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WHO SHOULD GOVERN THE INTERNET?: MONITORING AND SUPPORTING A NEW FRONTIER

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I. INTRODUCTION

Scientists and engineers have developed technologies over the last few decades that enable computer users to communicate globally.[1] The creation of these technologies presents numerous legal and regulatory challenges that demand fast and efficient responses.[2] The enormous speed[3] of technological refinement[4] magnifies these challenges.[5] Some issues related to the Internet are truly unprecedented,[6] prompting a need to reassess existing legal and regulatory models that may not fit this

1. For a brief discussion of the development and present state of interactive computer technology, see Jeffrey E. Faucette, Note, *The Freedom of Speech at Risk in Cyberspace: Obscenity Doctrine and a Frightened University's Censorship of Sex on the Internet*, 44 DUKE L.J. 1155, 1161-62 (1995).

2. *See infra* notes 14-31 and accompanying text.

3. *See* Kenneth D. Suzan, Comment, *Tapping to the Beat of a Digital Drummer: Fine Tuning U.S. Copyright Law for Music Distribution on the Internet*, 59 ALB. L. REV. 789, 828 (1995) (referring to the speed of development of interactive computer technologies); Benjamin Wittes, *The Year in Cyberlaw: The Rapid Development of the Internet Poses Intriguing New Legal Problems, as Well as Possibilities*, LEGAL TIMES, Dec. 26, 1994, at 5 (discussing the legal challenges resulting from quickly developing interactive computer technology).

4. The Internet, a network of computer linkages, was developed by the Department of Defense in the 1960s. Originally used predominantly in universities and research institutes, the Internet is now heavily traveled by commercial and private individual users. *See* ED KROL, THE LAWYER'S GUIDE TO THE INTERNET 11-18 (1995). This article refers to the Internet and "interactive computer networks" synonymously, reflecting the role of the Internet in connecting computer networks across the globe.

5. *See* Michael I. Mayerson, *Virtual Constitutions: The Creation of Rules for Governing Private Networks*, 8 HARV. J.L. & TECH. 129, 129 (1994) ("In this age of high-speed computer networks, the nation's legal system . . . seems unprepared. The rapid growth of computer technology has left the law far behind.").

6. *See* Ilene Knable Gotts & Alan D. Rutenberg, *Navigating the Global Information Superhighway: A Bumpy Road Lies Ahead*, 8 HARV. J.L. & TECH. 275, 275 (1995) (quoting FCC Chairman Reed Hundt).

emerging technology.[7] Lawyers, legal scholars, and other commentators are only beginning to explore the challenges of the interactive computer capabilities[8] that comprise this new technological frontier.[9]

Against the backdrop of a recently deregulated telecommunications industry,[10] prospective regulation of computer networks[11] could prove burdensome, encumbering a powerful technology that has resisted harnessing.[12] The Internet promises a wide array of new civic and commercial possibilities. Yet because its growth has outpaced the law's ability to respond,[13] many have called for increased regulatory controls. With respect to the Internet, state and federal governments must protect

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7. *See* Fred H. Cate, Comment, *Law in Cyberspace*, 9 HOW. L.J. 565, 567 (1996).

8. This lag reflects the lawlessness of new frontiers. Early entrants into high-technology have typically enjoyed low levels of regulation. This dynamic changes as regulators catch up with emerging technologies and the public policy challenges they create. *See* T.R. Goldman, *How Microsoft Gets Its Way in Washington*, LEGAL TIMES, Oct. 28, 1996, at 1.

9. The vernacular of the Internet frequently incorporates references to the frontier. *See, e.g.*, James D. Cigler et al., *Cyberspace: The Final Frontier for International Tax Concepts?*, 7 J. INT'L TAX'N 340 (1996); Charles D. Ossola, *Electronic "Wild West": Trademarks and Domain Names on the Internet*, *in* PLI's SECOND ANNUAL INSTITUTE ON INTELLECTUAL PROPERTY LAW 1996, at 401 (PLI Patent, Copyright, Trademark, and Literary Property Practice Course Handbook Series No. 454, 1996). The Internet's frontier is populated by "the lawless, the unconventional, and the socially inept," as well as "guys who can't dance." Rex S. Heinke & Lincoln D. Bandlow, *Roadblocks and Exit Ramps on the Information Superhighway*, *in* LITIGATING LIBEL & PRIVACY SUITS 1996, at 203, 205 (PLI Patent, Copyright, Trademark & Literary Property Practice Course Handbook Series No. 446, 1996).

10. Most recently, the Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996) (to be codified in scattered parts of 15 & 47 U.S.C.), has moved towards deregulation of the industry. *See* George J. Alexander, *Antitrust and the Telephone Industry After the Telecommunications Act of 1996*, 12 COMPUTER & HIGH TECH. L.J. 227 (1996) (discussing deregulation of telephone services under Telecommunications Act); Miles W. Hughes, Comment, *Telecommunications Reform and the Death of the Local Exchange Monopoly*, 24 FLA. ST. U. L. REV. 179 (1996) (discussing the Telecommunication Act's dismantling of previous monopoly of local exchanges).

11. For discussion of this prospect, see Michael C. Maibach, *The Coming Internet Wars*, UPSIDE, July 1996, at 20.

12. *See, e.g.*, Gary W. Hamilton, *Trademarks on the Internet: Confusion, Collusion, or Dilution?*, 4 TEX. INTELL. PROP. L.J. 1, 3 (1995) (describing the Internet generally as "a cooperative association with no centralized control"); Carlin Meyer, *Reclaiming Sex from the Pornographers: Cybersexual Possibilities*, 83 GEO. L.J. 1969, 1982 (1995) (noting lack of control, beyond mere etiquette, over posting of messages on the Internet).

13. In June of 1993, approximately 130 World Wide Web sites ("Web sites") existed. By January of 1997, however, approximately 650,000 web sites existed. Numbers of host computers likewise have risen dramatically since 1993. *See* Clifford Lynch, *Searching the Internet*, SCI. AM., Mar. 1997, at 52, 53.

such divergent interests as speech,[14] competition,[15] privacy,[16] access,[17] public safety,[18] property,[19] contract rights,[20] national security,[21]

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14. Most speech issues pertaining to Internet regulation concern the chilling effect on free discourse of laws purporting to preserve decency in computer network communications. *See, e.g.*, Robert F. Goldman, Note, *Put Another Log on the Fire, There's a Chill on the Internet: The Effect of Applying Current Anti-Obscenity Laws to Online Communications*, 29 GA. L. REV. 1075 (1995). For a discussion of the First Amendment and interactive computer technology generally, see Cass R. Sunstein, *Emerging Media Technology and the First Amendment: The First Amendment in Cyberspace*, 104 YALE L.J. 1757 (1995).

In one interesting recent spin on Internet-related speech issues, the *Dallas Morning News* published on its Web site an alleged confession of Timothy McVeigh, in which McVeigh purportedly admitted bombing a federal building in Oklahoma City in April of 1995. Publication on the Web site prior to publication in the newspaper itself was believed to be an end-run circumventing possible judicial intervention in the form of a restraining order that might prohibit the newspaper from reporting its story. *See* Evan Ramstad, *Putting News on the Internet First Seen as Protective*, WALL ST. J., Mar. 5, 1997, at B6.

15. Competition issues generally concern who can provide what kinds of services over the information superhighway. For further discussion, see Winston P. Lloyd, Comment, *What's the Frequency Uncle Sam?: Will the Government Hold Up the Information Superhighway in the Name of Competition?*, 30 WAKE FOREST L. REV. 233 (1996). For a discussion of new, high-tech twists on old antitrust laws, see Leslie Helm, *Antitrust in Cyberspace: New Rules of the Game*, L.A. TIMES, Oct. 23, 1996, at A1.

16. Calls for protection of privacy interests address a variety of privacy-related issues. Congress enacted the Electronic Communications Privacy Act ("ECPA"), 18 U.S.C. §§ 2510-2707 (1994 & Supp. 1996), in 1986 to address some of these concerns. For discussion of the ECPA, see Ruel Torres Hernandez, *ECPA and Online Computer Privacy*, 41 FED. COMM. L.J. 17 (1988).

Concerns of privacy over the Internet relate not only to the content of communications, but also to "communication attributes" — information about messages including sender and receiver identity, place and time of occurrence, and length of transmission. *See* Susan Freiwald, *Uncertain Privacy: Communication Attributes After the Digital Telephony Act*, 69 S. CAL. L. REV. 949 (1996).

A different kind of privacy issue concerns fears of being overwhelmed by computer junk mail. One commentator has mentioned federal regulation as a possible means of protecting individuals from unwanted junk e-mail. *See* David Snyder, *Invading My Cyberspace: Put a Halt to Junk E-Mail*, CRAIN'S CHI. BUS., Sept. 2, 1996, at 11; *see also* S. 875, 105th Cong. (1997) (prohibiting bulk unsolicited electronic communication).

Yet another kind of privacy issue concerns search and seizure of data stored on or transmitted by computer. For discussion, see Raphael Winick, *Searches and Seizures of Computers and Computer Data*, 8 HARV. J.L. & TECH. 75 (1994).

17. The issue of who gets access to the Internet touches a wide array of legal areas and concepts, including contract, antitrust, constitutional law, and common carrier analysis. For a detailed discussion, see Henry H. Perritt, Jr., *Access to the National Informational Infrastructure*, 30 WAKE FOREST L. REV. 51 (1995).

18. For example, state stalking laws that prohibit harassing, annoying, and alarming others have recently been applied to Internet messages. *See Texas Court Order Shows*

reputation,[22] and morality.[23] Legislators and regulators must examine the

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Clash on Internet "Stalking," WALL ST. J., Oct. 17, 1996, at B7.

19. Legal and regulatory property issues most frequently concern ownership of information or texts under intellectual property law. *See, e.g.*, Dan L. Burk, *Patents in Cyberspace: Territoriality and Infringement on Global Computer Networks*, 68 TUL. L. REV. 1 (1993); Jane C. Ginsburg, *Putting Cars on the "Information Superhighway": Authors, Exploiters, and Copyrights in Cyberspace*, 95 COLUM. L. REV. 1466 (1995); Harold Smith Reeves, Comment, *Property in Cyberspace*, 63 U. CHI. L. REV. 761 (1996); Jonathan Evan Goldberg, Comment, *Now That the Future Has Arrived, Maybe the Law Should Take a Look: Multimedia Technology and its Interaction with the Fair Use Doctrine*, 44 AM. U. L. REV. 919 (1995); Suzan, *supra* note 3.

20. For discussion of a variety of contract-related issues that arise in regard to transactions over the Internet, see Fred M. Greguras et al., *Electronic Commerce: On-Line Contract Issues*, *in* DOING BUSINESS ON THE INTERNET 1996, at 11 (PLI Patent, Copyright, Trademark & Literary Property Practice Course Handbook Series No. 452, 1996).

21. Encryption of information is an example of an Internet technology that raises national security issues. Intelligence bodies such as the FBI may be hindered by encryption, a process by which messages are scrambled and made resistant to security surveillance efforts. For discussion of some effects of encryption on national security and related legal and regulatory issues, see Timothy B. Lennon, Comment, *The Fourth Amendment's Prohibitions on Encryption Limitation: Will 1995 Be Like 1984?*, 58 ALB. L. REV. 467 (1994); Jaleen Nelson, Comment, *Sledge Hammers and Scalpels: The FBI Digital Wiretap Bill and Its Effect on Free Flow of Information and Privacy*, 41 UCLA L. REV. 1139 (1994).

Intelligence organizations also have interests that are furthered by encryption technology, which can provide secrecy for their own data and communications. Recent developments, approved and supported by various governments, are improving the ability of encryption technology to secure information. *See HP Attacks Internet International Security Vulnerability Issues*, BUS. WIRE, Nov. 18, 1996, *available in* LEXIS, News Library, Wire File.

More generally, the advent of computer technology has created a new category of warfare labeled "information warfare," described by the Department of the Air Force as "[a]ny action to deny, exploit, or destroy the enemy's information and its functions; protecting ourselves against those actions; and exploiting our own military information functions." DEP'T OF THE AIR FORCE, CORNERSTONES OF INFORMATION WARFARES 3-4 (1995).

22. For a discussion of defamation issues regarding the Internet, see John D. Faucher, Note, *Let the Chips Fall Where They May: Choice of Law in Computer Bulletin Board Defamation Cases*, 26 U.C. DAVIS L. REV. 1047 (1993). For a case decision discussing application of libel law to online postings, see *Zeran v. America Online, Inc.*, 129 F.3d 327, 331 (4th Cir. 1997).

23. Of course, purported protection of morality is often as controversial as the subjective delineations distinguishing moral and immoral behaviors. For example, federal law presently prohibits the use of wire communications facilities for gambling in interstate or foreign commerce. *See* 18 U.S.C. § 1084 (1994). One's evaluation of this restriction may be linked to one's opinion regarding the debatable issue of legalized gambling generally. Likewise, computer decency legislation aimed at protecting

Internet to determine whether and how the new technology demands changes in the monitoring of commercial and banking transactions,[24] securities law,[25] labor relations,[26] insurance,[27] taxation,[28] and

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children from what some consider inappropriate materials has been the subject of much debate. *See, e.g.*, Communications Decency Act, Telecommunications Act of 1996, Pub. L. No. 104-104, § 502, 110 Stat. 56, 133-35 (1996) (to be codified in scattered sections of 15 & 47 U.S.C.). For a successful challenge to provisions of the Communications Decency Act under the First Amendment, see *Reno v. ACLU*, 117 S. Ct. 2329 (1997), discussed in Part IV.A.2.b.

Likewise, intriguing moral issues arise from the possibility of "cyberprostitution." Imagine a technology that allows customers to contract with "virtual lovers" who can communicate with their clients over the Internet while controlling the movements and temperature of a distant sex machine. For further discussion of cyberprostitution and this scenario, see D. James Nahikian, Comment, *Learning to Love "The Ultimate Peripheral" — Virtual Vices Like "Cyberprostitution" Suggest a New Paradigm to Regulate Online Expression*, 14 J. MARSHALL J. COMPUTER & INFO. L. 779 (1996).

24. *See* Koh Su Haw, *E-Commerce: Technology Can Bypass the Legal Pitfalls*, BUS. TIMES (Singapore), Oct. 14, 1996, at 16 (discussing novel legal challenges of commercial transactions over the Internet); Scott Sultzer, *Money Laundering: The Scope of the Problem and Attempts to Combat It*, 63 TENN. L. REV. 143, 195-97 (1995) (discussing role of Internet in facilitating money laundering); Thomas P. Vartanian, *Bank Regulations Are No Obstacle to E-Money Ventures*, AM. BANKER, Oct. 21, 1996, at 9A (discussing bank regulations in an era of interactive computer technologies).

25. *See* Brian J. McCarthy et al., *Takeover Activity in a High-Tech Environment*, *in* HANDLING MERGERS & ACQUISITIONS IN A HIGH-TECH AND EMERGING GROWTH ENVIRONMENT 1997, at 483 (PLI Corporate Law and Practice Course Handbook Series No. 945) (discussing merger and acquisition activity in the context of the Internet); Ronald M. Loeb & David J. Richter, *Electronic Offerings: Securities Law in the Age of the Internet*, *in* ADVANCED SECURITIES LAW WORKSHOP 1996, at 319 (PLI Corporate Law and Practice Course Handbook Series No. 953) (examining SEC's approach to disseminating information regarding stock issues over electronic media).

26. *See, e.g.*, Elena N. Broder, Note, *(Net)workers' Rights: The NLRA and Employee Electronic Communications*, 105 YALE L.J. 1639 (1996) (addressing ways to protect workers' rights that relate to interactive computer communications).

27. *See* Vance Gudmendsen, *Regulation of Insurance Transactions on the Internet*, 15 J. INS. REG. 150 (1996) (surveying legal issues emerging in regard to insurance industry as affected by the Internet).

28. *See, e.g.*, Aaron Pressman, *U.S. Treasury Opposes New Taxes on Net Commerce*, REUTERS BUS. REP., Nov. 21, 1996, *available in* LEXIS, News Library, Allnws File (discussing whether special taxes should be assessed for Internet activity, and varying federal and state perspectives on this issue); Thomas E. Weber, *Taxing Net Commerce: Devil is in the Details*, WALL ST. J., Nov. 21, 1996, at B10 (discussing difficulties in determining where transaction occurs for purposes of assessing sales tax).

communications.[29] Government seeks to protect consumers[30] and minors,[31] among others, who may be vulnerable on the Internet.

