

ARTICLES

SIREN SONGS AND AMISH CHILDREN: AUTONOMY, INFORMATION, AND LAW

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New communications technologies offer the potential to be used to promote fundamental values such as autonomy and democratic discourse, but, as Professor Yochai Benkler discusses in this Article, recent government actions have disfavored these possibilities by stressing private rights in information. He recommends that laws regulating the information economy be evaluated in terms of two effects: whether they empower one group to control the information environment of another group, and whether they reduce the diversity of perspectives communicated. Professor Benkler criticizes the nearly exclusive focus of information policy on property and commercial rights, which results in a concentrated system of production and homogenous information products. He suggests alternative policies that promote a commons in information, which would distribute information production more widely and permit a greater diversity of communications.

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Then, being much troubled in mind, I said to my men, "My friends, it is not right that one or two of us alone should know the prophecies that Circe has made me, I will therefore tell you about them, so that whether we live or die we may do so with our eyes open. First she said we were to keep clear of the Sirens, who sit and sing most beautifully in a field of flowers; but she said I might hear them myself so long as no one else did. Therefore, take me and bind me to the crosspiece half way up the mast; bind me as I stand upright, with a bond so fast that I cannot possibly break away, and lash the rope's ends to the mast itself. If I beg and pray you to set me free, then bind me more tightly still."

I had hardly finished telling everything to the men before we reached the island of the two Sirens, for the wind had been very favourable. Then all of a sudden it fell dead calm; there was not a breath of wind nor a ripple upon the water, so the men furled the sails and stowed them; then taking to their oars they whitened the water with the foam they raised in rowing. Meanwhile I took a large wheel of wax and cut it up small with my sword. Then I kneaded the wax in my strong hands till it became soft, which it soon did between the kneading and the rays of the sun-god son of Hyperion. Then I stopped the ears of all my men, and they bound me hands and feet to the mast as I stood upright on the crosspiece; but they went on rowing themselves. When we had got within ear-shot of the land, and the ship was going at a good rate, the Sirens saw that we were getting in shore and began with their singing.

"Come here," they sang, "renowned Ulysses, honour to the Achaean name, and listen to our two voices. No one ever sailed past us without staying to hear the enchanting sweetness of our song—and he who listens will go on his way not only charmed, but wiser, for we know all the ills that the gods laid upon the Argives and Trojans before Troy, and can tell you everything that is going to happen over the whole world."

They sang these words most musically, and as I longed to hear them further I made signs by frowning to my men that they should set me free; but they quickened their stroke, and Eurylochus and Perimedes bound me with still stronger bonds till we had got out of

hearing of the Sirens' voices. Then my men took the wax from their ears and unbound me.¹

* * *

The conclusion is inescapable that secondary schooling, by exposing Amish children to worldly influences in terms of attitudes, goals, and values contrary to beliefs, and by substantially interfering with the religious development of the Amish child and his integration into the way of life of the Amish faith community at the crucial adolescent stage of development, contravenes the basic religious tenets and practice of the Amish faith, both as to the parent and the child. . . .

. . . [O]ur holding today in no degree depends on the assertion of the religious interest of the child as contrasted with that of the parents. It is the parents who are subject to prosecution here for failing to cause their children to attend school, and it is their right of free exercise, not that of their children, that must determine Wisconsin's power to impose criminal penalties on the parent. . . . The children are not parties to this litigation.²

* * *

On this important and vital matter of education, I think the children should be entitled to be heard. While the parents, absent dissent, normally speak for the entire family, the education of the child is a matter on which the child will often have decided views. He may want to be a pianist or an astronaut or an oceanographer. To do so he will have to break from the Amish tradition.

It is the future of the student, not the future of the parents, that is imperiled by today's decision. If a parent keeps his child out of school beyond the grade school, then the child will be forever barred from entry into the new and amazing world of diversity that we have today. The child may decide that that is the preferred course, or he may rebel. It is the student's judgment, not his parents', that is essential if we are to give full meaning to what we have said about the Bill of Rights and of the right of students to be masters of their own destiny. If he is harnessed to the Amish way of life by those in authority over him and if his education is truncated, his entire life may be stunted and deformed. The child, therefore, should be given an opportunity to be heard before the State gives the exemption which we honor today.³

¹ Homer, *The Odyssey* bk. XII, ll. 153-200, at 159-61 (Samuel Butler trans., A.C. Fifield 1900), <http://classics.mit.edu/Homer/odyssey.html>.

² *Wisconsin v. Yoder*, 406 U.S. 205, 218, 230-31 (1972).

³ *Id.* at 244-46 (Douglas, J., dissenting) (footnotes omitted). Justice White, in his concurrence, actually adopted Justice Douglas's conception of the problem. He concurred because he believed that eight years of grade school were enough to make autonomous choice possible and that the additional two years, which were all that was at stake in the case, did not matter enough to justify prosecution of the parents. He wrote:

INTRODUCTION

First Amendment law used to be easy for liberals.⁴ Back in the days when you had an individual—say, a Jehovah's Witness,⁵ Klansman,⁶ or Communist⁷—who wanted to make a politically controversial statement, and a government actor silenced that person, all the cards in the liberal deck were stacked against the government. The actor doing the silencing was government. The person being silenced suffered a loss of expressive freedom in violation of her autonomy. The loss of her expression was also a loss to robust democratic discourse. The two normative commitments animating the First Amendment—robust democratic discourse and personal autonomy—were aligned, and both pointed towards invalidation of the official action challenged. As Justice Brandeis put it, the commitment “to make men free to develop their faculties” served as a “means indispensable to the discovery and spread of political truth.”⁸

The information economy has made things more difficult. To create property rights in this economy, government must often prohibit

It is possible that most Amish children will wish to continue living the rural life of their parents, in which case their training at home will adequately equip them for their future role. Others, however, may wish to become nuclear physicists, ballet dancers, computer programmers, or historians, and for these occupations, formal training will be necessary. There is evidence in the record that many children desert the Amish faith when they come of age. A State has a legitimate interest not only in seeking to develop the latent talents of its children but also in seeking to prepare them for the life style that they may later choose, or at least to provide them with an option other than the life they have led in the past. In the circumstances of this case, although the question is close, I am unable to say that the State has demonstrated that Amish children who leave school in the eighth grade will be intellectually stultified or unable to acquire new academic skills later. The statutory minimum school attendance age set by the State is, after all, only 16 I join the Court because the sincerity of the Amish religious policy here is uncontested, because the potentially adverse impact of the state requirement is great, and because the State's valid interest in education has already been largely satisfied by the eight years the children have already spent in school.

Id. at 239-41 (White, J., concurring).

⁴ I use the term “liberals” here to refer to those who hold some version of liberal political theory, rather than in the American colloquial sense of “more than slightly left of center.”

⁵ E.g., *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624 (1943); *Chaplinsky v. New Hampshire*, 315 U.S. 568 (1942).

⁶ E.g., *Brandenburg v. Ohio*, 395 U.S. 444 (1969).

⁷ E.g., *Dennis v. United States*, 341 U.S. 494 (1951); *Whitney v. California*, 274 U.S. 357 (1927); *Abrams v. United States*, 250 U.S. 616 (1919); *Schenck v. United States*, 249 U.S. 47 (1919).

⁸ *Whitney*, 274 U.S. at 375 (Brandeis, J., concurring).

speech.⁹ For example, government prohibits everyone from transmitting over wireless spectrum so that it can auction off the right to do so to those who then become spectrum “owners.”¹⁰ Government also prohibits all persons from picking up a good book they like and translating it for their compatriots or making it into a play.¹¹ It does so in order to create property rights in cultural materials, which are intended to foster a market for their creation.

The central theoretical problem that this attribute of the information economy creates for traditional First Amendment theory is that the neat alignment of personal autonomy and democratic discourse—the two values most broadly understood to animate the Amendment—is shattered. Where once stood a state actor clamping down on an individual dissident now stands a private actor with power to prevent someone from speaking. The state’s role is generally benign—one that seeks to enhance, not restrict speech—but the means it employs involve prohibiting someone, often many, from speaking.¹² The state might, for example, create copyrights to give information producers incentives to speak. But then the *Washington Post* and the *Los Angeles Times*, for example, can use those rights to prevent their readers from posting newspaper clippings on a Web-based political fo-

⁹ See Yochai Benkler, A Political Economy of the Public Domain: Markets in Information Goods vs. the Marketplace of Ideas, in *Expanding the Bounds of Intellectual Property: Innovation Policy for the Knowledge Society* 261, 279-85 (Rochelle Dreyfuss et al. eds., forthcoming 2001).

¹⁰ The potential viability of systems that allow many users to share the same slice of spectrum may change the constitutionality of this existing model. See Yochai Benkler & Lawrence Lessig, Net Gains: Will Technology Make CBS Unconstitutional?, *New Republic*, Dec. 14, 1998, at 12 (explaining why spectrum wireless techniques could eliminate need for licensing or auctions, thereby rendering unconstitutional prohibition on unlicensed wireless transmission that is basis of licensing); see also Eli Noam, Spectrum Auction: Yesterday’s Heresy, Today’s Orthodoxy, Tomorrow’s Anachronism—Taking the Next Step to Open Spectrum Access, 41 *J.L. & Econ.* 765, 768, 778-80 (1998) (describing rise of auction paradigm and exploring alternative open-access model). It is important to understand that the core regulatory move involved in spectrum regulation is the prohibition on all of us from transmitting without a license. See Benkler & Lessig, *supra* (stating that prohibition on transmitting that undergirds licensing regime may be unconstitutional once there is alternative); see also Noam, *supra*, at 770 (same). But see Timothy J. Brennan, The Spectrum as Commons: Tomorrow’s Vision, Not Today’s Prescription, 41 *J.L. & Econ.* 791, 796-97 (1998) (criticizing Noam for arguing that corporations have “rights,” in particular, rights to communicate).

¹¹ See 17 U.S.C. § 106 (1994) (giving copyright holder exclusive right to make derivative work).

¹² See Yochai Benkler, Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain, 74 *N.Y.U. L. Rev.* 354, 390-94 (1999) (“[W]e are free to communicate at a given moment only to the extent we communicate using information that is in the public domain, we own, or we have permission to use for the proposed communication.”).

rum.¹³ These same rights also enable the Church of Scientology to seize the computer files of a former member who criticized the church by posting its texts online.¹⁴ The state might recognize trademarks to facilitate commercial information exchange. But these rights enable the U.S. Olympic Committee to permit the use of the term "Special Olympics" to describe the events of athletes with disabilities and prohibit the use of the term "Gay Olympics" to describe the events of homosexual athletes.¹⁵ The state also might prohibit the owners of cable systems from selecting the programming on a certain percentage of their channels, not to censor, but to diversify and open up the video delivery medium so that more views can be presented to television viewers.¹⁶ The prohibition, then, would be aimed at alleviating a problem created by cable operators acting as "private censors."¹⁷

Sophisticated legal commentators, such as Owen Fiss¹⁸ and Robert Post,¹⁹ disagree over how First Amendment law should respond to these cases but agree that in these matters democracy and autonomy conflict. In Fiss's terms, democracy requires that the state intervene to improve public discourse, even at the expense of autonomy.²⁰ In Post's terms, such "managerial" intervention undermines the very respect for autonomy that must animate a commitment to democratic discourse.²¹ The quandary created by this sense of deep conflict between democracy and autonomy is manifested in many dif-

¹³ L.A. Times v. Free Republic, No. CV 98-7840 MMM (AJWx), 2000 U.S. Dist. LEXIS 5669 (C.D. Cal. Mar. 31, 2000); see also Summary: L.A. Times and Washington Post v. Free Republic, at <http://www.techlawjournal.com/courts/freerep/Default.htm> (last modified Nov. 20, 2000) (compiling materials regarding case).

¹⁴ Religious Tech. Ctr. v. Netcom On-Line Communication Servs., Inc., 923 F. Supp. 1231, 1239-40 (N.D. Cal. 1995).

¹⁵ S.F. Arts & Athletics, Inc. v. U.S. Olympic Comm., 483 U.S. 522, 540 (1987); see also James Boyle, Shamans, Software, and Spleens: Law and the Construction of the Information Society 145-48 (1996) (discussing case).

¹⁶ See Turner Broad. Sys., Inc. v. FCC, 520 U.S. 180, 224-25 (1997) (*Turner II*) (holding that state regulation does not violate First Amendment); Turner Broad. Sys., Inc. v. FCC, 512 U.S. 622, 663-64 (1994) (*Turner I*) ("[A]ssuring that the public has access to a multiplicity of information sources is a governmental purpose of the highest order, for it promotes values central to the First Amendment.").

¹⁷ See Denver Area Educ. Telecomm. Consortium v. FCC, 518 U.S. 727, 773 (1996) (Stevens, J., concurring) ("It would inject federally authorized private censors into fora from which they might otherwise be excluded, and it would therefore limit local fora that might otherwise be open to all constitutionally protected speech." (footnote omitted)).

¹⁸ E.g., Owen M. Fiss, *Liberalism Divided: Freedom of Speech and the Many Uses of State Power* 37-38 (1996).

¹⁹ Robert Post, *Equality and Autonomy in First Amendment Jurisprudence*, 95 Mich. L. Rev. 1517 (1997) (reviewing Fiss, *supra* note 18).

²⁰ Fiss, *supra* note 18, at 36-38.

²¹ Post, *supra* note 19, at 1538-39.

ficult cases, most clearly those involving media regulation²² and intellectual property law.²³

This Article begins the task of mediating this basic theoretical conundrum in thinking about the role of the First Amendment in an information economy. My goal is to identify the ways in which an autonomy-serving constitutional provision like the First Amendment should be seen as permitting, and sometimes even requiring, autonomy-sensitive information policy. More specifically, I argue that a purely market-focused information policy—in particular one focused on exhaustive propertization of the physical, logical, and content layers of the information environment—exacts a significant normative social cost in terms of personal autonomy.

Part I offers what I hope can be a widely accepted and workable tool for normative evaluation of laws that affect autonomy by regulating the flow of information to and from individuals. Because I am looking for workability and wide acceptance, my proposal settles on only two basic effects that should be considered in evaluating law in terms of autonomy. These are: (a) systematic effects of law that empower one group of actors to exert control over the information environment within which others must choose their lives, and (b) systematic effects on the range of options that individuals in society perceive as open to them. Recognizing that more ambitious defenses of autonomy may find this focus too constraining, I nonetheless believe that if sensitivity to these two effects can be shared widely by autonomy lovers, the implications for our normative evaluation of policy choices in the information arena will be significant.

In Part II, I begin to apply these tools to the nearly exclusive focus of American information policy on property and commercialism as the creative forces of our information environment. This Part of the Article identifies an autonomy deficit that would be created if we had perfect property rights in communications infrastructure and in-

²² E.g., *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180 (1997) (*Turner II*); *Denver Area Educ. Telecomm. Consortium*, 518 U.S. at 727; *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622 (1994) (*Turner I*); see also *U.S. West, Inc. v. United States*, 48 F.3d 1092 (9th Cir. 1994) (challenging constitutionality of Cable Franchise Policy and Communications Act of 1984, Pub. L. No. 98-549, § 613(b), 98 Stat. 2779, 2785 (repealed 1996) (regulating common carriers)), vacated, 516 U.S. 1155 (1996); *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181, 185 (4th Cir. 1994) (same), vacated, 516 U.S. 415 (1996).

²³ E.g., *Harper & Row, Publishers, Inc., v. Nation Enters.*, 471 U.S. 539, 558 (1985) (suit over *The Nation's* use of section from Gerald Ford's memoir); *L.A. Times v. Free Republic*, No. CV 98-7840 MMM (AJWx), 2000 U.S. Dist. LEXIS 5669, at *1-*2 (C.D. Cal. Mar. 31, 2000) (suit to stop users from posting *Los Angeles Times* and *Washington Post* articles on website); *Universal City Studios, Inc. v. Reimerdes*, 98 F. Supp. 2d 449, 450 (S.D.N.Y. 2000) (action to enjoin defendants from posting computer program that defeated plaintiffs' encryption program).

formation goods, by comparing such a regime to a commons or a regulatory system where property is otherwise attenuated by use privileges, like carriage requirements. I develop the analysis in detail by reference to radio frequency spectrum allocation and to copyright.

Part III looks at policies aimed at fostering commercial information production. I briefly explain why these policies tend to lead to a commercial, concentrated system of production that produces relatively homogenous information, undermining the possibility of the development of a decentralized system that includes diverse producers who provide their information and communications facilities in reliance on incentives other than profit maximization. I suggest that policies aimed at establishing sustainable commons in information and communications resources, or at least at establishing access privileges to such resources, reduce the costs of becoming an information producer and effect a wider distribution of the capacity to be an information producer. Such policies likely will reveal to individuals many more meaningful options for living their lives, thereby increasing the actual capacity of individuals in society to be autonomous.

I conclude by focusing on the implications of the analysis for American information policy. We are relying more heavily than ever before on property. We are increasing the costs of information production and concentrating that social function in the hands of organizations that aggregate consumer preferences and sell their products to the groups that will pay the most. These choices run the gamut from our focus on private, commercial provision of physical infrastructure, rather than on public or commons-based infrastructures,²⁴ to our willingness to integrate infrastructure provision with content provision²⁵

²⁴ See Info. Infrastructure Task Force, *The National Information Infrastructure: Agenda for Action*, Executive Summary (1993), <http://www.ibiblio.org/nii/NII-Executive-Summary.html> (stating policy objective of promoting private-sector development of information infrastructure). This was the document that set out the first Clinton Administration's policy on infrastructure development. Its touchstone was recognition that the private sector was already deploying infrastructure, and it limited government's roles to such activities as facilitating private sector deployment, redistribution, and standard-setting where necessary. There was no attempt to consider the possibility or validity of a government-provided infrastructure of first resort, like the highways, or like the Internet as it had been until the 1990s. See generally Yochai Benkler, *From Consumers to Users: Shifting the Deeper Structures of Regulation Towards Sustainable Commons and User Access*, 52 *Fed. Comm. L.J.* 561, 572-75 (2000) (describing systematic choices regarding "professionalization" or "commercialization" of physical infrastructure).

²⁵ For example, while in the early 1990s the Federal Communications Commission thought to make telephone infrastructure a video common carrier, see *Telephone Company-Cable Television Cross-Ownership Rules*, 7 *F.C.C.R.* 5781, 5783 (1992) (second report and order), by 1996 Congress had converted this to a model whereby telephone companies provide their own content alongside that of competitors. See *Telecommunications Act of 1996*, Pub. L. No. 104-104, § 304, 110 Stat. 56, 125 (1996) (codified at 47 U.S.C.

and our focus on commercial, information-goods sale as the primary model of information production and exchange that our legal system supports.²⁶ These choices are driving the organization of information production and exchange in the digitally networked environment towards a model that dampens the beneficial effects the technology can have on increasing personal autonomy. In fact, it may increase the potential of this technological shift to subject many users to the influence of a few large, commercial media and communications companies. Whether the benefits of these choices, whatever they may be, justify this normative cost is a question with which we must come to grips as a polity. But we will not evaluate the paths open to us correctly until we see all that is at stake.

I

AUTONOMY, LAW, AND INFORMATION FOR CONTEXT- BOUND INDIVIDUALS

Although “autonomy” is quite central to our intuitions about liberty and dignity generally,²⁷ and is widely seen as one of the central animating values of the First Amendment,²⁸ it has remained a surpris-

§ 549 (Supp. III 1997)) (creating open video system). A similar set of issues is now involved in the question of whether cable companies will be required to provide meaningful access to competitors to provide Internet services. See Press Release, Federal Communications Commission, FCC Chairman to Launch Proceeding on “Cable Access” (June 30, 2000), http://www.fcc.gov/Bureaus/Cable/News_Releases/2000/nrcb0017.html (announcing FCC chair’s proposal that FCC begin proceeding on issue of multiple Internet service providers accessing cable company’s infrastructure). See generally Deborah A. Lathen, FCC, *Broadband Today* (1999), <http://www.fcc.gov/Bureaus/Cable/Reports/broadbandtoday.pdf> (describing policy questions raised by cable access).

²⁶ See generally Benkler, *supra* note 9.

²⁷ Richard Fallon suggests that the Kantian tradition treats autonomy as a super-value, in the sense that all values are worth pursuing “because rational, autonomous agents find them worth pursuing.” Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 *Stan. L. Rev.* 875, 876 & n.3 (1994). “[A]ll values are made so by the free acts of men, and called values only so far as they are this” *Id.* at 876 n.3 (quoting Isaiah Berlin, *Two Concepts of Liberty*, in *Four Essays on Liberty* 118, 137 (1969)).

