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NOTE: At the time of publication, author Monroe Price was affiliated with the Benjamin N. Cardozo School of Law, Yeshiva University. Currently (February, 2008), he is an Adjunct Full Professor at the Annenberg School for Communication at the University of Pennsylvania.

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The Newness of New Technology

Abstract

Every new technology transforms the world around it. A century ago, in a gentle preface to his novel *Under the Greenwood Tree* Thomas Hardy wrote of the transformation of little church orchestras in village England. Humble and amateur community instrumentalists were being displaced by an "isolated organist" employing a newly manufactured and more cheaply distributed technology, the harmonium or barrel organ. The new device presented certain advantages in control and accomplishment, but, he suggested, the change caused the stultification of the clergy's aims and resulted in loss of interest among parishioners. In these tiny hamlets the technology of musical development had consequences for participation, organization of the institution, the nature of the music that was played, and, Hardy seemed to be saying, for country life as well. Of these multiple and small transformations major changes in society take place.

Comments

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THE NEWNESS OF NEW TECHNOLOGY

*Monroe E. Price**

Every new technology transforms the world around it. A century ago, in a gentle preface to his novel *Under the Greenwood Tree*,¹ Thomas Hardy wrote of the transformation of little church orchestras in village England. Humble and amateur community instrumentalists were being displaced by an “isolated organist” employing a newly manufactured and more cheaply distributed technology, the harmonium or barrel organ. The new device presented certain advantages in control and accomplishment, but, he suggested, the change caused the stultification of the clergy’s aims and resulted in loss of interest among parishioners. In these tiny hamlets the technology of musical development had consequences for participation, organization of the institution, the nature of the music that was played, and, Hardy seemed to be saying, for country life as well. Of these multiple and small transformations major changes in society take place.

Newness, a preoccupation with the unknown, a twinning of heralded benefits and fears of danger is one trope of restructuring that is evident throughout the process of legal and policy transformation. Every candidate for new information technology has invited a super-heated rhetoric of millennial social change, a balloon of Hardy’s modest and precise description of the effect of the harmonium. When wireless radio technology was introduced in the first decades of the twentieth century, world peace was said to be only a turn of the dial away.² The *New York Times* wrote: “Nothing so fosters and promotes a mutual understanding and a community of sentiment and interests as cheap, speedy, and

* Sadie and Joseph Dancyger Professor of Law, Cardozo School of Law, Yeshiva University and co-director, Programme in Comparative Media Law and Policy, University of Oxford, LLB Yale Law School, 1964. This Essay is adapted from a forthcoming book tentatively titled *Journeys in Media Space: Law, Identity and Technology in a Global Environment*. I presented this paper at the Institute for Advanced Study (information technology and society group) in fall 2000 as a Member in the School of Social Science.

¹ THOMAS HARDY, *UNDER THE GREENWOOD TREE* (Tim Dolin ed., Penguin Putnam 1999) (1872).

² See Susan J. Douglas, *Amateur Operators and American Broadcasting: Shaping the Future of Radio, in IMAGINING TOMORROW: HISTORY, TECHNOLOGY, AND THE AMERICAN FUTURE* 35 (Joseph J. Corn ed., 1986).

convenient communication.”³ Promised riches by hawkers of the new technology, investors poured enormous amounts of money into fledgling, often nearly bankrupt, wireless companies. As a guide to restructuring, newness in information technologies is almost always packaged with a stated capability for fulfilling dreams and, simultaneously, challenging existing institutions and mores.

It is possible that the satellite, the Internet, and other information technologies will lead to the greatest revolution in information since the invention of the printing press.⁴ The extent to which this will be the case is not the point of this Article. Rather, it is to ask how change in technology is conceptualized, evaluated, and manifested in the process of reshaping institutions and laws. Governments try to divine how the newness of information technology affects the porousness of boundaries, capacities of old institutions to regulate new realities, the cultural horizons that result from altered patterns of data and image flows. Then, based on inadequate information, states probe ways to manage what they think are the consequences.

Elsewhere, I have explored examples of the threat of the new: its articulation as a carrier of illegal and harmful content and the capacity of new information technologies to present or intensify potential mischief and dangers.⁵ Legislation to reshape modes of access and surveillance can be seen as an effort to deflect the use of new media for such purposes. In 1996, President Clinton established the President’s Commission on Critical Infrastructure Protection to investigate the potential for terrorism on the Internet and legislation ensued from that.⁶ A President’s Working Group on Unlawful Conduct on the Internet called for restrictions on anonymity in cyberspace, citing law enforcement’s inability to trace online fraud, hacking, and trafficking in child pornography, firearms, and drugs.⁷ A society that fears revolutionary,

³ *Id.* at 39 (quoting N.Y. TIMES, Aug. 15, 1899, at 6).

⁴ See Jonathan Wallace & Michael Green, *Bridging the Analogy Gap: The Internet, the Printing Press and Freedom of Speech*, 20 SEATTLE U. L. REV. 711 (1997); Michael Hauben, *The Expanding Commonwealth of Learning: Printing and the Net*, in NETIZENS: ON THE HISTORY AND IMPACT OF USENET AND THE INTERNET (1994), at <http://www.columbia.edu/~rh120/ch106.x16> (last visited Feb. 18, 2001).

⁵ THE V-CHIP DEBATE: CONTENT FILTERING FROM TELEVISION TO THE INTERNET xiv (Monroe E. Price ed., 1998).

⁶ See CRITICAL INFRASTRUCTURE ASSURANCE OFFICE, DEP’T OF JUSTICE, WHITE PAPER: THE CLINTON ADMINISTRATION’S POLICY ON CRITICAL INFRASTRUCTURE PROTECTION: PRESIDENTIAL DECISION DIRECTIVE 63 (1998); PRESIDENT’S COMM’N ON CRITICAL INFRASTRUCTURE PROTECTION, CRITICAL FOUNDATIONS: PROTECTING AMERICA’S INFRASTRUCTURE (1997). The Commission’s website may be found at <http://www.pccip.ncr.gov>.

⁷ See PRESIDENT’S WORKING GROUP ON UNLAWFUL CONDUCT ON THE INTERNET,

destabilizing, and dangerous dissent is prepared to vest in its government extended powers to defend the status quo. Terrorism or radicalism of dissent becomes another trope that justifies greater state authority.⁸

Another quality of newness is how we describe the social organization by which information comes from those who originate content to those who consume it. New media technology famously disintermediates, or is said to, altering the power of traditional entities such as department stores, political parties, and television networks.⁹ Policymakers who hope for a technology that destroys existing mediators—creating a freer path between consumer and producer of information—might be more tolerant of implementing problems than those who think that the new technology merely remediates (yielding different institutional arrangements in place of the old). Legislative and judicial doctrines often build on a static concept of mediators or gatekeepers, dependent on actors who can be held responsible.¹⁰

Media technologies, as they are implemented, scotch the snake of power but do not destroy it. The language of technological determinism, as a descriptor of what constitutes the new, is overblown in this regard. Of course it is true that states will lose some capacity for control as a result of the spread of communications technologies. There is no reason to privilege the existing arrangements of states and the distribution of power among them. Some states, however, will increase their capacity to monitor and control as a result of their means of marshalling the new technology. And there will be other, as yet unknown, shifts as well.¹¹ States where information is produced may gain power over states where information is consumed. It may be a hallmark of increased power to be a state where information is processed or uplinked to satellite. Power may come from control over vital elements of the hardware, such as the capacity to build microchips,

THE ELEC. FRONTIER: THE CHALLENGE OF UNLAWFUL CONDUCT INVOLVING USE OF THE INTERNET (2000).

⁸ See ELEC. PRIVACY INFO. CTR., CRITICAL INFRASTRUCTURE PROTECTION AND THE ENDANGERMENT OF CIVIL LIBERTIES: AN ASSESSMENT OF THE PRESIDENT'S COMMISSION ON CRITICAL INFRASTRUCTURE PROTECTION (PCCIP) (1998), available at <http://www.epic.org/security/infowar/cip.pdf> (last visited Jan. 15, 2001).

⁹ See Charles Firestone, *Digital Culture and Civil Society: A New Role for Intermediaries?*, INTERMEDIA, 22 no.6 (Dec.-Jan. 1994-95); see also Symposium, *Financial Services: Security, Privacy, and Encryption*, 3 B.U. J. SCI. & TECH. L. 4 (1997) (comments of Valerie McNevin noting the Internet's potential to disintermediate financial services).

¹⁰ See Kathleen M. Sullivan, *First Amendment Intermediaries in the Age of Cyberspace*, 45 UCLA L. REV. 1653 (1998).