The judiciary likewise faces new challenges. In addition to substantive concerns, courts must address novel procedural issues, including limits on personal jurisdiction.[32] Issues arise as well regarding the appropriate level of control over the technology[33] and the allocation of regulatory functions within the federalist system of government. Issues of governance are especially important because of the Internet's reach[34] and relatively unregulated growth.[35] Compared with previous

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29. *See, e.g.*, Kirk Victor, *Technical Difficulties*, NAT'L J., Nov. 2, 1996, at 2343 (discussing Federal Communications Commission involvement in dispute between broadcast and computer industries over regulation of high-definition television technologies).

30. *See* Albert R. Karr, *Critics Clamor for More Controls in Cyberspace*, WALL ST. J., Oct. 1, 1996, at B1 (noting proposals to regulate the Internet to reduce consumer fraud). For a discussion of computer scams in the securities market, see Karen Cheney, *Don't Be Taken in by the Phony Investment Pitches*, MONEY, Mar. 1997, at A1.

31. The most salient issue concerning children and the Internet has been raised in regard to child pornography. Use of the new medium to invigorate the child pornography industry led to Congressional hearings in 1995. *See Child Pornography on the Internet: Hearings on S. 892 Before the Comm. on the Judiciary*, 104th Cong. 14 (1995). For a detailed discussion of the marketing of pornography over the Internet, see Marty Rimm, *Marketing Pornography on the Information Superhighway: A Survey of 917,410 Images, Descriptions, Short Stories, and Animations Downloaded 8.5 Million Times by Consumers in Over 2000 Cities in Forty Countries, Provinces, and Territories*, 83 GEO. L.J. 1849 (1995).

32. *See, e.g.*, CompuServe Inc., v. Patterson, 89 F.3d 1257 (6th Cir. 1996) (regarding contracts established by e-mail transmissions); Internet Sys. v. Instruction Set Inc., 937 F. Supp. 161 (D. Conn. 1996) (regarding the Internet advertising as a source of personal jurisdiction).

Broadly stated, the basic jurisdictional issue posed by the Internet is whether and when a host may become subject to personal jurisdiction by creating a web site through which it engages in various activities. *See* David Bender, *Emerging Personal Jurisdictional Issues on the Internet*, *in* PLI'S SECOND ANNUAL INSTITUTE FOR INTELLECTUAL PROPERTY LAW 1996, at 7, 10 (PLI Patents, Copyrights, Trademarks, and Literary Property Course Handbook Series No. 453).

33. In this vein, some articles and commentaries recommend legal and regulatory self-restraint. *See, e.g.*, Eammon Sullivan, Editorial, *Web Laws: Less is Definitely More*, PC WK., July 8, 1996, at 57.

34. The impact of the Internet in comparison to predecessor media is a function of its instantaneous and pervasive reach. It allows messages to be sent to many recipients across international lines simultaneously, in a matter of seconds. *See* Raymond T. Nimmer, *The Impact of Internationalization of Transnational Commercial Law: Licensing on the Global Information Infrastructure*, 16 J. INT'L L. BUS. 224, 225 (1995).

35. Whether the anarchy of the Internet is an asset or a liability is controversial. The European Commission, for example, has recently addressed whether the development of the Internet is best left to haphazard, natural forces or to social planning. *See Speech*

communications media, the Internet is decentralized,[36] with registration and administration functions limited strictly to what is required to maintain operability.[37]

In considering the appropriate level and locus of control, we must recognize the Internet's potential benefits and ensure that regulatory efforts support rather than undermine them. The Internet can improve economic efficiency by increasing the rate of dissemination of information.[38] Some have labeled cyberspace[39] "the greatest boon for consumer advocacy since Nader's Raiders" because it permits sharing of consumer information about products and services.[40]

"Cyberliberty"[41] is another benefit of the Internet. It embodies democratic ideals through the Internet's facilitation of openness and speech[42] as values embraced in the First Amendment.[43] For example, making governmental publications widely available for downloading can strengthen our democratic system by improving access to original documents, thereby offering an alternative to filtered information offered

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by Mr. Padraig Flynn, Colloquium on the Challenges of Living and Working in the European Information Society: People First, RAPID, Sept. 30, 1996, *available in* LEXIS, World Library, Allwld file.

36. No one owns the Internet, and control over its activities is only a very recent phenomenon. *See* J. Otto Seibold, *The Internet's Arrested Development*, N.Y. TIMES MAG., Dec. 8, 1996, at 80, 83.

37. *See* Byron F. Marchant, *On-Line on the Internet: First Amendment and Intellectual Property Uncertainties in the On-Line World*, 39 HOW. L.J. 477, 480 (1996).

38. *See, e.g.*, Leslie Eaton, *Let the Cyberinvestor Beware: A Tale of Stock Promotion, Regulation and the Internet*, N.Y. TIMES, Dec. 5, 1996, at C1 (recounting SEC's halt on trading in certain securities based on claims made by a whistle blower on Web site).

39. The coining of the term "cyberspace" is generally attributed to science fiction writer William Gibson. *See* WILLIAM GIBSON, NEUROMANCER 51 (1984). Cyberspace refers to a virtual world that exists over computer networks, independent of tangible physical space. "Cyberspace encompasses all electronic messaging and information systems including: Bulletin Board Systems . . . ; commercial data services; research data networks and network nodes; e-mail systems; data banks . . . ; electronic data interchange systems; and electronic fund transfer systems." Anne Meredith Fulton, *Cyberspace and the Internet: Who Will Be the Privacy Police?*, 3 COMMLAW CONSPECTUS 63, 63 (1995).

40. Wayne Harris, *Buyer, Be Aware: Online Sites for Consumer Education*, HOME PC, Mar. 1, 1997, at 144.

41. Catherine Yang, *Law Creeps Onto the Internet*, BUS. WK., May 6, 1996, at 58.

42. This potential rests largely in the Internet's unprecedented capabilities as a "medium for expression." David J. Goldstone, *The Public Forum Doctrine in the Age of the Information Superhighway*, 46 HASTINGS L.J. 335, 339 (1995).

43. For a detailed discussion of the evolution of First Amendment analysis with specific applications to cyberspace, see John O. McGinnis, *The Once and Future Property-Based Vision of the First Amendment*, 63 U. CHI. L. REV. 49 (1996).

by the press.[44] Likewise, the Internet can enhance democracy by enabling "cheap speech," liberating the "marketplace of ideas" from the institutional dominance of publishers, distributors, broadcast media, and other traditional gate-keepers of speech.[45]

The Internet can link global communities and enable worldwide participation in the open exchange of ideas.[46] For example, an independent news outlet in Serbia recently brought its messages to audiences by audio Internet links after the government shut off its normal radio broadcast.[47] Likewise, the Internet can serve as a global archive, in which are recorded innumerable details of the day-to-day life of the "global village."[48]

Despite these benefits, an ungoverned Internet could become a lawless[49] wild frontier,[50] prompting the government to intervene.[51] The cheap speech[52] made possible by the Internet also has its darker side.

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44. *See* Brock N. Meeks, *Dragging a Kicking and Screaming Government into the 21st Century*, COMM. OF ASS'N FOR COMPUTING MACHINERY, Sept. 1996, at 13, *available in* LEXIS, News Library, Allnws File.

45. Eugene Volokh, *Emerging Media Technology and the First Amendment: Cheap Speech and What It Will Do*, 104 YALE L.J. 1805, 1805 (1995). This liberation is likely to have both positive and negative effects. While it expands access to public forums, it also circumvents responsible media management that can seek "objectivity, balance, and a fair representation of the facts." Lee Tien, *Innovation and the Information Environment: Who's Afraid of Anonymous Speech?*, 75 OR. L. REV. 117, 152 (1996).

46. *See* Niva Elkin-Koren, *Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace*, 14 CARDOZO ARTS & ENT. L.J. 215, 217-18 (1996).

47. *See* Chris Hedges, *Serbs' Answer to Oppression: Their Web Site*, N.Y. TIMES, Dec. 8, 1996, at 1.

48. *See* Brewster Kahle, *Preserving the Internet: An Archive of the Internet May Prove to be a Vital Record for Historians, Businesses, and Governments*, SCI. AM., Mar. 1997, at 82 (discussing the role that the Internet can play in protection of archival documents, particularly vis-a-vis threats of physical destruction of hard copies of texts).

49. For this reason, experts often recommend that businesses develop Internet policies of their own. They observe that while the application of extant laws to the Internet remains unclear, company policies may fill the breach. *See, e.g.*, Leslie Ellen Harris, *Laying Down the Law*, PROFIT, Winter 1997, at 88.

50. *But see* Ed Bott, *Internet Lies*, PC/COMPUTING, Oct. 1996, at 189 (suggesting that the abundance of evil activities over the Internet is exaggerated).

51. This prospect is tempered, of course, by private initiatives to help establish order over the Internet. For example, some service providers have developed their own private codes of ethics to ensure against lawlessness over the Internet. *See Internet Security: ISP Co-Founders Fight Balk Against "Cyberstalker,"* IAC INDUSTRY EXPRESS, Oct. 21, 1996, *available in* LEXIS, News Library, Allnws file.

52. For example, "re-mailers" permit the anonymous forwarding of e-mail messages. *See* Saul Levmore, *Law, Economics, and Norms: The Anonymity Tool*, 144 U. PA. L. REV. 2191, 2235 n.78 (1996).

Cyberstalking,[53] cyberthreats,[54] and cyberterrorism[55] are just a few examples of the capacity for disorder in an ungoverned Internet frontier.[56]

Paradoxically, the Internet could indirectly undermine global democracy by facilitating criminal activities and exacerbating the gap between those who have access and those who are left out.[57] Many nations cannot yet provide their citizens such basics as stable sources of electric power, much less Internet access.[58] Given the importance of these stakes, as well as the pervasiveness and impact of Internet activity,[59] government at any or all levels will certainly move to fill at least some of the Internet's governance vacuum.[60]

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53. *See* Catherine Therese Clarke, *From CrimiNet to Cyber-Perp: Toward an Inclusive Approach to Policing the Evolving Mens Rea on the Internet*, 75 OR. L. REV. 191, 205 (1996); Meyer, *supra* note 12, at 2000.

54. Cyberthreats made the national news recently after a threat to President Clinton's life was allegedly made over the Internet. *See* David Talbot, *Hacker Sends Clinton a Cyberthreat*, BOSTON HERALD, Mar. 7, 1996, at 12.

55. For a discussion or mention of the threat of terrorism over the Internet, see Pat Cooper, *U.S. Intelligence Reshapes Techniques*, DEFENSE NEWS, Aug. 12, 1996, at 8; Susan Crabtree, *Cyberspace: A Terrorist Frontier?*, WASH. TIMES, Aug. 19, 1996, at 11; James C. Goodale, *The First Amendment War in Cyberspace*, N.Y. L.J., Oct. 10, 1996, at 3.

56. The European Commission suggests that the threat of Internet abuses can undermine the cyber-economy by scaring away users. The Commission is therefore working towards a comprehensive set of regulations intended to "provide a predictable and coherent regulatory environment for companies wishing to undertake electronic commerce." Tony Snapebrussels, *EC Ready to Tackle the Cyber Bandits*, EUROPEAN, Apr. 10, 1997, at 19 (quoting Mario Monti, Internal Market Commissioner).

57. *See* Monty D. Kaufman, *Warding Off the Dark Side of Cyberspace*, MASS. LAW. WKLY., Oct. 14, 1996, at 29.

58. *See Malaysia's Information Ambitions: Virtually Fantastic*, ECONOMIST, Mar. 1, 1997, at 67.

59. By 1994, 75 countries had full access linkage to the Internet. Over 150 countries had some Internet access. *See* John W. Verity & Robert D. Hof, *The Internet: How It Will Affect the Way You Do Business*, BUS. WK., Nov. 14, 1994, at 80, 82. Estimates suggest that as many as 100 million people around the world already use the Internet. Erik J. Heels, *Why Lawyers Should Get on the Internet: Research On — and Legal Issues Raised By — The Internet*, 20 LAW PRAC. MGMT. 24, 25 (1994). In sum, one FTC official has observed, "Right now people are signing up [for online services] at the same rate people bought television sets in the '50s." Wendy Leibowitz, *High Tech is Reshaping Legal Basics: Geography Isn't Destiny*, NAT'L L. J., Sept. 23, 1996, at A1 (quoting Allen Hile).

60. The governance vacuum could be filled in part by self-regulation efforts that have sprouted recently in response to the threat of government intervention, especially in Europe. *See, e.g.*, Juliana Koranteng, *EASE to Help Lobby, Educate Online Web Site Designed to Promote European Self-Regulation*, ADVERTISING AGE, Sept. 9, 1996, at I6. Despite the potential for such efforts to mitigate Internet anarchy through a voluntary

Because use of the Internet spans the globe[61] and enables worldwide interactions,[62] cyberspace monitoring arguably needs to be addressed within the framework of international law.[63] Pragmatic arguments suggest that localized regulation detracts from a country's ability to compete in global markets.[64] Some argue that the Internet's unique capacity to convert the world into global communities[65] may ultimately demand the displacement of some national law, as technology reduces the significance of sovereignty.[66]

As we have yet to reach this stage, the locus-of-control drama presently unfolds a tier below the national-versus-international level,[67]

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exercise of responsibility, it is unrealistic to imagine that self-regulation will ever eliminate the need for some government control.

61. *See* Fred H. Cate, *Global Information Policymaking and Domestic Law*, 1 IND. J. GLOBAL LEGAL STUD. 467 (1994) (discussing global nature of information).

62. The comprehensiveness of Internet interactions and transactions refers to the ability to communicate nearly instantaneously to thousands of people at once. The distinction between pre- and post-computerized network operations is the difference between cumbersome and expensive conference phone calls in the 1960s and the bulletin boards and talk-lines facilitated by e-mail and the Internet in the 1990s.

63. *See* Barbara Cohen, Note, *A Proposed Regime for Copyright Protection on the Internet*, 22 BROOK. J. INT'L L. 401, 428 (1996) ("[T]he Internet should be governed by an international, rather than a national, regulatory scheme."); Jeffrey B. Ritter & Judith Y. Gliniecki, *Electronic Communications and Legal Change: International Electronic Commerce and Administrative Law: The Need for Harmonized National Reforms*, 6 HARV. J.L. & TECH. 263, 265 (1993) (discussing need for "coordinated, proactive, cross-jurisdictional regulatory reform" in electronic commerce). For a discussion of the relationship between burgeoning technology and the international nature of community and sovereignty, see Oscar Schachter, *Phillip Jessup's Life and Ideas*, 88 AM. J. INT'L L. 878, 894 (1986).

64. *See, e.g.*, David Ward, Note and Comment, *Sisyphean Circles: The Communications Assistance for Law Enforcement Act*, 22 RUTGERS COMPUTER & TECH. L.J. 267, 267 (1996) (suggesting that the U.S. avoid federal legislation that impairs technological competitiveness of U.S. companies).

65. *See* Rick Smolan, *24 Hours in Cyberspace*, U.S. NEWS & WORLD REP., Oct. 21, 1996, at 70 (examining globe-spanning communities created by the Internet).

66. Until and unless we reach this point, the capacity of the Internet to deliver products and ideas across national borders bears potential impact on international relations. For example, Singapore has recently become concerned with curbing Western influences and restoring Asian values, and acknowledges the Internet's ability to thwart these efforts. Singapore has also hosted a conference of Southeast Asian nations "to formulate a common approach to the 'perils' posed by the Internet." James Kynge, *Electronic Undesirables: SE Asian States Are Divided on How to Police the Internet*, FIN. TIMES, Sept. 9, 1996, at 17.

67. Nonetheless, other countries are working to resolve many of the same issues facing the United States regarding regulation and control of the Internet. *See, e.g.*, *Germany Drafts Multimedia Law Regulating Internet*, REUTERS WORLD SERVICE, Nov. 11, 1996, *available in* LEXIS, News Library, Allnws File. The concerns about

as judges and scholars attempt to understand how global technologies affect the federalist division of power.[68] This article addresses how federal and state interests should be balanced in this context to meet the demands of Internet technology.

