the ability to exercise control over precisely what information they access. Given this dramatic difference between telephone technology and interactive networks such as the Internet and other online services, we believe that the constitutionality of dial-a-porn-type regulations for interactive media would be in serious doubt.<sup>50</sup> Just as the *Sable* Court found broadcasting's indecency regulations inapplicable to the telephone system because of differences in the medium, regulations designed for audiotext services in the telephone system are constitutionally inapplicable to interactive media.

### B. *Beyond Mass Media to User-Controlled Interactive Media*

A medium that offers individual users the ability to exercise greater control over the content that they (and their children) receive might reduce the legislative zeal for content regulation. User control of this kind requires two functional attributes in a new medium: (1) the means of identifying the content being transmitted, and (2) the ability of the user to screen out certain kinds of content.

Much of the information that travels across networks such as the Internet and commercial online services such as America Online, CompuServe, and Prodigy has identifying data, known as a header, attached to it. This header, as distinct from the content itself, generally could contain information about the format in which the content is stored, the category in which the information should be classified or sorted, the owner of the content, and the origin or destination of the content. A header might be described as the digital analogue to a bibliographic entry that describes a book or magazine. Or we

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48. 938 F.2d at 1535. The current § 223 prohibits all obscene telephone communications for commercial purposes, as well as indecent communications available to any person under the age of 18. Carriers must request written approval before providing access to any such service for which they collect charges. Providers must restrict access to persons under the age of 18 in accordance with FCC regulations, which currently require providers to use access codes, payment by credit card, or scrambling devices. Pub. L. No. 101-166, § 521(1), 103 Stat. 1159, 1192-93 (1989) (codified at 47 U.S.C. § 223(b)-(c) (Supp. III 1991)).

49. *Dial Info. Servs.*, 938 F.2d at 1541-43. Representative Bliley asserted as much in his comments on the 1988 legislation: "[I]t became clear that there was not a technological solution that would adequately and effectively protect our children from the effects of this material. We looked for effective alternatives to a ban—there were none." 134 CONG. REC. H1691 (daily ed. Apr. 19, 1988).

50. Moreover, given the national and international reach of new interactive media, determination of obscenity based on traditional "community standards" doctrine raises a host of questions not addressed here.

might think of these headers as the equivalent of a *TV Guide* description of a television program.

Existing technologies already enable users to access or to exclude certain information based on a variety of characteristics. In the future, users, instead of the government or network operators, could exercise control with such filtering technology over the information content that they receive in an interactive network environment.<sup>51</sup> User control could be exercised in two ways. First, users could screen out all messages or programs based on information in the header. If a parent wanted to prevent a child from seeing a particular movie or from participating in a particular online discussion group, then the computer or other information appliance used by the child could be set by the parent to screen out the objectionable content. Such features could be protected with passwords assigned, for example, by the responsible adults in the house. Second, the same header information and filtering systems could be used to enable blocking of content based on third-party rating systems. For example, those parents who accept *TV Guide's* judgment about the presence of nudity and/or violence in particular programs could program their interactive TV sets to screen out all programs that *TV Guide* has classified as violent. Because of the flexibility of interactive technology, however, we need not rely on just one rating system. In fact, a single rating system or a single set of filters would merely replace a single government censor with a single private censor, with no real gain for the free flow of information. Properly implemented, interactive media can accommodate multiple filtering systems, giving users and parents the opportunity to select and block information based on a true diversity of criteria.<sup>52</sup> The Christian Coalition or People for the American Way could set up rating systems that would be available on the network to those who desire them. Rather than relying on the judgment of the government, or of the TV network, viewers could limit access to content based on the judgment of a group whose values they share.

This new approach to the problem of controversial content is possible because of a fundamental shift in media architecture. Whereas mass media utilize *broadcast* technologies that “assault”—in the words of the *Pacifica* Court<sup>53</sup>—a possibly unsuspecting audience with objectionable content, interactive media are based on an *access* model. Users are not bombarded with

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51. This same filtering technology could be used to address privacy concerns in interactive environments by giving users the ability to express their preferences about the future use of personally identifiable information. These issues are beyond the scope of this Essay.

52. Nicholas Negroponte, Director of the MIT Media Lab and an authority on interactive media, predicts:

When television is digital, it will have many new bits—the ones that tell you about the others. . . . The bits may be the control data for a knob that allows you to change X-rated to R-rated to PG-rated material (or the reverse). Today's TV set lets you control brightness, volume, and channel. Tomorrow's will allow you to vary sex, violence, and political leaning.