¹¹ See James Boyle, *Foucault in Cyberspace: Surveillance, Sovereignty, and Hardwired Censors*, 66 U. CIN. L. REV. 177 (1997).

or control of software, as in encryption or filtering. States gain money and power when industries—gaming, pornography, or adventurous sale of pharmaceuticals—for various reasons, though often taking advantage of technology that allows new zones of immunity, relocate or establish themselves under the state's jurisdiction.

Throughout the global debate over new forms of producing and distributing information, the consistent and haunting question is whether technology overwhelms law and the capacity of a state to regulate. It is hardly ever that easy. New technology changes the frame for negotiation, for making decisions and for the formation and application of policy. It is much less the case that technological change eliminates either the need for law or reduces the capacity for establishing and enforcing norms to nothingness. What occurs, almost always, is a process of adjustment: norms and institutions that were created for one set of technologies adjust or erode. Where basic values and social needs are at stake, alternative modes of governance and standards emerge.

At the outset, the transformation appears radical. An entire construct seems dependent on an old form of industrial organization and assumptions about the structure of the media. Or even if that is not the case, then the capacity of the governing authority to enforce is, itself, dependent on assumptions that are in the process of being undermined. But even before the question of possibility arises, there is the issue of whether a technology is "new" in the sense that it calls for such a law-transformative moment. We need to be able to tell when a technological advance allows us to address a traditional problem in a new fashion, and, increasingly, we search for ways to maintain (or appear to maintain) traditional customs notwithstanding the introduction of technological change.

It is, however, popular to question the capacity of the state to engage in lawmaking and law enforcement, especially as technology advances and the implications of the Internet stagger the statist imagination. Jack Goldsmith has challenged those who ridicule the possibility of law:

The skeptics make three basic errors. First, they overstate the differences between cyberspace transactions and other transnational transactions. Both involve people in real space in one territorial jurisdiction transacting with people in real space in another territorial jurisdiction in a way that sometimes causes real-world harms. In both contexts, the state in which the harms are suffered has a legitimate interest in regulating the activity that produces the harms. Second, the skeptics do not attend to the distinction between default laws and mandatory

laws. Their ultimate normative claim that cyberspace should be self-regulated makes sense with respect to default laws that, by definition, private parties can modify to fit their needs. It makes much less sense with respect to mandatory or regulatory laws that, for paternalistic reasons or in order to protect third parties, place limits on private legal ordering. Third, the skeptics underestimate the potential of traditional legal tools and technology to resolve the multijurisdictional regulatory problems implicated by cyberspace. Cyberspace transactions do not inherently warrant any more deference by national regulators, and are not significantly less resistant to the tools of conflict of laws, than other transnational transactions.¹²

Newness, then, has many faces; it can be newness within technology (as in the design of the interface or shifts in control over computational processes). Newness can be found in the impact on altering notions of distance or altering the speed of processes that in a slower environment could not be accomplished. Newness can mean altered institutional arrangements, as when states lose power or intermediating institutions lose force. Newness can have epistemological consequences, as when technology changes a person's idea of self or of collectivity and when it challenges existing ethical norms. We could speak of newness if technology brought to bear new narratives, new apocalyptic stories, and new ideas of perfection or immortality. The newness of new technology can be measured by whether its introduction alters, profoundly, human behavior. These broader senses of the new are important even as we turn to the narrow sense of introduction of technology that is the focus here.

I. CAUTION AND PATIENCE

To look at this trope of newness in depth, I focus on a single judicial decision where a court was obliged to integrate new media technologies into its existing patterns of thinking. The opinions in the 1997 decision of the United States Supreme Court in *Reno v. ACLU*,¹³ taken together with opinions in related cases, furnish a bouquet of opportunities for understanding. In their opinions, the Justices see themselves as obliged to determine whether a new technology is such a departure from what has gone before that it demands new forms of conceptualization. The Justices also explore how to ride change—to make and define law while the technology to be regulated is still indeterminate and there is

¹² Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199, 1200-01 (1998).

¹³ 521 U.S. 844 (1997). Other related cases include *United States v. Playboy Entertainment Group*, 529 U.S. 803 (2000) and *Denver Area Educational Telecommunications Consortium, Inc. v. FCC*, 518 U.S. 727 (1996).

insufficient experience or knowledge to understand its actual impact and consequences. Examining this one example—in which the United States assessed the regulatory framework for the Internet so as to control indecency—has its analytic perils. Each society has its own distinct pattern of determining whether innovation in media technologies requires altered policies. Different societies have different mechanisms for rendering this judgment just as different societies have varied grids for determining which variables are significant. And in the United States, more than in many other countries, judges are instrumental in the defining process.

In the U.S. debate over media technologies and indecency, there is a specific rhetoric (not replicated in Europe) relating to the distinction between old media and new. As a consequence of constitutional tradition and judicial interpretation, every “new” media technology has to be dissected to see the way it functions measured against the template of the First Amendment.¹⁴ One question often asked is, does the newness of the medium differentiate it from, or make it similar to, newspapers, broadcasting, or cable? By so assessing the characteristics of the technology (and its surrounding social arrangements), its newness is tested to determine what features call forth doctrinal differences. This includes asking whether or how a technology can be “zoned,” establishing specific geographical or time areas for one form of programming or another. It also includes questions about whether the technology, coupled with the structure of distribution, renders the images on the screen more “invasive,” or, rather, more subject to informed choice and selection.

The technology models for the Internet in the 1996 Communications Decency Act (“CDA”) are the telephone as well as radio and television.¹⁵ However, the Internet poses no obvious opportunity, as radio and television familiarly do, to establish parts of the program day, safe parts and “freer” parts, watersheds or so-called safe harbors for protecting children from inappropriate content. Such devices, familiar from European practice and earlier efforts in the United States, divide the schedule into spans when indecent programming can be broadcast for adults under the somewhat old-fashioned assumption that children would not be so predominantly in the audience. Given global access, this approach

¹⁴ This process is superbly described in Jonathan Weinberg, *Broadcasting and Speech*, 81 CAL. L. REV. 1103 (1993).

¹⁵ For an excellent discussion of questions concerning the constitutionality of regulations protecting children as discussed in *Reno*, see Eugene Volokh, *Freedom of Speech, Shielding Children, and Transcending Balancing*, 1997 SUP. CT. REV. 141 (1998).

would not work for the Internet. The architecture of the Net precludes the comforting notion that society can protect itself by having family viewing times, or times of lower brutality and reduced sexual programming. The new qualities of the Internet (its global quality) require constraints that do not distinguish by time period. On this score, much of the CDA is patterned after existing legislation prohibiting harassing calls on the telephone.¹⁶

A significant issue, in the U.S. framing of the question, was whether anything new or different occurs with the interaction of child and image on the screen in the newer technology as opposed to older technologies. Could it be the case, for example, that for all the complexity of distribution, for all the newness of new technology, there is little basis for distinguishing between what a minor saw on a computer screen and what he or she saw on a television screen?¹⁷ The psychological or cultural implications could be roughly the same. Qualities of technological newness might not be sufficient to change the standard of what should be permitted or banned from what had been present in legislative treatment of other similarly received images.

It was in the context of this conflict between the old and continuous or new and differentiated that the CDA came to the United States Supreme Court. Assessing newness requires knowledge of context, but the Court made remarkably clear that too little is reliably known about the behavioral assumptions or legislative rationale concerning the Internet to determine how to conceptualize the new technology. In a footnote to his opinion for the Court, Justice John Paul Stevens sternly points out that no hearings were held in the Congress on the provisions at issue in the case until after their passage. He quotes at length one senator's dismay at Congress's "willy-nilly" intervention in the Internet.¹⁸ Justice Stevens concludes his opinion by driving home the Court's dissatisfaction with "the absence of any detailed findings by the Congress, or even hearings addressing the special problems of the CDA."¹⁹

The Court thus found it difficult to rule decisively; its efforts were like a powerful automobile moving in a confusing dusk, forced to do something, but not necessarily in custody of all the relevant information. The Justices had to assess the nature of newness at a

¹⁶ See, e.g., Glen O. Robinson, *The Electronic First Amendment: An Essay for the New Age*, 47 DUKE L.J. 899 (1998).

¹⁷ As it happens, the post-1996 technology meant that individuals would often view the Internet on their television screens, received through their cable.

¹⁸ *Reno*, 521 U.S. at 858 n.24 (1997) (quoting Senator Leahy).

¹⁹ *Id.* at 879.

time when the potential for change was great, but not yet realized, or even if realized did not exist in a manner that had an institutional filter. The Court was asked to furnish constitutional standards to guide Congress, but the governmental mechanisms for clarifying basic assumptions were still unclear. Fervent was the wish, among many in the technology world, for a recognition that the Internet was new in such a radical way as to call for a totally new jurisprudence that was wholly liberating. The forces for the new sought a ruling that would sweepingly defend the Internet from the hands of those inclined to regulate. Though the Court struck down the CDA, an impulse to the categorically new was deflected by the ordinary notion of deference, or perhaps of deferral, to the legislative branch and to the pull of the constitutionally familiar.