Part II examines the relationship between traditional state police powers and the wide array of activities, behaviors and transactions that now take place over the Internet. The discussion reveals that the strength of local interests varies from one area of Internet activity to the next. Part II concludes that the legitimacy of state police power as applied to the Internet is declining but still viable.

Part III examines the advantages of unified standards of Internet regulation, and hence the potential benefits of federal preemption. The discussion focuses on the difficulties and inconsistencies of subjecting the Internet to local rule. First, it examines how evolving conceptions of community in the modern age undermine the legitimacy of localized control. Specifically, the discussion explores a growing disjunction between community and geographic proximity that reduces the legitimacy of state authority. Second, the Part analyzes the ways in which local regulation of the Internet may inhibit growth, development and usage of national and international interactive computer networks. It identifies specific impediments associated with localized regulation, including unnecessary regulatory redundancy, complexity, conflict, and compliance-associated expenses.

In light of the conflicting state and federal interests discussed in Parts II and III, Part IV evaluates tools that might be used to temper the negative consequences of the Internet's anarchy without unduly impairing its growth and development. Federal preemption is identified as a limited solution that must be applied selectively and carefully in deference to legitimate remnants of state authority. Model codes and standards are recommended as potentially effective means of encouraging consistency and fluidity of access and usage without detracting from states' abilities to address legitimate local concerns.

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redundancy, complexity, conflict, and cost that are addressed in Part III.B apply to the international arena as well. While they go beyond the scope of this article, efforts to approach international legal and regulatory convergence will be essential to the facilitation of Internet development in the near future.

68. The difficulties of balancing federal and state interests are exacerbated by a confounding concern: whether cyberspace can be regulated simply by applying the old models that have been used to govern real space. *See* Lawrence Lessig, *Emerging Media Technology and the First Amendment: The Path of Cyberlaw*, 104 YALE L. J. 1743, 1743 (1995).

Part V, the Conclusion, briefly summarizes this Article's recommendations and identifies its most pervasive principles.

II. INTERNET ACTIVITIES, BEHAVIORS, AND TRANSACTIONS IN THE CONTEXT OF TRADITIONAL STATE POLICE POWERS

This Part addresses the relationship between Internet activities and state authority. Subpart A introduces the concept of the "transformativity" of an innovation, suggesting that new technologies differ in degree of compatibility to existing forms of legitimate state control. Subpart B provides a detailed example of the most common type of scenario — the hybrid case in which some state interests remain unimpaired while other state interests are reduced. Specifically, it examines the ways in which gambling over the Internet does and does not distance itself from justifiable state authority. Subpart C briefly examines a second type of scenario, wherein state interests are unimpaired by cybertransition.[69] Subpart D looks at the final and least likely possibility, wherein cybertransition eliminates all legitimate state interest in controlling activities and behaviors. Overall, the discussion in this Part emphasizes that the utility of state authority differs among various activities as they are translated into cyberspace.

A. The Varying Degrees of "Transformative Innovation" in Regard to Legitimate State Control

The legal and regulatory ramifications of interactive computer technology vary. Some aspects of the Internet are transforming — they are so novel that they create unique regulatory challenges.[70] Other facets of the Internet may create a new spin on an old theme. In these instances, extant regulatory mechanisms serve adequately.[71] Between

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69. "Cybertransition" shall be used to refer to the translation of a practice, behavior, activity, or transaction from real space to its cyberspace equivalent.

70. *See* Donald E. Lively, *The Information Superhighway: A First Amendment Roadmap*, 35 B.C. L. REV. 1067, 1090 (1994) ("Emergence of a new . . . medium generates significant pressure upon established regulatory regimes conditioned to respond to recognized forms and experiences"); David P. Miranda, *Defamation in Cyberspace:* Stratton Oakmont, Inc. v. Prodigy Services Co., 5 ALB. L.J. SCI. & TECH. 229, 247 (1996) (noting government has begun to recognize unique regulatory issues arising from Internet that cannot be reconciled by simply applying existing approaches from news and entertainment media).

71. *See* Mark L. Caden & Stephanie E. Lucas, Comment, *Accidents on the Information Superhighway: On-Line Liability and Regulation*, 2 RICH. J.L. & TECH. 3, ¶65 (1996) <http://www.urich.edu/~jolt/v2i1/caden_lucas.html> (noting that some legal

these two extremes lie a broad spectrum of cybertransitions that can be controlled to a greater or lesser extent by adapting traditional legal and regulatory devices.

Generally, the legitimate exercise of traditional state police power will translate most effectively from real space to virtual space in applications that are relatively non-transformative. This is because the conservation of localized rule is most compatible with technologies that have little impact on the status quo. Globalized technologies tend toward the transformative end, and hence undermine rationales for localized control.[72] However, in those instances where these technologies are non-tranformative, we must recognize the arguments for using traditional regulatory schemes, which may include some amount of local control.[73]

The following Subparts examine three variations on this theme. We begin with the hybrid situation because it is likely to be the most common one. These are cases in which cybertransition reduces some state interests but leaves others intact. We then examine a second scenario, in which cybertransition impairs no state interests in the underlying activity. Finally, we look at the possibility that cybertransition may eliminate all state interests in certain activities, behaviors or transactions.

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issues arising over the Internet can be managed by existing laws); Nicholas Robbins, *Baby Needs a New Pair of Cybershoes: The Legality of Casino Gambling on the Internet*, 2 B.U. J. SCI. & TECH. L. 7, 31 (1996) ("[E]xisting law may already adequately address telecommunications and gambling, including the Internet.").

72. *See* Mark Dorosin, *You Must Go Home Again:* Friedrich v. Friedrich, *The Hague Convention and the International Child Abduction Remedies Act*, 18 N.C. J. INT'L L. & COM. REG. 743 (1993) (attributing globalization to technological innovation and political cooperation); Fernando Pombo, *European Community Telecommunications Law and Investment Perspectives*, 18 FORDHAM INT'L L.J. 555, 602 (1994) (observing that technological innovation has globalized telecommunications market).

73. An interesting area of speculation concerns the degree to which technological advancements will or should displace state police power in the long run. For now, this Subpart simply suggests that legitimate state authority is diminishing as a result of globe-shrinking innovations like the Internet. As the effects of ongoing innovation continue to unfold, will localized authority become obsolete? Conversely, is there an element of spacial or geographical proximity that is so essential to the rule of relationships that no degree of innovation can ever expunge the need for state police powers? Because the answers to these questions depend so much on yet unforeseeable events and their effects, this big-picture analysis presently remains speculative.

B. The Hybrid Case in Which Some State Interests Remain Unimpaired While Others Are Reduced

In this Subpart, we shall consider what is probably the most common scenario, wherein cybertransition reduces some state interests in an activity but leaves others unimpaired. A good example of this type of situation is gambling over the Internet.[74]

Already, more than 600 Internet sites exist on the subject of gambling.[75] While some of these provide only information, others are fora through which wagers can be made.[76] The development of cyberspace gambling sites has been touted as sufficient in itself to justify the costs of building and developing the Internet.[77] Some commentators also see cybergambling sites as providing a unique business opportunity to operate a virtual casino without incurring the high operating and maintenance costs associated with a real casino.[78]

While the federal government can and does control gambling that affects interstate commerce,[79] states have traditionally determined for themselves the extent to which gambling within their borders is morally acceptable, and legally sanctioned.[80] There is great freedom to gamble in Nevada[81] and none in Utah.[82] Other states adopt a wide range of

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74. I choose gambling as what one journalist aptly describes as "the first substantial test of regulation of the Internet." Terry Schwadron, *Cyberculture: Gambling with Our Freedom*, L.A. TIMES, Nov. 18, 1996, at D3.

75. *See* Leslie Alan Horvitz, *Cyber Gambling Proves Dicey for Bettors, Regulators Alike*, WASH. TIMES, Nov. 11, 1996, at 42.

76. *See id.; see also* Rebecca Quick, *Entrepreneurs Roll the Dice on a New Site*, WALL ST. J., Apr. 10, 1997, at B16 (observing emergence of dozens of online casinos during the past year).

77. *See* Joseph G. LaTessa, *Internet Gambling and the Regulation of the Internet*, 29 ARK. BUS. & ECON. REV. 11, 13 (1996) (quoting John Malone, President of Tele-Communications Inc.).

78. *See id.* (quoting Michael Simone, President of Sports International).

79. *See* Rory K. Little, Comment, *Myths and Principles of Federalization*, 46 HASTINGS L.J. 1029, 1062 n.154 (1995).

80. States have wide latitude in monitoring and regulating gambling under the constitutional aegis of state police powers. *See* Jewel N. Klein & Ray H. Garrison, *Practice and Procedure Before Racing Commissions*, 78 KY. L.J. 477, 496 (1990).

81. For a brief history of gambling and its legalization in Nevada, see Thomas Lee Hazen, *Public Policy: Rational Investments, Speculation, or Gambling? — Derivatives Securities and Financial Futures and their Effect on the Underlying Capital Markets*, 86 NW. U. L. REV. 987, 1005 n.92 (1992).

82. Only Utah and Hawaii permit no variety of legalized gambling. *See* Kevin J. Worthen & Wayne R. Farnsworth, *The Dilemma of American Federalism: Power to the People, the States, or the Federal Government? Who Will Control the Future of Indian Gaming?*, 1996 BYU L. REV. 407, 438 & n.154 (1996).

intermediate approaches, permitting or prohibiting activities such as state lotteries,[83] track betting,[84] and off-track betting.[85]

Always troublesome,[86] state control over gambling encounters serious new challenges arising from the Internet. Interactive technologies enable wagering activities among remote players operating from computer stations in different states or countries.[87] Under these novel conditions, state controls over gambling may be increasingly ineffective.

For the purposes of our discussion, assume that states can develop systems that effectively monitor and control gambling over the Internet.[88] One question that remains is whether states have the same localized interest in regulating cybergambling as they have asserted over traditional gambling. To answer this question, we must compare the stakes of local communities in cyberwagers to the interests they have traditionally asserted regarding traditional wagers. We begin by examining the justifications for state police power over traditional, non-computerized gambling.

Historically, states have controlled or rejected gambling[89] for a variety of reasons. The most fundamental have been moral objections.[90]

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83. *See* Edward J. McCaffery, *Why People Play Lotteries and Why it Matters*, 1994 WIS. L. REV. 71, 72 (1994) (citing estimates that at least 50 to 60 percent of adult Americans participate in state-sponsored lotteries).

84. *See, e.g.*, Illinois Horse Racing Act of 1975, 230 ILL. COMP. STAT. ANN. 5/1 (West 1996); Texas Racing Act, TEX. REV. CIV. STAT. ANN. art. 179e (West 1997).

85. Gambling options associated with legalized horse racing in some jurisdictions include off-track betting, intertrack wagering, and telephone account betting. *See* Thomas H. Meeker, *Thoroughbred Racing — Getting Back on Track*, 78 KY. L.J. 435, 443 (1990).

86. For discussion of generic difficulties in state regulation of gambling, see generally Ronald J. Rychlak, *Video Gambling Devices*, 37 UCLA. L. REV. 555 (1990).

87. For a brief discussion of the logistics of Internet gambling, see Seth Gorman & Antony Loo, *Blackjack or Bust: Can U.S. Stop Internet Gambling?*, 16 LOY. L.A. ENT. L.J. 667, 667 (1996).

88. This assumption is far from axiomatic. It is being made simply to enable us to move directly to the subject more immediately relevant to the scope of this article — the balance of control over interactive computer technologies between the state and federal governments. It is reasonable to presume that state and federal authorities alike can develop monitoring and control systems. The only inherent difference between state and federal governments in this regard is a difference in coordination. While state authorities certainly face greater uncertainty and hurdles in achieving this cooperation than federal authorities, the processes can be developed by either state or federal governments.

89. *See* Little, *supra* note 79, at 1062 n.154 (1995) (noting the Supreme Court's recognition of states' powers to control evils of gambling, alongside legitimate federal powers (citing Champion v. Ames, 188 U.S. 321, 357-58 (1903))).

90. Moral objections to gambling are becoming outmoded, as gambling has

These may be founded on evils that purportedly result from gambling,[91] such as sloth and waste[92] or prostitution and crime.[93] Communities have placed gambling in a category with drinking, drugs, smoking, and even dancing — activities some believe are related to a decline in the social order.[94] Because gambling can become an addictive or compulsive behavior,[95] it may contribute to parental failure to support or adequately care for children[96] if parents lose their money[97] or divert their time from child-rearing in order to gamble.[98] Finally, due to historic ties between gambling and organized crime,[99] communities may be concerned that inviting gambling into their borders is tantamount to inviting the mob.[100]

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undergone a cultural transition "from a vice to a vibrant postmodern commodity." Naomi Mezey, Note, *The Distribution of Wealth, Sovereignty, and Culture Through Indian Gaming*, 48 STAN. L. REV. 711, 711 (1996).

91. *See* Ronald J. Rychlak, *Lotteries, Revenues and Social Costs: A Historical Examination of State-Sponsored Gambling*, 34 B.C. L. REV. 11, 13, 42-4 (1992) (attributing historic bans on gambling in many cases to its association with both personal and social deterioration).

92. *See, e.g.*, Hazen, *supra* note 81, at 1005 n.91 (noting that the religious condemnation of gambling exists in part because it undermines the work ethic and channeling of resources toward productive ends).

93. *See* Rick Alm, *Gambling Wager is Paying Off*, KAN. CITY STAR, Wyandotte Country, ed., June 29, 1995, at 1 (noting that critics have labelled gambling boats "breeding grounds for prostitution and other crime").

94. *See* Robert A. Buerki, *The Development of Social and Public Health Legislation in Louisiana and Wisconsin Between 1865 and 1920*, 4 OHIO N.U. J. PHARMACY & L. 143, 161 (1995) (describing reform-era gambling legislation as falling in the same morality-based classification as drinking, smoking, and prostitution).

95. *See* Ronald J. Rychlak, *The Introduction of Casino Gambling: Public Policy and the Law*, 64 MISS. L.J. 291, 292 (1995) (noting the increase in gambling addiction among Mississippians as legalized gambling establishments proliferate in Mississippi).

96. *See id.* at 345.

97. *See* Brenda Russell, *Gambling Winnings and Child Support*, BATON ROUGE ADVOCATE, Sept. 30, 1996, at 8B. *But see Casino Jobs Drive Jump in Child Support Payments*, MEMPHIS COMM. APPEAL, Feb. 22, 1995, at 1B (noting correlation in some locations between the availability of casino jobs and the increase in rate of child support payments).

98. *See* Henry Lesiuer, *Current Research into Pathological Gambling and Gaps in the Literature, in* COMPULSIVE GAMBLING: THEORY, RESEARCH AND PRACTICE 236 (Howard J. Shaffer et al. eds., 1989).

99. *See, e.g.*, G. Robert Blakey, *Law and the Continuing Enterprise: Perspectives on RICO*, 65 NOTRE DAME L. REV. 873, 873 n.4 (1990).

100. Ironically, this justification for prohibiting gambling may be self-induced. The presence of racketeering activity in the gambling industry may logically be attributed to the industry's historic illegality in most states. Were gambling historically and presently legalized throughout the U.S., there would be no special role for organized crime to play. It is also arguable that the presence of organized crime in the gambling industry could disappear were gambling to be legalized more broadly in the U.S., much as the mob

Some of these considerations become less important when the site of gambling is shifted to cyberspace, while others remain unaffected.[101]

First, consider a local community's purported interest in its moral climate. Commentators disagree about the ability of communities to legislate morality.[102] Although the wisdom of trying to build character by legal edict is controversial, the compulsion to do so is as applicable to cyberspace as it is to real space. It is irrelevant to the state that seeks to discourage the sloth, waste, sinfulness, or evil of gambling whether such activities are facilitated by live croupiers or computer programs. Accordingly, a state that adopts an aggressive approach to regulation of public morals within its borders can argue persuasively that the medium of activity has no bearing on its interests.