²⁸ See, e.g., C. Edwin Baker, *Human Liberty and Freedom of Speech* 47-51 (1989) (describing “individual self-fulfillment and participation in change” as key First Amendment values); David A.J. Richards, *Toleration and the Constitution* 165-78 (1986) (describing “right to conscience” as underlying First Amendment); Charles Fried, *The New First Amendment Jurisprudence: A Threat to Liberty*, 59 *U. Chi. L. Rev.* 225, 233 (1992) (“Autonomy is the foundation of all basic liberties, including liberty of expression.”); Robert Post, *Meiklejohn’s Mistake: Individual Autonomy and the Reform of Public Discourse*, 64 *U. Colo. L. Rev.* 1109, 1120-23 (1993) [hereinafter *Post, Meiklejohn’s Mistake*] (stating that “[t]he ideal of autonomy essentially distinguishes First Amendment jurisprudence from other areas of constitutional law”); Thomas Scanlon, *A Theory of Freedom of Expression*, 1 *Phil. & Pub. Aff.* 204, 215-22 (1972) (arguing that individual right to autonomy may “support a healthy doctrine of freedom of expression”); *Post*, *supra* note 19, at 1521, 1524-25 (arguing that one primary purpose of First Amendment is to foster “collective self-

ingly nebulous and ill-defined term in philosophical inquiry.²⁹ The primary implication of this vagueness for policymaking is that it makes it difficult to extract from "autonomy" a broadly acceptable normative guide to evaluating practical policymaking, because it means so many different things to different people. My goal here is therefore not so much to develop a widely attractive, crisper philosophical conception of autonomy, as to propose a widely accepted set of tools for evaluating the autonomy implications of proposed policies. These tools are drawn from what I understand to be a plausible, if not quite so widely shared, conception of autonomy.³⁰

My aim in this Part is to suggest how a conception of autonomy sensitive to the context within which individuals must choose would counsel us to evaluate law. Part I.A deals with what autonomy for context-bound individuals means and how it is affected by law. Part I.B then focuses on the relationship between information and autonomy and on what attributes of information law are worth examining for one who respects autonomy. Part I.C then takes on the task of delimiting the province of autonomy as a measure of law and policy, such that it can be attractive to a wider range of autonomy lovers than those who would adopt fully the conception of context-bound autonomy from which I derive it.

A. *Law and Autonomy for Context-Bound Individuals*

Before one can describe the relationship between law and autonomy, it is important to recognize that the concept of autonomy can

determination" and that this in turn must "entail[] the value of *individual autonomy*" (emphasis added)). An earlier version of Post, Meiklejohn's Mistake, *supra*, was published as Robert Post, *Managing Deliberation: The Quandary of Democratic Dialogue*, 103 *Ethics* 654 (1993).

²⁹ See Gerald Dworkin, *The Theory and Practice of Autonomy* 6 (1988) [hereinafter Dworkin, *Theory and Practice*] ("[A]utonomy is used in an exceedingly broad fashion. . . . About the only features held constant from one author to another are that autonomy is a feature of persons and that it is a desirable quality to have."); Joel Feinberg, *Harm to Self* 27-51 (1986) (describing four categories of meaning for "autonomy" and twelve desiderata that in some sense are measures of "autonomy"); John Christman, *Constructing the Inner Citadel: Recent Work on the Concept of Autonomy*, 99 *Ethics* 109, 109-16 (1988) (describing various conceptions of autonomy); see also Gerald Dworkin, *The Concept of Autonomy*, in *Science and Ethics* 203 (Rudolf Haller ed., 1981) (sketching conception of autonomy later rejected by author in Dworkin, *supra*).

³⁰ There is of course a methodological conundrum in my project which has to do with the fact that it is a pragmatic project for the introduction into policymaking of a value whose primary appeal is deontological. I am not sure I want to try to find a nonpragmatic answer to this conundrum; in which case the answer is that autonomy matters because we care about it, and if the reasons we use to explain why we care about it take on largely a deontological form, then it is in those terms that we must express the parameters we use to evaluate the effects of law on autonomy.

signify different things.³¹ First, autonomy is both a capacity and a condition of which people can have more or less.³² Second, autonomy is most usefully honored as a value for people who come to and live in a world made by others.³³ When we evaluate the implications of law for

³¹ Comprehensive treatments of autonomy as a philosophical concept include Dworkin, *Theory and Practice*, supra note 29; Feinberg, supra note 29, at 27-51; *The Inner Citadel: Essays on Individual Autonomy* (John Christman ed., 1989); Thomas May, *Autonomy, Authority and Moral Responsibility* (1998); Joseph Raz, *The Morality of Freedom* (1986); Robert Young, *Personal Autonomy: Beyond Negative and Positive Liberty* (1986). For a superb overview of the literature and an attempt to reconcile it, see Fallon, supra note 27.

³² The capacity to govern oneself includes two elements. First, there is a minimal threshold competence element, i.e., simple competence to evaluate options and consequences of action. Second, there is a variable element—one's ability to evaluate options as affected by internal circumstances, like intelligence, and external life circumstances. See Feinberg, supra note 29, at 28-30 (arguing that "competence" is prerequisite for self-government); Raz, supra note 31, at 372 (identifying conditions of autonomy that "admit of degree"). The condition of being autonomous refers to the extent to which one in fact, given the circumstances of one's life, is self-directed. Joseph Raz gives examples of individuals who have the capacity to be autonomous but whose condition is an absence of autonomy: the man in a pit, with full capacities but no real ability to make any decision because of physical constraints, and the hounded woman, who is trapped on an island with a beast and whose entire capabilities are focused on staying alive. *Id.* at 373-74.

The idea that autonomy varies due to degrees of capacity and circumstances is a deeply contested aspect of autonomy theory. Richard Fallon extensively explores the contest between "descriptive" conceptions of autonomy (ones that begin with the assumption I just described in the text) and "ascriptive" conceptions of this same concept. Fallon, supra note 27, passim. At the risk of shortchanging the sophistication of the ascriptive conceptions, I will describe them as the commitment to treating all individuals as though they had full capacity to make choices for themselves and as though their conditions were such that they could in fact make choices for themselves. This commitment is not rooted in some stubborn unwillingness to recognize the slings and arrows of outrageous fortune that actually constrain our choices, but rather in the sense that only by treating people as having these capacities and abilities can we accord them adequate respect as free, rational beings and avoid sliding into overbearing paternalism. See, e.g., Post, *Meiklejohn's Mistake*, supra note 28, at 1130-33 ("The ascription of autonomy is . . . the transcendental precondition for the possibility of democratic self-determination."). Of the readers who adhere to an ascriptive model I beg patience, for while I start with a descriptive conception of autonomy in the next few pages, the actual policy application is then reduced, in Part I.C, to ensure that it accommodates most of the concerns that those who adhere to an ascriptive conception have with regard to the descriptive conception.

³³ The problem that the work on autonomy in context tries to deal with is something like this: In order for a person to have meaningful control over how her life goes, we must assume that the world is largely deterministic—that is, that effect follows cause predictably. If this is not the case, then it is difficult to see how a person's decisions or choices will be translated into actions and states of the world. If, however, we believe in a deterministic world, then the question arises: What are the causes of the individual's choices, and are those choices not themselves the effect of previous links in a causal chain? This raises the problem of the unchosen chooser—one who operates in a world deterministic enough to permit effective choices but nonetheless where free will has sufficient scope to permit self-governance. See Dworkin, *Theory and Practice*, supra note 29, at 11-12 (identifying structuring role of social institutions as problem in theory of autonomy); May, supra note 31, at 83-85 (distinguishing between action caused by external circumstances and action motivated by agent's assessment of circumstances); John Christman, *Introduction to The Inner*

autonomy, we must focus on law's effects on the conditions that enable persons situated within a set of worldly constraints nonetheless to make their life "theirs" in some way that we find meaningful.³⁴ Once we recognize that there cannot be a person who is perfectly "free" in the sense of unconstrained or uncaused by the decisions of others, we are left to measure the effects of law on autonomy in terms of the effect it has on the *relative* role that individuals play in authoring their own lives. Third, autonomy is concerned with the relationships both between individuals' actions and their preferences³⁵ and between their preferences and their selves.³⁶ A person is autonomous to the extent

Citadel, *supra* note 31, at 3, 13-14 (questioning whether personal responsibility can be consistent with determinism); Thomas E. Hill, Jr., *The Kantian Conception of Autonomy*, in *The Inner Citadel*, *supra* note 31, at 91, 102-03 (discussing potential conflict between autonomy and determinism); Susan Wolf, *Sanity and the Metaphysics of Responsibility*, in *Responsibility, Character, and the Emotions* 46, 50-53 (Ferdinand Schoeman ed., 1987) (noting that metaphysical problem of determinism has animated philosophical endeavors to locate basis for individual responsibility).

³⁴ Joseph Raz puts it succinctly: "The autonomous person is a (part) author of his own life. The ideal of personal autonomy is the vision of people controlling, to some degree, their own destiny, fashioning it through successive decisions throughout their lives." Raz, *supra* note 31, at 369. Joel Feinberg speaks in terms of the "authenticity" of a person's choices: "A person is authentic to the extent that . . . he can and does subject his opinions . . . to rational scrutiny . . . [and] can and does alter his convictions for reasons of his own . . ." Feinberg, *supra* note 29, at 33. He speaks of self-creation, or self-re-creation, by receiving, adopting, resisting, discarding, and reassessing one's tastes, convictions, and goals. *Id.* at 33-35.

³⁵ By "preferences," I mean to refer to long-term goals or purposes and moral, ethical, and intellectual principles, as well as short-term desires.

³⁶ Harry G. Frankfurt and Gerald Dworkin have made the starkest statements of this conception of autonomy based on a bifurcated conception of the self, as though there is "a self" and a set of desires that either do, or do not, "belong" to that self. Dworkin, *Theory and Practice*, *supra* note 29, at 15; Harry G. Frankfurt, *Freedom of the Will and the Concept of a Person*, 68 *J. Phil.* 5 (1971). The internal coherence of an attempt to define two and only two layers, whose conformity makes a decision "autonomous," has been criticized seriously. In particular, there seems no reason to treat the second layer as "really" the self, not itself subject to critical review from yet a deeper level of self. See Christman, *supra* note 33, at 6-12 (noting that preferences can be result of conditions that are not consistent with autonomy, such as coercion and manipulation); Wolf, *supra* note 33, at 51-52 (noting that concept of multilayered self "seems only to have pushed the problem further back"). Recognizing this weakness, I nonetheless use in the text a construction that relies on this "deep self" type of analysis, because it separates out two types of constraints that can operate to mar a person's control over his life. The first are constraints that separate a person's actions in the world from that person's purposes, principles, policies, and preferences (Ps). The second are constraints that make the adoption of those Ps such that we would not want to treat them as having been adopted by the individual. Particularly in information law, and in questions of cultural policy, we are constantly faced with how Ps are formed, and to lose the ability clearly to differentiate between nonautonomous adoption of Ps and nonautonomous action would render the value of autonomy significantly less useful to analyze questions of information law and policy. I therefore retain the construction, but, as one sees a little later in the text, I suggest that we use a device called "the empathetic observer" to judge whether preferences are or are not autonomously chosen,

that her actions accord with her preferences and to the extent that those preferences can be said to be the product of her own choice. Failures in autonomy—both as a condition and as a capacity—can occur either in the disconnection between actions and preferences,³⁷ or in the disconnection between preferences and self.³⁸

Failure of autonomy may be rooted in both internal and external sources of constraint on an individual's capacity to author her life. Internal constraints fall into two broad categories: failure of threshold capacity and failure of will.³⁹ The former relates to the absence of a person's minimal capacity to adopt goals, preferences, or values, or to relate such goals, assuming she has them, to possible courses of action. These are the kinds of constraints that generally would fall under the notion of competence and that we assume, both as an empirical matter and as an ascription that guides liberal lawmaking, do not constrain most adults.⁴⁰ Failure of will relates to the failures of a person

and by this device I attempt to limit the problem of the deep self to one of normative evaluation of consequences and not to deal with the fundamental point about the makeup of the self in some metaphysical sense.

³⁷ Disconnects here can take the form of failures of will or failures of competency, as well as physical coercion that externally prevents action on preferences. Raz deals with such disconnects in his discussion of basic capacity and in his discussion of independence. Raz, *supra* note 31, at 372-73, 377-78. Feinberg treats such disconnects under the rubrics of self-possession and self-control. Feinberg, *supra* note 29, at 32 (self-possession), 40-42 (self-control).

³⁸ This is the trickiest notion to explain. If one uses, at least provisionally, the bifurcated self-conception, see *supra* note 36, the problem can be stated, in Dworkin's words, as "procedural independence"—the absence of external manipulation of one's second-order preferences. Dworkin, *Theory and Practice*, *supra* note 29, at 16. In other words, if one's actions are to be autonomous, one's second-order preferences (those that represent the real "self," those we would properly want to attribute to the individual, in my formulation) must be adopted without external intervention, specifically, without what Raz calls manipulation. Raz, *supra* note 31, at 377-78. Feinberg seems to be focusing on the same problem when he speaks of "authenticity" and moral independence. Feinberg, *supra* note 29, at 32-33, 36-39.

³⁹ Feinberg identified the duality of meaning with which the term "capacity" is used in connection with autonomy. He explained that in some contexts we use the term to mean something like "competence," a minimal threshold level necessary and sufficient to give one a moral and legal claim to be ascribed a right of self-governance. Feinberg, *supra* note 29, at 28. Failures of threshold capacity, understood in these terms, relate to instances relatively rare in adults that usually would fall into what we would treat as mental incompetence. *Id.* Raz, for example, speaks of "minimum rationality, the ability to comprehend the means required to realize [one's] goals, the mental faculties necessary to plan actions, etc." Raz, *supra* note 31, at 373. The second meaning of "capacity" for self-governance admits of degree. Greater capacity for self-governance (wisdom, foresight, etc.) improves one's actual ability to govern one's life. See Feinberg, *supra* note 29, at 30.

⁴⁰ The question of whether one should look beyond this minimal threshold capacity or not is precisely the dividing line between what Fallon usefully denoted ascriptive and descriptive autonomy. See *supra* note 32. Ascriptive autonomy, generally speaking, refers to the conviction that, once a person has minimal threshold capacities, we must avoid paternalism and micromanagement of his or her life by refusing to look beyond that threshold

to use her capacity for autonomy or to live by her choices. A person who has a capacity for choice but drifts through life without exercising it is suffering from a failure of will that prevents her from leading an autonomous life. Similarly, the person who has adopted goals and made choices, but then does not conform her actions to those choices (say, continuing to smoke after deciding to stop) suffers from a failure of autonomy of an internal sort.⁴¹

Internal constraints on autonomy could be the subject of state intervention. For example, the determination of legal competence is based on the presence of minimal capacity for self-direction.⁴² A determination of incompetence in civil contexts is the most explicit instance of law finding an absence of autonomy in one individual and therefore displacing that individual's failed will with the guardianship of another. Also, compulsory education can be understood as a means of helping children move from the absence to the presence of capacity. Compulsory education is a very important instance of law interacting with autonomy: actively fostering autonomy's conditions by combating the individual's own limitations. This is justified in our minds because we generally consider children to be on their way to becoming autonomous adults, rather than already being fully autonomous individuals. For reasons that I will explain in Part I.C, I do not propose that in the context of information policy we attempt to address internal constraints of this type.

External constraints also fall into two broad categories: those that separate a person's purposes, principles, policies, and preferences (Ps) from her actions and those that we would treat as "separating" a person's Ps from her "self." The scare quotes acknowledge the conceptual difficulty of identifying a "self" that is separated from a life history and a set of Ps. I therefore will define constraints that sepa-

capacity. To do otherwise would be to fail to respect that core individual capability for self-governance, displacing the will of the individual regulated for that of the regulator, irrespective of how benign the regulator's intention. See Post, Meiklejohn's Mistake, *supra* note 28, at 1130-31 (arguing that "[t]he ascription of autonomy is . . . the transcendental precondition for the possibility of democratic self-determination"); see also Fallon, *supra* note 27, at 890-93 (describing ascriptive conception of autonomy); Danny Scoccia, Paternalism and Respect for Autonomy, 100 *Ethics* 318, 327-34 (1990) (arguing that respect requires that we ascribe autonomy to persons who can engage in reasoned decisionmaking, even if their decisions do not increase autonomy).

⁴¹ This failure to conform one's behavior to one's will is referred to as "akrasia." For an accessible and schematic account of weakness of will, see May, *supra* note 31, at 85-94.

⁴² For example, the New York Mental Health Act includes in the definition of someone who is "in need of involuntary care and treatment" the requirement that the person's "judgment [be] so impaired that he is unable to understand the need for such care and treatment." N.Y. Mental Hyg. Law § 9.01 (McKinney 1996). See generally Wolf, *supra* note 33 (discussing sanity and responsibility).

rate a person's Ps from her self as relating to the presence or absence of external interventions or constraints that, if they occur in formation of a person's Ps, would make an empathetic observer⁴³ believe that the observed person would, but for these constraints, be reluctant to retain these Ps as her own.⁴⁴ Those who treat the value of autonomy as a one-dimensional vector—resisting laws that impose direct legal constraints on behavior—therefore lose a tremendous amount of valuable insight that our commitment to autonomy can give us in evaluating law.⁴⁵ A thicker understanding of autonomy would relate to all

⁴³ I use the notion of "empathetic observer" rather than "objective observer" because I think that what is relevant insofar as autonomy is concerned is the extent to which the individual would wish to identify with her choices. Since an individual has no external point from which to look at herself after the history that supposedly has subverted her preferences, I propose the empathetic observer as the most useful heuristic through which to measure the independence with which a person has adopted her second-order preferences.

⁴⁴ This device tries to get around the problem of recursiveness that John Christman identified with an early version of Dworkin's conception of autonomy. See *supra* note 33. There, Dworkin identified autonomous choice with having a person's first-order preferences (a preference to smoke) comport with her second-order preferences. Dworkin, *Theory and Practice*, *supra* note 29, at 15-16 (describing earlier conception and enumerating reasons for rejecting it). For example, an autonomous person would be one who wants to be the kind of person who smokes and likes it in the face of social approbation, while a nonautonomous person would be one who wants not to want to smoke but is a captive of his nicotine addiction. Christman objected that these second-order preferences themselves only would be the person's if they met some third-order preferences about what kind of second-order preferences the person desires, etc. Christman, *supra* note 33, at 10. The empathetic observer introduces a historical moment for each preference of the type Dworkin had called second order, such that if the preference is adopted by the person, the empathetic observer would consider, from the point of view that empathizes with the person, whether that person, just prior to adopting the new second-order preference, would want to become the person who has that preference. Then the act of adopting the new second-order preference becomes subject to the set of second-order preferences the person has prior to adoption, and the existence of a set of second-order preferences at any given time can be said to be the consequence of autonomous choice at previous times. The problem then resolves not to successive layers of higher order preferences but rather to the accretion of choices that makes a baby born into a set of genetic, environmental, and social endowments become an autonomous adult. Raz treats this problem of identification between a person and her desires, goals, etc. under the rubric of integrity. Raz, *supra* note 31, at 381-85.

⁴⁵ For example, while a woman's right to choose whether to become a mother or not is widely seen as concerning her autonomy, abortion opponents have succeeded in passing a number of constraints on abortion that, as a practical matter, constrain women's choices but do not do so by direct behavioral constraint. The Hyde Amendment, which is an appropriations rider inserted in various appropriations bills since 1976, see Act of Sept. 30, 1976, Pub. L. No. 94-439, § 209, 90 Stat. 1418, 1434, prevents Medicaid from paying for abortions. This, as a practical matter, is intended to deny the option to have an abortion, so that the views of the legislators, not the poor women, determine whether they become mothers or not. But as a formal matter, if one is concerned only with the minimal conception of autonomy as freedom from direct legal prohibition, the Hyde Amendment is not such a constraint. See *Harris v. McRae*, 448 U.S. 297, 326 (1980) (5-4 decision) (upholding constitutionality of Hyde Amendment); see also *Rust v. Sullivan*, 500 U.S. 173, 203 (1991)

external constraints on actions that alienate a person from her actions either by disabling her from acting on her Ps or by undermining her capacity critically to reflect on and control her preferences by reference to what she considers to be her stable, long-term commitments about how she should live her life.⁴⁶

To capture some of the detailed insight that autonomy offers, one must have a clearer picture of the ways in which agents can act upon each other. Joseph Raz identified two primary forms of constraint that one person can impose on another: coercion and manipulation. A person coerces another when she reduces the other's range of options by force. A person manipulates another when she interferes with the way that the other "reaches decisions, forms preferences, or adopts goals."⁴⁷

Either coercion or manipulation can be used to implement the first category of external constraint—separating a person from her actions. In other words, a person can be prevented *from acting* on her preferences either by coercion—whether through law or by force without authority—or by manipulation of that person's understanding of the relationship between her preferences and proposed courses of action.

(permitting federal law to prohibit participants in federally funded family-planning programs from communicating information about abortions); Webster v. Reprod. Health Servs., 492 U.S. 490, 499 (1989) (permitting law prohibiting use of state-level public funds or facilities to aid abortion or abortion counseling). Again, under a thin conception of autonomy, the prevention of information exchange is not itself a violation of the women's right to choose, while under a context-sensitive understanding of autonomy there is little doubt that the law actually will deprive some women of the capacity to choose.

⁴⁶ See Dworkin, *Theory and Practice*, supra note 29, at 12-20 (distinguishing between restraint recognized as such and restraint effective by way of deception or manipulation of subjective preferences); Feinberg, supra note 29, at 31-35 (arguing that capacity for autonomy is moot if one is unable to exercise it); id. at 37-39 (arguing that social and political mores constrain decisionmaking); Raz, supra note 31, at 373-78 (arguing that autonomy is invaded when individual lacks either independence, because of coercion or manipulation, or adequate options).