Because these decisions came before a judicial tribunal, one with limited expertise in media effects (though often called upon to make assumptions about such effects), one way to read the Court's decision in *Reno* may be in terms of the rhythm of decision making. The proper rhythm or pace can be formulated by asking when, or under what circumstances, is it appropriate to evaluate the implications of a technology. The provocative writings of Lawrence Lessig, especially his views on postponement and readiness, have addressed this issue. Two articles, *The Path of Cyberlaw*, and *Reading the Constitution in Cyberspace*, both written before *Reno*, proved unusually influential in this then-young constitutional field.²⁰ Several ideas basic to Lessig's scholarship seem to haunt the Justices' opinions. One is a plea for caution before policymakers impose a standard decision-making grid on the use of new technologies. Professor Lessig states, "if we had to decide today . . . just what the First Amendment should mean in cyberspace, . . . we would get it fundamentally wrong."²¹

In a second suggestion, Lessig cautions that one must be careful not to be swept away by metaphors from the physical world when thinking about cyberspace.²² Constitutional doctrine adapted from our preexisting environment may not be fully suitable in the brave, new context.²³ Circumstances, facts, and technologies change.

²⁰ Lawrence Lessig, *The Path of Cyberlaw*, 104 YALE L.J. 1743 (1995) [hereinafter Lessig, *Cyberlaw*]; Lawrence Lessig, *Reading the Constitution in Cyberspace*, 45 EMORY L.J. 869 (1996) [hereinafter Lessig, *Reading the Constitution*].

²¹ Denver Area Educ. Telecomm. Consortium, Inc. v. FCC, 518 U.S. 727, 777 (1996) (Souter J., concurring) (quoting Lessig, *Cyberlaw*, *supra* note 20, at 1745).

²² See Lessig, *Reading the Constitution*, *supra* note 20, at 886. This idea is a source for Justice O'Connor in *Reno*, 521 U.S. at 889 (1997) (O'Connor, J., concurring in part and dissenting in part) (citing Lessig, *Reading the Constitution*, *supra* note 20, at 886).

²³ See Lessig, *Reading the Constitution*, *supra* note 20, at 902-03 ("We come from a tradition of translation in constitutional interpretation; in a wide range of cases, the aim has been to preserve founding values as interpretive contexts have changed. . . . But

Existing conceptualizations (often based on metaphor) arise and may be necessary for day-to-day life. But transfer of category may be the mind's lazy approach to analysis. Taken together, these cautionary ideas suggest that the Court (or a court), muddling through, must wait and see before it prescribes solutions.²⁴

Indeed these notions have transcending and complex implications not only for jurisprudence in the Internet era but for all decisionmakers dealing with new media technologies. The idea that doctrine turns on timing means that there are moments in which insecurity about power ought to lead to its nonexercise or to a fuzzy outcome. Yet that conflicts with strongly held views about how constitutional determinations ought to be articulated by an entity like the Supreme Court consistent with obligations to communicate clearly and decisively to the public, the Congress, and other judicial tribunals.

Doubt and caution may be reasons for the Supreme Court not to take a case, but once taken, it is hard to accept the notion of the Court saying "we don't know yet, but here's the best we can say." When the plurality in *Denver Area Educational Telecommunications Consortium, Inc. v. FCC*,²⁵ a First Amendment case from the cable television medium, came close to saying just that, Justice Kennedy responded angrily in dissent:

This is why comparisons and analogies to other areas of our First Amendment case law become a responsibility, rather than the luxury the plurality considers them to be. The comparisons provide discipline to the Court and guidance for others, and give clear content to our standards—all the things I find missing in the plurality's opinion. . . . We have before us an urgent claim for relief against content-based discrimination, not a dry run.²⁶

Furthermore, a position of doubt can conflict, as occurred in *Reno*, with an extraordinary pressure to categorize the new technology, now, as a technology of freedom, unhinged from the ambivalent and government-justifying history of the regulation of broadcasting. The publishing industry, library associations, colleges and universities—an enormously impressive list of plaintiffs—urged (unsuccessfully

translations in cyberspace will not always be clear.”).

²⁴ See Lessig, *Cyberlaw*, *supra* note 20, at 1754. Lessig states:

Cyberspace is elsewhere, and before carving the First Amendment into its silicon, we should give the culture a chance to understand it. . . . If there is sanction to intervene, then it is simply to assure that the revolution continue, not to assure that every step conforms with the First Amendment as now understood.

Id.

²⁵ 518 U.S. 727 (1996).

²⁶ *Id.* at 787 (Kennedy, J., concurring in part and dissenting in part).

on this narrow ground) that certainty was necessary and that the proclivity to regulate by Congress should be nipped in the bud by a clear decision applying the greatest possible protection to Internet communications. As the Court states in a different context, “liberty finds no refuge in a jurisprudence of doubt.”²⁷

The second important *Reno*-related contribution of Professor Lessig—his articulation of a tentativeness about facts and about how to capture and reduce the array of facts available—tends to the poetic. His arguments suggest how complicated it is to adapt the metaphors and analogies that have influenced the constitutional doctrine of the physical world to the world of cyberspace, particularly when that world is itself still being constructed, both physically and conceptually.²⁸ Time may be necessary to transcend metaphor. This, then, is a further challenge: to acknowledge that many legal systems depend on metaphors that are fragile and limited and that misportray evolving circumstances. Implicit in this suggestion is a critique of the standard process of extending law, suggesting that shifting to cyberspace from more physical counterparts requires a rethinking of how categories are established, and who determines the character of the real world (in the U.S. case, the respective role of Congress, administrative agencies, and the courts).

The opinion of Justice O’Connor in *Reno* illustrates the problem of adjusting to metaphors while assessing a new technology. She relates a wish to think of the Internet as a land, inhabited by a number of institutions, some of whom are purveyors of indecent material. For her, the relevant ways of thinking about the law are to consider the applicability of legal analogies. In her opinion she looks, especially, toward decisions concerning the more physical world of bookstores and their locations. There, the Court has endorsed the establishment of “adult zones,” specified physical sites that deal in pornographic materials and that can be segregated to particular parts of towns and cities, thus removed from children. By relying on the notion that this is a “zoning case”²⁹—which is itself a vision of cyberspace—she makes her own leap, coping with the new but well within existing modes of fashioning principles.³⁰

²⁷ *Planned Parenthood v. Casey*, 505 U.S. 833, 844 (1992).

²⁸ See Lessig, *Cyberlaw*, *supra* note 20, at 1753 (“[N]o court should purport to decide these questions finally or even firmly. Here especially should be the beginning of a dialogue, which perhaps more than others is meant to construct its subject more than reflect it.”).

²⁹ *Reno v. ACLU*, 521 U.S. 844, 886 (1997) (O’Connor, J., concurring in part and dissenting in part).

³⁰ See Lessig, *Reading the Constitution*, *supra* note 20, at 886-95.

But Justice O'Connor demonstrates that she cannot be sure the analogy would work. Is zoning in cyberspace the same as zoning in the physical world? Justice O'Connor expresses doubts whether the received doctrine respecting speech-related zoning—rules that she finds acceptable in their traditional application to street corners in cities—should apply in cyberspace.³¹ The image of the adult bookshop, with its masked windows, the forbidden entry, the lonely monitor working into the night, translates into cyberspace only with difficulty. “Before today,” Justice O'Connor writes, there was no reason to question the approach of zoning, for before the Internet case “the Court has previously only considered law that operated in the physical world, a world with two characteristics that make it possible to create ‘adult zones’: geography and identity.”³² This new layer of abstraction is what forces the rethinking of the Constitution and basic principles in the world of cyberspace.³³ Thus, Justice O'Connor retains her commitment to the architecture of her past constitutional doctrine, but recognizes the complexity of extending it to the new technologies.

How does a decision maker act in such a moment of indecision—a moment when it is unclear whether the judicially accepted verities of a physical world exist in the cyberspace counterpart? Justice O'Connor concludes,

Although the prospects for the eventual zoning of the Internet appear promising, I agree with the Court that we must evaluate the constitutionality of the CDA as it applies to the Internet as it exists today. Given the present state of cyberspace . . . the [statute's] ‘display’ provision could not pass muster.³⁴

However, she justifies her belief that it will pass eventually by saying, “Cyberspace is malleable. Thus, it is possible to construct barriers in cyberspace and use them to screen for identity, making cyberspace more like the physical world and, consequently, more amenable to zoning laws. This transformation of cyberspace is already underway.”³⁵

II. ASSESSING NEW TECHNOLOGY

To determine the newness of a media technology one must have a description of it, fixing the points for a factual assessment. To achieve such a description involves notions of relevance. It may be important, for example, that new satellite dish technology

³¹ See *Reno*, 521 U.S. at 888-91.