Consider next a state that chooses a philosophy more deferential to individual freedoms in regard to public morals. The prototypical position under this philosophy is to leave behavioral decisions to individuals, provided the decisions have no harmful effects on others.[103] A state adopting this posture may nonetheless enact legislation controlling gambling in the interests of families and children of gamblers. The theory of such regulation would be that innocent dependents may be harmed when compulsive behavior distracts parents from properly caring for their children. This includes distraction from supervision, financial support, or both. While the state's interest in

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influence in the alcohol industry appears to have been limited to the era during and immediately surrounding Prohibition. *See* Greg Lloyd, Editorial, *Drugs Aren't the Problem – It's Drug Prohibition*, RICHMOND TIMES-DISPATCH, May 15, 1997, at A22.

101. How compelling local interests were in regulating public morals and safety prior to the Internet is debatable. It can be argued that the pre-Internet growth of global communications affected dimensions of the community such that the idea of local governance has long been becoming obsolete. While changes such as pervasive broadcast, cable, and satellite media and increasingly accessible global mass transit infrastructures have fostered a so-called global village, perspectives on centralized versus localized control remain controversial. They are subject, as they were over two centuries ago, to one's philosophy regarding state's rights and the proper sphere of federal influence and control.

102. *Compare* Robert N. Bellah, *New Perspectives in the Law of Defamation: The Meaning of Reputation in American Society*, 74 CAL. L. REV. 743, 751 (1986), *and* Gerard V. Bradley, *Pluralistic Perfectionism: A Review Essay of Making Men Moral*, 71 NOTRE DAME L. REV. 671, 680-81 (1996) (reviewing ROBERT P. GEORGE, MAKING MEN MORAL (1993)) (arguing that morals cannot be legislated), *with* ROBERT H. BORK, THE TEMPTING OF AMERICA 246 (1990) (arguing that legislating of morality is possible).

103. For discussion of the autonomy-based morality that supports this approach of minimal intrusiveness, see Brian Fay, *Sex, Drugs, Death and the Law: An Essay on Human Rights and Overcriminalization, by David A. J. Richards*, 58 N.Y.U. L. REV. 1231, 1234-38 (1983) (book review).

protecting children of gamblers does attenuate somewhat with regard to cybergambling, it is not eliminated. Parents gambling at home over the Internet may still neglect their children, despite the fact that they have a greater ability to supervise from a home computer than from a casino. Opportunities to squander child support resources are as extensive in cybercasinos[104] as in real ones. Thus, while computerized gambling may confer some marginal potential advantages over real-space gambling with regard to the parental neglect rationale, a state's basic interest in protecting its underage citizens remains strong.

The issue of organized crime is the state concern[105] probably most closely connected to real space. Consequently, organized crime provides the least compelling policy argument for retaining state control over gambling in cyberspace. Racketeering organizations use physical force as a fundamental organizational tool.[106] They derive much of their power by overseeing and controlling activities through immediate, direct threats.[107] As a consequence, organized crime tends to be linked to a geographic proximity among participants that enables efficient physical retribution.[108] As a result, organized crime thrives best when real people operate in real space. While these tendencies certainly do not preclude the possibility of mob infiltration of cybergambling in the future, they do create some substantial barriers to entry. Until and unless organized

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104. A "cybercasino" has been defined as "a virtual reality casino on the Internet." Robbins, *supra* note 71, at 7 n.5. The cybercasino industry is being developed aggressively by companies operating in the Caribbean. *See* Jo-Ann M. Adams, Comment, *Controlling Cyberspace: Applying the Computer Fraud and Abuse Act to the Internet*, 12 SANTA CLARA COMPUTER & HIGH TECH. L.J. 403, 415 (1996).

105. *See, e.g.*, North Carolina Racketeer Influenced and Corrupt Organizations Act, ch. 999, 1986 N.C. Sess. Laws 360 (codified at N.C. GEN. STAT. § 75D (1990 & Supp. 1996)). The reference to state racketeering laws is not meant to suggest that racketeering is exclusively a state police concern. Obviously, Congress has chosen to monitor and control racketeering that affects interstate commerce through the enactment of the Racketeer Influenced and Corrupt Organizations Act., 18 U.S.C. §§ 1961-1968 (1998).

106. *See* JOSEPH L. ALBINI, THE AMERICAN MAFIA 126 (1971).

107. *See* James Cook, *The Invisible Enterprise*, FORBES, Sept. 29, 1980, at 60 (attributing the power of several organized crime groups to violence and intimidation); Senthil Ratnasabapathy, *Crime: Declaration Underlines Globalization of Crime*, INTER PRESS SERV., June 3, 1996, *available in* LEXIS, News Library, Curnws File (citing a United Nations report defining organized crime in terms of "threat and use of physical force and violence, extortion, intimidation or corruption . . . ."); Peter Reuter, *The Decline of the American Mafia*, PUB. INT., Summer 1995, at 90 (noting Mafia employment of "direct intimidation").

108. *See* Ward Morehouse III, *On the Waterfront Today: Mob Rule Wears White Collar*, CHRISTIAN SCI. MONITOR, Mar. 19, 1981, at 1 (noting that while mob has developed "'white collar' techniques" in recent years, influence is still tied to threats of physical violence).

crime finds ways to dominate cyberspace gambling, the state's interest in monitoring and controlling cybergambling is relatively weak.[109]

While some local concerns regarding cybergambling are stronger than others, computerization of gambling does not destroy the legitimacy of traditional state police power. Rather, state interest is moderately reduced. The state's stake in protecting public morality and the interests of children remains strong. Local interests in thwarting organized crime are reduced as the threat is diluted through attenuation between the undesirable activity and concrete physical space. Cybergambling thus serves as an example of a case in which state interests are weakened rather than eliminated by cybertransition.

C. Activities in Which State Interests Are Entirely Unimpaired by Cybertransition

Sometimes, moving activities to cyberspace creates new legal challenges without any reduction in local stakes. In these contexts, allowing local regulation is justified because state interests are undiminished by the medium shift. Such a situation may arise, for example, in libel, a state tort doctrine whose rationales are unaltered by the expansive publication and dissemination capabilities of the Internet.[110] Likewise, despite a burgeoning market for real estate transactions over the Internet,[111] real property remains among the most

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109. Even if organized crime should make substantial inroads into cyberspace gambling, the localization of concern would inevitably be diluted by virtue of the delocalization of activity. Should racketeers become as dominant a force in cybergambling as in real-space gambling, the capacity for remote transactions over the Internet suggests that the problem will become increasingly interstate, and hence national, in scope.

110. This assertion regarding indistinguishability refers to the substance of libel law rather than to complex issues of who may be responsible for publication of defamatory text, which becomes quite complex in the realm of cyberspace. For discussion of this latter issue, see Giorgio Bovenzi, *Liabilities of System Operators on the Internet*, 11 BERKELEY TECH. L.J. 93, 118-28 (1996).

Likewise, whether legislatures intend libel laws to be applied in cyberspace remains an issue, regardless of the ease with which extant laws and regulations can be applied to the Internet. *See* It's in the Cards Inc. v. Fuschetto, 535 N.W.2d 11, 14 (Wis. Ct. App. 1995) ("Applying the present libel laws to cyberspace or computer networks entails rewriting statutes that were written to manage physical, printed objects, not computer networks or services. Consequently, it is for the legislature to address the increasingly common phenomenon of libel and defamation on the information superhighway.").

111. *See* Bradley Inman & Susan Kuchinskas, *WWW.HOUSE HUNT: The Internet is Rapidly Becoming a Real Estate Supermarket as Buyers, Sellers Link Up, Ready to Deal*, L.A. TIMES, Oct. 13, 1996, at K1.

fundamentally and unalterably localized of regulatory interests.[112] In the absence of a fundamental rethinking of federalism, it is difficult to imagine a diminution of states' interests in governing real property transactions.

Local interests would also appear to be unchanged in most areas of contract law in which new, technology-related issues are arising. Consider two such issues: click-on license agreements and computer autonomy. Upon installation or use of a licensed computer program, the screen may display license terms, including notification that the user agrees to those terms upon entering the next screen.[113] Litigants have begun to question whether clicking to proceed with a program can constitute acceptance of the displayed terms under relevant doctrines or statutory provisions of contract and sales law.[114] The doctrines governing acceptance of proposed contractual terms are as much a question of state law as they always have been.[115] The Internet provides no challenges to this classification that have not been raised by previous telecommunications or transportation technologies.[116]

Admittedly, some dynamics of contract may be forever altered by the burgeoning capabilities of artificial intelligence. Today's computers have the capacity to function autonomously — they can learn from their experiences, modify their programs, change instructions and make decisions.[117] These capacities allow us to endow our computers with "substantial autonomy in decision-making, thus permitting . . . machines to complete highly complex tasks which involve not only the need for

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112. The logic here is that while negotiations and transactions occur across dimensions of space and time rendered increasingly irrelevant by technological advancements, the subject of the contracts themselves — i.e., the land and permanent improvements thereon — remains inextricably connected to an identifiable locale.

113. *See* D.C. Toedt III, *Shrinkwrap and Internet "Click-On" Enforceability*, TEX. LAW., Sept. 9, 1996, at 26.

114. *See id.*

115. *See, e.g.*, Wilkenson v. Department of Interior, 634 F. Supp. 1265, 1272 (1986) (noting application of state law in determining acceptance of an offer).

116. The capacity to transact contractual arrangements across state lines is hardly new. Parties from different states have always been able to contract, and this capacity has been enhanced by technological innovations in the industrial and post-industrial eras that preceded the high-technology revolution. From horse-drawn coaches to automobiles, telegraphy, telephony, express mailing, and faxing, opportunities to transact across distances have been improving continually in modern America. The improvements and enhancements of the Internet cannot be distinguished from previous improvements in regard to reduced state interests in contract law, at least on the grounds that the Internet facilitates interstate transactions.

117. *See* Tom Allen & Robin Widdison, *Can Computers Make Contracts?*, 9 HARV. J.L. & TECH. 25, 27 (1996).

speed of operation but also sophisticated, precise judgments."[118] When autonomous computer capabilities enable machines to make, accept, and reject offers,[119] classic concepts such as assent and meeting of the minds are subject to challenges[120] that were hardly foreseeable when the basic tenets of contract law were emerging.

Although the challenge of automated contracting is unprecedented, it arises in an area of law supported by a rich history of analysis and theory.[121] Principles of offer and acceptance under extant state law admittedly do not deal specifically with the actions of autonomous machines. Nonetheless, the conceptual framework through which to solve these challenges by analogy or indirect application is firmly established in the tenets of contract law.[122] Moreover, nothing in the new technology differs markedly from the familiar problems of assent that have arisen throughout the history of contractual jurisprudence.[123]

D. Activities in Which State Interests Are Eliminated by Cybertransition

We have thus far examined the legitimacy of state interests in two kinds of activities upon their transition to cyberspace — those in which state interests are reduced but not eliminated, and those in which state interests appear to be unaffected. The final alternative is the least

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118. *Id.*

119. *See id.* at 28.

120. *See id.* at 31.

121. For discussion of offer and acceptance in contract, see Richard Craswell, *Offer, Acceptance, and Efficient Reliance*, 48 STAN. L. REV. 481 (1996); Melvin Aron Eisenberg, *Expression Rules in Contract Law and Problems of Offer and Acceptance*, 82 CAL. L. REV. 1127 (1994); Avery Katz, *The Strategic Structure of Offer and Acceptance: Game Theory and the Law of Contract Formation*, 89 MICH. L. REV. 215 (1990); Peter Meijes Tiersma, Comment, *The Language of Offer and Acceptance: Speech Acts and the Question of Intent*, 74 CAL. L. REV. 189 (1986); Neil G. Williams, *Offer, Acceptance, and Improper Considerations: A Common-Law Model for the Prohibition of Racial Discrimination in the Contracting Process*, 62 GEO. WASH. L. REV. 183 (1993).

122. For application of extant contract law to this new challenge, see Allen & Widdison, *supra* note 117.

123. The "modern history of contractual jurisprudence" refers to the law of contract in the United States over the past several hundred years, when the mails, telegraph system and telecommunications system have permitted interstate contracting analogous to contracting over the Internet. The primary distinction between interactive computer technology and the older media is rapidity of interaction, a dimension that appears to be unrelated to legitimacy of local control.

conceivable — instances where cybertransition eliminates legitimate state concern.

While in theory, activities might exist that are entirely divested of any and all state and local interests upon transition to cyberspace, none of the many examples that occur over the Internet at present exhibit such a radical change in character. The degree of state interest will certainly vary, but in no case does an activity characterized by a state interest become an activity devoid of a state interest simply because it has been relocated to cyberspace.

Two exemplary concerns — privacy[124] and national security — can help to explain these observations. Privacy interests are presently protected by both state and federal law.[125] In contrast, national security is almost an exclusively federal issue.[126] It is difficult to imagine the disappearance of a state's interests in the privacy of its residents simply because invasion of privacy occurs by computer rather than a more traditional invasion. For example, whatever the state's role in protecting its citizens' personal health histories, such as information regarding HIV status,[127] its stake is not eliminated simply because the discovery or dissemination of private information occurred by tapping into a computer network rather than by examining a paper file.

However, national security is an area that is arguably of exclusive federal concern.[128] This is so regardless of whether a threat is created apart from or directly through interactive computer technology. Activities historically viewed as exclusively federal are likely to remain so when the threatening behavior moves from traditional media to cyberspace media. It is, however, difficult to imagine an activity,

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124. Privacy is routinely recognized as a term that actually embraces a number of completely different interests. Here I refer to that aspect of privacy that protects individuals' interests in personal information, such as medical conditions.

125. *See* Lawrence O. Gostin et al., *Privacy and Security of Health Information in the Emerging Health Care System*, 5 HEALTH MATRIX 1, 13 (1995) ("Current privacy and confidentiality protections are a product of federal and state constitutional law, federal and state statutes, and state common law.")

126. For designation of national security as an issue of exclusively federal interest, see *Gilbert v. Minnesota*, 254 U.S. 325, 334 (1920) (Brandeis, J., dissenting).

127. A number of states have enacted laws protecting the confidentiality of HIV-status information. *See, e.g.*, Act of Apr. 4, 1985, ch. 1.11, 1985 Cal. Stat. 22 (repealed 1995); N.Y. PUB. HEALTH LAW § 2782 (McKinney 1993); TEX. HEALTH & SAFETY CODE ANN. § 81.103 (West 1992).

128. *See* Howard Owen Hunter, *Problems in Search of Principles: The First Amendment in the Supreme Court from 1791-1930*, 35 EMORY L.J. 59, 129 (1986) (noting that constitutional provisions giving exclusive federal control to various areas of foreign affairs demonstrate "an intention to vest exclusive responsibility for the security of the nation . . . in the federal government").

traditionally of both state and federal concern, becoming exclusively a federal concern upon being shifted to interacting computers. Like national security, other exclusively federal issues on the Internet will arise from their exclusive counterparts in real space. Therefore, it is the rare case where a cybertransition could entirely eliminate state interests in some area of activity in the future.[129]

III. THE ADVANTAGES OF CONSISTENT STANDARDS IN INTERNET REGULATIONS

This Part examines the potential benefits of subjecting the Internet to a single set of federal laws, regulations, and rules.[130] Each of these benefits results, directly or indirectly, from the fact that the Internet is fundamentally more national and international than regional or local in its operations and pervasiveness.[131] The arguments that follow suggest that the comprehensive, expansive nature of the Internet is best controlled by authority that is likewise comprehensive and expansive. Within the constraints of national sovereignty, and until treaties and international law can be developed to provide truly global control, federalization[132] is a logical first step towards matching the scope of this technology with the scope of law. The unified regulatory approach born

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129. This statement presumes that our overall conception of state interests remains static. Were federalism to evolve such that state interests were generally diminished, state power could be eliminated in some areas. Such a change would be a function of a generic recasting of states' roles in government, rather than a function of the elimination of states' stakes, as presently understood, through the process of cybertransition.

130. The positive utility of a single set of rules should not be confused with the negative utility of oversimplicity of rules. The standard set of regulations that will operate efficiently by virtue of cross-jurisdictional consistency may nonetheless entail fine substantive detail. For example, in regard to regulation of speech, differences in the treatment of various media under the First Amendment may undermine the wisdom of trying to apply one regulatory standard to all the Internet's facets. *See* Stacey J. Rappaport, *Rules of the Road: The Constitutional Limits of Restricting Indecent Speech on the Information Superhighway*, 6 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 301, 335 (1995).