NICHOLAS NEGROPONTE, *BEING DIGITAL* 49 (1995).

53. *FCC v. Pacifica Found.*, 438 U.S. 726, 749 (1978).

one channel or another of programming. The choice of an interactive architecture, with header information, makes effective screening by the recipient possible. No longer will controversial material intrude into users' homes in the manner that, in Congress' view, required steps to aid parents in protecting their children. Rather, users will *request* that particular information be delivered. These requests can be screened or controlled by parents if necessary to limit their children's access to certain kinds of information.

C. *Restricting Access to Controversial Content Can Be Achieved by User-Control Technologies, Not Government Content Regulation*

User-control technologies enable customers (in particular, parents) to limit access to certain kinds of material on their TVs or PCs. With such control mechanisms within the practical reach of parents, the goal of indecency regulations—the protection of children—could be achieved without intrusive government restrictions. In interactive media, the reasoning of *Pacifica* and *Sable* would not justify content regulation at all, whether it is regulation of sexual expression, violence, commercial speech, or other controversial materials.

Nevertheless, political pressures threaten to introduce draconian regulations into these new media before user-control mechanisms have a chance to take hold. Recently, there has been a proposal in Congress to hold interactive service providers, such as CompuServe, American Online, and commercial Internet access providers, responsible for any obscene or indecent content that travels across their networks, whether or not they have knowledge of the nature of that content.<sup>54</sup> Even more threatening to the First Amendment, that proposed legislation would criminalize private messages sent between consenting adults if those messages contained any “lewd, lascivious, [or] filthy” content.<sup>55</sup> If carriers are to be held responsible for the content of all information and communication on their systems, they will be forced to attempt to screen all content—every e-mail message, text file, word processing document, or image—before it is allowed to enter the system. In many cases, this would simply be impossible. But even where it would be possible, such prescreening would severely limit the diversity and free flow of information in the online world. To be sure, some system operators will want to offer services that prescreen content.<sup>56</sup> If all systems were forced to do so,

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54. See S. 314, 104th Cong., 1st Sess. § 2(a) (1995) (the popularly named “Exon Amendment”).

55. *Id.*

56. For example, some commercial online services provide discussion forums in which monitors, or editors, screen the content of the discussion in order to assure that it is appropriate for children. The decision to screen in this manner is an exercise of editorial control on the part of the online service provider. In general, service providers offer these moderated forums in order to attract customers who want such a service. By the same token, online services offer completely open, unmoderated discussions because other customers desire this kind of forum.

however, the usefulness of digital media as communication and information-dissemination systems would be drastically limited. Where possible, we must avoid legal structures that force those who merely carry messages to screen their content.

A network architecture that relies on user control would be a real alternative to the intrusive approach now being considered and sure to be proposed again and again. Such a media environment would give parents—or anyone else who has particular preferences about the content of information to which he or she is exposed—the control that courts have determined they lack in the mass media. Goals such as the protection of children could thus be achieved without involving the government. Of course, if interactive media architecture does not develop with sufficient capabilities to enable parents to control the information accessible to their children, it is likely that political pressure will build to achieve child protection goals through government regulation, as in the broadcast media and audiotext service realms.

#### IV. CONCLUSION: RENEWING THE HEART OF THE FIRST AMENDMENT

This Essay offers a First Amendment wish list for the age of interactive media. As the designers of interactive communication services make fundamental architectural choices, the fate of the First Amendment hangs in the balance. If a truly open network actually comes to supplement or supplant today's mass media, there is a real possibility for a new, less-restrictive approach to achieving long-standing First Amendment diversity goals. Furthermore, if that network has mechanisms in place that allow users to exercise greater control over the content they receive, it may be possible to achieve the legitimate government purpose of protecting children from controversial material without the intrusive regulations that govern today's mass media. On the other hand, a network architecture favoring closed, centralized systems could squander the democratic potential of interactive media. A closed network—one that offered more and more channels to mass market, least-common-denominator programming—would be a gross disappointment in light of the media's potential.