³² *Id.* at 889.

³³ See Lessig, *Reading the Constitution*, *supra* note 20, at 885-88.

³⁴ *Reno*, 521 U.S. at 891 (citation omitted).

³⁵ *Id.* at 890.

is handkerchief-sized, but the relevant question is whether a reduction of diameter has legal and constitutional consequences. In societies where the state seeks to monitor or control the viewing habits of its citizens, the largeness or smallness of satellite dishes may be of great significance. What makes a new technology new for purposes of legal or constitutional analysis may often be a matter of the extent to which the new technology threatens, sustains, or even enhances a particular state's position in the marketplace for loyalties.³⁶ In this respect, the concept of technological newness may function as cover for very traditional state concerns. What is new in a new technology may simply be those aspects of the technology that challenge state control or render current legal doctrine untenable.

Assembling facts to evaluate which attributes of significance have become realized or are likely to exist within a period relevant to a societal decision is central, then, to the project of deciding what is paradigm-shifting about a technology. Almost by definition, however, newness is often a series of claims, a series of promises, and a series of hopes. The questions of changing constitutionality or paradigm-shift arise during times of aspiration, before industry structure and performance in the world are fully realized. The potential for stalemate is obvious. Financial investment in the industry may not be maximized until a reliable legal environment is established, yet the decisions concerning norms cannot take place until there is sufficient information.

Let us turn to *Reno* again for an example of the relevance of a factual base. One background issue of significance was whether circumstances existed that allowed parents easily to control what their children saw on the Internet.³⁷ Danger to children, after all, was the big fear (justified or not) motivating Congress, the dark omen confounding the Internet's benefits. The CDA put the onus of keeping the Internet clean largely on the senders of information. Providers or senders had to ensure, more or less, that only material "not indecent" flowed through the wires if young people would have access to it. Online providers were immune from responsibility only if they took specifically designated steps to assure that the recipient was not a minor. However, because of the shape of American First Amendment jurisprudence, this congressional approach would not be constitutional if less

³⁶ See Monroe E. Price, *The Market for Loyalties: Electronic Media and the Global Competition for Allegiances*, 104 YALE L.J. 667 (1994).

³⁷ For a full discussion of these questions, see Mark S. Nadel, *The First Amendment's Limitations on the Use of Internet Filtering in Public and School Libraries: What Content Can Librarians Exclude?*, 78 TEX. L. REV. 1117 (2000).

restrictive alternatives were available to meet the legitimate goals of Congress.

Thus, in the *Reno* litigation, one of the major questions was whether or not such solutions—less restrictive alternatives that would allow speakers to be unfettered (or less fettered)—are truly available. One of the revolutionary ways of thinking about “alternatives” was technology similar to the V-chip, software-filtering systems that would allow screening by the user, rather than restrictions on the sender.³⁸ But a determination that a technology provides a “less restrictive alternative” is necessarily based on an assumption that the technology actually exists (or is very likely to exist). The evaluation of which alternatives are viable or restrictive are questions concerning what the world is really like. Justices must determine what the world of technology and behavior can do or reliably promises to do at the moment in question and how to integrate a desired or imagined future into current constitutional doctrine.

In *Reno*, Justice Stevens, desirous of invalidating the burdens Congress imposed on the senders of information, had to stretch to make his point on the utility of alternatives. Outlining the anticipated types of devices available through the Internet, he writes, in carefully chosen words:

Systems have been developed to help parents control the material that may be available A system may either limit a computer's access to an approved list of sources that have been identified as containing no adult material, it may block designated inappropriate sites, or it may attempt to block messages containing identifiable objectionable features.³⁹

Justice Stevens notes that current technologies include parental control software that can screen for suggestive words or for known sexually explicit sites, though there is no software that can screen for sexually explicit images.⁴⁰

The passive voice suggests the distance Justice Stevens places between his convictions and the description of reality that he presses into service. He also employs a device available to reviewing courts like the Supreme Court. On a “matter of fact” (like whether these devices are available), a Justice of the Supreme Court can rely on the trial court as a “finder of fact.” Here, the

³⁸ For a review of these issues in advance of the Supreme Court's 2000 decision in *United States v. Playboy Entertainment Group*, 529 U.S. 803 (2000), see the perceptive student Note by Barton Beebe, *Parental Initiative in the Age of Signal Bleed*, 109 YALE L.J. 627 (1999).

³⁹ *Reno*, 521 U.S. at 854-55.

⁴⁰ See *id.* (relying on finding 72 of the trial court, citing *ACLU v. Reno*, 929 F. Supp. 824, 842 (E.D.Pa. 1996)).

District Court had, according to Justice Stevens, determined from the evidence that “a reasonably effective method by which parents can prevent their children from accessing material which parents believe is inappropriate will soon be widely available.”⁴¹ Note that the method is not yet available, and the “evidence” is probably a self-serving declaration by those who hope to introduce such software that it will be available.⁴²

This technological meliorism has been criticized. One year after the Court handed down *Reno*, Professor Lessig published an influential law review article, *What Things Regulate Speech: CDA 2.0 vs. Filtering*.⁴³ In the article, he warns that even if the less restrictive means relied on by the Court became available in the form of effective filtering software, this technology would be more intrusive on speech than the provisions rejected in *Reno*. He states,

My sense is that this first major victory—in *Reno v. ACLU*—has set us in a direction that we will later regret The “less restrictive means” touted by free speech activists in *Reno* are, in my view, far more restrictive of free speech interests than a properly crafted CDA would be. And unless we quickly shift ground, we will see Congress embracing these less protective (of speech) means, or worse, we will see the success of the President in bullying industry into accepting them.⁴⁴

Professor Eugene Volokh was also dissatisfied with the reasoning.⁴⁵ In his view, the most troubling aspect of Justice Stevens’s opinion was the statement that the CDA’s burden on free speech “is unacceptable if less restrictive alternatives would be at least as effective in achieving the legitimate purpose that the statute was enacted to serve.”⁴⁶ The important phrase, to Volokh, is “at least as effective.”⁴⁷ To him, no alternative could reach this standard. “None of the Court’s proposed alternatives to the CDA—or any other alternatives I can imagine—would have been

⁴¹ *Reno*, 521 U.S. at 846 (emphases omitted).

⁴² The Court also made much of the fact that “existing technology did not include any effective method for a sender to prevent minors from obtaining access to its communications on the Internet without also denying access to adults.” *Id.* at 876. In contrast, “[d]espite its limitations, currently available *user-based* software suggests that a reasonably effective method by which *parents* can prevent their children from accessing sexually explicit and other material which parents may believe is inappropriate for their children will soon be widely available.” *Id.* at 877.

⁴³ Lawrence Lessig, *What Things Regulate Speech: CDA 2.0 vs. Filtering*, 38 JURIMETRICS J. 629 (1998).

⁴⁴ *Id.* at 632.

⁴⁵ See Volokh, *supra* note 15.

⁴⁶ *Id.* at 148 (quoting *Reno*, 521 U.S. at 874).

⁴⁷ *Id.* at 148-60.

as effective as the CDA's more or less total ban."⁴⁸ Volokh continues, "The pregnant negative in the Court's reasoning is that, had there really been no equally effective alternatives (as in fact there are not), the CDA should have been upheld."⁴⁹

There are a few other areas, lurking in *Reno*, where decision makers have to decide what dignity to accord to those things that pass as "facts." What assumptions, for example, exist about the nature and functioning of the family that inform evaluations of the role of new technology? Since so much of the social concern over the Internet seems to be about the child, and so many of the remedies deal with interactions between that child and his or her family, one would think the empirical grounding for difficult decisions would be abundant, even if not wholly adequate.

There are normative questions such as whether a parent ought to be able to determine that his or her child should watch images that the state considers inappropriate. But there are factual questions that underlie proposals for change. Are filters useful? How do parents influence the viewing habits of children? In *Reno*, Justice Stevens visits, glancingly, the issue of whether Congress can protect children from indecent programming regardless of the desire of their parents. The United States, in its argument, had contended that the First Amendment does not preclude "a blanket prohibition on all 'indecent' and 'patently offensive' messages communicated" to a minor "regardless of parental approval."⁵⁰ The Court demurred, but in doing so, it seemed to raise a new kind of test. It is true, Justice Stevens writes, that protection of children is a "compelling interest" that, in some instances, justifies regulation. But a regulation that potentially overrules parental preferences, or even covers parental speech to children, "imposes an especially heavy burden" on Congress to demonstrate why less restrictive provisions would not be suitable.⁵¹

This "parent-protecting" test and the context in which this debate arises is intriguing. For just as moralistic as Congress (and perhaps the Court) seems to be in terms of limiting the access of children to indecent material, it is similarly concerned about

⁴⁸ *Id.* at 149.