131. For discussion of the truly global nature and pervasiveness of the Internet, see Vice President Al Gore, *Bringing Information to the World: The Global Information Infrastructure*, 9 HARV. J.L. & TECH. 1 (1996).

132. For the purposes of this article, "federalization" refers to the two main methods of unifying law discussed herein — federal preemption and adoption of model codes and standards.

of federalization simplifies, economizes, and facilitates use of the Internet, thereby supporting its rapid and unfettered development.[133]

This Part first briefly describes the natural resistance of pervasive communications technologies to effective local regulation. Specifically, the discussion notes the ways in which conceptions of community are changing, so that interests in localized authority can be expected to diminish. The Part then addresses the ways in which federalization would reduce regulatory redundancy, complexity, and conflict, thereby lowering compliance expenses for users and facilitating the development and dissemination of technology.

A. The Inherent Resistance of Globe-Spanning Internet Communications to Effective Local Regulation

Extraordinarily rapid diffusion of Internet technology[134] has created national and global legal challenges. As one commentator has observed, computer technologies "have not only linked the globe into a single transnational network, but have also engendered a new realm of cyberspace that is both geographically dislocated and nearly impervious to regulation."[135] Another goes so far as to suggest that "'[s]pace' has vanished."[136] The new realm of cyberspace thus departs from the traditional domains of communications that American law has historically controlled—print, common carriers, and broadcast media.[137]

Legal scholars' focus on questions of international jurisdiction[138] and choice of law[139] issues reflects the increasing capability of the

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133. Industry groups supporting federal preemption suggest that differing state law standards impede development of the Internet, whereas unified federal law would hasten it. *See, e.g., Online Services, Analysts Press Congress on "Cyberporn,"* IAC NEWSL. DATABASE INFO. & INTERACTIVE SERVICES REP., Nov. 17, 1995, available in LEXIS, News Library, Nwltrs File.

134. Blake and Tiedrich observe that the existing nationwide infrastructure is being enhanced rapidly with the support of investment in optical fiber, such that [illegible] pressive capacity and two-way capability will extend soon to homes throughout the United States. *See* Jonathan D. Blake & Lee J. Tiedrich, *The National Information Infrastructure Initiative and the Emergence of the Electronic Superhighway*, 46 FED. COM. L.J. 397, 398 (1994).

135. Sean P. Kanuck, *Information Warfare: New Challenges for Public and International Law*, 37 HARV. INT'L L.J. 272, 272 (1996).

136. Jason Kay, Note, *Sexuality, Live Without a Net: Regulating Obscenity and Indecency on the Global Network*, 4 S. CAL. INTERDISCIPLINARY L.J. 355, 357 (1995).

137. *See* ITHIEL DE SOLA POOL, TECHNOLOGIES OF FREEDOM 2 (1983).

138. *See, e.g.*, William S. Byassee, *Jurisdiction of Cyberspace: Applying Real World Precedent to the Virtual Community*, 30 WAKE FOREST L. REV. 197 (1995).

139. *See, e.g.*, Matthew R. Burnstein, Note, *Conflicts on the Net: Choice of Law in*

Internet to channel masses of information across the globe with virtually no delay.[140] Platitudes about a shrinking world capture a basic truth about our planet in the age of cyberspace: it is becoming increasingly difficult to confine actions to the loci of their occurrence or origin.[141] Information sent instantaneously around the world is the world's concern, as well as a local matter.[142] Cyberspace has been described aptly as a "world unto itself,"[143] so dramatically redefining conceptions of community that the geographic locus of its members becomes largely irrelevant. The remainder of this Subpart demonstrates why, under these conditions, the Internet is ill-suited to local regulation.

Cyberspace creates new challenges to received conceptions of jurisdiction and legitimacy of control. One emergent social movement suggests that the new dominion of cyberspace, a realm of its own, should be free from all traditional government rule.[144] Zembek argues

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Transnational Cyberspace, 29 VAND. J. TRANSNAT'L L. 75 (1996).

140. *See* Dennis W. Chiu, Comment, *Obscenity on the Internet: Local Community Standards for Obscenity are Unworkable on the Information Superhighway*, 36 SANTA CLARA L. REV. 185, 218 (1995).

141. This tendency frames a debate regarding a fundamental question: whether existing legal frameworks developed for real space can and should be applied to cyberspace. *Compare* David R. Johnson & David Post, *Law and Borders — The Rise of Law in Cyberspace*, 48 STAN. L. REV. 1367 (1996) (suggesting communications in cyberspace may not be controllable by laws founded in boundaries of real space) *with* Lawrence Lessig, *The Zones of Cyberspace*, 48 STAN. L. REV. 1403 (1996) (suggesting impracticability of separating real space and cyberspace law).

142. *See* Richard S. Zembek, Comment, *Jurisdiction and the Internet: Fundamental Fairness in the Networked World of Cyberspace*, 6 ALB. L.J. SCI. & TECH. 339, 343 (1996) ("Modern communication has reduced the world's vastness into mere geographical lines, crossed over millions of times each second, without either a sovereign's or traveler's awareness.").

143. *Id.* at 346.

144. Internet posting by John Perry Barlow, a former Grateful Dead lyricist, proclaimed the independence of cyberspace. The movement's anthem, which was shared rapidly by Web users, urged: "Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of the Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather." *See* Yang, *supra* note 41.

Likewise, consider the notion that "[t]he Internet is a global communications technology not bound by the laws or control of any one government." Greg Miller, *Letting it Ride: Stakes Are High as Online Casinos Set to Pull Handle*, L.A. TIMES, Oct. 19, 1996, at D1 (quoting Peter D. Michaels). This line of analysis is intriguing, suggesting that the separation of community and physical space renders historic concepts of jurisdiction obsolete.

Still, it is difficult in the late twentieth century to conceptualize the maintenance of order independent of spatially-oriented government. While we are not yet in a position to replace geographic control with cyberspace government, treaties and agreements may

persuasively, however, that the boundary-free communities that develop over interactive computer networks can and should fit within existing geographic conceptions of law and jurisdiction.[145] He distinguishes between the ephemeral and the independent, noting that while cyberspace may be intangible, it is not self-contained.[146] Cyberspace infractions that are disconnected from particularized physical space nonetheless entail injuries to people in real space.[147] Opportunities for conflict, exploitation, fraud, theft, and other forms of socially unacceptable behavior abound,[148] and the community that thrives on the Internet will continue to require legal and regulatory support.

Because the rationality of extant legal structures is fundamentally rooted in territorial jurisdiction based on physical borders, the pervasive impact of computer networks must be regulated, if at all, through some territorial connection between courts and litigants.[149] This position eschews the so-called cyber-libertarian ideal, which takes the term "cyberspace" too literally, inaccurately conjuring images of "some kind of magical place."[150] Contrary to this cyber-libertarian misconception, cyberactivities ultimately affect people in real places, and therefore must be controlled by laws within established legal systems.

What remains is the difficult question that is the focus of this article: who should control the communities of cyberspace? We cannot answer

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increasingly permit the delegation of authority over the Internet to professional rather than traditional sovereign entities.

145. *See* Zembek, *supra* note 142.

146. *See id.* at 341, 367.

147. *See id.* at 347.

148. *See* A. Michael Froomkin, *The Essential Role of Trusted Third Parties in Electronic Commerce*, 75 OR. L. REV. 49, 50 (1996).

149. *See* Zembek, *supra* note 142, at 341-42. While the application of traditional, territorially based conceptions of jurisdiction to cybertransactions may be unavoidable and indeed desirable in the immediate future, the process will inevitably raise new challenges. For example, the potential for forum shopping may be heightened by the array of contacts created between parties and venues operating in cyberspace. For a discussion of the threat of forum shopping in regard to [illegible] nsactions, see Eric J. McCarthy, Comment, *Networking in Cyberspace: [illegible] Defamation and the Potential for International Forum Shopping*, 16 U. PA. J. INT'L BUS. L. 527 (1995).

Likewise, the nature of the "minimum contacts" necessary to evoke constitutionally supportable jurisdiction becomes complicated when messages are zapped through cyberspace without the purposeful direction typically associated with traditional postal service. *See* Cynthia L. Counts & C. Amanda Martin, *Libel in Cyberspace: A Framework for Addressing Liability and Jurisdictional Issues in this New Frontier*, 59 ALB. L. REV. 1083, 1126-28 (1996).

150. *State Laws Governing Internet Raise Questions*, DALLAS MORNING NEWS, Oct. 6, 1996, at 7F (quoting Don Parsons, Georgia state representative and author of online misrepresentation law).

this question intelligently without first understanding the shifting nature of the concept of community in the modern era. Communities are changing as communication costs continues to shrink under the influence of interactive computer technology.[151] Specifically, they are becoming increasingly independent of geographic definition.[152] Local communities are being supplemented and gradually supplanted by what Rheingold has identified as "virtual communities,"[153] social aggregations of people who interact and exchange ideas "long enough, and with sufficient human feeling, to form webs of personal relationships in cyberspace."[154]

Virtual communities are revolutionary in their occupation of nonphysical realms.[155] Location is irrelevant to the development of significant relationships among Internet users, which relationships are supported by domains and hosts rather than state or provincial affinity. According to Byassee, "as the physical and political geography of this country has created physical communities — neighborhoods, cities, and regions, each with common interests and goals, shared experiences and interlocking relationships among its residents — so has cyberspace allowed the emergence of virtual communities."[156]

Although the extrication of community from the bounds of geography and proximity cannot displace traditional spatial conceptions of jurisdiction, it can and should affect the balance of power between narrowly focused state control and broadly focused federal control. Most importantly, cybercommunity diminishes the justification of state police powers. As communities become increasingly independent of

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151. *See* Brenda Maddox, *Changing World Calls Time on Cooke's Tour*, TIMES OF LONDON, Dec. 11, 1996, at 21 ("[T]he Internet and communications are changing the world into communities defined by interests, not nationalities.").

152. The independence noted here is sometimes a technicality. Many communities are no longer bound by geography, due in large part to the liberating influence of computer networks. Specific concepts of community that evolve apart from spacial constraints may continue, however, to be geographically determined or influenced. The infrastructure and "points of presence" of the Internet are based predominantly in the United States, so that both access and content are biased toward the West. The communities that are evolving over the Internet may be subject, therefore, to "information imperialism." *See* Patrick Houston, *Open the Gates to the Global Village*, PC WK., Sept. 9, 1996, at 63.

153. The terms "virtual community" and "cybercommunity" will be used interchangeably in this article.

154. HOWARD RHEINGOLD, THE VIRTUAL COMMUNITY: HOMESTEADING ON THE ELECTRONIC FRONTIER 5 (1993).

155. Hence the phrase "geocities" exemplifies the movement of community from real to virtual space. *See* Robert D. Hof, *Internet Communities*, BUS. WK., May 5, 1997, at 64.

156. Byassee, *supra* note 138, at 198.

shared physical space, the logical connection between local laws and the protection of community values becomes attenuated. Local government bodies lack not only the interest, but also the perspective and scope, to control widely scattered participants.[157]

Increasingly, federal and international bodies are becoming the more appropriate entities to protect the interests of even narrowly defined communities. Despite their relatively broad perspectives, federal and international entities may be especially well equipped to monitor highly specialized communities. Because the issues peculiar to niche communities on the Internet are a function of shared activities and interests rather than shared locale, federal and international governance benefits from breadth, which enables legal and regulatory bodies to understand and evaluate the problems of community citizens across state or national lines. Federal authority over the Internet may therefore be more legitimate than state authority under ordinary circumstances. Moreover, the federal government's funding and infrastructural support[158] of the Internet's development and growth[159] can only serve to reinforce the legitimacy of its governance role.

Of course, the independence of communities from physical and geographical constraints is not new. With the development of transportation and telecommunications infrastructures over the past few centuries has come the ability to model community membership on the basis of shared interest rather than haphazard proximity.[160] Yet in contrast to the relatively gradual emancipation of community from real space in the past, the Internet's liberation is revolutionary in its ability to expunge spatial barriers with unprecedented speed and volume.[161] Interactive computer technology signals a paradigm shift away from

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157. This shortcoming of local government in regard to inherently national and international legal and regulatory challenges is a product of many types of incompatibility, including size, budgets, sphere of influence, reach of judicial systems, and the inconsistency of applying provincial rule to increasingly nonprovincial communities.

158. For example, the federal government's establishment of the National Information Infrastructure supported the development of the Internet onto an "information superhighway." *See* Rex S. Heinke & Heather D. Rafter, *Rough Justice in Cyberspace: Liability on the Electronic Frontier*, COMPUTER LAW., July 1994, at 1, 5.

159. *See* Amy Knoll, Comment, *Any Which Way But Loose: Nations Regulate the Internet*, 4 TUL. J. INT'L & COMP. L. 275, 279-80 (1996).

160. For example, for many years prior to the development of the Internet, academics viewed their disciplines as comprising a critically important community in their lives. Likewise, other professional and interest groups have long used telephone, mail, and transportation linkages to fashion communities that focus on shared interest rather than geographic proximity.

161. For statistics regarding the rapid diffusion of Internet technology throughout the world, see *supra* note 59.

geographic conceptualizations of community,[162] in favor of nongeographical communities. This weakens the assertion that state authority remains necessary to preserve and respect local community values.

B. Eliminating Local Regulation's Inhibition of Growth, Development, and Use of the Internet

Local regulation has the potential to stultify the Internet's growth and diffusion. This Subpart addresses the aspects of local regulation that are especially threatening. The underlying theme throughout this discussion is not the disruptive nature of government interference in general, but rather the harmful result of regulations carried out by state and local authorities simultaneously and without coordination. This distinction suggests that while some costs of regulation must be absorbed by the Internet to avoid chaos and anarchy,[163] these costs should not be multiplied through unnecessary localization of control. As we see in the following Subparts, development of the Internet may be impeded by undue redundancy, complexity, conflict, and compliance expenses associated with fragmented regional rules.

1. Undue Redundancy

When states regulate interstate communications, as many as fifty separate efforts can be directed to achieve similar or identical public policy goals. By its nature, the Internet has sufficient presence in every venue to justify the liberal exercise of jurisdiction in the absence of federal preemption.[164] When states regulate the Internet, many separate

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162. *But see* Charles H. Kennedy, Comment, *Is the Internet a New Legal Frontier?*, 39 HOW. L.J. 581, 586 (1996) (suggesting that the law as presently constituted will absorb the challenges posed by the Internet, as the law has absorbed challenged posed by previous technological innovations).

163. While we have already noted movements to keep the Internet free from government interference, any carefully reasoned analysis must acknowledge that the need to control human behavior does not cease simply because behavior occurs over a new medium, even one as revolutionary as the Internet. *See, e.g.*, Bovenzi, *supra* note 110, at 95 (observing that users of electronic technology must be liable for torts they commit online).

164. *See* Sonia K. Gupta, Comment, *Bulletin Board Systems and Personal Jurisdiction: What Comports with Fair Play and Substantial Justice?*, 1996 U. CHI. LEGAL. F. 519 (discussing the subjection of bulletin board system operators to personal jurisdiction in all states under 14th Amendment due process analysis); Zembek, *supra* note 142, at 349 & n.52 ("continued commercialization of the Internet may subject

regulatory schemes may be superimposed to effect a single set of policy ends.

Such legislative and regulatory redundancy is inherently wasteful. Consider the least complex situation, in which all the states adopt identical regulatory requirements. Even if these requirements demand only behavioral compliance and not the filing of evidence of compliance, the work of fifty separate state bodies to enact the same legislation or promulgate the same regulation is far more costly than one federal effort. If the repetitious requirements of the fifty states also demand filing of information to demonstrate compliance, then unnecessary replication of filings adds to the waste of redundant law-making efforts.[165] Along these lines, state taxation of a variety of Internet functions and segments creates substantial hurdles for some users,[166] while superfluous licensing requirements across states are wasteful and inefficient.[167] Moreover, repetitive state laws can exact costs associated with multiple adjudications of what are essentially one issue, captured in the separate laws of numerous states.[168] As one observer notes, state law may require firms to "fight a rule 50 times in 50 arenas."[169]

Of course, this simplest example in which states left to themselves would devise fifty identical regulatory schemes is an unlikely scenario.