⁴⁷ Raz, supra note 31, at 377-78. Raz treats coercion and manipulation as constraints on a person's independence, which itself is part of that person's autonomy. To differentiate independence and adequacy of options, Raz focuses on *intentional* coercion or manipulation as constraining independence. Id. The offense these intentional acts of another do to a person's autonomy is not simply, or even necessarily, that they reduce the range of options open to that person below a threshold that we would consider adequate. As Raz puts it, slaves could in principle have a range of options open to them that, were they not slaves, we might have treated as an adequate capacity for autonomy. But they are not autonomous because the range of options open to them is defined by another: the slave owner. "Coercion and manipulation subject the will of one person to that of another. That violates his independence and is inconsistent with his autonomy." Id. It is the purposeful subjection of one person to the will of another that Raz captures with his notion of independence.

But the second category of constraints—those that separate a person from her Ps—only can function through manipulation of the way that she “reaches decisions, forms preferences or adopts goals.”⁴⁸ This manipulation of a person’s Ps is the most difficult to capture, and the most directly incongruent with interpretations of autonomy as nothing more than state nonintervention. This category includes situations where one person manipulates another to prevent him from realizing the options open to him or to subvert his process for assigning value to different options.

If we adopt an account of autonomy that takes both categories of constraint into consideration, we see that law can interfere with autonomy directly or indirectly. Law can diminish the capacity for, or condition of, autonomy of individuals even when it is not prohibiting an individual from acting on her choices or even without directly speaking to that individual at all, but speaking only to others who form the constraining context within which the individual chooses.

First, law can prohibit directly a sufficient number of actions so as to reduce a person’s options to an inadequate level. Totalitarian regimes, in particular those with extensive credos about how one’s personal life should be lived, like theocracies, impose laws that constrain autonomy in this sense. This is the simplest, and (for those of us fortunate enough to live in more-or-less free societies) therefore the least interesting relationship between law and autonomy.

Second, law can diminish directly a person’s ability to form preferences. Most obviously this would refer to laws that control the news of the world available on television or in newspapers, or laws that prohibit or require exhibition of certain literature, aimed at constraining the range of available options that *a person knows about* and hence that form the basis of that person’s preferences. A “don’t ask, don’t tell, don’t pursue” policy for gays in the military⁴⁹ is an example of a state’s retreat from its attempt to control autonomy by direct prohibition in exchange for the agreement of those previously regulated to

⁴⁸ Id.

⁴⁹ See 10 U.S.C. § 654 (1994) (setting forth framework for policy); see also National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, § 571(d), 107 Stat. 1547, 1673 (1993) (stating:

It is the sense of Congress that—

(1) the suspension of questioning concerning homosexuality as part of the processing of individuals for accession into the Armed Forces under the interim policy of January 29, 1993, should be continued, but the Secretary of Defense may reinstate that questioning with such questions or such revised questions as he considers appropriate if the Secretary determines that it is necessary to do so in order to effectuate the policy set forth in section 654 of title 10, United States Code, as added by subsection (a)).

refrain from “infecting” their environment by informing others about life choices disapproved by the government. What is important to see is that such a policy does not only harm the expressive liberty of military personnel who are gay. It also suppresses information about the option of being gay and a well-adjusted, robust person from the range of options generally perceived by all members of society. It is not solely an infringement of the autonomy of those who know that homosexuality is a way of life open to them.⁵⁰ It is an infringement of the autonomy of those who have no conception that such a life could be their own.⁵¹

Third, law can give some people power to control the actions of other people—say, parents over their children. And a law can give some people power over the will formation processes of other people—say, Amish elders who remove their children from public school exactly at the age when they believe that education would most influence their children’s preference-formation process and make them more able and likely to choose a life other than as members of their community.

This third type of effect that law can have on autonomy is the least studied and most complicated for two reasons. First, it can present situations where law is adversely affecting the autonomy of people whom it does not even address. Second, at least sometimes, the law actually can be seen as enhancing the autonomy of some people (such as Amish parents) while being blind to the costs it imposes on the autonomy of others (such as Amish children).

Before considering how recognition of the ways in which law can affect autonomy can be translated into an evaluative tool for information law, however, we need to understand the role of information in autonomous choice and the role of information law in control over information. To do so, I will start Part I.B by restating *Wisconsin v.*

⁵⁰ Although it is, obviously, most directly an imposition on the option of being openly gay.

⁵¹ I do not, and need not, take a position on the question of whether sexual orientation is chosen or genetically determined. See generally Katrina C. Rose, *The Gay Gene: The Key to Dismantling Laws Which Criminalize Consensual Sexual Activity or the Precursor to a New Wave of Good Ol’ All-American Eugenics?*, 3 U.S.F. J.L. & Soc. Challenges 57 (1999) (arguing that proof or lack of proof of genetic basis of homosexuality would not be determinative of legal status of homosexuals). Presumably, even if sexual orientation is genetically determined, individuals can, for example, choose whether to live life as sexually fulfilled individuals or as sexually frustrated but devout members of a church that prohibits homosexual relations. Or they can decide to attempt to cultivate a taste for homosexual relations despite the absence of genetic predisposition. The point is that our choices are all made within a life structured by genetic endowment, and the question is what type of information we have about the ways we might live given a set of constraints of this sort.

*Yoder*⁵² as a case about information law—law that shapes the way information flows in society. I then will outline how the relationship between law and autonomy, and that between autonomy and information, suggests an approach to evaluating information law in terms of autonomy.

B. Information and Autonomy for Context-Bound Individuals

To flesh out the effect law can have on autonomy by structuring the information environment within which individuals adopt their preferences and choose their courses of action, I offer here a highly stylized description of *Wisconsin v. Yoder*. Before going any further, however, I should make clear that I do not necessarily think that *Yoder* was wrongly decided, that parents should not be the presumptive best guardians for their children, or that Elián should have stayed with “the Miami relatives.” I use this case as an illustration despite the confounding factor that it involves parents and children, because in the stylized manner that I present it here it provides the clearest illustration of a legal decision that controls the information environment within which people plan their lives. In Part II, I undertake the laborious task of explaining why extensive privatization of information resources and communications facilities affects the autonomy of users in a manner that parallels the effects of the exemption from truancy on the autonomy of Amish children (without the mitigating factor that it is parents whom law enables to control the information environment of others: their children). But here I use the simplified facts of *Yoder* to outline how laws that structure the flow of information can have effects on the autonomy of those who rely on that information to author their lives.

The case involved the application of a state truancy law to members of the Old Order Amish community in Wisconsin. At issue in particular was the application of the law to teenagers between fourteen and sixteen years of age, for the members of the Amish community did not object to lower-grade schooling, only to the extension of schooling beyond eight grades.⁵³ The concern appeared to be that as children approach the age of exploration and doubt, they would be exposed to too much influence from the world outside their community, and they would be lost to their communities.⁵⁴ The Supreme Court held that the interests of parents in directing the upbringing and education of their children outweigh the interests of the state in ex-

⁵² 406 U.S. 205 (1972).

⁵³ *Id.* at 207, 210-11.

⁵⁴ *Id.* at 211-12.

tending compulsory education from eight to ten grades.⁵⁵ The children's autonomy claims, raised by Justice Douglas's dissent,⁵⁶ were largely excluded from the analysis, on the theory that the parents, not the children, were threatened with sanctions under the state's truancy law, and that their rights were therefore the sole relevant concern.⁵⁷

The tension between liberal public education and religious parents in general, and between liberal public education and *Wisconsin v. Yoder* in particular, has been the subject of extensive commentary.⁵⁸ I do not intend to contribute here to any of the debates over the justifiability of the Court's decision specifically or of our general constitutional approach to mediating the conflict between liberal education and a parental right to inculcate children in illiberal values, religious or otherwise. As throughout this Article, I do not offer here a defense of the value of autonomy. I am seeking merely to describe the effects of law on autonomy so as to enable a clear-sighted normative discussion of law that can take certain effects of law on autonomy into account. My goal is to identify some counterintuitive consequences of various information law and policy choices for those who, like me, do think autonomy to be an important value. I do not seek to persuade anyone that autonomy is important,⁵⁹ much less to argue that it is more important than community, family, or religion.

We can see the case as involving three relevant agents affected by the Court's decision about truancy law: parents, children, and teachers. There are two relevant settings to the information environment: schooling or no schooling. The policy question concerns the configuration of the legal relations among the three agents and the effects of

⁵⁵ Id. at 235-36.

⁵⁶ See the passage from the dissent quoted at the beginning of this Article, accompanying *supra* note 3.

⁵⁷ See the passage from the majority opinion quoted at the beginning of this Article, accompanying *supra* note 2.

⁵⁸ See James G. Dwyer, *Religious Schools v. Children's Rights* (1998); Warren A. Nord, *Religion and American Education: Rethinking a National Dilemma* (1995); Richards, *supra* note 28, at 150-55; Stephen G. Gilles, *On Educating Children: A Parentalist Manifesto*, 63 U. Chi. L. Rev. 937 (1996); Martha Minow, *The Free Exercise of Families*, 1991 U. Ill. L. Rev. 925; Francis Schrag, *Religion, Education, and the State: The Contrasting Views of James Dwyer and Warren Nord*, 25 Law & Soc. Inquiry 933 (2000); Nomi Maya Stolzenberg, "He Drew a Circle That Shut Me Out": Assimilation, Indoctrination, and the Paradox of a Liberal Education, 106 Harv. L. Rev. 581 (1993). More generally on liberal commentary and public education, see Meira Levinson, *The Demands of Liberal Education* (1999).

⁵⁹ The only exception would be the category of people who, at an intuitive level, might think autonomy valuable but nonetheless reject its use as a guide for action because of its vagueness or poor resolution power. For these, I hope that my pragmatic exercise of extracting an evaluation mechanism for law from a relatively thick conception of autonomy will make it a more attractive political value.

these relations on the information environment of the children. The law is of a type that leaves unchanged the universe of options practically open, as a matter of real world constraints on action, to fourteen-year-old children of Amish parents. This universe includes whatever options for action are feasible and legal for them to pursue, if they had perfect knowledge of these options and the steps they would have to take to pursue them. What the law changes is the universe of *perceived* options—the universe of ways of living that the children know about and can adopt as their own. And it does so by changing the controller of the information environment within which the children spend early adolescence.

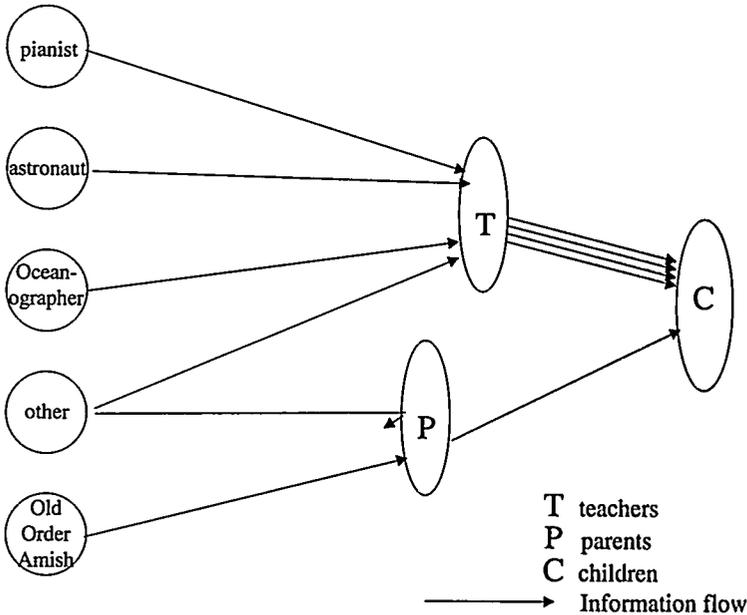
A refusal to provide an exemption from the truancy law will make the teachers one source of information for the children. By virtue of their training and curricular obligations, the teachers will provide access to the children to a set of options for life and to the initial knowledge and learning tools necessary to pursue these various options. This will not preclude the parents from exercising their influence over the children, but it will significantly limit the time they spend with their children or their control over their children's information environment, and hence it will decrease their relative role in defining the information environment within which their children choose. Specifically, what they teach their children will come to represent one option among a number of options, some of which teachers might advocate strongly, rather than the entire universe of options open to the children. This exposure, in turn, degrades the quality of the children's information environment from the perspective of parents who think there is only one true path.⁶⁰

The difference in the relative location of parents and teachers vis-à-vis the children's information environment is represented in Figures 1 and 2 below. In these figures the parents and the teachers are represented as filters between the children and the range of options that would have been practically open to them had they had perfect information. This representation assumes that the children's entire information environment is made up of information they receive either from their parents or from their teachers, which is obviously a radical oversimplification. But it does isolate the specific policy choice implicated in the decision about whether or not to exempt members of the Old Order Amish community from truancy laws.

In Figure 1, what we see is that the parents provide the information about the alternative of living life as members of the Old Order

⁶⁰ See Stolzenberg, *supra* note 58, at 588 (citing argument that children's exposure to liberal doctrine interfered with parents' ability to teach fundamentalism).

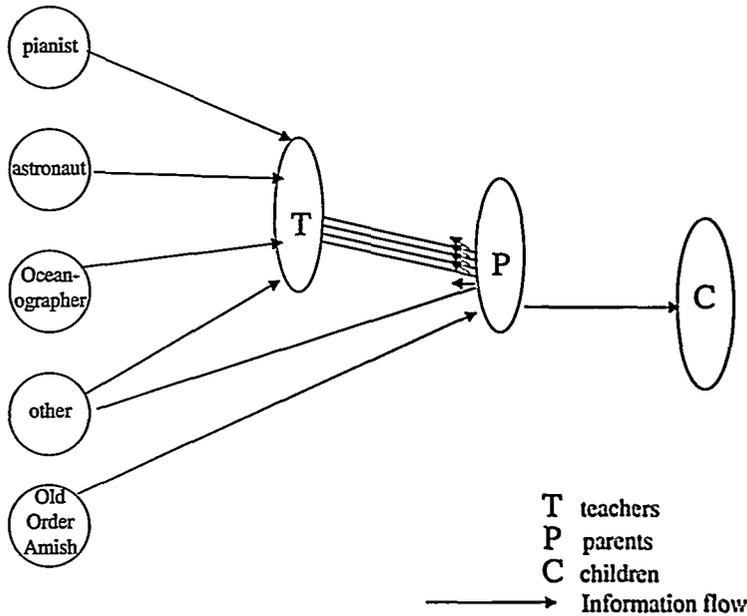
FIGURE 1
NO EXEMPTION FROM TRUANCY LAWS



Amish community. They exclude any information that they have about other alternatives and do not convey it to the children. The teachers, however, presumably have little or no information about that option but present the children with varied other alternatives. In Figure 2, the parents, interjected between the information transmitted by the teachers in Figure 1, decide whether or not to let the information through. This reflects that they have the power to make a relatively crude choice—either school or no school—with which they can turn on or off the entire flow of information from the teachers to the students. The choice of the parents not to send their children to school excludes all options from the view of the children, except the one option that the parents have chosen for their children: becoming adult members of the Old Order Amish community.

What the figures represent is that there are two independent effects that the legal choice about an exemption from truancy laws has on the children's autonomy. The first has to do with the range of options known by the children to be available to them. This is the less complicated aspect of the analysis. The strong truancy law exposes the children to many more options, without removing from them the option of living as members of the Old Order Amish community. It is true, however, that the *value* of that option to them might change, because they have been exposed to differing perceptions, all of which

FIGURE 2
EFFECTS OF AN EXEMPTION FROM TRUANCY LAWS



presumably place a lower value on the option of being a member of that community than do the parents. This demonstrates that a commitment to autonomy is not costless. Autonomy may be acquired at the expense of community, or solidarity, or spiritual peace. But my goal, as I have said before, is not to defend autonomy as the primary value to be embraced by law. It is only to identify how law affects this value.

Children who grow up with knowledge of a wide variety of options for living, and with the capacity to value different options, will have a greater role in selecting the option they will pursue as adults than children who know no other option. The adult who was an Amish child and who stays in the community after exposure to alternatives has done so more autonomously than one who lives the same life never having been exposed to other options. The difference between the two may be irrelevant from the perspective of the values of the Old Order Amish community. It does not make the former a better member of the Amish community. It simply makes that member more autonomous, and to think that this makes him better off is a decidedly liberal valuation. However, when a liberal legal system chooses between two laws, one that makes members of the Old Order Amish community more autonomous and another that makes them less autonomous, the former law can be said to be supported by that

system's normative commitment to personal autonomy. If the latter is chosen nonetheless, it must be chosen for another reason, be it a pluralist commitment to tolerate even intolerant minorities or some form of communitarianism or, more specifically, respect for religion or family.⁶¹

The second implication for autonomy has to do with the role that the law gives parents in shaping their children's lives. This point is distinct from the point about the effects the law has on the adequacy of the range of options likely to be available to the children of the Old Order Amish community. It is a point about the fact that the legal decision makes one class of individuals—children—the object of the agency of another class of individuals—parents. The problem from the perspective of autonomy is that giving parents the exemption from the truancy law violates the autonomy of children by making their lives the object of manipulation or control by parents.

To illustrate this effect, we can start with a simple model, one that has only two agents. So let us exclude the teachers by imagining Wisconsin schools as a successfully value-neutral system, run according to a statewide liberal curriculum aimed at providing basic skills and exposing children to the wide variety of ways of living open to individuals in the United States in the twenty-first century. Now, if you look at Figure 2 again, you see that the exemption from truancy laws has the following effect. There is a universe of options actually, practically open to fourteen-year-old children from Wisconsin. Parents are put in the position of obscuring the availability of these options in order to increase the likelihood that their children will choose a particular form of life—the life that the parents would rather that the children have. From the perspective of autonomy, the problem with the law is that it predictably lets one group of people exert control over the lives of another group of people to make those others live a life that conforms to the first group's preferences. This concern is distinct from the adequacy of the range of options. It is about not designing law such that it makes one person's life the object of another's choices.

Now, you will say, the parent-child relationship is different. Before going into what might be a plausible autonomy-based claim for that difference, let's first consider the possibility that the parental

⁶¹ See Richards, *supra* note 28, at 150-58, 162 (discussing education and arguing for primacy of religious toleration in constitutional interpretation); Stolzenberg, *supra* note 58, at 634-39 (discussing *Yoder* decision to validate Amish cultural autonomy as opposed to individual autonomy).

rights descendant from *Pierce v. Society of Sisters*⁶² are an implementation of the *parent's* autonomy. For such a claim to be true, it would have to be true that when parents choose for their children, they are engaged in an act of *self-governance*. To make such a claim coherent, the children must be treated as nonpersons, as mere appendages of their parents. If they are treated as persons, but with a limited capacity for rational self-direction, then the autonomy-focused inquiry has to be one of stewardship—who will best lead the children to become self-governing individuals. But then the claim for parents' rights has to be instrumental and derivative. It would have to explain why they, rather than anyone else, would be the best stewards (which they usually are, presumably, if for no other reason than love and familiarity). But then the right is not about the parents' autonomy at all.

An autonomy-based parental guidance right must treat the children, not the parents, as the subjects. As a practical matter, this would require that parental control be the presumptive default provision for the guidance of children, one subject to challenge by facts that show that the parents are weakening the capacity of their children to become autonomous adults. Any other claims based on the centrality of raising children and family to the parents' life cannot relate to the parents' autonomy. It might be a communitarian appeal to the centrality of connectedness to well-being. If it is about autonomy at all, it might relate to the well-being of parents as autonomous agents, which depends upon their success in carrying out life plans they conceived for themselves, including their plans for family and children.⁶³ But recognizing a parent's direct *individual* right to control the education of children under these circumstances trades off the children's capacity for autonomy against the parents' success or happiness. It is hard to see how one could defend *in terms of autonomy* aiding the well-being of one autonomous agent by constraining another to follow a life plan laid by the former.⁶⁴

⁶² 268 U.S. 510, 534-35 (1925) (recognizing parental right to direct children's schooling). For a recent example of a parental rights case, see *Troxel v. Granville*, 120 S. Ct. 2054, 2065 (2000) (holding that parent has right to deny visitation to grandparents).

⁶³ Raz's more complete project for an autonomy-based role for the state relies heavily on the notion that the well-being of autonomous agents consists in the successful pursuit of self-chosen goals. Raz, *supra* note 31, at 390-95, 426. Aiding individuals in maintaining successful families on this view need not be a communitarian goal but may be one firmly rooted in autonomy. The problem that *Yoder* underscores is that even if the parents' rights are viewed as autonomy-loving in the sense that they help parents successfully pursue their life plans as parents, it does so by undermining the autonomy of the children.

⁶⁴ Obviously a description that looks at family from the perspective of autonomy is very partial. The solipsism implied by such a conception of the family seems to fly in the face of the very idea of family, and our experiences of it. But the point here is to try to understand what a consistent position on autonomy would have to say about *Yoder*, not

This conception of the parents' right as derivative of the children's interest in leading an autonomous life can guide our analysis of the more realistic situation in which law must choose who will control the information environment of children, rather than whether anyone will. Recall that the two-agent model was a simplification. The three-agent model includes teachers, and the legislature or court is required to select which combination of two possible actors will play the role of educator—presenter of perceptions of what the world can and ought to be like for these children. One important set of reasons for recognizing parents' rights might be that parents want the best for their children and are the best people in an imperfect universe to be the editors of the children's perception of the world. This obviously would be supported if, for example, one thought that teachers were bad educators or abused their position to try to make children in their own image. But it would be undermined if we saw parents, rather than teachers, as those who constrain the capacity of their children to perceive and evaluate the range of options open to them or who affirmatively seek to control their children's lives.