⁴⁹ *Id.* at 157.

⁵⁰ *Reno*, 521 U.S. at 878. A dispute, really a skirmish, within this discussion is whether or not "minor" should include individuals under eighteen or under seventeen years of age.

⁵¹ *Id.* at 879. In dealing with this question, Justice O'Connor concluded that the record did not show that "many E-mail transmissions from an adult to a minor are conversations between family members"; but more important, she finds "no support for the legal proposition that such speech is absolutely immune from regulation." *Id.* at 896. Perhaps both the Court and Justice O'Connor agree that such speech is not "absolutely immune," since the Court holds that such speech might be regulable if Congress were to meet an especially heavy burden. *Id.*

trenching on parent-child relationships. And this conflict drives Congress and the Court to make unfounded, sometimes silly, but almost always sweeping, statements about parents and their relationship to children. The Court cites earlier decisions for the “consistent” principle that “the parents’ claim to authority in their own household to direct the rearing of their children is basic in the structure of our society.”⁵² This principle rests on the earlier pronouncement (having to do with foreign-language education) that, “[i]t is cardinal with us that the custody, care, and nurture of the child reside *first* in the parents, whose primary function and freedom include preparation for obligations the state can neither supply nor hinder.”⁵³

Having decided that the CDA covers e-mail, Justice Stevens engaged in an elaborate conceit to indicate the constitutional infirmity of the legislation. “[M]any e-mail transmissions from an adult to a minor are conversations between family members,” he says, setting a predicate for their special protection.⁵⁴ Under the CDA, Justice Stevens contends, “a parent who sent his 17-year-old college freshman information on birth control via e-mail could be incarcerated even though neither he, his child, nor anyone in their home community found the material ‘indecent’ or ‘patently offensive,’ if the college town’s community thought otherwise.”⁵⁵ To be fair, Justice Stevens’s concern goes beyond e-mail. It seems wrong to him that under the CDA, a parent “could face a lengthy prison term” for “allowing her 17-year-old to use the family computer to obtain information on the Internet that she, in her parental judgment, deems appropriate.”⁵⁶

Here again, as with so much in *Reno*, it is a dependence on a specific and possible empty understanding of the facts of the world that virtually controls how the new media technology is judged. The present state is such that the relationship between conclusions and available facts is dismal. Take just the vision of what we mean by “parents,” what relationship there is (much less ought to be) between parents and children, and how, in fact, decisions are made to deploy sites that are considered “indecent” by Congress. To make a decision, Justice Stevens must have a mental picture of how decisions to deploy indecent sites are made so he can tell whether there is a problem serious enough to warrant

⁵² *Id.* at 865 (citation omitted).

⁵³ *Prince v. Massachusetts*, 321 U.S. 158, 166 (1943) (emphasis added) (holding constitutional a statute barring the teaching of German language in public schools).

⁵⁴ *Reno*, 521 U.S. at 865 n.32. *But see Reno*, 521 U.S. at 886-97 (O’Conner, J., dissenting).

⁵⁵ *Id.* at 878.

⁵⁶ *Id.*

congressional intervention, and his examples are somewhat class-biased, to use an old-fashioned term that seems relevant here. The image that must be in the mind of the lawmaker is of the fractured, possibly “dysfunctional” family, what the government in its brief for *Denver Area* described as the condition of “absence, distraction, indifference, inertia, or insufficient information” that besets “innumerable parents” in America.⁵⁷ A view of the family that supports intervention includes the imagined nonparent parent, incapable or unwilling to establish standards, “consenting” not in the active mode of reviewing and approving material, but acquiescing in an environment where the imposition of standards is impossible (for reasons of time, will, or culture).⁵⁸

Another one of the most interesting debates about the Internet concerns the utility of national law given the extraordinarily international and cross-border nature of modern communications, especially in new media. Justice Stevens’s opinion in *Reno* is not centrally about this subject, but there is some passing mention of a possible constitutional test. The issue is nestled in a footnote, ruminating within the Supreme Court decision. Justice Stevens cites an argument made by one of the plaintiffs, the American Library Association, that “[b]ecause so much sexually explicit content originates overseas,” the Association argued, “the CDA cannot be ‘effective.’”⁵⁹ as that term is precisely used in American jurisprudence. Justice Stevens fends off the argument, saying that it “raises difficult issues regarding the intended, as well as the permissible scope of, extraterritorial application of the CDA.”⁶⁰ This is the Court’s first careful encounter with an issue widely anticipated in legal literature on the Internet.⁶¹ Because the Act could be condemned

⁵⁷ Respondent’s Brief at 37, *Denver Area Educ. Telecomms. Consortium v. FCC*, 518 U.S. 727 (1996) (Nos. 95-124, 95-227).

⁵⁸ Implicit is the problem, addressed in *Butler v. Michigan*, 352 U.S. 380 (1957), of assuring sufficient adult access to speech while also protecting children. How does one tell what the profile of impact is of a congressional proscription—whether it depletes speech available to adults while protecting children? Of course, every congressional proscription or even channeling must have that impact; what constitutes too much, what constitutes adequate alternative availability of information is a matter that has never been adequately addressed by the Court, nor has it been clear what factual bases should underlie a conclusion. See *id.* (finding that Michigan Penal Code section providing that selling to a police officer a book found to have a potential effect of corrupting the morals of a youth violates the Due Process Clause).

⁵⁹ *Reno*, 521 U.S. at 878 n.45.

⁶⁰ *Id.*

⁶¹ See, e.g., David R. Johnson & David Post, *Law and Borders: The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367, 1367 (1996). Johnson and Post state:

While these electronic communications play havoc with geographic boundaries, a new boundary, made up of the screens and passwords that separate the virtual

on other grounds, the Court suggests, it does not have to deal with it.

Still, there is much within these few words worthy of comment. Let us assume that "so much sexually explicit content originates overseas."⁶² It is unclear, from this terse discussion, what it is in the foreign origin of some pornographic material that can limit Congress's capacity to devise a set of satisfactory statutory prohibitions for indecent programming that originates in the United States. Justice Stevens suggests that, perhaps the CDA was not intended to apply extraterritorially, though it is highly likely that almost every prohibited set of images or digits passes through a domestic telecommunications facility.⁶³ Much more interesting is the question of "effectiveness." A law is not "effective" if it can only be enforced against domestic violators *and* much of the damage, unremediated, will be caused by those seemingly beyond the law's reach. And here, the argument seems to be that these "overseas" violators are incapable of being prosecuted because of the special nature of Internet technology. Even if Congress had the power to enact legislation that is extraterritorial in its reach, technology and practicalities would render such a law ineffective. In a world of incapacity to stop one source of illegal conduct, focusing on another might be discriminatory and therefore unconstitutional.

It is clear why the American Library Association would make this argument. Its members are among the possible available defendants to be singled out, though they are small instruments in a world in which the massive "real" wrongdoers are "overseas" entrepreneurs, clever commercial pornographers, largely beyond the nation's enforcement capacity. The Association has been at the forefront of efforts to fight local regulation of Internet speech, both as a matter of principle and because, in an irony of the "post-

world from the "real world" of atoms, emerges. This new boundary defines a distinct Cyberspace that needs and can create its own law and legal institutions. Territorially based law-makers and law-enforcers find this new environment deeply threatening.

Id.

⁶² Even the term "overseas" has a certain charm as an anachronistic way of conceiving the relationship between space and jurisdiction.

⁶³ Note that both 47 U.S.C.A. § 223(a) and (d) apply to both "interstate and foreign communications." 47 U.S.C.A. § 223(a), (d) (West Supp. 1991). Justice Stevens also suggested that there might be questions about the "permissible scope" of extraterritorial application of the CDA. *Reno*, 521 U.S. at 878 n.45. Does that mean that Congress could not make it a crime for a company in France to send an obscene book to an American address, that only those parts of a stream of action that touched American soil could be subject to criminal sanctions? See generally Henry H. Perritt, Jr., *Jurisdiction in Cyberspace*, 41 VILL. L. REV. 1 (1996).

Gutenberg” age, public libraries are often the institutions that are sued.⁶⁴

But the argument is extremely suggestive, perhaps disturbing, in its implications for the limits of law in a digital world and in a world of increasing cross-border mobility of capital. Law will tend to be increasingly incapable of perfect enforcement where transactions and performances can so easily be moved “overseas.” Here, the laws that are putatively discriminatory because of difficulties of enforcement are disagreeable images, and the argument could well be made that they should not be sanctioned at all. In the future, however, an argument based on inherent discrimination could be far more encompassing, including the disallowance of laws applying to electronic commercial transactions and possibly other areas, for example, aspects of family law, areas where enforcement might be thwarted if activities were moved offshore.