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servers . . . to general jurisdiction in all fifty states . . . .").

165. The costs of repetitive filing consist of two possible components. First, the labor of meeting the individual filing requirements of the various states exacts costs. Second, multiple filing fees raise total fee costs.

166. *See* Randy Weston, *It's Taxing to Untangle Web Commerce Laws*, COMPUTERWORLD, Oct. 21, 1996, at 28.

167. An example from another country is illustrative of efforts to avoid unnecessary redundancy associated with state regulation. A recent accord in Germany between national and local government bodies has divided regulatory responsibilities with due recognition of potential impairment of Internet development if subjected to redundant local regulations. Under the agreement, local governments have authority over such technologies as pay television, pay-per-view television, and on-demand video services. The national government retains authority over interactive computer functions such as data services, online services, telebanking, and e-mail. This allocation of responsibilities between local and national authorities reflects a recognition that Internet business sectors would be inhibited by regulatory redundancy if required to obtain licenses in all 16 German states. *See* Eric Hansen, *Germany May Split TV Regs*, HOLLYWOOD REP., July 9, 1996.

168. *See* Tung Yin, Comment, *Nailing Jello to a Wall: A Uniform Approach for Adjudicating Insurance Coverage Disputes in Products Liability Cases with Delayed Manifestation Injuries and Damages*, 83 CAL. L. REV. 1243, 1302 (1995) (noting in context of insurance law that uniformity "obviates much repetitive and wasteful litigation and relitigation").

169. Mitch Ratcliffe, *Reach Out and Entertain Someone*, DIGITAL MEDIA, Jan. 2, 1995, at 7 (citing Ted Heydinger of Information Technology Industry Counsel).

Instead, state regulation of the Internet will likely entail not only significant redundancy, but also state-by-state variation in an effort to achieve the same ends. In this setting, redundancy would remain troubling, and would be complicated by the issues of complexity, conflict, and compliance-associated expense, which are addressed in the next Subpart.

2. Undue Complexity, Conflict, and Compliance-Associated Expense

For businesses and other organizations that operate in regulatory environments, complexity is a function of at least two factors — the degree of detail and internal inconsistency[170] or vagueness[171] associated with any regulation, and the number of regulatory sources that need to be understood and reconciled.[172] While federal regulation offers few advantages based on the former criterion, it provides much greater simplification of the latter.[173] This reflects the inherent benefits of having one standard regime rather than different ones.[174]

Likewise, the abundance of potentially varying approaches under state regulation increases the likelihood that requirements or standards imposed upon a single actor for a single transaction will conflict.[175]

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170. *See generally* Stephen M. Lynch, Note, *A Framework for Judicial Review of an Agency's Statutory Interpretation: Chevron, U.S.A., Inc. v. Natural Resources Defense Council*, 1985 DUKE L.J. 469, 475 (observing the reduction of complexity and confusion through adoption of one definition applied consistently throughout one regulatory scheme).

171. *See generally* Howard J. Hoffman, *The Role of the Bar in the Tax Legislative Process*, 37 TAX L. REV. 413, 514 (1982) (citing the additional complexity and uncertainty to transactions added by regulatory vagueness). Regulatory complexity can be reduced by adding increments of definition that reduce vagueness.

172. The 9th circuit has recognized an interest, located in the Constitution's commerce clause, in discouraging a complex of "statutes that adversely affect interstate commerce by subjecting activities to inconsistent regulations." Shell Oil Co. v. City of Santa Monica, 830 F.2d 1052, 1058 (9th Cir. 1987).

173. Of course, complexity and difference in approach can exist within federal law, as various branches of the federal government having regulatory interests may promulgate their own rules and regulations. The same holds true for the various regulatory bodies of a single state. The enhanced potential for complexity in state regulatory schemes comes from the number of possible differences among states' approaches.

174. *See, e.g.*, Gary F. Krieger, *Long-Neglected Medicaid Must Be Fixed — and Soon*, AM. MED. NEWS, May 20, 1996, at 40 (noting that problems have arisen in regard to Medicaid because it was designed to permit "50 different state programs with 50 different sets of standards and eligibility").

175. Consider, for example, a recent federal bill that standardizes regulation of mutual fund sales, ending "nightmares from conflicting state regulations and complex

Conflicting state requirements may be reconcilable or irreconcilable. They are reconcilable when a person or entity can comply with each of the opposing requirements by engaging in separate but otherwise consistent behaviors. They are irreconcilable when the opposing requirements demand mutually exclusive behaviors.[176] In the absence of a sufficiently weighty justification, both complexity and conflict generate undesirable costs.[177]

Specifically, vagueness and complexity exact legal compliance expenses.[178] When laws are simple and straightforward, the need to rely on professional legal counsel is reduced.[179] As subtle differences among state laws complicate regulatory compliance, the need for legal advice grows. The more intricate and convoluted the constellation of laws, the

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mazes of approvals in order to sell a fund product nationwide." *Senate Approves National Rules for Mutual Funds*, ATL. J. CONST., Oct. 2, 1996, at 1F.

Federal power under the federalist system is predicated in part upon the problems created by inconsistent standards. Difficulties arise whenever a state creates a standard that is difficult to reconcile with other state standards. *See generally* David S. Welkowitz, *Preemption, Extraterritoriality, and the Problem of State Antidilution Laws*, 67 TUL. L. REV. 1, 61 (1992).

176. *See* Lea Brilmayer, *Interstate Preemption: The Right to Travel, The Right to Life, and The Right to Die*, 91 MICH. L. REV. 873, 884, 885 & n.45 (1993) (discussing the difficulties which arise when persons are subject to inconsistent requirements of different state laws, as when one state requires what another state forbids).

177. It bears noting that these costs are routinely absorbed, for better or worse, in a federalist system where states retain substantial constitutional power to enact a complex array of inconsistent statutes. Consider, for example, the blue sky laws that vary among the states and govern securities offerings. One can argue that the maintenance of state control over securities offerings is cumbersome and expensive, given the federal government's capacity to monitor securities law efficiently and effectively. Nonetheless, potential inefficiencies of state blue sky laws were a fact of life before the Internet. While the issues that arise regarding blue sky laws and the posting of offerings over the Internet certainly entail questions of economic efficiency, these concerns are not new ones. For a discussion of blue sky laws and their application to Internet postings, see Loeb & Richter, *supra* note 25, at 325; John F. Olson et al., *Factors a Company Should Consider in Selecting a Market in Which to Trade its Publicly Held Securities*, SB09 A.L.I-A.B.A 101, 120 (1996).

178. *See, e.g.*, Elaine A. Welle, *Limited Liability Company Interests as Securities: An Analysis of Federal and State Actions Against Limited Liability Companies Under the Securities Laws*, 73 DEN. U. L. REV. 425, 472 (1996) (noting the reduction in legal compliance costs from the clarity and predictability of legal rules).

179. *See* Marsha Garrison, *Good Intentions Gone Awry: The Impact of New York's Equitable Distribution Law on Divorce Outcomes*, 57 BROOK. L. REV. 621, 727 (1991) (observing that clear rules decrease litigation and reduce legal fees).

greater the confusion and anxiety,[180] hence the greater the use of lawyers and the higher the expense.[181]

Conflicting state requirements thereby impose costs on Internet users and prospective users. Reconcilable but confusing conflicts may require users, especially business entities with high liability exposure, to consult legal counsel.[182] The activities necessary to reconcile conflicts among state laws add yet more compliance costs.[183] Irreconcilable conflicts exact all the costs of reconcilable conflicts, as well as other, potentially more devastating costs. If two state regulations are mutually inconsistent, a potential market entrant must violate one state's regulations or refrain from entering. The former course bears costs associated with risk of being assessed penalties and fees, while the latter course costs the thwarted entrant the difference between the Internet opportunity and the next best acceptable alternative. In the absence of an interest in state regulation that outweighs all these costs, federalization must be viewed the more economically efficient way to encourage Internet development.

IV. DISCUSSION AND RECOMMENDATIONS

Technological innovations wrought over the past quarter century have transformed the world. As we have seen, some transformations fit conveniently within existing legal and regulatory structures, often because a direct analogue can be transferred from a prior technology. In other cases, rapid technological changes create new legal and regulatory challenges. When the challenge of controlling new technologies cannot

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180. This anxiety is a function of the uncertainty arising from legal complexity. *See, e.g.*, Peter H. Schuck, *Legal Complexity: Some Causes, Consequences, and Cures*, 42 DUKE L.J. 1, 18 (1992).

181. *See id.* at 19 (observing one cost of legal complexity is need it creates for consultation of lawyers).

182. Indeed, legal conflict falls under the broader category of legal complexity, a characteristic that engenders reliance on counsel. Accordingly, users of interactive computer technologies are often reminded to consult lawyers. *See, e.g.*, Peter Weaver, *Covering the Bases for Your Web Site*, NATION'S BUS., Nov. 1, 1996, at 38 (recommending that users consult with an attorney versed in publication law prior to putting new material on Internet).

183. Conflicting but ultimately reconcilable state laws would seem likely, for example, to encourage rather than discourage disagreements among transactors. This propensity might result when two parties each rely on that state law that is in his or her best interest, and the two state laws conflict. Under the conditions, costs associated with litigation or alternative dispute resolution may be attributable to inconsistency among state laws.

be met through application of existing doctrines, our ability to solve legal and regulatory problems by extrapolation is limited. Although some components of time-tested policy can yield insights, the absence of fully apposite metaphors requires that the legal community address some issues anew.

Among these issues is the balance of federal and state control. The Internet's pervasiveness,[184] so vastly exceeding the reach of pre-computer telecommunications technologies, demands that we reexamine the scope of federal and state authorities within our federalist system. Specifically, we must accommodate the growing need for legal and regulatory unification and consistency identified in Part III. Likewise, we noted a reduction in the relevance of geography in the definition of communities, so that states are losing some of their claim to a special interest in protecting community values. This suggests that some state authority might reasonably be sacrificed to the federalization of laws and regulations, in the interests of increased unification and consistency. Yet we also observed that the utility of state laws has diminished but not disappeared entirely. Because state laws and regulations continue to serve some important functions, movement towards federalization must be tempered with some degree of residual respect for and recognition of state sovereignty.

These observations lead to two areas of recommendation regarding the partial and gradual federalization of laws governing the Internet. The first concerns federal preemption of laws regulating interactive computer technologies. The second focuses on the function of model codes and standards as means of reconciling growing federal interests and residual state concerns. Recommendations regarding these two central issues are made in the following Subparts.

A. Targeted Federal Preemption in the Realm of Interactive Computer Technologies

Part II demonstrated that state interests diminish to different degrees with regard to various Internet activities and transactions. Moreover, we shall see that elimination of state intervention through federal preemption could leave a gap in control, particularly in areas of law where community values continue to be defined regionally or locally.[185] In deference to vestiges of locally-defined communities and state

184. This pervasiveness refers to the potential of computer networks to alter or even obliterate the legal relevance of space by facilitating interaction among unlimited parties without regard to traditional geographic constraints.

185. *See infra* Part IV.A.2.b.

interests, federal interests should be established or strengthened through selective rather than complete preemption[186] of Internet activities.[187] Under this approach, Congress would preempt specific areas of activity when (1) a compelling need exists for a uniform legal or regulatory approach, and (2) remnants of state interest have been rendered insubstantial.

Assessment of the specific aspects and functions of the Internet as candidates for selective preemption under this balancing system requires identification of the elements of standardization that are most crucial to the growth and development of cyberspace technologies. These elements would be weighed against state legal and regulatory interests.

Although this Article argues for selective federal legislative preemption of state regulation, the factors discussed below are also relevant to a constitutional analysis based on the implications of Congress's commerce power,[188] which limits what state and local governments may regulate in the absence of express congressional authorization.[189] Thus, until Congress acts to specify what a state may or may not regulate, the "dormant" commerce clause may bar such regulation, because most Internet traffic is interstate or international.[190]

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186. Supporters of comprehensive preemption of Internet regulations might contend that existing statutory preemption provisions that cover specific areas of concern, such as intellectual property, were not fashioned to meet the novel challenges of emerging interactive computer technologies. This suggestion may or may not be true, depending on the degree to which the new medium creates new problems. Nonetheless, the need to revise preemption doctrines that focus on specific areas of law is not a rational ground for adopting comprehensive Internet preemption. Rather, Internet-specific preemption issues suggest that Congress should reexamine its existing preemption standards and requirements to determine if and how they need to be altered to meet the characteristics of cyberspace media.

187. The detailed workings of federal preemption as applied to new computer applications are beyond the scope of this article. For an excellent discussion of preemption issues in one high-technology area—property interests in software licensing—see Maureen A. O'Rourke, *Drawing the Boundary Between Copyright and Contract: Copyright Preemption of Software License Terms*, 45 DUKE L.J. 479 (1995).

188. For a discussion of the dormant commerce clause, see LAWRENCE H. TRIBE, AMERICAN CONSTITUTIONAL LAW § 6-5 (2d ed. 1988). A state regulation that facially discriminates against out-of-state or nonlocal interests is usually presumptively impermissible under this doctrine. A neutral regulation, which has the incidental effect of burdening interstate commerce, is subject to a balancing test.

189. *See, e.g.*, Prudential Ins. Co. v. Benjamin, 328 U.S. 408 (1946) (upholding a state law that would otherwise be invalid under the dormant commerce clause because Congress had specifically authorized state regulation). *See also* TRIBE, *supra* note 188 § 6-33, at 525.

190. *See, e.g.*, American Libraries Assoc. v. Pataki, 969 F.Supp. 160 (S.D.N.Y. 1997). The court issued an injunction against application of a New York law making it a crime to distribute obscene materials to minors using a computer, based on its

This doctrine is particularly relevant where state or local governments regulate the Internet in such a way as to discriminate against out-of-state or non-local persons or businesses,[191] or to impose undue burdens on interstate commerce.[192]

The task that remains is to explicate the characteristics that require standardization on one hand, and those that require some level of state control on the other.

1. Characteristics of "Crucial Standardization," Such That a Compelling Need Exists for a Uniform Legal or Regulatory Approach

Whether standardizing Internet activities is crucial is a function of three considerations — (a) technology, (b) likelihood of fractionalized regulation, and (c) need for unified technologies to support federal programs. While each of these factors can certainly overlap and support one another in rendering standardization crucial, I discuss each individually below.

a. Technological Considerations

Some aspects of interactive computer technology create a compelling need for standardization. This need can reflect economic advantages produced by standardization or the efficient allocation of infrastructure resources that are shared by users across the states. The benefits of standardization result from the savings associated with interoperability — the compatibility of technologies and their disparate

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observation that the Internet "fits easily within the parameters of interests traditionally protected by the Commerce Clause." *Id.* at 167. Concluding that only Congress may legislate in this area, the court reasoned that "the Internet is one of those areas of commerce that must be marked off as a national preserve to protect users from inconsistent legislation that, taken to its most extreme, could paralyze the development of the Internet altogether." *Id.* at 169.

191. Any regulation that discriminates against out-of-state interests or serves protectionist ends is subject to invalidation. *See* Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978).

192. When a regulation does not discriminate against out-of-state residents but burdens interstate commerce, it will be upheld unless "excessive." *See* Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970) (stating that:

> [if] a legitimate local purpose is found, then the question becomes one of degree . . . the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact in interstate activities.)

elements.[193] Conversely, lack of interoperability among parts of the Internet is wasteful and creates the need for an additional translation or conversion step that would be unnecessary otherwise.

On the other hand, government-mandated standardization and hence compatibility do not confer undiluted social benefits. When the government mandates a structure or configuration, it hampers the free reign of competitors to innovate without encumbrance, potentially impeding product and process developments.[194] Under these conditions, the government should compel standardization very sparingly — only in cases where the benefits in terms of economy clearly outweigh the opportunity costs of lost innovation.[195]

An obvious instance in which standardization may be crucial is infrastructure development and maintenance, under conditions where resources related to public access are both necessary and limited, and therefore cooperation and coordination are essential. For example, the Internet is a part of a National Information Infrastructure that will use wireless radio technologies already subject to federal spectrum management policy.[196] Despite a movement by the federal government to decentralize spectrum management into a more "flexible, market-oriented structure" designed to foster innovation,[197] the nature of the underlying technology continues to demand federalization. In deference to "technical complexities and interference issues," the government

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193. These economies in turn facilitate development and use of the Internet. Although cabling and interface software are distributed among decentralized participants, protocols permit the interpretation and flow of information. *See* Mark A. Lemley, *Antitrust and the Internet Standardization Problem*, 28 CONN. L. REV. 1041, 1046 (1996).