The point is that to the extent one is concerned with autonomy, some regulatory choices will present themselves without the option of having no one control the information environment of some group of interest-bearers, as in the hypothetical two-agent model. Sometimes regulatory choices will require a choice among different configurations of control over the flow of information around a given group of subjects, and the choice will be among various potential bearers of the power to control that information environment. At that point, predictions about how these putative controllers will use their power matter. In particular, constraints on how these candidates can perform the role of information controllers are relevant—whether these constraints are imposed by law or by organizational or social practices. If, as a matter of prediction, teachers are likely to use their control over children's access to information to expose them to more options and to present these options as equally valid, while parents are likely to use this power to try to shape their kids' lives, then a law will better serve autonomy by requiring school attendance than by permitting exemptions from the truancy laws.

The rather abstracted construction of *Wisconsin v. Yoder* that I offer here underscores two aspects of the relationship between information law and autonomy. First, laws that affect control over infor-

what a healthy system of values that includes autonomy as one value would. And the reason that this is my exclusive focus is because I am using *Yoder* to explore the relationship between law and autonomy, not between law and the way a polity ought to configure a community and the relationships among its members, all things considered.

mation flows can make some people the objects of the choices of others. Where a law has the effect of placing one group of people in a position to control the flow of information to another, this law conflicts with the autonomy of those placed under the control of others. The gain in control experienced by some over the information environment of others does not represent a parallel gain in autonomy. Second, such laws sometimes can increase or decrease predictably the range of options open to certain groups of individuals, without affecting the range of options seen by others. When a law does so to an extent that significantly diminishes the adequacy of the range of options seen by the affected group, it decreases the capacity for, and condition of, autonomy of that group.

Where law must select among different competing configurations of control over information flows, each of which will have the consequence that at least one class of individuals will be subject to the control of some other group, then a commitment to autonomy requires sensitivity to the likely differing uses that the controllers selected will make of their control. A commitment to autonomy would prefer controllers who are less likely to use, or are by law constrained from using, their position as controllers of the information environment of others to shape the life choices of those others. In the *Yoder* framework, the commitment to autonomy might prefer teachers over parents, if the state educational system gave one confidence that the children's autonomous choices, rather than the teachers' preferences, were more likely to be facilitated by the schooling. Later in this Article, I will compare unrestricted property, common carriage, government ownership, commons, and open spectrum access as alternative policies for communications infrastructure regulation in precisely these terms.⁶⁵ Again, nothing I have said here argues that *Yoder* was wrongly decided, all things considered. But in analyzing the parents' rights without reference to the effects of their guardianship on the autonomy of their children, the Court decided to sacrifice the value of personal autonomy in the service of some other value. What is most important for our purposes is to understand how the legal design of the relative roles that parents and teachers play with respect to the children's information environment structured and constrained the autonomy of the children.

⁶⁵ See *infra* Part II.B.

*C. Delimiting the Province of Autonomy in Shaping
Information Law*

It is quite possible to imagine an agenda for lawmaking that is sensitive to all the effects of law on autonomy. Such a therapeutic agenda would seek to help people overcome their internal as well as external constraints on autonomy. This would entail regulation that aids people in learning about their options and that binds them to choices that they make once they make them. The problem with this kind of agenda is that it is precisely the kind that most directly invokes concerns over paternalism and an overbearing state. For example, laws that impose a waiting period between obtaining a marriage license and marrying, or between seeking an abortion and receiving treatment, could be understood as laws that assume a potential failure of competence or will. They seek to cure that failure through the legally imposed cooling-off period. In doing so, such laws raise most directly and seriously the concerns of those who suggest that regulating in aid of autonomy is an oxymoron.⁶⁶ I am not at all sure that some such agenda would in fact be inconsistent with a thick, context-based conception of autonomy.⁶⁷ But my aim here is to propose an evaluative approach useful to as many autonomy lovers as possible, including those whose intuitions lean towards an ascriptive conception of autonomy. Pursuing a therapeutic agenda would scuttle that enterprise.

One need not adopt a therapeutic agenda, however, to derive quite significant guidelines for lawmaking out of a concern for the autonomy of people who live in the context of others. These guidelines would go far beyond the minimalist treatment of autonomy as government nonintervention. And they must, because government nonintervention per se has nothing to do with personal autonomy. Personal autonomy is concerned with evaluation of the degree to which a person can be the author of her life, all constraints considered. The source of constraint is less important than its effect on the role an individual plays in the making of her life. From this perspective, it is important that someone other than the individual is making her life for her, rather than that someone is a government agent.

We cannot say that government-imposed prohibitions on action are systematically the only external constraint, or even the most rele-

⁶⁶ E.g., Fried, *supra* note 28, at 234-37; Post, *Meiklejohn's Mistake*, *supra* note 28, at 1120-23.

⁶⁷ Raz is the philosopher who comes closest to suggesting an agenda aimed at attaining the inner, as well as outer, conditions of autonomy, though within bounds that prohibit an attempt to "force" people to be autonomous. Raz, *supra* note 31, at 420-29.

vant or easily remedied constraint on personal autonomy. Nor can we say that autonomy is implicated only by external constraints that can be traced to lawmaking by the state. That would be to ignore the harm to autonomy caused by the other individuals who hold power over one's life. The physician-patient relationship, for example, has been a particularly fruitful arena in which autonomy has been examined as being respected or compromised by the structure of interpersonal relations.⁶⁸

Once one understands that the personal autonomy of one person, in principle, can be enhanced or constrained by the actions of other individuals who are not state actors, evaluating law in terms of autonomy requires more than an examination of the direct constraints it places on the individual choice of its subjects. Law can affect the conditions that make some people more autonomous or others less so. It may alter the range of options perceivable by some people, and, most importantly, it may give some people the power to act upon the autonomy of others. There is nothing paternalistic about considering all the effects of law on the constraints that individuals face in their pursuit to control their own lives. It does not demean people to recognize that they act within a set of constraints. Indeed, it is respect for people's actual capacity to be autonomous in the presence of so many constraints that requires law to refrain from unnecessarily impeding that capacity, whatever the mechanism by which law's rules are implemented as a constraint on individual choice.

I suggest that we focus autonomy-based evaluation of law on two primary types of effects that law can have on personal autonomy. The first type is specifically concerned with the relative capacity of some people systematically to constrain the actions or shape the preferences of others. A law that systematically gives some people the power to shape the preferences of, or options open to, others, is a law that harms autonomy. Government regulation that attempts to shape its subjects' lives is a special case of this more general concern. This concern is in some measure quantitative, in the sense that a greater degree of control to which one is subject is a greater offense to autonomy. But, more fundamentally, it is a concern about according

⁶⁸ See Dworkin, *Theory and Practice*, supra note 29, at 112-20 (noting unique import of health care decisions for individual autonomy and considering practice of informed consent in this light); Ken Marcus Gatter, *Protecting Patient-Doctor Discourse: Informed Consent and Deliberative Autonomy*, 78 *Or. L. Rev.* 941 (1999) (arguing that regulations restraining patient-doctor discourse raise constitutional concerns); Edmund D. Pellegrino, *Patient and Physician Autonomy: Conflicting Rights and Obligations in the Physician-Patient Relationship*, 10 *J. Contemp. Health L. & Pol'y* 47 (1994) (explaining importance of addressing both patient's autonomy and doctor's autonomy in patient-doctor relationship).

autonomous agents equal dignity. A law that systematically makes one person susceptible to the control of another offends the autonomy of the former, even if we predict that the number of choices that the putative controller will affect is quite small. The reason for this qualitative concern is that the law has created the conditions for one person to act upon another as an object. This is the nonpragmatic offense to autonomy committed by abortion regulations upheld in *Planned Parenthood v. Casey*⁶⁹—such as requirements that women who seek abortions listen to lectures designed to dissuade them—justified by the plurality there by asserting that the state's interest in the potential life of a child trumps the autonomy of the pregnant woman.⁷⁰

The second type of effect that law can have on autonomy is to reduce significantly the range and variety of options open to people in society generally, or to classes of people. This is different from the concern with government intervention generally, because it is a question that is not focused on whether the state prohibits these options, only whether the *effect* of the law is to remove options. Whether this effect is through prohibition or through a set of predictable or ex post observable behavioral adaptations among individuals and organizations that as a practical matter remove these options is less important. I do not mean to argue for the imposition of restraints, in the name of autonomy, on any lawmaking that results in a removal of any option, irrespective of the quantity and variety of options still open. Rather, I wish to raise the autonomy concern implicated by laws that systematically and significantly reduce the number, and more importantly impoverish the variety, of options open to people in the society for which the law is passed.

When I speak of number and variety I am suggesting two dimensions of effect on the options open to an individual. The first is quantitative. For an individual to author her own life, she must have a significant set of options from which to choose; otherwise it is the choice set—or whoever, if anyone, made it so—and not the individual, that is governing her life. If one holds the position that more choices are always better, from the individual's perspective, then one might be tempted to think that reduction in choices always conflicts with autonomy. One might think, however, that beyond an adequate range of options, more options are unnecessary to sustain autonomy, or even

⁶⁹ 505 U.S. 833 (1992).

⁷⁰ *Id.* at 872-73, 877-78. Note that this aspect of the decision applies to a stage of previability, hence before, at least within the *Roe* framework, the fetus is seen as having any independent claims as a person. The conflict is perceived as between an actual person's autonomy—the woman's—and society's interest in the possibility of the creation of a new life. Autonomy here is implicated only for the woman who is subject to regulation.

may undermine it. Gerald Dworkin, for example, suggests that beyond some level more choices actually might harm an autonomous person by, among other things, increasing decision costs, creating a sense of responsibility and obligation, and sometimes heightening social pressures to conform.⁷¹ Joseph Raz explains that a diverse choice set is necessary for autonomy, but his argument suggests that beyond a certain threshold, increases or decreases in the quantity of available choices, and in particular the availability of any specific given option, do not significantly implicate autonomy.⁷²

More interesting, especially in a nontotalitarian system of governance, is the qualitative concern with options.⁷³ The options available must represent meaningfully different paths, not merely slight variations on a theme. At one level, this is just another dimension of determining whether an individual has a sufficient number of choices. Slight variations on a theme simply may not “count” as providing meaningful choices.⁷⁴ If this were the sole meaning of “diversity,” it would in effect operate as a measure of the adequacy of the quantity of options by defining theme and variations as a single option. I suggest, however, that “diversity” entails more—that it requires the availability of options in whose adoption or rejection the individual can practice critical reflection. In order to sustain the autonomy of a person born and raised in a culture, with a set of socially embedded conventions about what a good life is, one would want a choice set some of whose options represent unconventional, nonmainstream (if you will, critical) options.⁷⁵

If all the options one has—even if, in the purely quantitative sense, they are “adequate”—are conventional or mainstream, then one loses an important dimension of self-creation. The point is not that to be truly autonomous one necessarily must be unconventional.

⁷¹ Dworkin, *Theory and Practice*, supra note 29, at 65-78.

⁷² Raz, supra note 31, at 373-77, 410-11.

⁷³ Raz expresses this in his notion of variety among options. *Id.* at 375. Within Dworkin's framework, the relevant measure of whether choice exists or not is having enough options to provide a sufficient opportunity for critical reflection. Dworkin, *Theory and Practice*, supra note 29, at 17-20.

⁷⁴ This seems to me to be the import of Raz's preference for a choice between one suburban home and one city apartment over a choice among many suburban homes. He seems to suggest that he would not count a choice set populated solely by slight variations on a single theme of how to live one's life as a meaningful set of choices. Raz, supra note 31, at 375.

⁷⁵ Raz states the strong position that “bad” or morally repugnant choices don't count, because to be autonomous a person must have choices among morally acceptable options, not only between good and evil. Raz, supra note 31, at 411-12. Even if one accepts the exclusion of morally repugnant options from those options that count, still there must be morally acceptable options that are critical in the sense I describe in the text.

Rather, the point is that if self-governance for an individual consists in critical reflection and re-creation by making choices over the course of his life, then some of the options open must be other than those that he would choose simply by drifting through life adopting a life plan for no reason other than that it is adopted by most others. A person who chooses a conventional life in the presence of the option to live otherwise makes that conventional life his own in a way that a person who lives a conventional life without alternative options does not.

To restate this position in the context of information law: Information law that is sensitive to its effects on autonomy must be concerned with its effects on information flow to, from, and among individuals and organizations in the regulated society. There are two primary effects of concern. First, if a law creates systematic shifts of power among groups in society so that some have a greater ability to shape the perceptions of others with regard to available options, consequences of action, or the value of preferences, then that law is suspect from an autonomy perspective. It makes the choices of some people less their own and more subject to manipulation by those to whom the law gives the power to control perceptions. Second, there is the concern with information about the range—both quantitative and qualitative—of options open to all or to some subset of individuals in society. A law that systematically and severely limits the range of options open to individuals to see is one that imposes a normative price, in terms of autonomy, for whatever value it is intended to deliver.

By limiting my focus to these two design imperatives, I hope to alleviate Robert Post's complaint about democracy-focused discourse policy.⁷⁶ Post identifies what he sees as a paradoxical quality: While autonomy well may be something that needs to be "achieved," the "structures of social authority" will be designed differently depending on whether individuals are treated as autonomous or not.⁷⁷ "From the point of view of the designer of the structure, therefore, the presence or absence of autonomy functions as an axiomatic and foundational principle."⁷⁸ This, in his view, dooms autonomy-sensitive information policy to failure. So long, however, that the focus of autonomy as a design principle is on securing the best possible information flow to the individual, the designer of the legal structure need not assume that individuals are not autonomous in order to serve autonomy. All the designer need assume is that individuals will not act so as to optimize the autonomy of their neighbors. Law then responds by facilitating

⁷⁶ Post, *Meiklejohn's Mistake*, *supra* note 28, at 1130-32.

⁷⁷ *Id.* at 1131.

⁷⁸ *Id.*

the autonomy of individuals at the expense of the ability of others to control them or by diversifying the set of options they see as open to them.

The way in which my limited focus responds to Post's criticism of the democracy-based First Amendment scholarship suggests a possible congruence between respect for autonomy and respect for democracy in analyzing the First Amendment and information law. Understanding that autonomy is served by widespread availability of information about diverse ways of living and valuations of these ways of living goes some way toward bridging the gap between the requirements of democracy and those of autonomy as to information policy. It does so by aligning both normative commitments behind a policy preference for an information production and exchange system in which information production is widely distributed and carried out by individuals and organizations responding to diverse motivations, both commercial and noncommercial.

The commitment to an information environment where information is available from "diverse and antagonistic sources" is a long-standing commitment, repeatedly recognized by the Supreme Court in the past half century.⁷⁹ Traditionally, it is a commitment that has been defended as necessitated by democracy, not by autonomy.⁸⁰ Must-

⁷⁹ The phrase "diverse and antagonistic sources" was first used in *Associated Press v. United States*, 326 U.S. 1, 20 (1945) ("[The First] Amendment rests on the assumption that the widest possible dissemination of information from diverse and antagonistic sources is essential to the welfare of the public, that a free press is a condition of a free society.") and has been repeatedly cited since. See, e.g., *Turner Broad. Sys., Inc. v. FCC*, 520 U.S. 180, 192 (1997) (*Turner II*) (holding that state regulation does not violate First Amendment); *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 663-64 (1994) (*Turner I*); *Buckley v. Valeo*, 424 U.S. 1, 48-49 (1976); *Citizen Publ'g Co. v. United States*, 394 U.S. 131, 139-40 (1969); *N.Y. Times v. Sullivan*, 376 U.S. 254, 266 (1964); see also *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 390 (1969) (noting First Amendment purpose of promoting "an uninhibited marketplace of ideas").

⁸⁰ See 2 Zechariah Chafee, Jr., *Government and Mass Communications: A Report from the Commission on Freedom of the Press* 678-719 (1947) (arguing against affirmative governmental action aimed at ensuring that press adequately serves democratic society); Jerome A. Barron, *Access to the Press—A New First Amendment Right*, 80 *Harv. L. Rev.* 1641, 1642-43 (1967) (arguing that "free marketplace of ideas" doctrine fails to adequately protect politicized expression); Thomas I. Emerson, *The Affirmative Side of the First Amendment*, 15 *Ga. L. Rev.* 795, 839 (1981) (arguing for governmental action that "supports the pluralist forces" in democratic society); Owen M. Fiss, *Free Speech and Social Structure*, 71 *Iowa L. Rev.* 1405, 1407 (1986) (arguing that democracy "presupposes a debate on public issues"); Owen M. Fiss, *Why the State?*, 100 *Harv. L. Rev.* 781, 784 (1987) ("[T]he First Amendment seeks to further democracy. . ."); J.M. Balkin, *Some Realism About Pluralism: Legal Realist Approaches to the First Amendment*, 1990 *Duke L.J.* 375, 383-86 (pointing out that free speech protections historically helped marginalized groups to gain political influence); C. Edwin Baker, *Advertising and a Democratic Press*, 140 *U. Pa. L. Rev.* 2097, 2099 (1992) (arguing that media should serve the needs of democratic society); C. Edwin Baker, *Private Power, the Press, and the Constitution*, 10 *Const. Comment.*

carry rules,⁸¹ cable-access channels,⁸² video common carriage,⁸³ and broadcast licensing regulations⁸⁴ are the prominent examples of requirements that implement this commitment.

What the context-based conception of autonomy does is suggest that there are areas of information law and policy in which a commitment to autonomy and a commitment to democracy support the same policy recommendations. A rule that prevents the owner of a major communications facility—say, cable—from editing all channels on the system it owns can be designed to provide outlets for small-scale producers, who cannot program an entire channel, to put on their shows.⁸⁵ While such an access requirement traditionally has been explained in terms of democracy,⁸⁶ it also can be explained as weakening the control the cable operator has over the information available to cable viewers. In that sense it can aid autonomy. And, to the extent that such a regulation in fact can attain the desideratum of enabling diverse and antagonistic voices to be heard, such diversity is germane not only to collective self-governance, but also to individual self-governance, or personal autonomy.

In the remainder of the Article, I will try to render concrete this analysis by exploring the consequences for autonomy of one of the most basic commitments of contemporary American information policy: the commitment to rely almost exclusively on commercial provi-

421, 424 (1993) (“[T]he Constitution should help protect the press’s role in checking government abuse. . . .”); J.M. Balkin, *Populism and Progressivism as Constitutional Categories*, 104 *Yale L.J.* 1935, 1935 (1995) (noting historical pedigree of argument that purpose behind free speech is promoting democratic deliberation); C. Edwin Baker, *Giving the Audience What It Wants*, 58 *Ohio St. L.J.* 311, 352-53, 366 (1997) [hereinafter Baker, *Giving the Audience What It Wants*] (noting that media policy is concerned with political participation); C. Edwin Baker, *The Media that Citizens Need*, 147 *U. Penn. L. Rev.* 317, 317 (1998) (“Democracy is impossible without a free press.”).

⁸¹ See *Turner II*, 520 U.S. at 192 (noting that must-carry rules serve interest in providing information from “diverse and antagonistic” sources); *Turner I*, 512 U.S. at 663 (same).

⁸² See *Denver Area Educ. Telecomm. Consortium v. FCC*, 518 U.S. 727, 762-63 (1996) (describing system of “public, private, and mixed nonprofit or governmental access managers” that can comprise “locally accountable body”).

⁸³ See *Telephone Company-Cable Television Cross-Ownership Rules*, 7 F.C.C.R. 5781 (1992) (second report and order) (laying regulatory groundwork for making telephone infrastructure into video common carrier).

⁸⁴ See *Red Lion Broad. Co.*, 395 U.S. at 367, 400-01 (upholding fairness doctrine in name of securing public access to diverse voices); *Nat’l Broad. Co. v. United States*, 319 U.S. 190, 226-27 (1943) (upholding licensing requirements in public interest).

⁸⁵ For regulations of this pattern, see *Denver Area Educ. Telecomm. Consortium, Inc.*, 518 U.S. at 734 (regarding cable access); *Turner I*, 512 U.S. at 630-34 (regarding must-carry); see also *Turner II*, 520 U.S. at 189 (noting that must-carry promotes “the widespread dissemination of information from a variety of sources”).

⁸⁶ *Turner II*, 520 U.S. at 189-94 (explaining holding in terms of securing access for Americans to information and diverse expression, not necessarily correcting market failure). See generally the scholarship cited *supra* note 80.

sion of the infrastructure and content of our information environment. In Part II, I explain how the first step towards a purely private, market-driven information environment—the creation and expansion of private property in information and communications resources—conflicts with autonomy. I will suggest how, in particular, excessive reliance on property systematically enables some people—owners—to act upon others—users—as objects of control. In Part III, I will focus on a set of effects familiar from the media regulation literature: how concentration and commercialization affect the diversity of information available in a society. I analyze the problem, however, by looking at the range of options that autonomous individuals see as a function of the distribution of the capacity to become an information producer—a storyteller, if you will—in that society. And, because autonomy is threatened when there is homogenization of options on a large scale, I specifically will focus on decisions that tend to limit the availability of information about heterodox ways of living and that have large-scale effects, rather than incremental effects.