Could it be that U.S. law becomes “impossible,” or difficult, to enforce because of the structure of the Internet and the relationship between extraterritorial actors and U.S. users? Certainly that argument is in the air, and it is one product of the facially attractive idea of preserving the Internet as a “regulation-free” zone.⁶⁵ At any rate, it is not hard to image that the result of such incapacity or difficulty would be discriminatory enforcement against “those poor blokes” who, for reasons of lack of imagination, willpower, or other place-related reasons stayed within the power of the state.

How to think about these questions is not yet clear. Making law disappear is one answer, but not necessarily one that seems to have many institutional proponents or broad public support. In November 2000, a French court took issue with the question of practicality of enforcement. It gave Yahoo Inc. three months to find a technological means to prevent Web surfers in France from gaining access to some Web pages on its U.S.-based auction site that featured over 1,200 Nazi-related items. After the deadline,

⁶⁴ See Nadel, *supra* note 37. In an important early case dealing with online censorship in the context of public library access, *Mainstream Loudon v. Board of Trustees*, 24 F. Supp.2d 552 (E.D. Va. 1998), a public library was forced to discontinue its use of restrictive Internet screening software. See generally Julia M. Tedjeske, Note, *Mainstream Loudon and Access to Internet Resources in Public Libraries*, 60 U. PITT. L. REV. 1265 (1999). In another closely watched case, *Kathleen R. v. City of Livermore*, No. A086349, 2001 WL 216719 (Cal. Ct. App. March 6, 2001), <http://www.techlawjournal.com/censor/19990115.htm>, a state court refused to force a public library to abandon its open access policy regarding Internet use.

⁶⁵ See generally Gary W. Glisson, *A Practitioner's Defense of the White Paper*, 75 OR. L. REV. 277 (1996); see also Vikas Arora, Note, *The Communications Decency Act: Congressional Repudiation of the "Right Stuff,"* 34 HARV. J. ON LEGIS. 473 (1997).

Yahoo would be fined \$13,000 for each day it did not comply with the order. Of course, unlike the invisible pornographic providers, Yahoo had a French office and, also, could be easily located for litigation purposes in the United States.

Taxation, copyright, and defamation law are all areas where, if care is not taken, discrimination may be the consequence of patterns of capacity of law enforcement. There will be suggestions that certain prohibitions that have been taken for granted within a society are no longer available. More likely, it may mean that a different form of extraterritorial as well as domestic enforcement pattern must be devised.⁶⁶ What it certainly means is that, as Justice Stevens indicated, these are “difficult issues” indeed, and may sometime come, in a ripe manner, before the Court.

III. BROADCASTING, RADIO, AND FILM REGULATION V. INTERNET REGULATION

I have sought in this Article to identify several areas where, using *Reno* as an example, new media technology is evaluated according to its relationship to existing constitutional standards. The *Reno* case is part of the Supreme Court’s ongoing debate over the qualities in film, traditional television and radio broadcasting, cable, and the Internet that render their regulation subject to different degrees or kinds of constitutional scrutiny. In this last section, I want to examine another facet of the decision: the way the Court, as revisionist historian, uses its evaluation of new media technologies to replay and reorganize its justifications for the treatment of the technology’s predecessors. All government agents are, to some extent, revisionists as they try to understand the power of the new in the context of the old. How the Court engages in revision helps us understand what it is about technology that is emerging as significant—from this constitutional perspective.

For example, in *Reno* Justice Stevens asserts a novel reading of past doctrine, namely, that the “history of extensive government regulation of the broadcast medium”⁶⁷ serves, itself, as a “special justification” for treating one technology (broadcasters) in

⁶⁶ Does it mean, for example, that even though transmission or display of “obscene” material might ordinarily be prosecuted under the CDA, even after the Court’s decision, the necessarily discriminatory aspect of such a prosecution (given the putative invulnerability of massive foreign purveyors) would be a defense? Cf. Lawrence Lessig, *Zones of Cyberspace*, 48 STAN. L. REV. 1403 (1996). Invoking Coase, Lessig argues that “[a] regulation need not be absolutely effective to be sufficiently effective. It need not raise the cost of the prohibited activity to infinity in order to reduce the level of that activity quite substantially.” *Id.* at 1405.

⁶⁷ *Reno*, 521 U.S. at 845.

restrictive ways not applicable to other speakers. In his discussion he cited, *Red Lion Broadcasting Co. v. FCC*,⁶⁸ a case that is so out of fashion that it had gone virtually unmentioned by the Court for years. Another precedent, *Turner Broadcasting, Inc. v. FCC*,⁶⁹ is cited for the novel observation that scarcity of available frequencies, where such scarcity existed for an information technology “at its inception,”⁷⁰ is a further justification for lower scrutiny of broadcasting regulation. Justice Stevens also renews a somewhat controversial ground for justifying regulation and distinguishing broadcasting from other media, namely its “invasive” nature.⁷¹

What is interesting about Justice Stevens’s citation of *Red Lion* is the subtle shift in the meaning that is implied. The previous standard understanding of *Red Lion* had been that broadcasting was more readily subject to regulation because scarcity of available frequencies made some form of rationing necessary and that necessity allowed the imposition of public interest standards. Because it is supposed that it is impossible for everyone who so wishes to get on the airwaves, government has to pick and choose. Almost from the beginning this reading of the First Amendment, this prong of *Red Lion*, endured attack.⁷² Economists argue that any scarcity shortage is government-imposed, in that it was always possible to allocate more spectrum to broadcasting and technically possible to make spectrum accommodate more voices. This argument gained emotive power when cable television and other technologies made channels plentiful. In a world of abundance, there seems no reason to pitch constitutional reasoning on a scarcity that, according to some

⁶⁸ 369 U.S. 367 (1969). For a thorough and useful history and discussion of *Red Lion*, see CASS R. SUNSTEIN, *DEMOCRACY AND THE PROBLEM OF FREE SPEECH* 49 (1993) (arguing that the scarcity rationale in *Red Lion* is based on the need to ensure “broad diversity of views”).

⁶⁹ 512 U.S. 622 (1994) [hereinafter *Turner I*]. The citation of *Turner I* is unusual. *Turner I*, after all, recites the history of regulatory distinctions only to hold that hierarchies of constitutional concern do not encompass both broadcasting and cable television. *Turner I* was primarily about the weaknesses of congressional lawmaking. *Turner Broadcasting Systems, Inc. v. FCC*, 520 U.S. 180 (1997) [hereinafter *Turner II*], specifically rejected *Red Lion*’s application of spectrum-scarcity as a ground for regulation in favor of some new “bottleneck” theory of regulation.

⁷⁰ *Reno*, 521 U.S. at 845 (emphasis added).

⁷¹ See *Sable Comm., Inc. v. FCC*, 492 U.S. 115 (1989) (prohibiting provider of sexually oriented prerecorded telephone messages from participating in obscene interstate telephone communications for commercial purposes but enjoining statutory enforcement applying to indecent messages).

⁷² See Monroe E. Price & John F. Duffy, *Technological Change and Doctrinal Persistence: Telecommunications Reform in Congress and the Court*, 97 COLUM. L. REV. 976 (1997); see also Thomas W. Hazlett, *Physical Scarcity, Rent Seeking, and the First Amendment*, 97 COLUM. L. REV. 905 (1997).

versions, simply does not exist.

Over the years, the Court, itself contested its *Red Lion*-based justification in a variety of cases suggesting that subsequent information and emerging technology might one day require abandonment of the doctrine. Its survival hung by a hair (or a vote or two). Now, however, after *Reno*, the justification may have changed. Now *Red Lion* seems to stand for the proposition that the status of broadcasting as a more regulable medium is historically contingent, rather than solely technologically based. A medium that has had significant attention from the government from the outset will be treated differently from one that has not. Since most media technologies have close relationships to government in their development—and the Internet is certainly no exception—this reading of judicial history is important.

The Court could be saying that traditional television and radio broadcasting meet three conditions, each of which is necessary for its peculiar susceptibility to regulation. These are: its history of extensive government regulation, the spectrum scarcity at its founding, and its special quality of invasiveness. A medium that does not have all of these qualities cannot be successfully compared with broadcasting so as to determine the category of constitutional analysis in which it fits. On the other hand, the Court could be arguing that these are relevant factors, not an ensemble of required conditions. Invasiveness alone, a history of extensive regulation, early shortages of frequencies, or their equivalents alone (or some combination of them) in this reading would be sufficient to justify a lower threshold for congressional regulation. The relevance of these factors to the Internet and to Justice Stevens's analysis in *Reno* therefore bears further analysis.