194. *See* Richard B. Stewart, *Models for Environmental Regulation: Central Planning Versus Market-Based Approaches*, 19 B.C. ENVTL. AFF. L. REV. 547, 551 (1992) ("When the government designates a technology as 'best' and mandates it[s] adoption, that technology is 'locked in,' capturing the market and discouraging the development of innovations that could improve performance.").

195. Should preemption be deemed advisable under this analysis, methods remain to help preserve an element of state influence. For example, in the context of environmental regulation, one commentator has recommended a preemptive scheme that encourages states to act as advisors to the federal government. *See* David F. Welsh, Comment, *Environmental Marketing and Federal Preemption of State Law: Eliminating the "Gray" Behind the "Green,"* 81 CAL. L. REV. 991, 1018 (1993). Preemption does not preclude the possibility that states retain a voice.

196. *See Prepared Testimony of Larry Irving, Ass't Sec'y for Communications and Information, U.S. Dep't of Commerce, Nat'l Telecommunications and Information Admin. Before the House Commerce Committee; Subject: Management of the Radio Spectrum*, FED'L NEWS SERV., Feb. 12, 1997, *available in* LEXIS, News Library, Allnws File.

197. *Id.*

retains its exclusive jurisdiction over the airwaves, accommodating the need for enhanced flexibility by modifying rather than abdicating its control.[198] As long as a technology remains dependent on the sharing of limited public conduits, access will need to be monitored. Because of the heightened need for coordination of a shared and finite infrastructure,[199] standardization of monitoring processes becomes critically important. Assuming the absence of substantial state control interests, the need for infrastructural standardization justifies the targeted federal preemption of spectrum management.

b. Likelihood of Serious Internet Encumbrance Through Fractionalized Regulation

We noted in Part III that varying state and local regulations can yield a tapestry of redundant, complex, or conflicting approaches that encumber prospective users with needless costs. Standardized regulation may be considered crucial when state laws would engender so much redundancy, complexity or conflict as to impair Internet access and use. Whether an area of regulation qualifies for targeted preemption under this description must be determined case by case.

For example, authorities disagree regarding the wisdom of any government entity taxing the Internet.[200] Yet assuming for the moment that taxes will be employed to charge Internet users equitably for their access to a public right of way, many experts view standardized taxation as essential to the Internet's efficient growth and development.[201] As

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198. *See id.* These modifications include such reforms as opening competitive bidding for airwave access. Auctions for the assignment of FCC licenses build market forces into the regulatory model, thereby accommodating some subtleties of local competitive dynamics. They accomplish this, however, without sacrificing the federal government's exclusive control over the allocation of spectrum access.

199. *See* Lemley, *supra* note 193, at 1046-47.

200. Unlike some other countries, the U.S. has recently adopted a duty-free position in regard to Internet Commerce. *See Clinton Official: Let Net Commerce Be*, MEDIA DAILY, Jan. 28, 1997, *available in* LEXIS, News Library, Allnws File.

Likewise, states in the U.S. disagree regarding the desirability of taxing Internet transactions. *See* Keith Kirkpatrick, *Internet Presents Taxing Dilemma*, COMPUTER SHOPPER, Apr. 1997, at 75 (noting that Internet access is taxed in Connecticut, Massachusetts, Tennessee, and Texas, but not in New York). In New York, Governor Pataki's decision to exempt access to the Internet from taxation was based on findings that access is covered under neither the sales tax statute nor the gross receipts excise tax. *ITAA Applauds New York Governor for Internet Tax Exemption*, M2 PRESSWIRE, Jan. 15, 1997, *available in* LEXIS, News Library, Allnws File.

201. *See* Matthew Lampe, *Internet Taxation — Seattle Seeking Fair Way to Ensure Public Compensation*, SEATTLE TIMES, Mar. 27, 1997, at B5.

one commentator observes, preemption may be necessary to avoid "state initiatives that could cost Internet service providers unwieldy sums if they are exposed to different tax rules on a multi-state basis."[202]

In addition to the burden of overlapping tax liabilities, a burden of complexity accompanies state taxation schemes. Chaos prevails as each state rules differently regarding "what constitutes a nexus," i.e., "a minimum threshold of connection with a jurisdiction that is required before taxes or tax collection responsibility can be imposed on an individual or individual business."[203] A troublesome panoply of confusing and conflicting state taxes is exacerbated by more local taxation efforts, such as an ill-fated effort in Tacoma that was labeled "ruinous to fledgling high-tech firms throughout the Puget Sound."[204] Accordingly, in the words of Kaye Caldwell of the CommerceNet Public Policy Special Interest Group, "It's unlikely that the states are going to be able to create a system that functions fairly and well, and works for small businesses."[205] Federal intervention may be necessary to resolve ambiguities under varying taxation schemes.[206]

Specifically, the best solution appears to be federal preemption. At the first Internet Tax Policy Conference during February of 1997, government and industry leaders agreed that uniformity of tax policies is essential to the growth of electronic commerce.[207] According to this line of reasoning, the Clinton administration has suggested that it may seek federal preemption in an effort to protect the Internet's development and growth.[208] Likewise, Senator Ron Wyden (D-Oregon) and Representative Chris Cox (R-California) have recently introduced a bill, the Internet Tax Freedom Act, designed to prohibit state and local taxation of Internet access.[209]

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202. Charles Bruno, *A Call to Action: Here's What We Think the Feds Should Do with the Internet*, NETWORK WORLD, Mar. 31, 1997, at 1 (quoting attorney Robert Butler).

203. *Internet Tax Policy: Uniform Federal and State Regulations, Taxation of Internet Critical for Success of Electronic Commerce*, Edge: Work-group Computing Report, Feb. 17, 1997, *available in* LEXIS, News library, Allnws File [hereinafter *Internet Tax Policy*] (reporting the observations of Jack Cronin and Jon Iverson of Deloitte and Touche, and Bruce Reid of Microsoft).

204. Editorial, *Tacoma's Failed Foray Into Cyberspace Taxation*, SEATTLE TIMES, Sept. 7, 1997, at A9.

205. Lisa Nishimoto, *Internet Sales Raise Tax Flag: State Laws Need Online Counterparts*, INFOWORLD, Aug. 12, 1996, at 48.

206. *See id.*

207. See *Internet Tax Policy*, *supra* note 203.

208. *See* Kirkpatrick, *supra* note 200.

209. *See* Internet Tax Freedom Act, S. 442, 105th Cong. (1997). An identical bill was simultaneously introduced in the House as H.R. 1054, 105th Cong. (1997). For

Taxation serves as but one example of an area of law in which the redundancy, complexity and conflicts of state and local participation are commonly viewed as intolerable impediments to Internet growth.

c. The Need for Unified Federal Technologies to Support Federal Policy Goals and Federal Programs

A final consideration is whether there are compelling justifications, based on federal initiatives, to desire standardization over localized control. Federal systems may benefit significantly from economies of standardization. To demonstrate how this factor will be applied, this Subpart provides one example of each — a federal policy goal and a federal program likely to profit so appreciably from standardization as to render unification compelling.

A compelling federal policy goal that mandates preemption is the United States' participation in cooperative efforts to internationalize Internet governance. Given the wide scope of cyberspace, the ultimate level of standardized control should and ultimately will be international rather than national. However, the corollary is that national control is preferable to state control.

Efforts have already begun in the direction of achieving international uniformity. For example, the Group of Seven Industrialized Nations ("G7") recently publicized an initiative to develop international measures promoting global Internet Trade.[210] The venture is based on a belief that

"[d]iffering national regulations could inhibit firms seeking to engage in cross-border electronic trade . . . ."[211]

International consensus sought through cooperative agreements will require that each nation bring to the table some degree of internal consistency or have its own unified approach. As the specific areas of priority for an internationalized accord emerge, they will become high priority areas for U.S. standardization as well.

Like federal policies, federal programs are likely to benefit substantially from standardization. The general principle here is simple: if a program is federal in scope, then the systems that support it most efficiently and effectively likewise will be federal. Consider the Medicare program. As the health insurance industry has become more

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discussion, see Bill Pietrucha, *Senator Wyden Introduces Internet Tax Freedom Act*, NEWSBYTES, Mar. 14, 1997, *available in* LEXIS, News Library, Allnws File.

210. *See* William Boston, *G7 Aims to Help Small Firms Trade in Cyberspace*, REUTER EUR. BUS. REP., Apr. 7, 1997, *available in* LEXIS, News Library, Allnws File.

211. *Id.* (quoting European Union Commissioner Mario Monti).

fully computerized, many claims are transmitted electronically.[212] The likely trend will be towards predominant or exclusive electronic data interchange ("EDI") of claims information.[213] The federal government has already recognized the utility of national standardization of EDI processes, and is seeking to foster a single system for the handling of Medicare transactions.[214]

To date, efforts to foster national uniformity in Medicare administration have focused on software rather than interactivity. For example, in the Spring of 1997, the Health Care Financing Administration ("HCFA") began efforts to standardize the software systems used for processing Medicare Part B claims.[215] To reduce costs, the HCFA program seeks to consolidate six processing systems into one.[216] Assuming that the administration of Medicare claims gradually becomes less dependent on software systems and more dependent on interactive computer technologies, attempts to cut costs through web standardization and concomitant scale economies are likely to evolve.[217] Cost-cutting efforts under these circumstances would depend less on product compatibility and more on uniformity of the legal and regulatory framework that monitors the Internet. Accordingly, Medicare exemplifies a class of federal programs that may be served most efficiently by exclusively federal governance mechanisms.

2. The Nature of a Sufficiently Weakened State Control Need, Rendering State Interests in an Aspect of Internet Activity Insubstantial

We have observed that selective federal preemption of Internet activities should occur only when legal or regulatory standardization across states is crucial, and state interests are sufficiently diminished that the need for uniformity outweighs them. This Subpart contends that state interests can trump crucial standardization in only two very limited kinds of cases — (a) where new Internet technology leaves traditional legal issues, particularly areas of state concern, significantly intact; and

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212. *See* Joseph Goedert, *Big Changes Lie Ahead for Claims Procesors*, HEALTH DATA MGMT., Jan. 1997, at 38.

213. *See id.*

214. *See id.*

215. *See Health Care Financing Administration Selects EDS for National Medicare System*, PR NEWSWIRE, Apr. 10, 1997, at Financial News, *available in* LEXIS, News Library, Curnws File.

216. *See id.*

217. This assumption seems reasonable, given the general trend away from systems driven entirely by the software located on the platform and towards systems that are primarily derived or downloaded from the Internet.

(b) where the abandonment of local police power over the Internet could create a serious enforcement gap that is difficult to fill.

Not all cases falling within either or both of these two categories will be sufficiently compelling to outweigh serious federal interests as discussed in the preceding Subpart. Accordingly, qualification under either of the two classes should be used as an initial screen. If states can show that either category applies, then and only then should state interests be weighed against crucial standardization needs to determine whether federal preemption cannot be justified. Each of the two categories is discussed in some detail below.

a. Cases in Which New Internet Technology Leaves Traditional Legal Issues, Particularly Areas of State Concern, Significantly Intact

The best arguments justifying state authority over Internet activities are founded in a venerable tradition of state police powers established to protect local community[218] values.[219] This Subpart examines the transformative nature of the Internet, to which a brief allusion was made earlier. "Transformation" in this context refers to innovation that creates entirely new scenarios that yield unique, unprecedented regulatory challenges likely to undermine legitimate state police authority.[220] We shall see that the techno-legal revolution of cyberspace may be overstated, and that numerous areas exist in which interactive computer technologies are nontransformative, providing no novel justification for the erosion of state authority.

As Professor Hardy observes, some legal issues in cyberspace are indistinguishable from legal issues in real space.[221] For example, e-mail

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218. The term "local community" may appear redundant at first glance. Remember, however, our observation that the connection between community and physical locale is becoming attenuated, in part because technologies such as the Internet facilitate the development of scattered communities. "Local community" designates the traditional form of community, defined largely by geographic proximity.

219. *See, e.g.*, Gregory Richards, *Zoning for Direct Social Control*, 1982 Duke L.J. 761, 842 & n.460.

> [The] conception of political decentralization as the key to preservation of diversity and of government attuned to local values and problems has been considered particularly compelling in the United States, given the political and cultural heterogeneity of the American people and the traditional focus on the community as the center of political and social life.

Id.

220. For discussion of the logical connection between transformation and reduction of legitimate state police authority, see *supra* Part II.A.

221. *See* I. Trotter Hardy, *The Proper Legal Regime for "Cyberspace,"* 55 U. PITT.

messages are indistinguishable from snail-mail letters in regard to the elements of defamation.[222] Both forms of mail are liberated from geographic associations upon dispatch, as both kinds of messages travel across both state and international borders. The distinguishing elements of speed and tangibility are not meaningful differences in regard to the law of defamation. Federal preemption of defamation over the Internet is no more justifiable than federal preemption of defamation transmitted through the mails.

In other instances, however, the Internet threatens to undermine extant legal and regulatory structures that took decades to develop and refine.[223] The threat is most powerful in cases where the Internet effects revolutionary changes through which new processes supplant old ones.[224] Electronic banking serves as an example. Traditionally, regulation of bank transactions has been predicated on the assumption that funds must be filtered through financial institutions that serve as enforcement "chokepoints."[225] As the Internet facilitates "open environment banking systems," transactions no longer require the presence of financial intermediaries. Therefore, the role of regulatory structures, monitoring systems and enforcement mechanisms may be weakened.[226] By reinventing the infrastructure through which financial exchanges occur, the Internet revolutionizes the banking industry. This in turn requires regulators to reconsider the assumptions and premises behind the entire regulatory structure.

The extent to which the Internet generates revolutions in law can be controversial. For example, the rise of the Internet has given birth to a faction challenging the concept of intellectual property. These commentators suggest that authors be viewed as channelers of

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L. REV. 993, 999 (1994).

222. *See id.*

223. This statement is not meant as a value judgment, but rather as a recognition that Congress and other lawmaking bodies must consider the innovative characteristics of the Internet to determine whether existing legal doctrines are capable of accommodating the new medium. For discussion of the importance of careful medium-specific analysis in the application of law, see Harvey Berkman, *Medium Is Message*, NAT'L L.J., Aug. 19, 1996, at A1.

224. These areas are likely to be both substantial and significant in number, especially if the computer proves, as one commentator suggests, the "Hegelian change" of the millennium. John K. Gamble, *International Law and the Information Age*, 17 MICH. J. INT'L L. 747, 749 (1996).

225. Charles Davis, *Internet Regulation Poses Challenge*, ELECTRONIC PAYMENTS INT'L, Sept. 1996, at 12.

226. *See id.*

information rather than proprietors.[227] While metaphors emphasizing channeling of information are consistent with emerging technologies, one can argue that the basic tenets of ownership of intellectual property either are[228] or are not[229] materially altered by the new media that facilitate transmission. In the wake of this dialogue, we have yet to resolve whether infrastructural revolutions can or should alter basic principles and precepts of property law.[230]

A multitude of areas besides libel, banking and copyright must be examined carefully to determine whether technological change creates new legal challenges,[231] and whether such challenges substantially

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227. *See* Jenevra Georgini, Note, *Through Seamless Webs and Forking Paths: Safeguarding Authors' Rights in Hypertext*, 60 BROOK. L. REV. 1175, 1206 & n.160 (1994) (quoting John Perry Barlow, Remarks at the Writers' Rights Coalition Forum on "Technology: Issues and Opportunities" (Nov. 9, 1993)).

228. *See, e.g.*, Douglas J. Masson, Comment, *Fixation on Fixation: Why Imposing Old Copyright Law on New Technology Will Not Work*, 71 IND. L.J. 1049 (1996) (espousing new approaches to copyright law for application to digital library).

229. *See, e.g.*, Daniel W. McDonald et al., *Intellectual Property and Privacy Issues on the Internet*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 31 (1997) (recognizing that fundamental property rights, as well as their protection under law, continue to exist over Internet).