II

PROPERTY AND INFLUENCE

Property is usually thought to be in some measure important to autonomy: whether as a consequence of self-possession, as with Locke,⁸⁷ or as necessary to the embodiment of the self in the world, as with Hegel and the Idealists,⁸⁸ or to one's independence from others, as with the Jeffersonian republicans.⁸⁹ One therefore would expect

⁸⁷ John Locke, *Two Treatises of Government* 287-88 (Peter Laslett ed., Cambridge Univ. Press 1988) (1690). On the Lockean labor theory of property, see C.B. MacPherson, *The Political Theory of Possessive Individualism: Hobbes to Locke* 194-262 (1962).

⁸⁸ Here I refer both to the German Expressivism, from Herder on, that preceded Hegel, see Charles Taylor, *Hegel* 13-29 (1975) (examining central currents of late eighteenth century), as well as to later English Idealism, see Thomas Hill Green, *Lectures on the Principles of Political Obligation* § 214 (Ann Arbor Paperbacks 1967) (1892), as well as, most obviously, to Hegel's own philosophy of property, see Jeremy Waldron, *The Right to Private Property* 361-63, 369-70 (1988).

⁸⁹ Visions of the connection between property ownership—in particular homesteading—and personal freedom abound among the statements of the Jeffersonian republicans who supported the Homestead Act of 1862, ch. 75, 12 Stat. 392, in the decade and a half that preceded its enactment. Andrew Johnson argued in 1850: “[Y]ou have made the man a better citizen of the community. He becomes qualified to discharge the duties of a freeman. He comes to the ballot-box and votes without the restraint or fear of some landlord.” Cong. Globe, 31st Cong., 1st Sess. 951 app. (1850) (statement of Rep. Johnson). Johnson later argued in favor of giving 160 acres to the “landless, homeless man . . . that he may live upon it and cultivate it, and thereby become an independent man and an efficient citizen.” Cong. Globe, 31st Cong., 2d Sess. 313 (1851) (statement of Rep. Johnson). “Talk not of free agency,” said Galusha Grow in 1852, “to him whose only freedom is to choose his own method to die.” Cong. Globe, 32d Cong., 1st Sess. 428 app. (1852) (statement of Rep.

that, intuitively, it would be odd to suggest that extensive property rights in information and communications facilities stand in tension with autonomy. This intuitive resistance, however, may be attenuated in the face of a number of initial observations about the context in which the privatization of information, knowledge, culture, and communications is occurring at the turn of twenty-first-century America.

First, corporations hold almost all property rights in communications facilities and most rights in information and cultural products. While it seems sensible to treat a corporation as a legal "person" for many practical purposes, it would be odd to think of such an organization as being the subject of "personal autonomy" in a normatively interesting sense.⁹⁰ Autonomy is a value rooted in respect for the equal dignity of humans as rational beings. It is meaningless to speak of a collection of contracts and hierarchical organizational relations as being "the subject" of autonomy. Where law gives corporations "rights," say, to free speech, it is not serving autonomy. The right recognized might be very important *instrumentally* to democracy, or even to autonomy. If corporations undertake important investigative reporting or fund enriching cultural products, they do in fact serve democracy and perhaps the autonomy of individuals who use the products or interact with the corporation. But the very recognition of the rights is not itself an act of respecting autonomy.

Second, individuals can use information, unlike land or houses, without affecting the ability of earlier possessors to use it. To the extent that property serves autonomy by securing access to resources that its owners can use as a platform from which to shape their life plan, or upon which they can rely to sustain their independence from others, the relation between having property and having autonomy is

Grow). "The struggle between capital and labor," he said, "is an unequal one at best. It is a struggle between the bones and sinews of men and dollars and cents. . . . And in that struggle, is it for this Government to stretch forth its arm to aid the strong against the weak?" *Id.* at 427; see also Note, *Distributive Liberty: A Relational Model of Freedom, Coercion, and Property Law*, 107 *Harv. L. Rev.* 859, 868-70 (1994) (describing efforts of National Reformers to use public lands to implement republican political economy).

⁹⁰ See Baker, *supra* note 28, at 194-224, for the most comprehensive treatment of why profit-driven enterprises cannot claim a free speech right that is based on self-expression, but, at most, on an instrumental contribution-to-marketplace-of-ideas theory. As Justice White put it, "[t]he use of communication as a means of self-expression, self-realization, and self-fulfillment, is not at all furthered by corporate speech. It is clear that communications of profit making corporations . . . do not represent a manifestation of individual freedom . . ." *First Nat'l Bank of Boston v. Bellotti*, 435 U.S. 765, 804-05 (1978) (citations omitted) (White, J., dissenting). More recently, Timothy Brennan has criticized the expansion of First Amendment protections to firms on what appears to be an ethical or moral set of assumptions, rather than purely on a utilitarian calculus, which, he suggests, is the only relevant dimension when considering rights of corporations. Brennan, *supra* note 10, at 796-97.

attenuated. As I explain in detail in this Part, securing access to information and communications resources to support one's autonomy can be satisfied by a sustainable commons—an absence of property claims—as well as it can be satisfied by property, if not more so. Creating property rights in information therefore does not play the role of providing the security of possession that enables self-authorship, as it might, for example, in a home, in tools, or in material resources.

What is primarily left of the autonomy-based arguments for property are those based on property as a means of controlling the extensions of one's self: the Lockean and Hegelian conceptions of property and autonomy.⁹¹ Again, it is important to recognize that these arguments largely are irrelevant to making moral claims in the name of communications infrastructure ownership because of the infrastructure's corporate, concentrated, commercial nature. However, it is possible to see intellectual property as respecting autonomy in a Lockean or Hegelian sense, and statements rooted in the rights to one's labor or in a romantic conception of the author's moral rights are not uncommon.⁹²

What limits the importance of this position with regard to normative evaluation of American information policy is that the basic ideological commitment of American intellectual property is actually heavily utilitarian, not Lockean or Hegelian. The Supreme Court has held consistently and unanimously that American law explicitly treats intellectual property rights in utilitarian terms, as limited monopolies granted to the extent necessary to create incentives for production.⁹³

⁹¹ For a description of these theories, see William W. Fisher III, *Theories of Intellectual Property*, in *New Essays in the Legal and Political Theory of Property* (Stephen R. Munzer ed., forthcoming 2001).

⁹² On Lockean labor theory in American intellectual property law, see generally Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 *Yale L.J.* 1533 (1993). On Hegelian property rights, see generally Justin Hughes, *The Philosophy of Intellectual Property*, 77 *Geo. L.J.* 287, 330-350 (1988). On the history of the adoption of Lockean arguments for intellectual property, see Fisher, *supra* note 91; see also William W. Fisher III, *Geistiges Eigentum—ein ausufernder Rechtsbereich: Die Geschichte des Ideenschutzes in den Vereinigten Staaten* [Intellectual Property—An Expanding Sphere of Law: The History of the Protection of Ideas in the United States], in *Eigentum im internationalen Vergleich* [Property: An International Comparison] 265 (1999), translated at http://www.law.harvard.edu/Academic_Affairs/coursepages/ffisher/iphistory.html (chronicling expansion of intellectual property in United States).

⁹³ *Campbell v. Acuff-Rose Music, Inc.*, 510 U.S. 569, 575 (1994) (citing utilitarian purpose of copyright and delineating fair use exception for commercial parody); *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-50 (1991) (explaining that because primary objective of copyright is to promote knowledge, authors have rights to their original expressions only, not to derivative works); *Graham v. John Deere Co.*, 383 U.S. 1, 5-6 (1966) (noting historical connection between patents and monopolies and stating that valid patents must spur innovation, advancement, or social benefit). On the aversion to monopolies

The Intellectual Property Clause itself states a utilitarian purpose: It permits grants of exclusive rights for limited times only and states its purpose as a social, not an individual, one “[t]o promote the Progress of Science and the useful Arts.”⁹⁴ In *Graham v. John Deere Co.*,⁹⁵ the Court quoted at length Thomas Jefferson’s statement that fundamentally rejects the notion of “natural rights” in one’s brainchild:

“Stable ownership is the gift of social law, and is given late in the progress of society. It would be curious then, if an idea, the fugitive fermentation of an individual brain, could, of natural right, be claimed in exclusive and stable property. If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me. That ideas should freely spread from one to another over the globe, for the moral and mutual instruction of man, and improvement of his condition, seems to have been peculiarly and benevolently designed by nature, when she made them, like fire, expansible over all space, without lessening their density in any point, and like the air in which we breathe, move, and have our physical being, incapable of confinement or exclusive appropriation. Inventions then cannot, in nature, be a subject of property. *Society may give an exclusive right to the profits arising from them, as an encouragement to men to pursue ideas which may produce utility, but this may or may not be done, according to the will and convenience of the society, without claim or complaint from anybody.*”⁹⁶

American intellectual property law has been no kinder to Hegelian rights to integrity, attribution, and withdrawal, in the form of “moral rights” of the type recognized in Europe.⁹⁷ A Hegelian system would not treat parody that uses an owner’s work to mock her as the

and how it resonated in the thinking of the drafters of the Constitution about patents, see Edward C. Walterscheid, *To Promote the Progress of Science and Useful Arts: The Background and Origin of the Intellectual Property Clause of the United States Constitution*, 2 *J. Intell. Prop. L.* 1, 37-38 (1994).

⁹⁴ U.S. Const. art. 1, § 8, cl. 8.

⁹⁵ 383 U.S. 1 (1966).

⁹⁶ *Id.* at 8-9 n.2 (emphasis added) (quoting Letter from Thomas Jefferson to Isaac McPherson (Aug. 1813)).

⁹⁷ For a comparative analysis of American and European “moral rights,” see generally Henry Hansmann & Marina Santilli, *Authors’ and Artists’ Moral Rights: A Comparative Legal and Economic Analysis*, 26 *J. Legal Stud.* 95 (1997).

quintessence of privileged use of a work, as American law does.⁹⁸ And whereas a Lockean system would recognize rights in “the facts my servant has culled,”⁹⁹ our Constitution consistently requires that we refuse to recognize such rights.¹⁰⁰

To conclude, while an initial intuition might suggest that property supports autonomy, a brief consideration of the property laws actually considered—in communications infrastructure and intellectual property—suggests otherwise. Most of the property whose effects I analyze in the remainder of this Article is held by corporations, and support for such rights does not serve autonomy *per se*. Whether these rights support or undermine autonomy instrumentally is precisely the topic of Parts II and III. Property that *is* owned by individuals—intellectual property owned by artists—is designed institutionally in a way that serves utilitarian goals, not autonomy. Hence the property rights that are in fact recognized in the United States do not significantly serve the autonomy of the owners. The negative effect of property on autonomy that I describe here, however, persists independent of who holds the rights or how they are designed, except that the stronger or more perfect the right, the greater the autonomy deficit it imposes.

This Part explains why, despite the limited support autonomy may derive from property rights that individuals have in information products, pervasive recognition of property rights in the information environment imposes an overall cost on autonomy. I analyze the effect of these property rights on the capacity of some owners to control the flow of information to users. This effect is brought to light by comparing a regime of property rights to its opposite: a commons. Now, in many areas, a “commons” is a rare and ephemeral creature, difficult to capture and study.¹⁰¹ In the case of the information envi-

⁹⁸ See *Acuff-Rose Music*, 510 U.S. at 594 (holding that parody was fair use even where material taken was central to underlying work and where user was commercial).

⁹⁹ Locke, *supra* note 87, at 289 (treating as “mine” “the Turfs my Servant has cut”).

¹⁰⁰ See *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 349-51 (1991) (holding that Intellectual Property Clause, U.S. Const. art. I, § 8, cl. 8, precluded assignment of property rights to facts, even where collection involved significant labor and investment); Yochai Benkler, *Constitutional Bounds of Database Protection: The Role of Judicial Review in the Creation and Definition of Private Rights in Information*, 15 *Berkeley Tech. L.J.* 535, 539-52 (2000) (addressing constraints of Intellectual Property Clause). For a general critique of the applicability of these theories to American intellectual property law, see Fisher, *supra* note 91, pts. III.B, III.C.

¹⁰¹ See, e.g., Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 *U. Chi. L. Rev.* 711 (1986) (reviewing commons in shores and waterways, highways and maypoles); cf. Elinor Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (1990) (studying various common property regimes in irrigation systems and pastures, among others, which are not actually commons but rather commonly held property).

ronment there is one tremendously ubiquitous and useful commons: the public domain in information, wherein all pieces of information, or uses of them, are generally privileged to all.¹⁰² I will return to that great commons later in this Part. But the analysis starts with another commons, a commons in a ubiquitous form of physical infrastructure for communications: the radio frequency spectrum.

A. *Autonomy and Property in Communications Infrastructure*

One of the more surprising (and obscure) effects of digital technology is that it makes possible the use of a spectrum to sustain a physical communications infrastructure on a commons model.¹⁰³ I have explained elsewhere the basic technical and economic reasons to think that it has become feasible to provide high-speed data-network access to large numbers of end-users (more or less everyone) using wireless multiplexing techniques over license-free, unowned spectrum—in effect, over a spectrum commons.¹⁰⁴ As best we can foresee, these networks will not supplant absolutely owned wired and wireless networks in delivering real time communications with assured quality of service. They will enable, however, a wide range of uses, from Internet access to online games, overnight (or during dinner) delivery of video on demand, and, potentially, local nonessential video conferencing among friends or for town hall meetings. The practical plausibility of attaining these conditions is contested.¹⁰⁵ But my purpose here is

¹⁰² I use this rather nontraditional definition of “public domain,” which includes generally applicable privileges that are affirmative defenses to copyright and similar intellectual property claims, as well as initial constraints on copyrightability or protection, which is the more technically traditional definition of the public domain. I have defended this definition more extensively in Benkler, *supra* note 12, at 360-64, and only note here that this broader definition is intended to capture the range of uses of information generally perceived by users as open for them, glossing over the (important) mechanics of how the privilege is asserted when a case is brought.

¹⁰³ This phenomenon was first identified as a policy issue in the mid-1990s. See George Gilder, *The New Rule of Wireless*, *Forbes* ASAP, Mar. 29, 1993, at 96, 101; Paul Baran, *Visions of the 21st Century Communications: Is the Shortage of Radio Spectrum for Broadband Networks of the Future a Self Made Problem?* Keynote Talk at the Eighth Annual Conference on Next Generation Networks, Washington, D.C. (Nov. 9, 1994) (transcript available at http://www.eff.org/pub/GII_NII/Wireless_cellular_radio/false_scarcity_baran_cngn94.transcript); Eli M. Noam, *Taking the Next Step Beyond Spectrum Auctions: Open Spectrum Access*, *IEEE Comm. Mag.*, Dec. 1995, at 66, 70; Noam, *supra* note 10, at 778-80.

¹⁰⁴ See Yochai Benkler, *Overcoming Agoraphobia: Building the Commons of the Digitally Networked Environment*, 11 *Harv. J.L. & Tech.* 287 (1998).

¹⁰⁵ See Thomas W. Hazlett, *Spectrum Flash Dance: Eli Noam's Proposal for "Open Access" to Radio Waves*, 41 *J.L. & Econ.* 805, 815-16 (1998) (noting open access system fails due to congestion and cost of “collision avoidance”); Durga P. Satapathy & Jon M. Peha, *Spectrum Sharing Without Licenses: Opportunities and Dangers*, in *Interconnection and the Internet: Selected Papers from the 1996 Telecommunications Policy Research*

not to defend this plausibility but to use its possibility to motivate and give shape to an exploration of the role that property rights in the resources necessary to acquire, produce, and exchange information play in relation to autonomy.

What I will do in this Part is to work through the problem of how law—in this case, property law in core communications infrastructure—affects the relative ability of actors in a society to exert control over each other's information environment and thereby to act upon these others as objects, violating their autonomy as subjects. I begin with the autonomy implications of two opposing approaches to regulating control or ownership over communications infrastructure: a commons and an idealized property regime. In Part II.B, I also will consider other potential attenuations of a pure private property approach to infrastructure provision, in particular common carriage and Noam's open-access spectrum proposal.

A resource, in our case communications infrastructure, is a commons, or unowned, if anyone is equally privileged to use it, and no one has a right to prevent anyone else from using it.¹⁰⁶ To simplify, let's assume that the pure case of "ownership" is Blackstone's "sole and despotic dominion,"¹⁰⁷ expressed as an unconstrained right of the owner to exclude anyone from using her owned infrastructure or to condition use of the infrastructure as she chooses.

Imagine a world with four agents, A, B, C, and D, connected to each other by a communications network. Each component, or route, of the network could be owned or unowned. If all components are unowned, each agent has an equal privilege to use any component of the network to communicate with any other agent. If all components are owned, the owner of any network component can deny to any other agent use of that network component to communicate with anyone else.

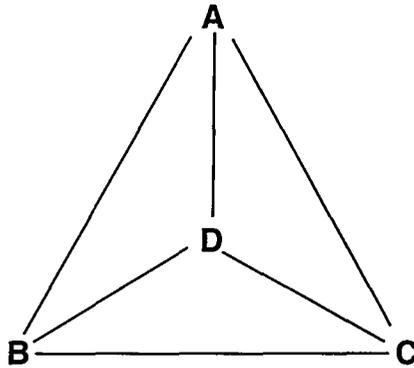
In this simple model, if the network is unowned, then for any communication all that is required is a willing sender and a willing

Conference 49 (Gregory L. Rosston & David Waterman eds., 1997) (discussing "Tragedy of the Commons" problem that unlicensed spectrum presents no incentive for system designers to conserve bandwidth).

¹⁰⁶ This is different from common property resources, like irrigation districts or logging forests jointly owned by villages, in that there is no "group" as to which the resource is a commons but which holds the resource in common, as though it were an owner, *vis-à-vis* the rest of the world. See Ostrom, *supra* note 101, at 91-92.

¹⁰⁷ Blackstone defined property as the "sole and despotic dominion which one man claims and exercises over external things of the world, in total exclusion of the right of any other individual in the universe." 2 William Blackstone, *Commentaries* *2.

FIGURE 3



recipient.¹⁰⁸ No third agent gets a say as to whether any other pair will communicate with each other. Each agent determines independently of the others whether to participate in a communicative exchange, and communication occurs whenever all its participants, *and only they*, agree to communicate with each other. For example, say that A wishes to alter his information environment by exchanging information with B. A can do so, so long as his wish need not be implemented by altering B's information environment without B's consent. In other words, the only person who has a right to prevent A from receiving information from or sending information to B is B, in the exercise of B's own autonomous choice whether to change her information environment. Under these conditions, neither A nor B is subject to control of her information environment by others, except where such control results from denial to her of her capacity to control the information environment of another.

If all network components are owned, on the other hand, then for any communication there must be a willing sender, a willing recipient, and a willing infrastructure owner.¹⁰⁹ In a pure property regime, infrastructure owners have a say over whether, and the conditions under

¹⁰⁸ The extent to which the recipient can accept or reject transmissions is of course important in evaluating the extent to which a system, property- or commons-based, serves autonomy. A system that permits one participant to control whether the other's reception medium is "on" is an extreme case of interference with the autonomy of another and would be an independent concern for autonomy. The feature of the Web that makes users transmit information about themselves as they move around in the digital environment arouses deep and widespread resentment of such practices of information collection.

¹⁰⁹ Where a participant in the communication is also an owner of infrastructure we have a collapse back to two parties, and that is an example of the autonomy-loving effects of property ownership—the owner has the independence to act free of the decisionmaking power of others. See *supra* note 89 (describing republican conception of relationship between property and independence).

which, others in their society will communicate with each other. It is precisely the power to prevent others from communicating that makes infrastructure ownership a valuable enterprise: One can charge for granting one's permission to communicate. For example, imagine that D owns all lines connecting the ADB triangle, and C owns both lines AC and BC. A wishes to change his information environment just as in the preceding paragraph. Now, in addition to B, either C or D also must consent. So now there are two *types* of constraints imposed on A. The first, as before, is a constraint imposed by the autonomy principle itself: A cannot change B's information environment (by exchanging information with her) without B's consent. The second constraint is that A must persuade an owner of whatever carriage medium connects A to B to permit A and B to communicate. The communication is not sent to or from C or D. It does not change C or D's information environment, and A has no intention that it do so. C and D's ability to consent or withhold consent is not based on the autonomy principle. It is based, instead, on a consequentialist calculus: namely, that creating such property rights in infrastructure will lead to the right incentives for the deployment of infrastructure necessary for A and B to communicate in the first place.

Imagine for illustrative purposes that D owns the entire infrastructure. If A wants to get information from B or to communicate to C in order to persuade C to act in a way that is beneficial to A, A needs D's permission. D may grant or withhold permission and may do so either for a fee or upon the imposition of conditions on the communication. For example, D might require that A and C listen to a promotional message or follow a specified etiquette (say, an acceptable use policy). I will refer to the nonprice requirements as "influence exactions." These might take the form of relatively ubiquitous requirements to view a sexy smoker or a gorgeous model leaning over a new car. In other words, they might include messages that seek to alter the recipient's preferences by means other than appeal to rational extension or alteration based on the recipient's preferences immediately prior to receiving the message.¹¹⁰ Note that it is D's

¹¹⁰ A number of colleagues have questioned the inclusion of nonrational persuasion as a means of subverting autonomy. The argument is roughly this: We all use some combination of rational and emotional appeal in all our arguments. If we were to try to build an understanding of autonomy such that it is violated by anyone who uses rhetoric, the result would be a very fragile, and in this sense unattractive, understanding of autonomy.