Justice Stevens recreates the jurisprudence of the broadcasting cases precisely so as to differentiate the historical electronic media from this new form of using wires and ether. His very explanation of cyberspace consists of facts designed to fit into a reinterpretation of the constitutional basis for regulation in broadcasting. The qualities of broadcasting that permit greater regulation, according to Justice Stevens, "are not present in cyberspace."⁷³

But is Justice Stevens correct, not in terms of his retrospective interpretation of the broadcasting cases, but in terms of the way he differentiates broadcasting from cyberspace? The first area for differentiation is "history." Justice Stevens makes the claim that broadcasting had a history of extensive regulation while the "vast

⁷³ *Reno*, 521 U.S. at 868.

democratic forums” of the Internet has not been subject to similar government supervision and regulation.⁷⁴ In one sense, of course, this is a false statement. The Internet, as the Court’s decision traces, has a history rooted in federal supervision and largesse. It is an outgrowth of what began in 1969 as a military program to enable computers operated by the military defense contractors and universities conducting defense-related research to communicate with one another by redundant channels. The Advance Research Project Association Network (“ARPANET”) is much more firmly rooted in a history of government involvement than were the early days of spectrum usage when radio broadcasting was relatively wild and open.⁷⁵

Besides, the relationship between the Internet and Congress can be likened to the relationship between radio and the federal government at the time of the Radio Conference that led to the 1927 Act. In the early days of radio, as in the 1990s with the Internet, there was dynamism, ingenuity, and a period of unregulated innovation. With radio, explosive growth led to concern (though on different issues), federal study, and eventually legislation. Despite Justice Stevens’s apparent desire, history cannot begin when the historian wants it to. What has become the Internet originated with the Pentagon and involved an almost exclusively federally authorized network. Also, it is hard to understand how one characterizes a medium by its history when it is the very nature of that history that is being fashioned.⁷⁶

We also know, now that we have *Reno*, that the Internet is not invasive. Why? Because the district court told us so, and the Supreme Court accepts that finding. Justice Stevens concludes, “the risk of encountering indecent material by accident is remote.”⁷⁷ This is, as is said, a “constitutional fact.”⁷⁸ Perhaps a constitutional fact is different from a garden-variety fact. To conclude, as Stevens does, that the Internet is distinguishable from broadcasting with respect to invasiveness, is a complicated matter.

⁷⁴ *Id.*

⁷⁵ True, it was ARPANET, not the vast democratic fora of the Internet, that was so regulated, but in some respects it is the same medium. *Cf. Hazlett, supra* note 72, at 908.

⁷⁶ There is something here of Bollinger’s interesting, but never fully judicially embraced, theory that it was possible to regulate some parts of the media so long as there was at least one unregulated one, like newspapers or the Internet. *See Lee C. Bollinger, Jr., Freedom of the Press and Public Access: Toward a Theory of Partial Regulation of the Mass Media*, 75 MICH. L. REV. 1 (1976).

⁷⁷ *Reno*, 521 U.S. at 867.

⁷⁸ *See Martin B. Louis, Allocating Adjudicative Decision Making Authority Between the Trial and Appellate Levels: A Unified View of the Scope of Review, the Judge/Jury Question, and Procedural Discretion*, 64 N.C. L. REV. 993 (1986); Henry P. Monaghan, *Constitutional Fact Review*, 85 COLUM. L. REV. 229 (1985).

“Unlike communications received by radio or television,” Justice Stevens writes, “the Internet requires a series of affirmative steps more deliberate and directed than merely turning a dial. A child requires some sophistication and some ability to read to retrieve material and thereby to use the Internet unattended.”⁷⁹

First meaningfully formulated in the dial-a-porn case *Sable Communications of California, Inc. v. FCC*, the notion of “affirmative steps” represents a patina on “invasiveness.” Affirmative steps certainly enable a more accurate analysis of the emerging “interactive media model” in U.S. telecommunications, in which most content will be accessed rather than broadcast, pulled rather than pushed.⁸⁰ Yet even for current Internet technology, there are problems with this innovative approach. It is true, for example, that, at least the first time, a child has to do more in a more directed and deliberate way, than turn the dial to get access to some particularly outrageous or erotic material. But once the place is saved, or “bookmarked,” there is very little functional difference between turning a dial and gaining access to a website.

Odder still is the supposed distinction between those children with some “ability to read” and those without the ability. Invasiveness and uninvitedness may have to do with a child’s sophistication, but in no previous case did this issue turn on actual literacy or its absence. Who are we talking about: the seventeen-year-old deemed to be a computer wizard, or the five-year-old who stumbles onto the satiric-erotic false-Disney program? How does the society make this decision? Can it? Are these questions about which we do not know the answer or is the district court finding in this case sufficient, even against a congressional finding to the contrary? Where does Justice Stevens arrive at his factual understanding of a world that is interacting with the computer and how that world differs from or is similar to the world that interacts with radio and television? For constitutional analysis to be careful, we must know how contingent doctrine is on factual understandings and what constitutes adequate information supporting a notion of invasiveness or to the contrary.⁸¹

⁷⁹ *Reno*, 521 U.S. at 854 (citing finding 89 of the District Court decision in *ACLU v. Reno*, 929 F. Supp. 824, 845 (E.D. Pa. 1996)).

⁸⁰ For an early First Amendment analysis of this model, see Jerry Berman & Daniel J. Weitzner, *Abundance and User Control: Renewing the Democratic Heart of the First Amendment in the Age of Interactive Media*, 104 YALE L.J. 1619 (1995).

⁸¹ In *Denver Area Educ. Telecomms. Consortium v. FCC*, 518 U.S. 727 (1996), Justice Breyer relied on only a few books and articles to conclude that cable television was invasive in the *Pacifica* sense. See *FCC v. Pacifica Found.*, 438 U.S. 726, 748-49 (1978) (asserting that the broadcast media is invasive because of its “pervasive presence in the

The third and most convincing difference between broadcasting and Internet questions whether spectrum scarcity exists. It is now almost an article of faith that whatever scarcity existed in the bad old days of analog spectrum no longer exists. In *Reno*, Justice Stevens puts a new and unexamined spin on the question, asking, for the first time in the Court's treatment of this subject, whether the Internet is a "scarce" expressive commodity."⁸² He seemed to be inviting a refocus from an older, economic analysis of spectrum availability to a broader focus on the element of "expressiveness." Justice Stevens reveled in the Internet's plenty: "It provides relatively unlimited, low-cost capacity for communication of all kinds. . . . Through the use of chat rooms, any person with a phone line can become a town crier with a voice that resonates farther than it could from any soapbox."⁸³ All the magic elements are there: pamphleteer, town crier, and soapbox. No wonder this is Justice Stevens's clinching point before concluding that "our cases provide no basis for qualifying the level of First Amendment scrutiny that should be applied to this medium."⁸⁴

Yet there are some factors to consider. We are at a stage in the development of the Internet—perhaps like early radio—where entry is certainly easy, inexpensive, and nondiscriminatory. But, as with radio, it was later developments in industrial organization and government action that made entry more difficult and a broadly democratic means of becoming a town crier, almost impossible. Radio spectrum was not really "scarce," though radio spectrum as an "expressive commodity" may have been. It would be wonderful if the Internet were to retain its capacity for expressiveness, as nonscarce as it seems currently to be, but we do not know yet whether that will be the case or whether the Court's limitations on congressional action will expand or restrict that zone. Certainly, the history of radio would have been different if the Court had held the earliest forays into regulation and licensing unconstitutional because of the heady, egalitarian patterns of entry that characterized the time of basement radio transmission and ease of speaker entry.

The Court's decision also raises interesting questions about which numbers—what kinds of abundance—are relevant to the issue of scarcity, or scarcity of "an expressive commodity," to

lives of Americans" and because "it is uniquely accessible" to children). Compare the role of the district court's fact findings in *ACLU v. Reno*, 929 F. Supp. 824 (E.D. Pa. 1996).

⁸² *Reno*, 521 U.S. at 870.

⁸³ *Id.*

⁸⁴ *Id.*

repeat again Justice Stevens's novel and stunning phrase.⁸⁵ There are millions of radio receivers just as there are millions of computers. Penetration is obviously not the same, but moving in the same direction of universality. The important point for Justice Stevens, however, is that computers, unlike radios, are interactive. What is being compared is access or entry by *speakers*, not *receivers*. The end of scarcity with respect to "expressiveness" comes precisely because of the radical transformation of access to convey or impart as opposed to receive information.