While the basic tenets of intellectual property may remain intact, the Internet certainly does provide new challenges that have arisen as part of a novel industry. *See, e.g.*, *Who Owns a Web Site*, INC., Feb. 1996, at 107 (discussing intellectual property ownership issues important to web site designers who are contracting with Internet providers).

230. For discussion, see Georgini, *supra* note 227, at 1206 (noting that proponents of keeping some information free from intellectual property rights "underscore[] the absurdity of attempting to use static laws to regulate the development of 'liquid' hypertexts. In a rapidly changing electronic market, strictly defined statutory categories fall prey to built-in obsolescence.").

231. For example, broadcasting is sometimes compared and contrasted with computerized bulletin boards. Examination of similarities and material differences — i.e., differences so important that they may challenge the relevance of applying existing legal paradigms — is frequently complex. One commentator differentiates between broadcasting and computerized bulletin boards by suggesting, *inter alia*, that "bulletin board messages do not intrude on the privacy of the home," since "only invited messages enter the private realm." *See* Rappaport, *supra* note 130, at 308. Yet distinctions between broadcasting and computerized bulletin boards based on an invitation of the message are questionable. Viewers and listeners of broadcast media control the programs they watch and hear by turning televisions and radios on and off, or switching frequencies. Moreover, they are given some warning of the messages they bring into their homes by program guides, rating systems, warnings of adult or violent content, etc. Finally, the ability to block unwanted messages at the first sign of undesirability is expedited by remote control devices. These kinds of issues would require consideration in examining whether speech and privacy law, for example, need modification before doctrines and precedents can be shifted directly from broadcast to Internet applications.

undermine state interests. The process is rarely easy or simple. History suggests that the judiciary sometimes misunderstands new technologies when they are introduced, leading to decisions that later appear irrational in light of a better comprehension of particular innovations.

For example, the Supreme Court held in 1908 that player piano rolls and phonograph records could not be copyrighted.[232] Seven years later, the Court denied First Amendment speech protection to motion pictures, upholding an Ohio film censorship standard that required movies to be "moral, educational, or amusing and harmless."[233] Although these holdings seem bizarre in hindsight, in their day they simply reflected the lag that can exist between the development of a novel technology and the capacity of the legal system to accommodate it. While the First Amendment certainly embraces timeless principles, priorities, and values, its application must be examined anew with each emerging technology.[234] Custodians of the law need time to witness the workings and the social implications of each innovation. Only then can they meld new technologies effectively with compatible legal structures or alter incompatible legal structures to meet the new needs of evolving products and processes.

Counterintuitively, some emerging media of the future may be less idiosyncratic, and therefore less revolutionary, than emerging media of the past.[235] Professor Lively provides an elegant example from the realm of First Amendment analysis. He notes an historic trend to view First Amendment issues as media-specific, based on what Justice Jackson observed to be the different "natures, values, abuses, and dangers" presented by each new medium.[236] The traditional model for differentiating treatments and standards was predicated on the assumption that each medium presented unique problems. According to Lively, media-centered variation in doctrinal challenges was based on

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232. *See* David Post, *Understanding the Techno Evolution*, AM. LAW., Sept. 1996, at 104 (citing White-Smith Music Publ'g Co. v. Apollo Co., 209 U.S. 1 (1908), *overturned by* Copyright Act of 1976, 17 U.S.C. § 102 (1998)).

233. *Id.* (citing Mutual Film Corp. v. Industrial Comm'n of Ohio, 236 U.S. 230 (1915), *overruled by* Joseph Burstyn, Inc. v. Wilson, 343 U.S. 495 (1952)).

234. *See* Michael I. Meyerson, *Authors, Editors, and Uncommon Carriers: Identifying the "Speaker" Within the New Media*, 71 NOTRE DAME L. REV. 79, 79-80 (1995).

235. Because we are generally correlating revolutionary progress and legitimacy of federalization, this phenomenon could result in a greater-than-expected incidence of cases where state control needs are not significantly weakened by proliferation and enhancement of technology.

236. Lively, *supra* note 70 (citing Kovacs v. Cooper, 336 U.S. 77, 97 (1949) (Jackson, J., concurring)).

differences in methods of information distribution, along the lines of market leverage, scarcity, and impact.[237] Lively posits two significant qualities that distinguish contemporary emerging media technologies from this model — their interactivity and market choice.[238]

Paradoxically, these features of the Internet seem old-fashioned when compared with its predecessor technologies. Whereas static information media such as CD-ROM established little or no ongoing relationship between the buyer and seller apart from potential occasional updates, online systems enable a continuous, natural, dialectic relationship.[239] While technically more advanced than old-fashioned static information provision, Internet technology supports the traditional characteristics of social interaction. The Internet enhances our ability to communicate regularly and frequently, replicating the relational patterns of the pre-industrial conditions under which much of the common law developed.[240] With regard to some areas of law, such as contract, this phenomenon may indicate that interactive technologies preserve rather than challenge traditional legal doctrines, leaving significant state interests undiminished.

When this is the case, federalization aimed at stabilizing the law to support growth and development of the Internet could be misguided. Because the new medium of interactive computer technology does not always alter the applicability of law,[241] blanket preemption of Internet communications could be an extreme and arguably unjustifiable departure from norms of state dominion.

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237. *See id.* at 1069.

238. *See id.* at 1079.

239. *See generally* Joel Rothstein Wolfson, *Information Transactions on the Information Superhighway: It's Not Just Software Law Anymore*, J. PROPRIETARY RIGHTS, Nov. 1994, at 2, 2.

240. These pre-industrial relational patterns entail an intimacy supported by continuous contact, ease of communication, and the frequent conversations that can result. While the intimacy of antiquity was founded in geographic proximity, the intimacy of today can be based on interactive technologies that allow us to transcend geographic distance.

241. This specific observation is merely an extension of the more general principle that "if the substance of a transaction has not changed, new technology does not require a new legal rule merely because of its novelty." Daniel v. Dow Jones & Co., 520 N.Y.S.2d 334, 338 (Civ. Ct. 1987).

b. Cases in Which the Abandonment of Local Authority over the Internet Could Create a Serious Enforcement Gap That Would Be Difficult to Fill

As expansive federal legislative or regulatory efforts are precluded on constitutional grounds, erosion of state authority could create a legal vacuum. Under these circumstances, the need for state control may remain strong and substantial, and must be weighed carefully against any countervailing need for standardization in assessing the wisdom of federal preemption.

Consider the ill-fated Communications Decency Act ("CDA"), passed by Congress as part of the Telecommunications Act of 1996.[242] Supporters of the legislation contended it was needed to insulate minors from exposure to indecent materials over the Internet.[243] The American Civil Liberties Union challenged two provisions of the CDA, asserting that they violated the First and Fifth Amendments.[244] Section 223(a)(1)(B) provided for imprisonment or fining of one who "by means of a telecommunications device knowingly . . . makes, creates or solicits" and "initiates the transmission" of "any comment, request, suggestion, proposal, image or other communication which is obscene or indecent, knowing that the recipient of the communication is under 18 years of age."[245] Section 223(d)(1) prohibited the sending or displaying to minors over interactive computer services "any comment, request, suggestion, proposal, image, or other communication that, in context, depicts or describes, in terms patently offensive as measured by contemporary community standards, sexual or excretory activities or organs, regardless of whether the user of such service placed the call or initiated the communication."[246] In 1997, the Supreme Court considered a challenge to the CDA and struck down the provisions of the CDA that apply to indecent or "patently offensive" speech as overbroad and unconstitutionally vague.[247]

In coming to this conclusion, the Court relied in part on the test articulated in *Miller v. California*,[248] which requires that the definition

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242. *See* Telecommunications Act of 1996, Pub. L. No. 104-104, tit. 5, 110 Stat. 56, 133-43 (1996) (codified in scattered sections of 15 & 47 U.S.C.A).

243. *See* Mitch Wagner, *Tempers Flare Over Web Censorship: Telecom Deregulation Law Blocks Indecency On-Line*, COMPUTERWORLD, Feb. 12, 1996, at 6.

244. *See* Reno v. ACLU, 117 S. Ct. 2329 (1997).

245. Telecommunications Act § 223(a) (1) (B).

246. *Id.* at § 223(d) (1).

247. *See Reno*, 117 S. Ct. at 2344-46.

248. 413 U.S. 15, 24 (1973).

of "patently offensive" be defined by applicable state law, rather than a sweeping national standard.[249] In a footnote, the Court reiterated the rationale underlying this requirement, which is that determinations of "what appeals to the 'prurient interest' or is 'patently offensive' . . . are essentially questions of fact, and our nation is simply too big and diverse for this Court to reasonably expect that such standards could be articulated for all 50 states in a single formulation, even assuming the prerequisite consensus exists."[250]

The CDA's failure to withstand strict scrutiny exemplifies a problem regarding federalization that has been recognized by the Court's constitutional analysis. Regional and local cultures have yet to be supplanted by cultures within communities of affinity capable of transcending the limits of physical space. This means that state governments still provide a necessary voice in democratic legislative processes. Within the sphere of indecency regulation, vestiges of cross-regional value variance undermine the capacity for one federal legislative approach to serve a wide range of communities equally effectively.[251]

It is reasonable to expect that value variance will subvert federal law in other areas as well. State authority confers flexibility on the nation's laws and regulations, so that the Internet's inevitable local effects can be monitored by representatives of the local communities affected. When the law's emphasis on regional or local community standards hinders federal legislative monitoring, state laws may be needed to fill the breach. The extent of this need must be weighed against any critical need for standardization before intelligent policy decisions can be made regarding preemption.

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249. *See Reno*, 117 S. Ct. at 2345 (noting that *Miller*'s second prong "contains a critical requirement that was omitted from the CDA: that the proscribed material be 'specifically defined by the applicable state law'" (quoting *Miller*, 413 U.S. at 24)). The Miller test actually contains elements of both local and national standards. As the Court pointed out in *Reno*, the requirement that banned speech contain no "serious literary, artistic, political, or scientific value" is judged by a national standard. *Id.* This sets a national "floor" (or more appropriately, a ceiling) on what may be banned. On the other hand, once this requirement is met, local, community standards determine what is considered "patently offensive." *See id.*

250. *Id* at 2345 n.39 (noting also that Congress's stated intention "to establish a uniform national standard of content regulation" conflicts with the Miller standards that the CDA was attempting to implement).

251. *See* Kurt L. Schmalz, *Problems in Giving Obscenity Copyright Protection: Did* Jartech *and* Mitchell Brothers *Go Too Far?*, 36 VAND. L. REV. 403, 413 n.70 (1983) (noting the variance of community standards from one area to another).

B. The Function of Model Codes and Standards as a Means of Reconciling Growing Federal Interests and Residual State Concerns

Selective, targeted preemption could be supplemented by efforts to unify state laws controlling many aspects of the Internet. Efforts of the legal community to approach uniformity under globalization should focus on the development of model acts analogous to the Restatement of Contracts and the Uniform Commercial Code. These are appropriate mechanisms for the unification of bodies of law addressing interests that: (i) are firmly grounded within the dominion of states, and (ii) are not transformed into areas of fundamentally national or international concern when applied to interactive computer technologies.

When state power is reserved under the Constitution but interests in its exercise do not vary according to relevant local community standards, uniform or model statutes can help to remove barriers to participation in computer networks. While model uniform legislation can be fashioned in virtually all areas of state law, efforts to date have been most prominent in the domain of sales law under Article 2 of the U.C.C.[252] According to a group charged by the federal government to examine impediments to the development of the National Information Infrastructure, the U.C.C. is strained by technological advancements and needs revision "to encompass licensing of intellectual property."[253] Through a proposed amendment, the U.C.C. would create a "national, uniform standard" for many transactions in computerized information, replacing inconsistent common law rules that have been applied by some courts in the past.[254]

Efforts such as these are long overdue. As the U.C.C. brought substantial consistency to sales law from state to state,[255] model legislation can likewise unify legal doctrines and principles that apply to transactions over the Internet.[256] As we observed in Part III, the Internet

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252. *See* Raymond T. Nimmer & Holly Keesling Towle, *UCC Article 2B Would Govern Software Licensing*, NAT'L L.J., Feb. 12, 1996, at C2.

253. *Id.* at C2 (citing Bruce A. Lehman, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, Sept. 1995, at 58).

254. *See id.*

255. *See* Ronald J. Allen & Robert A. Hillman, *Evidentiary Problems in — and Solutions for — the Uniform Commercial Code*, 1984 DUKE L.J. 92 ("[T]he UCC has effectively contributed to the clarity and consistency of commercial dealings in the United States.").

256. *See* Andrew Rodau, *Computer Software: Does Article 2 of the Uniform Commercial Code Apply?*, 35 EMORY L.J. 853, 860 (1986) ("The underlying policy of the U.C.C. is to simplify and clarify the law so it reflects the realities of the commercial

magnifies a need long recognized in the area of commercial law — the need to facilitate transactions by reducing the burden of duplicative, inconsistent, and complex varieties of legal and regulatory approaches.

Uniform codes and guidelines have the potential in areas other than commercial law to bridge the gap between lingering vestiges of federalism and the development of national and international communities. Models drafted by representatives of regions throughout the nation can serve an important compromise function. Presuming that drafters bring an inclusive spectrum of viewpoints and are respected leaders, they can create credible prototypes of laws and standards for the Internet. The greater the credibility and quality of the model, the further will be the progress towards uniform adoption. Model codes and guidelines can bring us closer to interstate regulatory confluence without abrogating state rights under the tenets of federalism. Because the adoption of a model code or guideline is voluntary, interstate consistency does not intrude on state autonomy.

Model codes will be especially useful to fill the breach left by targeted federal preemption. In many instances, the interests of standardization will fail to outweigh significant state and local regulatory interests, and preemption will be rejected under the balancing analysis recommended in Part IV.A. These are the cases in which model codes can and should encourage standardization without the heavy hand of federal preemption.

V. CONCLUSION

In the preceding pages, I have recommended targeted federal preemption of Internet activities and transactions where appropriate and necessary, applying a balancing test that weighs the importance of federal standardization interests against residual state concerns.[257] I have

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marketplace and provides a uniform and predictable body of law.").

257. In regard to state versus federal dominion over the Internet, we must balance any reductions in the legitimacy of state claims of control against growing federal interests in the unification of laws and regulations, falling under the general rubric of regulating interstate commerce. As communities become attenuated or separated from local spacial dimensions, the arguments for preferring state over federal law to protect community values may be weakened.

Simultaneously, compelling arguments can be made to suggest that the unification of laws under federal aegis would confer substantial advantages to the development of the embryonic Internet. The technology is inherently expansive. This breadth suggests that the effects of computer networks will be fundamentally interstate and global in dimension. Despite legitimate local claims over traditionally local interests, local governance of cyberspace is often unrealistic. The redundancy, complexity, and conflict

suggested that these limited preemption efforts be supplemented by a second level of unification that would intrude less upon states' ongoing interests. This tier consists of efforts to develop and adopt model codes and standards that would lead to uniformity through voluntary cooperation rather than federal fiat.

This position is a compromise that recognizes the stake that states retain in local activities, even in an era of shrinking boundaries and eroding spatial and geographic constraints. Looking forward, the vestigial legitimacy of state police interests is likely to continue its decline as communities are defined more by interests shared in cyberspace and less by accidents of proximity. Likewise, federal and international interests in uniformity, scale economies, and facilitation of usage will continue to grow.

At some point, the compromise of restrained federal preemption plus voluntary adoption of uniform codes and standards may become inadequate. The compromise could concede too much power to increasingly marginal state interests, while denying the federal government centralization and standardization capabilities at a time when consistency becomes even more critical to Internet governance. These observations suggest that state governments could lose relevance with the advancement of technology.

State governments are most likely to remain relevant in modern contexts if they recognize the growing need for legal and regulatory uniformity in cyberspace. To remain viable, state and local authorities must focus more of their attention outward — understanding, assessing, and serving the interdependent interests of the nation and the world. Paradoxically, the less classically insular and independent state bodies become, the more likely they are to preserve their dominion. Prudent state governments will move cooperatively towards the effective use of model codes, standards, and assimilation to govern the Internet.

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of laws engendered by micro-legislation and micro-regulation are economically inefficient, causing waste and discouraging adoption and use of an invaluable modern technology.