My response to this valuable critique takes two forms. First, substantively, I do think that to the extent that we believe rhetoric will move a person to act in a way that they would not have acted on rational persuasion alone, we are attempting to move them to act in a way that is authored by us as rational beings, not by them. That human conversation is suffused with such attempts by people to manipulate each other does not negate the value

ownership of the communications infrastructure, not her rhetorical or seductive power, that has given her the opportunity to affect the agenda of her users, including those who have no interest in communicating with her. Other influence exactions may include requirements that only "clean" language be used or that only certain topics be discussed. These are the kinds of constraints broadcast media traditionally placed on programmers and viewers.

Most importantly, if D believes that it is to her advantage to prevent A and C from communicating with each other, or to expose A to the communications of only some, but not all, members of society, property gives D the power to shape A's information environment by selectively exposing A to communications by others.¹¹¹ Most commonly we might see this where D decides that B will pay more if all infrastructure is devoted to permitting B to communicate her information to A and C, rather than any of it used to convey A's statements to C. D might then refuse to carry A's message to C and permit only B to communicate to A and C. The point is that from A's perspective, A is dependent upon D's decisions as to what information can be carried on the infrastructure, among whom, and in what directions. To the

of autonomy or its importance to our well-being. If we find unattractive the picture of people swayed to action more often by seduction than persuasion, it is because we value autonomy and rational choice more than we do action based on nonrational factors. That autonomous life requires a constant self-conscious effort to avoid efforts by others to manipulate us does not, I believe, make for an unattractive picture of autonomy, though perhaps it makes for a sad story about the extent to which we respect autonomy in our actual social practices. It is only if we thought that individuals were systematically incapable of separating persuasion from seduction that the resulting picture of autonomy would be dismal. My point, in any event, is that in evaluating law, we must see whether property or another mode of regulation systematically increases the opportunities for one set of people to act in this way upon another set. If it does so, it undermines the autonomy of the latter set. The observation that efforts to manipulate are legion only underscores the importance of avoiding legal designs that increase the opportunities for and efficacy of this common behavior.

My second, less theoretically satisfying, but more practical response to this critique is that all the claims I make about the effects of law on autonomy can be sustained simply by referring to the power of owners to control information flow to and from users, independently of the question of manipulative messages. It is plain that selective disclosure of information is a means of manipulating the choice set and valuations of those whose information is being so structured. Owners, then, can manipulate users in the sense that I treat as undermining autonomy simply by selecting the contents of the universe of information available to them. By permitting them to do so, law allows them to affect autonomy in a way that is not as common in normal human exchange as rhetoric or seduction.

¹¹¹ These types of exactions, limiting disclosure of the information relevant to users, should be recognized as constraints on autonomy even by those who are otherwise reluctant to accept that advertising or seductive communication subverts the autonomy of the person at whom it is directed. If property ownership allows owners nothing other than the opportunity selectively to expose users to information, that alone suffices to create the autonomy deficit I discuss in the text.

extent of that dependence, A's autonomy is compromised. It is compromised both through susceptibility to manipulation (D's imposition of an influence exaction) and by the probability that D's judgments as to what information would be valuable to A will diverge from what A's independent judgments would have been. D becomes the sole agent who retains control over her own communications independent of the permission of another.

Although the point I am making has distributive aspects, it is primarily not about distribution. The point is to compare the degree to which any person can author his life free of the decisions of another in two alternative states of the world. The capacity of *each* of A, B, and C to control her own information environment decreases with a shift from a commons to a property system. For D, there is an increase only in control of the information environment *of others*, which cannot be included in the autonomy calculus.

But what about market transactions in privately owned infrastructure? Before addressing this question in a competitive market context, one must first recognize the importance of autonomy in explaining the policy concern with media concentration.¹¹² If an infrastructure owner like D has power in the market for information infrastructure, there is no reason to think that D in fact will allocate infrastructure to be used by A, B, and C in a way that maximizes their welfare. To understand the effects of concentration, we can think of freedom from constraint as a dimension of welfare. Just as we have no reason to think that in a concentrated market total welfare (let alone consumer welfare) will be optimal, so too we have no reason to think that a component of welfare—freedom from constraint as a condition to access one's communicative environment—will be optimal. Moreover, when we focus on a welfare calculus of control over information flows in the vendor-consumer relationship, we have good normative reasons to prefer maximization not of total welfare but rather of what in this calculus would count as consumer surplus. For, insofar as control over one's information environment is a problem of autonomy, it is only the "consumer surplus" side that counts as autonomy enhancing. Producer surplus, measured in the successful imposition of influence on others as a condition of service, on the other hand, translates simply into control exerted by some people (providers) over others (consumers).

¹¹² For descriptions of the concerns that concentrated mass media pose for democracy, see generally Ben H. Bagdikian, *The Media Monopoly* 174-92 (6th ed. 2000); C. Edwin Baker, *Advertising and a Democratic Press* (1994); Robert W. McChesney, *Corporate Media and the Threat to Democracy* (1997).

The monopoly case therefore presents another normative dimension of the well-known critique of media concentration. Although usually this critique is concerned with political self-governance, we now see that concentration raises concerns in the personal autonomy sphere as well. But why is the analysis not *solely* about media concentration? Why is it also a valid concern when one compares private property as the regulatory framework for communications to a commons?

If we make standard assumptions of perfectly competitive markets, one would think that the analysis must change. D no longer has monopoly power. We would presume that the owners of infrastructure would be driven by competition to allocate infrastructure to uses that their users value most highly. If one owner “charges” a high price in terms of conditions imposed on users, say to listen to a sermon before using the infrastructure or to forgo receiving certain kinds of speech uncongenial to the owner, then the users will go to a competitor who does not impose that condition.

This standard market response is far from morally irrelevant, if one is concerned with autonomy. If in fact every individual gets to choose precisely the package of influence exactions and the cash-to-influence tradeoff under which she is willing to communicate, then the autonomy deficit created by privatization of communications infrastructure is minimal. After all, if all possible degrees of freedom from the influence of others are available to autonomous individuals, then respecting their choices, even their choices to subject themselves to the influence of others, respects their autonomy.

But competition in fact will not eliminate the autonomy deficit of privately owned communications infrastructure, for reasons that fall into both familiar and unfamiliar categories.¹¹³ The most familiar constraint on the “market will solve it” hunch is imposed by transaction costs, in particular information gathering and negotiation costs. To the extent that influence exactions are less easily homogenized than prices expressed in currency, they will be more expensive to eliminate through transactions. Some people value certain kinds of information lobbed at them positively, others negatively. Some people are more immune to suggestion, others less. The content and context of an exaction will have a large effect on its efficacy as a device for affecting the choices of the person subject to its influence and could change from communication to communication for the same person, let alone

¹¹³ A comprehensive consideration of the constraints of the applicability of the standard market model to media products can be found in Baker, *Giving the Audience What It Wants*, *supra* note 80.

for different individuals. Both users and providers have imperfect information about the users' susceptibility to suggestion, and they have imperfect information about the value that each user would place on being free of particular exactions. Obtaining the information necessary to permit a tight fit between each consumer's preferences regarding the right influence-to-cash ratio to be paid for a given service would be prohibitively expensive. Even if the information were obtained, negotiating the precise cash-to-influence tradeoff would be costly.

Negotiation also may fail because of strategic behavior in the negotiation. The consumer's ideal outcome is to labor under an exaction that is ineffective. If the consumer can reduce the price by submitting to a message or to constraints on communication that in fact will not change her agenda or subvert her capacity to author her life, she has increased her welfare without compromising her autonomy. The vendor's ideal outcome, however, is that the influence exaction be effective—that it succeed in changing the recipient's preferences or her agenda to fit those of the vendor. The parties therefore will hide their true beliefs about whether a particular message attached as a condition to using proprietary infrastructure is of a type that is likely to be effective at influencing the recipient.

Communications services also have various economies of scale, be they supply-side (first-copy costs in content products or infrastructure investments for carriage facilities), or demand-side (related to network externalities). If price discrimination is costly, providers are likely to court the widest audiences with standard influence-cash tradeoff bundles, and consumers/users are likely to choose the closest fit from a series of less-than-perfect bundles. In particular, those whose conception of the information environment they would choose is farthest from the norm are likely to find themselves with no service that closely resembles the information environment they would have elected, given adequate choice. If many users systematically underestimate their susceptibility to suggestion or to selective information exclusion, or have hard budgetary constraints that make them better able to pay in attention than in cash, we likely would see these packages having greater influence exactions than many individuals would have wanted if they had perfect information and larger budgets.

No less important is the fact that the price component at stake expresses an effort on the part of producers to shape the consumer's "tastes" or "preferences." The service provider and the consumer negotiate over the extent to which the provider will alter the preferences of the consumer, but they have different states of knowledge. The provider knows where it seeks to lead the consumer, but the consumer

knows only what the provider tells it about how the producer would like the consumer to be at that later time. Needless to say, once the transaction is complete, it is difficult to undo because, if successful, the consumer has become the person (adopted the tastes) that the producer wanted her to be, not the person she thought she was agreeing to become at the time they entered into the transaction.¹¹⁴

Obviously, the greater the diversity of influence exactions providers offer, the less the imposition that ownership imposes on the autonomy of end users, because there is a higher probability that users will be able to find a provider whose exaction is not onerous for purposes of a given communication. This is true, though, only if switching costs among providers are sufficiently low to permit each consumer to choose the least onerous provider for each communication. Even where switching costs are low, where diversity of influence exactions does not perfectly match user diversity, users likely will be confronted with diverse, but persistent *and effective*¹¹⁵ influence exactions imposed on them as part of the price for using the infrastructure. Users will face a menu of influence exactions that they must accept before they can communicate using owned infrastructure, and their independence from the preferences of the infrastructure owners about how their (the users') lives should go is compromised.

Once one has recognized that owners can obtain welfare from exacting influence on users, not only from charging them a price, one can analyze transactions between owners and users as follows. Each owner would offer infrastructure capacity at a price comprised of a cash component and an influence component. Under perfectly competitive conditions, users will see a cash price composed of what a market-cleared cash price would have been in the absence of an influence exaction,¹¹⁶ minus the value of the influence exaction to the owner. The value of the influence exaction in each transaction is the value to the owner of the change in the user's preferences, discounted by the probability that the user will be affected by the exaction to adopt the desired preferences or behave in the manner that the owner

¹¹⁴ Edwin Baker has made a similar point regarding valuation of information, arguing that since consumers seek information for, among other purposes, edification—making their preferences/tastes better than their current tastes—it is impossible to obtain acceptable valuations, based on current tastes, of information sought for this purpose. *Id.* at 320-21.

¹¹⁵ Effective in the sense that the consumer treats them as onerous enough that she would have preferred to pay a price or switch to another producer but does not do so because of one of the variety of reasons suggested in the text.

¹¹⁶ For information goods, the supplier's reservation price in the absence of other means of appropriation is the average cost, not the marginal cost, because these goods, once produced, have a marginal cost of zero, well below their average cost.

would wish. If there are no information costs or transaction costs involved in switching among infrastructure owners, then users will select the best deal for them given the price-influence tradeoff. Assuming a diminishing marginal utility for money, one would expect that poorer people would be willing to accept greater influence exactions than richer people, which is likely normatively relevant—since we do not normally think of autonomy as something that people should have more or less of depending on wealth.

Where there are high switching costs (from one cash-influence tradeoff setting to another), or where it is costly to obtain information about the cost any given influence exaction imposes on a user (i.e., it is hard to tell how much “autonomy” the user will lose from being subjected to a particular exaction), one would expect the market to offer communications at a price composed of an exaction and a below-average-cost cash price.¹¹⁷ The discounting factor will be somewhere in the range between the value of influence to the seller and the perceived cost to the user of being subject to the influence. This cost to the user is the perceived reduction in well being (if any) of the user from changing his position because of the influence, discounted by the probability that the user in fact will be so moved by being exposed to the influence exaction.¹¹⁸ If it is costly to find out whether for a given communication a user values freedom from influence enough to pay the cost of carriage, or difficult to price discriminate among users along this dimension, we would expect that the market would gravitate towards cash-plus-influence pricing. This is exemplified by the extensive advertising-supported offerings on cable systems, which in principle could have a much higher proportion of advertising-free pay channels or pay-per-view channels.

The upshot is this. A system that permits owners of infrastructure to exclude anyone they choose from their infrastructure, or to impose conditions on the use of the infrastructure, creates a cost, in terms of autonomy, for users. This is the effect that I call an “autonomy deficit.” It is imposed by the introduction of a right to control use of resources in a manner that enables its owner to control the information environment of another. If ownership of infrastructure is concentrated, or if owners can benefit from exerting political, per-

¹¹⁷ See Baker, *Giving the Audience What It Wants*, *supra* note 80.

¹¹⁸ In other words, if the cash price with the exaction plus the lost welfare to the consumer of being exposed to the exaction is greater than what the cash price would be without an exaction, the user will prefer the cash price without the exaction. If the value to the owner of the cash price plus the exaction is lower than the value of what the cash price with the exaction would be without the exaction, then the owner will only offer the facility at its cash price without the exaction.

sonal, cultural, or social influence over others who seek access to their infrastructure, they will impose conditions on use of the infrastructure that will satisfy their will to exert influence. If agents other than owners (advertisers, tobacco companies, the U.S. drug czar) value the ability to influence users of the infrastructure, they may outbid users, and the infrastructure will be priced with an influence-exaction component that serves the interests of these third parties. To the extent that these influence exactions are effective, a pure private property regime for infrastructure allows owners to constrain the autonomy of users. The owners can do so by controlling and manipulating the users' information environment to shape the users' life choices so as to make them play the role that the owners prefer.

B. Alternative Models of Constraining the Autonomy Deficit of Property

Infrastructure ownership can be regulated by two primary categories of constraints on "pure" property rights. Ownership can be constrained either by restricting the owners' rights to control content or by restricting the owners' rights to control access by others to the infrastructure. Moreover, ownership itself can be public, rather than private.¹¹⁹ From the autonomy perspective, it does not matter whether decisions about publicly owned infrastructure are treated as the decisions of agents with their own agenda, as positive political theory would have it, or as decisions "by the people." Even if we treat public ownership as ownership "by the people," decisions about the use of communications at best could be seen as an instance of political self-governance through participation displacing personal autonomy.

TABLE 1

	Content	Access
Privately Owned	Broadcast	Common carriage & cable access regulation; open access spectrum?
Publicly Owned	Nonpublic forums; government as speaker	Postal service; public forums; open access spectrum?

Content regulation is not usually a good means of enhancing autonomy. Plainly, content regulation can be abused in an effort to con-

¹¹⁹ See Table 1 for examples of regulation of private and public ownership, by means of content and access restrictions.

trol, rather than enhance, personal choices. When it is the government that introduces a specific content requirement or prohibition, the danger to autonomy is more pronounced than when a private owner imposes influence exactions, because government has the power to enforce its regulation on all providers. Like the decision of a monopolist medium owner, and unlike the decisions of property owners under conditions of competition, government control over content does not allow for partial attenuation of the autonomy deficit through market-based selection from different influence-cash tradeoff packages.

Content regulation, however, at least in principle, can aid personal autonomy instrumentally if it is calibrated to negate the autonomy deficit of property, or if it is well designed to increase the diversity of options perceivable by individuals in society.¹²⁰ A requirement imposed on broadcasters to provide three hours of children's programming¹²¹ in principle could be designed to enhance the capacity of children to perceive and evaluate options; such an effort would fall within what I earlier called the therapeutic agenda of autonomy. A prohibition on certain kinds of influence exactions similarly could negate the autonomy deficit. A rule prohibiting the insertion of single-frame advertising that operates at the level of the viewer's subconscious perceptions would be such a requirement,¹²² as would a requirement to identify who is paying for a particular program if that person controls its content, as is the case with infomercials.¹²³

Access regulation can aid personal autonomy more systematically. Access regulation consists of constraining the private property owner's use of its property right to exclude persons from using the infrastructure or to condition their use upon some influence exaction. In other words, unlike the case of content regulation, in access regulation the regulator is not displacing the owner's preferred content with its own but rather is privileging individual users to use the communi-

¹²⁰ For my discussion of the autonomy implications of lack of diverse content, see *infra* Part III.

¹²¹ Children's Television Act of 1990, Pub. L. No. 101-437, 104 Stat. 996 (codified as amended at 47 U.S.C. §§ 303a, 303b, 394 (1994)); Policies and Rules Concerning Children's Television Programming: Revision of Programming Policies for Television Broadcast Stations, 11 F.C.C.R. 10,660, 10,661-64 (1996) (report and order) (regarding enforcement of Act).

¹²² As Gerald Dworkin put it, any intervention in a person's capacity critically to evaluate his or her preferences must be evaluated in terms of whether it undermines that person's capacity for self-reflection. Dworkin, *Theory and Practice*, *supra* note 29, at 18.

¹²³ 47 U.S.C. § 317 (1994) (requiring radio stations to announce sponsors of programming).

cations medium to pursue their own informational choices. Access regulation attains this privileging of use by negating that aspect of the private property regime that creates the autonomy deficit under pure private property, namely, the absolute right to exclude from, or condition access to, the infrastructure.

If we return to Figure 3, if A, B, and C are perfectly privileged to communicate how and when they wish over D's infrastructure, then the mere fact of ownership by D does not affect the autonomy of any of the users. A perfectly regulated common carrier regime should appear to end users no different than a commons. Whether a private party owns the common carrier (the phone companies) or the state does (the mail) is less important. Similarly, the primary difference between a common carrier and a public forum is that the latter, once declared or recognized, is constitutionally protected. It is therefore *less* susceptible to the problem of regulatory defection—by exclusion of disfavored content from the carriage requirement—that common carriage suffers from and to that extent (ironically, given traditional concerns with the state) is preferable to common carriage as a means of reducing the autonomy deficit of owned infrastructure.¹²⁴

There are three reasons why access-focused constraints like common carriage, while helpful, do not entirely alleviate the autonomy deficit. Mostly, these reasons reflect a concern that common-carriage regulation will be imperfect. But they also reflect a concern about what Lessig has identified as the “regulability” of a network built for centralized clearance of communicative preferences as compared to that of a network built for decentralized clearance.¹²⁵ First, the institutional details of the common carriage regime can skew incentives for what types of communications will be available, and with what degree of freedom. Second, the organization that owns the infrastructure retains the same internal incentives to control content as it would in the absence of common carriage and will do so to the extent that it can sneak by the carriage regulations. And third, as long as the network is built to run through a central organizational clearinghouse, that center remains a potential point at which regulators can reassert control or delegate to owners the power to prevent unwanted speech

¹²⁴ Compare *Denver Area Educ. Telecomm. Consortium v. FCC*, 518 U.S. 727, 791-801 (1996) (Kennedy, J., dissenting in part) (explaining why PEG channels are public forums and analogizing to explain why common carrier obligations applicable to commercial leased-access channels cannot be curtailed except under same strict scrutiny as other public forums), with *id.* at 824-26 (Thomas, J., dissenting in part) (denying that common carrier obligations are subject to strict scrutiny).

¹²⁵ Lawrence Lessig, *Code and Other Laws of Cyberspace* 19 (1999) (defining “regulability” as extent to which given technical architecture is more or less subject to regulation by state).

by purposefully limiting the scope of the common carriage requirements. I will elaborate on these three failings of common carriage in the following paragraphs.

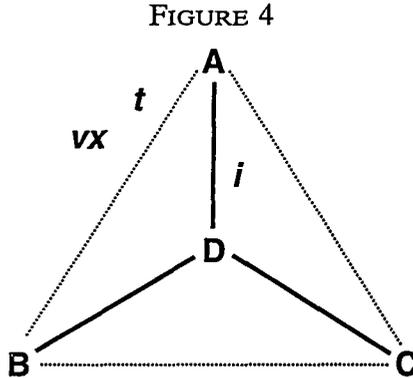
First, it would be difficult for a common-carriage regime to avoid skewing incentives for the provision of different types of communication. The common-carriage regime not only would have to be entirely neutral as among content, format, medium, and identity of sender and recipient, but also would have to apply to all formats, media, and content. If the common carriage regime is incomplete, there will be an autonomy deficit of proprietary infrastructure. For example, in the mid-1990s two courts of appeals held that the First Amendment prohibits the state from extending the common-carriage requirement imposed on telephone companies from voice and data communications to cover video signal carriage as well.¹²⁶ As a result, information that is of a type that people seek to acquire through video communications, or that requires or benefits from the utilization of video as a medium of expression, is subject to the proprietary infrastructure problem. If one holds the quite plausible view that, given prevailing social norms regarding information acquisition, video programming has particularly important political and cultural ramifications in terms of shaping taste, perceptions of life choices available to individuals, or perceptions of political choices open to our polity, such a problem takes on significant proportions. If our assessment of the state of the law, or of the politics of regulation, is such that we think that extending common carriage to such important areas as video programming is unlikely, then the abstract possibility of common carriage is even less appealing as an alternative to the commons. Moreover, if, as is the case with the Telecommunications Act of 1996,¹²⁷ the common-carriage requirement is imposed only on the carriage of user-created information (pure carriage) and not on enhanced services, leaving up to carriers the decision of how much pure carriage service and how much enhanced service to offer, one would expect carriers to offer minimal pure carriage services and extensive enhanced services with conditions on access.¹²⁸

We might map this effect on Figure 3, adding an additional layer, so there are three types of communications, text (*t*), voice (*vx*), and image (*i*). The consequence of a common-carriage regime with poor

¹²⁶ *U.S. West, Inc. v. United States*, 48 F.3d 1092, 1095 (9th Cir. 1995), vacated, 516 U.S. 1155 (1996); *Chesapeake & Potomac Tel. Co. v. United States*, 42 F.3d 181, 185 (4th Cir. 1994), vacated, 516 U.S. 415 (1996).