Here the Court is committing to a particular conception of the Internet. Justice Stevens is assuming that the number of subscribers to the Internet is equivalent to the number of speakers, i.e., like the telephone, and that subscribing is a mark of entry as speaker. At the moment, that may be a valid assumption. But the structure and custom of usage of the Internet could change. The behavior in the future might be that, other than for an e-mail function, ninety-nine percent of subscribers act like passive receivers or dial turners: selectors at best but never, otherwise, as communicators. Information may come in packaged channels, with a market structure dominated by three or four giants. Then the question might be whether bottlenecks to entry exist, and whether analysis of the Internet (in terms of congressional power) should be assimilated to cases that justified regulation not on spectrum scarcity, but on the difficulty of access by those who program channels and distribute them over cable.⁸⁶

In one respect, this hypothetical future of packaged channels and a market dominated by oligopolistic producers has already come into existence, and the implications for "scarcity" have already begun to take shape. The abundance of the Internet has produced a new form of scarcity, one described by Jack Balkin:

All communications media produce too much information. So in that sense, all media have a problem of scarcity. But the scarcity is not a scarcity of bandwidth. It is a scarcity of audience. There is only so much time for individuals to assimilate information. And not only is there too much information, some of it is positively undesirable. As a result, all media give rise to filtering by their audience, or, more importantly, by people to whom the audience delegates the task

⁸⁵ *Id.* This is interesting because of the history of the "scarcity" rationale and its tie to limitations on spectrum. This was thought to be a physical limitation, as compared to shortages of printing presses or limitations on the number of newspaper dailies in a market that could survive, both of which were considered economic. By shifting the phrase from spectrum scarcity to scarcity of an expressive commodity, Justice Stevens might be opening the way for a reconsideration of this long-held distinction.

⁸⁶ See *Turner II*, 520 U.S. 180 (1997).

of filtering.⁸⁷

Information overproduction creates a problem not merely of unwanted offensiveness greeting an Internet user, but also of unwanted irrelevance. Portals to the Internet, such as Yahoo or Excite, exist to remedy this problem. Their home pages form some of the most expensive “real estate” in cyberspace. These portals provide free search engine technology to aid the user in finding desired websites. They also advertise websites. If a website is not listed by these search engines, it effectively does not exist. The search portals have become the dominant brokers in the “expressive commodity” of the Internet.⁸⁸

Justice Stevens, in *Reno*, reopens questions of definition, exploring considerations that make one information technology more sensitive than another, more susceptible to regulation. He identifies history, scarcity, and invasiveness as criteria for decision. But his treatment of broadcasting and the Internet are not necessarily convincing, even as his own grid of analysis is applied. This is not surprising. “We are not the first generation,” as Carolyn Marvin has written, “to wonder at the rapid and extraordinary shifts in the dimension of the world and the human relationships it contains as a result of new forms of communication, or be surprised by the changes those shifts occasion in the regular pattern of our lives.”⁸⁹

Technology has the potential to alter every institution, to provide even more access to education, to jobs, and to opportunities.⁹⁰ But things are new from a particular perspective. A new technology may be one that replaces or substantially augments a predecessor or establishes difference of a kind that must cross a hurdle of significance. We might reserve the notion

⁸⁷ J.M. Balkin, *Media Filters, the V-chip, and the Foundations of Broadcast Regulation*, 45 DUKE L.J. 1131 (1996).

⁸⁸ The idea that scarcity no longer exists because of the Internet and various other technologies of abundance has been challenged by other comparative analysts of media law and policy. See Stefaan Verhulst, *About Scarcities and Intermediaries: The Regulatory Paradigm Shift of Digital Content Reviewed*, in NEW MEDIA HANDBOOK (Leah Lievrouw & Sonia Livingstone eds., forthcoming 2001). Verhulst proposes that the very abundance of content has caused a need for new intermediaries that can navigate, contextualize, filter, decode, customize, and authenticate the information and its source for the user. He states, a “phenomenon of re-intermediation is emerging, [that] in many ways creates new (artificial) scarcities.” *Id.* at 32.

⁸⁹ CAROLYN MARVIN, *WHEN OLD TECHNOLOGIES WERE NEW: THINKING ABOUT ELECTRIC COMMUNICATIONS IN THE LATE NINETEENTH CENTURY* 3 (1988); see also *TECHNOLOGICAL REVOLUTIONS IN EUROPE: HISTORICAL PERSPECTIVES* (Maxine Berg & Kristine Bruland eds., 1998).

⁹⁰ See, e.g., GEORGE GILDER, *TELECOSM: HOW INFINITE BANDWIDTH WILL REVOLUTIONIZE OUR WORLD* (2000); JOEL KOTKIN, *THE NEW GEOGRAPHY: HOW THE DIGITAL REVOLUTION IS RESHAPING THE AMERICAN LANDSCAPE* (2000).

of newness for innovations that have major significance for cultural developments, the distribution of power in society, the organization of the polity, or the recognition of new consumer markets.⁹¹ Altered flows of information, resulting from new technologies, change in almost every case the balances that previously existed in a legal framework.⁹²

The point of this Article, as I noted at the outset, is not to take sides in the grueling debate over whether new information technologies are truly revolutionary.⁹³ Anthony Smith established a fairly elevated test for the “newness” of new technology: “An age in which a new transforming technology is taking hold must, almost self-evidently, express its most profound social, economic, and political changes in terms of that technology—so closely and completely that historians try, but fail, to disentangle the resulting skeins of cause and effect.”⁹⁴ The task, rather, has been to ask how these transformations interact with the processes of law-making and adjudication. As electronic technologies capture our time, our lives, our imagination, they socially and culturally overwhelm our older modes of thinking about the legal regulation of data, speech, imagery. As Ethan Katsh has noted, the new technologies create “shifts in the value of information, in the language used to describe information, in customs used to employ information, in expectations about how information will be used, and in norms that are applied to information and communication.”⁹⁵ Katsh likens technology changes to changes in fundamental tools and hastens to indicate how significant such transitions might be. “The new media enable us to expand in rather extraordinary ways our capabilities for processing, storing, organizing, representing, and communicating information.”⁹⁶ In the early period of the technology’s use, the prevailing attitude might be that all that is occurring is the development of new methods, techniques to do existing tasks more efficiently. But in certain circumstances, tools become virtually autonomous engines for change. Like the

⁹¹ For a study of the scope of newness of the printing press, see ELIZABETH EISENSTEIN, *THE PRINTING REVOLUTION IN EARLY MODERN EUROPE* (1993). The Rand Corporation established a project, partly based on Eisenstein’s model of change, to look at parallels between the coming of the Internet and the coming of the printing press. See *New Paradigms and Parallels: The Printing Press and the Internet*, at <http://www.rand.org/parallels/> (Oct. 2000).

⁹² See M. Ethan Katsh, *Cybertime, Cyberspace, and Cyberlaw*, J. ONLINE L. (1995), at <http://warthog.cc.wm.edu/law/publications/jol/Katsh.html> (last visited Jan. 15, 2001).

⁹³ See, e.g., GILDER, *supra* note 90; KOTKIN, *supra* note 90.

⁹⁴ ANTHONY SMITH, *FROM BOOKS TO BYTES* 3 (1993).

⁹⁵ M. Ethan Katsh, *Law Reviews and the Migration to Cyberspace*, 29 AKRON L. REV. 115, 120 (1996).

⁹⁶ *Id.* at 120.

process-changing harmonium in Hardy's modest village church, "a plow may compel its users to arrange their agricultural activity, and perhaps also other parts of their lives, in a way that conforms to its own logic" in ways neither intended nor foreseen by those who originally devised the innovation.⁹⁷

Law moves more slowly than its external impacts and not always or immediately in parallel with them. The development of law is imprisoned in the rhetoric of its prior existence. That is the weakness, certainly of courts, but of legislatures as well. Altered flows of information, resulting from new technologies, change the balances that previously existed in a legal framework. But it is hard to know when those changes undo the preexisting formulaic approaches to a task. *Reno* is an example of striving to move outside of existing formulae, but still being bound by them, of pushing at categorical boundaries, but functioning within the boundaries themselves. Throughout the law, this process of adjustment takes place. Disputes over the power and effect of images on children are no different. Something is changing, changing markedly (as has always been the case) in the interaction between the staggering symbolic output of the society and the development of its children. Courts and legislatures try to mediate this interaction, as happened in the CDA, its descendants and the court opinions (like *Reno*) interpreting and evaluating them. In the flood of novelty captured by the new technology, it is difficult to determine what attributes of change yield revolutionary consequences and what attributes merely expedite distribution. Newness is a quality that fits uneasily with law.

⁹⁷ PETER L. BERGER, *THE SACRED CANOPY* 9 (1969).