The shape and character of our nation's communications infrastructure is critical to our democratic values. An important component of early American democracy was its ubiquitous mail system, which linked the new country into a single polity through a web of information mostly contained in newspapers. This diversity of information sources, first developed through a vibrant distribution system even before the First Amendment was written, was a critical part of American democracy. Benjamin Rush, a prominent Philadelphia physician and champion of a strong central government to promote national unity, wrote:

For the purpose of diffusing knowledge, as well as extending the living principle of government to every part of the united states—every state—city—county—village—and township in the union, should be tied together by means of the post-office. This is the true non-electric wire of government.<sup>57</sup>

To Rush, the postal system and the newspaper dissemination that it promoted were vital ties that would bind the country together. James Madison voiced similar views: “In such [a government] as ours, where members are so far removed from the eye of their constituents, an easy and prompt circulation of public proceedings is particularly essential.”<sup>58</sup> Without mails and newspapers, the “people” would not have been well enough informed to participate in the process of government.

Today, as a country and as global citizens we are awash in electric wires, fiber-optic cables, satellite transmissions, and numerous other electronic communication media, the likes of which would leave Benjamin Rush and the drafters of the First Amendment in awe. Whether all of the technology that surrounds us will advance democratic values, however, remains very much an open question. The combination of postal system and printing press that played such an important role in early America is technologically backward by our standards, but its impact was powerful because of the kinds of communications this early network enabled.

If a similar network does not develop for the new interactive media, the prospects for the First Amendment are, indeed, somewhat bleak. We cannot rely on our political institutions alone to sustain our First Amendment values. Neither Congress nor the FCC has demonstrated the political will to seek diversity in the public interest.<sup>59</sup> As more and more people begin to use

57. Benjamin Rush, *Address to the People of the United States*, in AM. MUSEUM, Jan. 1787, at 8, 10. Rush went on to note:

It is the only means of conveying heat and light to every individual in the federal commonwealth. Sweden lost her liberties, says the abbe Raynal, because her citizens were so scattered, that they had no means of acting in concert with each other. *It should be a constant injunction to the post-masters, to convey newspapers free of all charge for postage.* They are not only the vehicles of knowledge and intelligence, but the centinels of the liberties of our country.

*Id.* (emphasis added).

58. Letter from James Madison to Edmund Pendleton (Dec. 6, 1792), *quoted in* RICHARD B. KIELBOWICZ, *NEWS IN THE MAIL: THE PRESS, POST OFFICE, AND PUBLIC INFORMATION, 1700–1860S*, at 35 (1989).

59. As part of regulations implementing the Cable Television Consumer Protection and Competition Act of 1992, the FCC recently had to decide whether home shopping channels were legally entitled, along with local broadcast TV stations, to be carried on cable networks. The Commission found that home shopping stations serve the “public interest” and therefore have the right to demand that local cable operators carry their broadcasts, whether cable operators want to or not. 8 F.C.C.R. 5321, 5321 (1993). Commissioner Ervin Duggan, now President of the Public Broadcasting Service, wrote a noteworthy dissent:

Today, unfortunately, the Commission deliberately and explicitly puts forward a minimalist definition of the public interest standard. It does so at precisely the moment when we should be mending and refurbishing that tattered banner and lifting it high over a broadcast culture that

interactive media—including the Internet, interactive television, and other multimedia services—there is likely to be political pressure to censor and regulate access to controversial information such as obscenity and indecency. Congress has already shown its appetite for content regulation by taking decisive and dangerous steps against the perceived growth of sexually explicit content in the new media. We can still hope that Congress and the courts will recognize the unique nature of interactive media and choose to regulate them accordingly. Nonetheless, current developments provide powerful motivations to move forward with the task of building open networks that maximize abundance, diversity, and user control.

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is, to borrow Gerard Manley Hopkins's poignant phrase, "all . . . seared with trade."

. . . .  
In 1929, the old Radio Commission, predecessor of today's FCC, set forth its definition of the public interest standard in words that required broadcasters to present diverse programming including "entertainment, music of both classical and lighter grades, religion, education and instruction, important public events, discussions of public questions, weather, market reports and . . . news." Are Congress and the Commission ready now to abandon this ideal? I hope not, and I cast my dissent in the hope that some day Congress and the Commission will find it possible to revisit this question again.

Until we do, I will think of the public interest standard as a sort of once-handsome thoroughbred, so abused and neglected that it has finally broken down in the middle of the track. Perhaps we can take it back to the paddock in the hope that, with care and love, it can recover—or at least produce offspring that recall the beauty of the original. If not, let us simply put the poor beast out of its misery once and for all.

*Id.* at 5339–40.