¹²⁷ Telecommunications Act of 1976, § 201, 47 U.S.C. § 336(a)(2) (Supp. III 1997).

¹²⁸ This point was made some time ago in Eli M. Noam, *Beyond Liberalization II: The Impending Doom of Common Carriage*, 18 *Telecomm. Pol'y* 435, 442-45 (1994).



design incentives, depicted in Figure 4, would be to cause the owner of the infrastructure to build a lopsided network. In such a network, some types of communications, in our example text and voice, would seem to the users as freely usable as though they were unowned. Images, however, would be available to users only under conditions controlled by the infrastructure owner, who designs the network to take advantage of regulatory shortfalls. The consequence would be a network optimized to provide the communicative uses from which owners can extract the full private benefit, unconstrained by access regulation.

The second reason that common carriage does not entirely alleviate the autonomy deficit is that gaps in the coverage of the carriage requirement are likely to permit organizations to circumvent the requirement. Communications carried over these networks that do not fall under the carriage requirement will incur the autonomy deficit associated with proprietary infrastructure. For example, an FCC working paper on cable Internet access suggested in 1998 that Internet access provided over a hybrid system with downstream information flow carried over coaxial cable, and an upstream return path over the public phone system, would plausibly qualify the service for regulatory treatment as cable service rather than as telecommunications service.¹²⁹ This would relieve cable providers of the possibility that they may be forced to allow Internet competitors access to their networks.¹³⁰ In other words, the legal definition of cable service could

¹²⁹ Barbara Esbin, FCC, *Internet Over Cable: Defining the Future in Terms of the Past* 88, 91 (Office of Plans & Policy Working Paper Series No. 30, 1998), http://www.fcc.gov/Bureaus/OPP/working_papers/oppwp30.pdf.

¹³⁰ The debate over whether cable operators should give competitors in broadband Internet access services open access to their infrastructure is well described in Lathen, *supra* note 25. As of this writing, two federal courts have held that Internet access over cable is a telecommunications service. *AT&T Corp. v. City of Portland*, 216 F.3d 871, 878 (9th Cir.

create incentives for carriers to design their systems so that high-speed Internet access would be organized on an information retrieval model that is *not* subject to common carrier regulation, rather than an information retrieval *and dissemination* system that is relatively egalitarian in its capacity to deliver information produced by end users. By adopting this approach, the organizations that provide communications media could avoid the constraints of common carriage and find themselves back where they would have been in a pure(r) private property regime.

The clearest example we see today of this effect is AOL's acquisition of Time Warner.¹³¹ Consistent with the FCC policy, cable-based Internet service, as of this writing, is not subject to the open-access requirements imposed on common carriers who offer data-carriage services. This means that AOL could be used as the sole cable-based Internet service in areas where Time Warner is the cable operator. In those areas, AOL could capture all consumers for its own influence exactions as well as attempt to direct their attention towards its newly acquired proprietary content rather than the more open, less proprietary Internet at large.¹³² Even without the added layer of AOL's power in the Internet access market, both Time Warner and AT&T—the major providers of Internet access over cable—prohibit users from operating servers—from being information providers—and offer home service optimized for downstream reception with a limited upstream return path.¹³³ The exclusion of other Internet Service Provid-

2000); *Mediaone Group, Inc. v. County of Henrico*, 97 F. Supp. 2d 712, 714 (E.D. Va. 2000). These decisions leave to the FCC whether to impose open-access requirements or not. See Press Release, *supra* note 25 (stating that *AT&T Corp. v. City of Portland* "confirmed the FCC's role in establishing a national broadband policy"). If the FCC in fact does impose such requirements, cable operators indeed may have the incentive to follow the design strategy proposed by Esbin, *supra* note 129, and discussed in the accompanying text.

¹³¹ See Stephen Labaton, F.C.C. Approves AOL-Time Warner Deal, with Conditions, *N.Y. Times*, Jan. 12, 2001, at C1 (describing conditions and closing).

¹³² Largely because of this concern, the Federal Trade Commission (FTC) required AOL-Time Warner to permit some access for unaffiliated Internet service providers, although this is a merger-specific condition, and not a rule applicable to other cable broadband providers, such as AT&T. See Stephen Labaton, AOL and Time Warner Gain Approval for Huge Merger, but with Strict Conditions, *N.Y. Times*, Dec. 15, 2000, at A1 (describing conditions).

¹³³ Peter H. Lewis, Picking the Right Data Superhighway, *N.Y. Times*, Nov. 11, 1999, at G1 (surveying broadband services and finding that "[t]he two leading cable data services, Time Warner's Roadrunner and AT&T's Cable @Home, forbid residential customers to run Web server computers on the network"); cf. Phil Weiser, Paradigm Changes in Telecommunications Regulation, 71 *U. Colo. L. Rev.* 819, 835 (2000) (arguing that access providers might block user access to competitors' web products). But see James B. Speta, The Vertical Dimension of Cable Open Access, 71 *U. Colo. L. Rev.* 975, 1004-07 (2000) (argu-

ers (ISPs) from this broadband medium excludes precisely those competitors who could compete by offering influence-free services.¹³⁴

The third problem with common carriage is that it leaves untouched, indeed relies on, the existence of an organizational center that controls the network. The persistent existence of such an organizational center to a network makes the network more easily subject to regulation. The design concept underlying a common-carriage regime is that there should be one organization that clears user preferences as to use of a communications infrastructure, in order to maintain efficient information flows. This design feature is present even if there are redundant networks that compete with each other, because each network has an owner that controls it. The crux of common-carriage requirements is to remove from that owner certain decisionmaking powers that would be inimical to the purpose of having a communications infrastructure to begin with. Most importantly, the common carrier is denied the option to select communications for carriage based on content. But this constraint on common carriers is a political choice, imposed by law. The architecture of the network remains centralized. And to the extent that the law can change, to that same extent the network remains susceptible to regulation—future legislatures can choose to change the parameters of common carriage.

The most egregious instance of such a legislative defection from a common-carrier-like regime is sections 10(a) and (c) of the Cable Television Consumer Protection and Competition Act of 1992,¹³⁵ considered *and partly upheld* by the Supreme Court in *Denver Area Educational Telecommunications Consortium, Inc. v. FCC*.¹³⁶ These sections of the Act were essentially anti-indecency provisions, but they took the form of content-based tweaking of access regulation provisions. The underlying access rule was that cable operators were required to set aside a number of channels for programming by unaffiliated programmers, commercial programmers in the case of leased-access channels, and public, educational, and governmental

ing that cable operators have no incentives to prevent video streaming to protect their video programming services).

¹³⁴ While fast connections over common-carriage facilities (called digital subscriber lines (DSL)) currently could compete with cable carriage, Lathen, *supra* note 25, at 20, 27-29, it is unclear whether this source of open access will survive, particularly if AOL—access provider to fifty percent of dial-up Internet users in the United States, see Last of the Mohicans, *Fin. Times* (London), Sept. 6, 2000, at 24—were to commit its resources to privileging cable over DSL. Fear of this strategy led the FTC to require as a condition of the merger that AOL continue to be available over DSL. See Labaton, *supra* note 132, at A1.

¹³⁵ Pub. L. No. 102-385, § 10(a), 106 Stat. 1460, 1486 (codified as amended at 47 U.S.C. § 532(h) (1994)); *id.* § 10(c), 106 Stat. at 1486, reprinted in 47 U.S.C. § 531 note.

¹³⁶ 518 U.S. 727 (1996).

programmers in the case of public, educational, and governmental (PEG) channels.¹³⁷ In the 1992 Act, Congress decided to regulate nonobscene indecent programming on these access channels indirectly, by removing the carriage requirement as to this type of programming.¹³⁸ In other words, cable operators were still required to offer nondiscriminatory carriage to unaffiliated programmers on these channels, but they were *permitted* (not required) to exclude “indecent” programming.¹³⁹ Under established First Amendment law, Congress could not have itself simply *prohibited* such indecent, non-obscene material.¹⁴⁰ But, in the name of respecting the infrastructure owner’s right to speak over the network it owns, a quilt of votes upheld Congress’s power to exclude such undesirable but protected content from the carriage requirement.¹⁴¹ Then cable operators could turn around and use their control over their systems, now freed from the access rule, to ban the material of which Congress disapproved. The Court upheld this provision, however, only with respect to commercial leased-access channels. As to PEG channels, the Court held that the regulation imposed too great a burden on speech because publicly accountable bodies controlled access to the PEG channel infrastructure to assure that the content was appropriate. Hence there was no showing that the added layer of censorship imposed by the cable operators was necessary to attain Congress’s legitimate goal of protecting children.¹⁴²

It is hard to think of a clearer instance of self-conscious exclusion of certain content from coverage under a carriage requirement in or-

¹³⁷ *Id.* at 732-34. PEG channels are public, educational, and governmental channels that are not available on a common-carrier model. Public-access channels are instead often available on a model of first-come, first-served as among eligible programming. *Id.* at 760-63, 788-91.

¹³⁸ *Id.* at 734-35 (describing Cable Television Consumer Protection and Competition Act of 1992, § 10(a), (c)).

¹³⁹ *Id.* at 733.

¹⁴⁰ See *id.* at 753-57 (holding that provision requiring cable system operators to segregate and block “patently offensive” programming violated First Amendment); *Sable Communications of Cal., Inc. v. FCC*, 492 U.S. 115, 117 (1989) (striking down statute imposing outright ban on indecent interstate commercial telephone messages).

¹⁴¹ *Denver Area Educ. Telecomm. Consortium*, 518 U.S. at 747 (plurality opinion) (Breyer, J.) (stating:

The existence of this complex balance of interests persuades us that the permissive nature of the provision, coupled with its viewpoint-neutral application, is a constitutionally permissible way to protect children from the type of sexual material that concerned Congress, while accommodating both the First Amendment interests served by the access requirements and those served in restoring to cable operators a degree of the editorial control that Congress removed in 1984.)

For the complex vote lineup in this case, see *id.* at 731.

¹⁴² See *id.* at 762-63 (describing capability of existing system to protect children).

der to squelch unwanted speech. The risk of common carriage regimes, then, as compared to unowned, fully decentralized networks, is that the common carrier remains as an organizational center available as a locus of reconcentrating control over decisions about what information will or will not flow over the system. This susceptibility makes a publicly owned public forum somewhat preferable to a privately owned common carrier, because of the clearer constitutional rules prohibiting content-based exclusion from access to the infrastructure.¹⁴³

As for implementing an autonomy-enhancing infrastructure, the most intriguing alternative to the spectrum commons is Eli Noam's proposal for an open access spectrum.¹⁴⁴ Noam's proposal and my own commons proposal¹⁴⁵ share a number of crucial features. First, they both relate solely to communications conducted by propagating electromagnetic signals at radio frequencies over an unenclosed physical medium: the air. This aspect is crucial, because unlike other carriage media—twisted copper pair, coaxial cable, optic fibers—the air is available to carry radio signals by the grace of Mother Nature, not because of the investment of any human agency. The problem of radio communications, unlike all other communications, is therefore not how to create incentives for the building and maintenance of the carriage facility, but rather how to coordinate competing uses, *ex post*, of an existing, inexhaustible, perfectly renewable carriage medium. This requires investments in equipment design to utilize more and more of this resource at increasing efficiency, and in technological and organizational means of attaining the most efficient coordination of use. While auctions are the “hot” institutional technology for attaining efficient coordination, there is nothing holy about this technology if others, most notably technical innovations in equipment, can do the job.

Second, both systems replace organizational clearance of decisions about spectrum use (by licensees and regulators) with equipment-embedded clearance mechanisms and hence eliminate the need for, or even place for, owned spectrum. Third, both proposals therefore must predict that someone other than a “spectrum owner” will bear the incentives to develop the new equipment capable of utilizing ever higher frequency ranges and utilizing frequency ranges already available for human communications more efficiently. My own defense of a commons in spectrum suggests that the consumer equip-

¹⁴³ See *supra* note 124 (comparing opinions of Justices Kennedy and Thomas in *Denver Area Education Telecommunications Consortium*).

¹⁴⁴ Noam, *supra* note 10, at 778-80.

¹⁴⁵ Benkler, *supra* note 104.

ment market will assure these developments, as equipment manufacturers seek to deliver machines that communicate with each other at the greatest efficiency over the unowned spectrum.¹⁴⁶ In Noam's case, these investments likely will come both from the equipment market and from the service markets, because his model appears to assume that much of the ad hoc bidding for spectrum will be done by service providers, who then will turn around and use the spectrum they acquired to sell communications services to end users.¹⁴⁷

The core difference between a spectrum commons and Noam's open-access spectrum proposal concerns the question of how to clear competing preferences for using the communications infrastructure that has been liberated by technology from the need to have "an owner" (whether it is a private property owner or a government owner and its licensee). Noam seeks to maintain a pricing system in order to ensure quality of service equal to that available over enclosed media and owned spectrum.¹⁴⁸ I, on the other hand, have proposed that spectrum be devoted to a commons wherein all users are privileged to transmit and receive, using equipment capable of sharing spectrum following some form of Internet-like, equipment-embedded queuing protocol. I have argued that innovation and spectrum efficiency in such a setting would be driven by the end-user equipment market, rather than by the spectrum auction market, and that content would be driven by end-user choices as it is on the Internet, rather than by evaluations of aggregate preferences as in mass-media markets.¹⁴⁹ Regulation must focus on equipment certification rules designed to prevent the implementation of spectrum-hogging techniques in equipment designed for use of the spectrum commons. If the utilization of such a queuing mechanism means that the spectrum commons cannot be used for all communications, and that some time-sensitive communications like real-time remote medical consults or the Super Bowl will have to use an enclosed medium (like coaxial or optic fiber cables), that is an acceptable price to pay in return for eliminating the normative costs that pricing imposes.

The normative cost of pricing as a means of clearing competing preferences becomes apparent when one examines the system design necessary to implement Noam's proposal. Noam writes:

Such an open-access system might look as follows: For packets of information to be transmittable, they would require to be accom-

¹⁴⁶ *Id.* at 340-65.

¹⁴⁷ See Noam, *supra* note 10, at 779 (alluding to situation where mobile communications provider could sell excess access codes to users needing such access).

¹⁴⁸ See *id.* at 777-78 (exploring how fees could serve to manage spectrum usage).

¹⁴⁹ See Benkler, *supra* note 104, at 340-65.

panied by an access code. Such a code could be a specialized token, a general electronic cash coin. The token would enable its bearer to access a spectrum band (rather than to a specific frequency), to be retransmitted over physical network segments, and to be receivable in equipment. Price for the access codes would vary, depending on congestion, and be determined by an automatized clearinghouse of spectrum users. Assured access, at a price certain, could be obtained from a futures market.

For example, a mobile communications provider, A, might face heavy [demand] for its service during the post-Labor Day morning drive time. It would therefore buy access codes to that capacity from the desired band, to unlock spectrum usage in a network environment. The tokens are bought from an automatic clearinghouse market of all users. Firm A and its customers, when initiating transmissions, add the access token to blocks of their transmitted information. Without the access codes, information could not be passed on to other networks and might not be readable by their intended receivers, if user equipment requires these codes for activation or descrambling.¹⁵⁰

Like the common carrier regime, this proposal has the attraction that it is blind to content when it assigns access to infrastructure. Only the value of the token that a communication carries will determine its access to the network. But there are two ways in which this description threatens to make the open access system no better, and possibly worse, from the autonomy perspective, than a common carrier regime.

First, Noam appears to imagine a world in which spread-spectrum technologies change the way *service providers* obtain spectrum access to serve consumers but do not affect the way in which consumers communicate with each other—namely, through service providers. To the extent that this is so, either as a practical matter, or institutionally (because only providers who have an access code to the exchange can purchase tokens), then the spectrum ownership autonomy deficit is recreated in the relationship between consumers and service providers and in the relationships among consumers. One easily might imagine how a system designed to assure quality of service could decide that, in order to cut down on the overhead involved in the bidding in the spectrum spot market, only “members” should be permitted to bid. If this institutional constraint in fact develops, then even if the cost of “a seat” on this exchange is low enough to permit greater competition than permitted by the costs of purchasing a spectrum license under the existing auction system, still one would see a class of “providers” develop, who manage “their” spectrum inventory as property vis-à-vis

¹⁵⁰ Noam, *supra* note 10, at 778-79.

their customers. Whether Noam's system then will be better or worse than a common-carrier system, from the normative perspective, will depend on whether these service providers are themselves, in turn, regulated as common carriers. Certainly his system could result in a situation in which only providers bid on spectrum, and in which these providers are all contract carriers or broadcasters, such that, from the normative perspective, we are closer to the pure property regime than we are to the common-carrier regime.

But there is nothing inherent in Noam's conception to prevent it from being implemented on a peer-to-peer network model, where users have equal ability to bid on slots as do providers. If it is indeed so implemented, and the clearinghouse is regulated so that it cannot bar a transmission on any basis other than failure to pay the value of the token necessary to transmit at the required frequency-time-space unit, then there is no reason to think that the system would be any worse than a common-carrier system. Its advantage over such a system would be that it relies, technologically, on digital communications that can carry any type of communication format, and any kind of content, and does not differentiate them along any of these lines. Such a system therefore could be better than traditional common carriage over traditional media, insofar as the system is not built to serve only some types of communications on a common-carrier basis.

There does remain, however, one significant risk to autonomy from the open-access spectrum solution, as compared to the spectrum-commons solution. In order to implement a pricing system, all transmissions must carry a code that determines whether they can or cannot reach their intended recipient. That code is issued by a central automated machine, which determines on a moment-by-moment basis whether the code that any given transmission carries is of sufficient value to permit that transmission to reach its destination. In Noam's plan, the code reflects pure "cash" value. But there is nothing inherent in the system design he offers that makes it immune to enforcing any one of a number of "values" to determine access to infrastructure. One might imagine a law that requires all tokens to identify themselves in terms of sexual or violent content, V-chip style. Initially, such a law might take advantage of the existence of tokens to facilitate end-user filtering. Then a future Congress will remove tokens bearing such markings from the clearinghouse's common-carriage responsibility. The point should be clear. In order to put into effect a pricing system to clear spectrum uses, the open-access spectrum approach requires that communications identify themselves to, and be given permission to travel by, a clearinghouse. That clearinghouse remains a locus for reassertion of control over communications, either by gov-

ernment or by the owner-operator of the clearinghouse. If you will, implementing pricing requires that the communications infrastructure be “architected,” to use a Lessig construct,¹⁵¹ in a manner that renders it more regulable than the architectural parameters of a commons.

In sum, neither private nor public property, nor common carriage or open-access spectrum can deliver as completely decentralized a network as can a spectrum commons. Only access to communications infrastructure that is equally privileged to all users can eliminate the autonomy deficit of property entirely. Content regulations in principle can be designed to alleviate autonomy deficit concerns, but they run the risk that they will not be so designed and that they instead will shift the locus of control over individuals from owners to government agencies and eliminate whatever choice of exactions competition offers. Access regulations, on the other hand, do go some way towards eliminating the autonomy deficit. Nonetheless, these systems are less robust than a commons as a means of securing an autonomy-enhancing communications infrastructure.

As suggested by the discussion of *Wisconsin v. Yoder*, the choice as to spectrum policy entails a choice between a system that creates no autonomy deficit and a number of other approaches that do create some autonomy deficit or have a higher risk of creating one.¹⁵² From the autonomy perspective, therefore, a commons is preferable. Moreover, as among the noncommons systems, common carriage is superior to property, and, given background constitutional rules that prevent regulatory defection, public forums even may be superior to private common carriers from the perspective of autonomy.

C. *The Public Domain*

The effects of assigning property rights in communications infrastructure are similar to the effects of assigning property rights in the other main resource necessary for information production and exchange: existing information. In order to know the world, in order to create statements about, and representations of, the world and the value of different possible worlds, individuals need access to information. Unlike the case with most other resources, the longstanding assumption with respect to information, knowledge, and culture was that these essential elements of our perception of the world, as it is and might be, are “free as the air to common use.”¹⁵³ Exclusive rights

¹⁵¹ Lessig, *supra* note 125, at 19-20.

¹⁵² See *supra* Part I.B.

¹⁵³ *Int'l News Serv. v. Associated Press*, 248 U.S. 215, 250 (1918) (Brandeis, J., dissenting).

to chunks of the public domain were recognized provisionally, on a limited basis, on the instrumental assumption that such recognition would create incentives that would lead to the creation of more and better information.¹⁵⁴ As is true of an infrastructure commons, when information is treated as a commons such that all are equally privileged to use it and no one has a right to exclude anyone else, access to information does not afford an opportunity for anyone to exercise control over anyone else. No one has a right to prevent others from seeing whatever information they wish to see. No one has a right to prevent anyone else from recombining existing information into new representations of the world, or of how the world might be, or of how one set of affairs or another ought to be valued.

Over the course of the twentieth century, however, we saw a steady drive towards expanding property rights and a privatization, or enclosure, of the public domain.¹⁵⁵ The political economy of this enclosure is not particularly mysterious.¹⁵⁶ The beneficiaries of enclosure see the gains as private gains and push for enclosure. The social costs of enclosure are diffuse and often are not evident at the time of legislation to most of those who eventually will suffer them. They do not resist these costs as much as they should. When these costs do happen to be clear to one group or another, the result is an exception or an exemption, not resistance to the enclosure more generally.¹⁵⁷

¹⁵⁴ See *supra* note 96 and accompanying quotation from Jefferson's letter to MacPherson.

¹⁵⁵ Descriptions of and concerns over the enclosure movement were raised initially even before the Copyright Act of 1976, Pub. L. No. 94-553, 90 Stat. 2541 (codified as amended in scattered sections of 17 U.S.C.). See Benjamin Kaplan, *An Unhurried View of Copyright* (1967); Stephen G. Breyer, *The Uneasy Case for Copyright: A Study of Copyright in Books, Photocopies, and Computer Programs*, 84 *Harv. L. Rev.* 281 (1970). Since then, the steady enclosure has been identified in many works, including Boyle, *supra* note 15, at 18-20; Robert C. Denicola, *Freedom to Copy*, 108 *Yale L.J.* 1661 (1999); Fisher, *supra* note 91; David Lange, *Recognizing the Public Domain*, *Law & Contemp. Probs.*, Autumn 1981, at 147, 153; Jessica Litman, *The Public Domain*, 39 *Emory L.J.* 965, 981 (1990); Pamela Samuelson, *The Copyright Grab*, *Wired* 4.01, Jan. 1996, at 134.

¹⁵⁶ See Benkler, *supra* note 100, at 569-74 (explaining dynamics of political process); Jessica D. Litman, *Copyright, Compromise, and Legislative History*, 72 *Cornell L. Rev.* 857, 870-79 (1987) (describing nature of Copyright Act's provision as negotiated settlement among specific stakeholders); Pamela Samuelson, *Intellectual Property and the Digital Economy: Why the Anti-Circumvention Regulations Need to Be Revised*, 14 *Berkeley Tech. L.J.* 519, 522-23 (1999) (describing how "Hollywood and its allies were successful in persuading Congress to adopt the broad anti-circumvention legislation" over opposition from Silicon Valley faction); Samuelson, *supra* note 155 (describing influence of copyright industry on expansion of intellectual property law).

¹⁵⁷ Benkler, *supra* note 100, at 573; see also Litman, *supra* note 156, at 870-79; Samuelson, *supra* note 156, at 537-43 (describing political origins of exceptions to anticircumvention provisions).

Property rights in information create the same opportunity for influence as do property rights in communications infrastructure. The owner can impose conditions on access to and use of the information that act as influence exactions. Consider the question of whether deep linking¹⁵⁸ is a violation of some intellectual property right.¹⁵⁹ The quintessential cases of deep linking were brought against Microsoft's Sidewalk service¹⁶⁰ and against Tickets.com,¹⁶¹ both of which provided access to, among other things, information on events in various cities. If a user wanted a ticket to the event, the Tickets.com and Sidewalk sites linked that user directly to a page on Ticketmaster.com where the user could buy a ticket. Ticketmaster objected to this practice, preferring instead that the competing services link to its home page, so as to expose the users to all the advertising and services Ticketmaster provided to the users, rather than solely to the specific service sought by the referred user. The Microsoft case settled.¹⁶² Tickets.com won its case in a decision that focused on its means of acquiring the information from Ticketmaster, rather than on the deep linking practice itself.¹⁶³ At stake in both cases was who will control the context in which certain information is presented. If deep linking is prohibited, Ticketmaster will control the context—the other movies or events available to be seen, their relative prominence, reviews, etc. And if the choice between Ticketmaster and Microsoft or Tickets.com as controllers of the context of information doesn't quite get your juices flowing, think instead of the local school board, or church, or your neighbor, in place of Microsoft. The point is that as long as one can deep link to information tidbits without anyone controlling access, there can be many ways of accessing it, contextualizing it, understanding it. But once a right is established to prevent deep linking, the owner gains the power to condition access to the specifically sought information. The owner can require that access be gained in a particular way, subject to a particular set of

¹⁵⁸ By "deep linking" I mean embedding in one's own web page a link to specific content on a website run by another, where the page linked is not that other website's home page.

¹⁵⁹ It is actually quite difficult to assert such an intellectual property right. See Maureen A. O'Rourke, *Shaping Competition on the Internet: Who Owns Product and Pricing Information?*, 53 *Vand. L. Rev.* 1965, 1986-2001 (2000) (reviewing various theories of liability for deep linking).

¹⁶⁰ See Barry J. Brett & Gilbert C. Hoover IV, *Exploring the Brave New World of Internet Litigation*, N.Y. L.J., Aug. 29, 2000, at 1; *Deep Blocking*, *Economist*, Oct. 16, 1999, at 66, 66.

¹⁶¹ *Ticketmaster Corp. v. Tickets.com, Inc.*, 2000 U.S. Dist. LEXIS 12987 (C.D. Cal. Aug. 10, 2000).

¹⁶² Brett & Hoover, *supra* note 160, at 1 n.5.

¹⁶³ *Ticketmaster Corp.*, 2000 U.S. Dist. LEXIS, at *7-*11.

messages and in an informational context it sets. Since the standard understanding of how intellectual property is priced is that it is in principle equivalent to monopoly pricing,¹⁶⁴ we would see access to any given information product conditioned on the same kind of combination of price and influence exaction, maximizing the owner's welfare, that we saw in the case of concentrated private communications infrastructure.¹⁶⁵

The upshot is that private infrastructure and information resources subject users to the choices of owners in a way that commons in these resources do not. In a commons, where all users are privileged symmetrically to use the resource, users are subject to the choices of others only to the extent that being subject to those choices is required by respect for autonomy. Once infrastructure is private, users of communications are subjected to the choices of infrastructure owners. However, these choices are not themselves exercises of autonomy, but of control. The same is true for owned information when compared to the public domain.

If ownership of infrastructure is concentrated or if owners choose to use infrastructure to exert (or to sell the ability to exert) influence over others who seek access to their infrastructure, owners will impose conditions on use of the infrastructure that will satisfy their will to influence users. Similarly, in the case of information, we should expect some measure of influence exaction imposed as part of the above-marginal cost pricing as is usually the case in information products. If agents other than owners (e.g., advertisers) value the ability to influence users of the infrastructure or of the information, they may outbid users, and the infrastructure or information will be priced with an influence exaction component that serves the interests of these third parties. To the extent that these influence exactions are effective, a pure private property regime for infrastructure and a more perfectly enclosed information environment allow owners to constrain

¹⁶⁴ Information is a true public good, in the sense that it is nonrival. What this means is that the marginal cost of providing a given information good to additional users after the first copy has been produced is zero. For normal economic goods, we know that the good is produced and consumed efficiently when it is sold at its marginal cost. However, if information goods were to be sold at their marginal cost—zero—they would not be produced privately by anyone who produces in expectation of selling copies. Hence, intellectual property is designed to enable intellectual property owners to charge a positive price. Any positive price, however, is a price that is "above marginal cost," and from the perspective of the standard economic model, this means that it is being priced as though the producer had pricing power, or something like monopoly power. Hence, we normally analyze intellectual property as though it were a case of monopoly pricing. See Yochai Benkler, *An Unhurried View of Private Ordering in Information Transactions*, 53 *Vand. L. Rev.* 2063 (2000).

¹⁶⁵ *Supra* text accompanying notes 108-11.

the autonomy of users. Access rights—like common carriage or the fair-use privilege to copyright—are only a partial solution to this autonomy deficit of property.

A legal choice, like the creation of property rights, that predictably will lead many people (users) to be subject to the influence of others (owners) as a condition of accessing information about the world, exacts a price in terms of autonomy. It makes one group of people systematically susceptible to manipulation or control by another. Whether this manipulation is successful is important to our evaluation of the problem as a policy matter. We would be less concerned if the practical impact of this effect were minimal. But it is important to understand that in the choice between a commons and various property-based systems we are systematically increasing the opportunities for some people to undermine the independence of the choices of others. Perhaps the most graphic representation of this effect is the construction of media markets as markets for eyeballs, markets for opportunities to influence the choices of individuals no longer conceived of as individuals but as mere objects of manipulation.¹⁶⁶ And such a consequence is one that conflicts with respect for the personal autonomy of those who would be reduced to eyeballs, regardless of whether that attempt at manipulation is likely to be successful.

III

SOCIAL PATTERNS OF INFORMATION FLOW AND PERSONAL AUTONOMY

In Part I, I explained why I believe that the effect of a law on autonomy should be measured in two ways: first, the extent to which it makes some people better able to control the lives of others, and second, the extent to which it increases or eliminates a substantial number of critical options from the set of options known to agents in society as open to them. Part II focused on the former effect, exploring the potential of property rights in information and communications facilities to create the conditions under which users can become the objects of the agency of owners. Part III will focus on the latter effect: It will explore the effect of privatization and pervasive reliance on commercial information production and exchange on the range of life options that individuals in society perceive.

In Part III.A, I explain how concentration of the information production function in society leads to a smaller set of stories being told

¹⁶⁶ See Eben Moglen, *The Invisible Barbecue*, 97 *Colum. L. Rev.* 945, 952-53 (1997) (discussing commercialization of media through “market for eyeballs” metaphor), updated version at http://old.law.columbia.edu/my_pubs/barbecue.html.

and a smaller set of options being presented to its members. I suggest that a wide distribution of the storytelling function in society leads to greater diversity in perceptions about how life can be lived. In Part III.B, I explain why small increases in the number of storytellers may not significantly affect the range and diversity of stories told. I also outline why it may be the case that only very large scale shifts towards a widely distributed information-production system can have a meaningful effect on the diversity of stories available to members of a society. In Part III.C, I flesh out this explanation by describing the policy decision by Congress and the FCC on digital television as the choice of a radically more concentrated and commercial information video programming environment than was necessary given the digitization of television. In Part III.D, I explain how very strong intellectual property rights also diminish the number of storytellers in our society and the diversity of motivations that can sustain the practice of telling stories. Part III.E considers the problem of information overload and suggests why the filtration and accreditation functions that owners often fulfill can be fulfilled in a distributed information production environment. I explain why distributed peer-production of filtration and accreditation, like distributed content production, is preferable to hierarchical or market-based filtering and accreditation.

A. Three Storytelling Societies and an Adequate Range of Options

Imagine three storytelling societies: the Reds, the Blues, and the Greens. Each society follows a set of customs as to how they live and how they tell stories. Among the Reds and the Blues, everyone is busy all day, and no one tells stories except in the evening. In the evening, in both societies, everyone gathers in a big tent, and there is one designated storyteller who sits in front of the audience and tells stories. It is not that no one is allowed to tell stories elsewhere. But in these societies, given the time constraints people have, if anyone were to sit down in the shade in the middle of the day and start to tell a story, no one else would stop to listen. Among the Reds, the storyteller is a hereditary position, and the storyteller alone decides which stories to tell. Among the Blues, the storyteller is elected every night by simple majority vote. Every member of the community is eligible to offer herself as that night's storyteller, and every member is eligible to vote. Among the Greens, people tell stories all day, and everywhere. Everyone tells stories. People who want to listen stop and listen, sometimes in small groups of two or three, sometimes in very large groups.

Now, stories in these societies play a very important role in understanding and evaluating the world. They are the way people describe the world as they know it. They serve as testing grounds to imagine how the world might be, and they serve as a way to work out what is good and desirable and what is bad and undesirable. The societies are isolated from each other and from any other source of information.

Now let's consider Ron, Bob, and Gertrude, individual members of the Reds, Blues, and Greens, respectively. Ron's perception of the options open to him and his evaluation of these options are largely controlled by the hereditary storyteller. Ron can try to contact the storyteller to persuade him to tell different stories, but the storyteller is the figure who determines what stories are told. To the extent that these stories describe the universe of options Ron knows about, the storyteller defines the options Ron has. The storyteller's perception of the range of options largely will determine the size and diversity of the range of options open to Ron. This not only limits the range of options significantly, it also subjects Ron to the storyteller's control to the extent that, by selecting which stories to tell and how to tell them, the storyteller can shape Ron's actions and aspirations.

Bob's autonomy is constrained in similar ways, but by the majority of voters among the Blues, not the storyteller. These voters select the storyteller, and the way they choose will affect Bob's access to stories profoundly. If the majority selects only a small group of entertaining, popular, pleasing, or powerful (in some other dimension, like wealth or political power) storytellers, then Bob's perception of the range of options will be only slightly wider than Ron's, if at all. The locus of power to control Bob's sense of what he can and cannot do has shifted. It is not the hereditary storyteller, but rather the majority. Bob can participate in deciding which stories can be told. He can offer himself as a storyteller every night. But he cannot decide for himself what stories he will hear. He is significantly constrained by the preferences of a simple majority.

Gertrude is in a very different position. First, she can decide to tell a story whenever she wants to, subject only to whether there is any other Green who wants to listen. Second, she can select from the stories that any other Green wishes to tell, because she and all those surrounding her can sit in the shade and tell a story. No one person, and no majority, determines for anyone whether they can, or cannot,

tell a story or whether they can, or cannot, listen to the story of any other member of the Greens who wishes to tell a story.¹⁶⁷

Note that the difference between the Reds, on the one hand, and the Blues or Greens, on the other hand, in the capacity to tell and listen to stories from any member of the group is formal. Among the Reds, only the storyteller may tell the story as a matter of formal right, and listeners only have a choice of whether to listen to this story or to none at all. Among either the Blues or the Greens, anyone may tell a story as a matter of formal right, and listeners, as a matter of formal right, may choose from whom they will hear. Note also that the difference between the Reds and the Blues, on the one hand, and the Greens, on the other hand, is economic. In the former, opportunities for storytelling are scarcer. The social cost, in terms of stories unavailable for hearing, of choosing one storyteller over another is higher.

The difference between the Blues and the Greens then is not formal, but practical. The high cost of communication, if you will, created by the Blues' custom of listening to stories only in the evening, in a big tent, together with everyone else, makes it practically necessary to select "a storyteller" who occupies an evening. Since the stories play a substantive role in individuals' perceptions of how they might live their lives, that practical difference makes a difference in the capacity of individual Blues and Greens to perceive a wide and diverse set of options, as well as to exercise control over their perceptions and evaluations of options open for living their lives. The range of stories Bob is likely to listen to, and the degree to which he can choose unilaterally which story he will tell or listen to, are closer as a practical matter to those of Ron than to those of Gertrude. Gertrude has many more stories and storytelling settings to choose from, and many more instances where she can offer her own stories to others in her society. She, and everyone else in her society, can thus be exposed to a wider variety of conceptions of how life can and ought to be lived. This wider diversity of perceptions gives her greater choice and increases her ability to compose her own life story out of the more varied materials at her disposal. She can be more self-authored than either Ron or Bob. This diversity replicates, in large measure, the range of perceptions of how one might live a life that can be found among all Greens, precisely because the storytelling customs make every Green

¹⁶⁷ Because I am positing a small society, telling stories using vocal cords transmitted over the air, the medium itself is a commons, in the sense described in Part II, for all three examples. It is the institutional constraint—the tent in the evening—that makes the Reds and the Blues operate on a noncommons basis.

a potential storyteller, a potential source of information and inspiration about how one might live one's life.

Note also that the differences among the three societies are not technological but institutional. What makes for the differences in the range of stories available to Ron, Bob, and Gertrude are the customs of storytelling in each of their societies and the rules about who can tell a story, when, and under what constraints of time and attention. In the first instance, there are different customs regarding what counts as an opportunity for storytelling. This separates the economics of storytelling of the Greens from those of either the Reds or the Blues. Second, there are the formal differences between the ways storytellers are designated: heredity, vote, and individual choice by tellers and listeners.

B. Media Market Blues

All this could sound like a morality tale about how wonderfully the market maximizes autonomy. The Greens easily could sound like Greenbacks, rather than like environmentalists staking out public parks for an information commons. But that is not necessarily the case.

Most contemporary media markets have high entry barriers and large economies of scale. It is very costly to start up a television station, not to speak of a network, or a newspaper, cable company, telephone company, or movie distribution system. It is similarly costly to produce content. But once production costs or the costs of laying a network are incurred, the additional marginal cost of making information available to many users, or of adding users to the network, is much smaller than the initial cost. This gives information products and communications facilities supply-side economies of scale.¹⁶⁸

¹⁶⁸ With regard to the economics of information products, see Carl Shapiro & Hal R. Varian, *Information Rules: A Strategic Guide to the Network Economy* 20-22 (1999). Judge Posner described the economics of cable infrastructure in *Omega Satellite Prods. Co. v. City of Indianapolis*, 694 F.2d 119, 126 (7th Cir. 1982):

The cost of the cable grid appears to be the biggest cost of a cable television system and to be largely invariant to the number of subscribers the system has. We said earlier that once the grid is in place—once every major street has a cable running above or below it that can be hooked up to the individual residences along the street—the cost of adding another subscriber probably is small. If so, the average cost of cable television would be minimized by having a single company in any given geographical area; for if there is more than one company and therefore more than one grid, the cost of each grid will be spread over a smaller number of subscribers, and the average cost per subscriber, and hence price, will be higher.

If the foregoing accurately describes conditions in Indianapolis—again a question on which the record of the preliminary injunction proceeding is sketchy at best—it describes what

There also may be scale economies on the demand side—for example, the more users who use AOL, the more valuable to each of them is the use of Instant Messenger.¹⁶⁹

The consequence of this economic phenomenon is roughly the same as the consequence of the customs of the Reds and the Blues that storytelling happens in the big tent in the evening. While there is no formal limitation on anyone producing and disseminating information products, the economic realities limit the opportunities for storytelling in the mass-mediated environment and make storytelling opportunities a scarce good. It is very costly to tell stories in the mass-mediated environment. Therefore most storytellers are commercial entities that seek to sell their stories to their audience.

Now, the fact that our mass-mediated environment is mostly commercial (unlike, for example, the old British BBC system) makes it more like the Blues than the Reds. These outlets serve the tastes of the majority—expressed in some combination of cash payment and attention to advertising. I will not go here through the full analysis, recently performed so carefully by Baker,¹⁷⁰ as to why mass media markets do not reflect the preferences of their audiences very well. All I will offer here is a tweak of an older set of analyses of whether monopoly or competition is better in mass media markets to illustrate the relationship between markets, channels, and diversity of content.¹⁷¹

economists call a “natural monopoly,” wherein the benefits, and indeed the very possibility, of competition are limited.

¹⁶⁹ Instant messenger is a utility for communicating in real time among users of the same software, which is offered as part of AOL's package. Demand-side economies of scale were largely ignored for most of the twentieth century, until the emergence of communications and information markets made them mainstream economic phenomena. See Shapiro & Varian, *supra* note 168, at 179-84 (describing how compatibility requirements of information systems create demand-side, as opposed to supply-side, economies of scale). Network externalities were first identified in Michael L. Katz & Carl Shapiro, *Network Externalities, Competition, and Compatibility*, 75 *Am. Econ. Rev.* 424 (1985). Network externalities, in turn, are one of a number of similar effects generally thought common in information goods and described as positive feedbacks. See W. Brian Arthur, *Increasing Returns and Path Dependence in the Economy* 3 (1994) (“[K]nowledge-based [products] are largely subject to increasing returns.”).

¹⁷⁰ Baker, *Giving the Audience What It Wants*, *supra* note 80.

¹⁷¹ The original analysis was made in Peter O. Steiner, *Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting*, 66 *Q.J. Econ.* 194 (1952). This was followed by refinements, the most important of which was in Jack H. Beebe, *Institutional Structure and Program Choices in Television Markets*, 91 *Q.J. Econ.* 15 (1977). A parallel line of analysis of the relationship between programming and the market structure of broadcasting began with Michael Spence & Bruce Owen, *Television Programming, Monopolistic Competition, and Welfare*, 91 *Q.J. Econ.* 103 (1977). For an excellent review of this literature, see Matthew L. Spitzer, *Justifying Minority Preferences in Broadcasting*, 64 *S. Cal. L. Rev.* 293, 304-19 (1991).

The basic point is that in a mass media market the extent to which the content communicated will be as diverse as the range of preferences of the audience depends on the number of channels and the distribution of preferences in the audience. I will illustrate this effect with a rather extreme example. Imagine that we are in a television market of 10 million viewers. Imagine that the distribution of preferences in the audience is as follows:

- 1,000,000—sitcoms
- 750,000—sports
- 500,000—local news
- 250,000—action movies
- 9990—foreign film
- 9980—gardening

The stark dropoff between action movies and foreign film and gardening is intended to reflect that the 7.5 million potential viewers who do not fall into one of the first four clusters are distributed in hundreds of small clusters, none commanding more than 10,000 viewers. I will explain this stark assumption in the text following Table 2.

Assume that each channel is owned by an independent competitor. Table 2 presents the programming choices of these channels, based on the assumptions that each programmer wants to maximize the number of viewers of its channel and that the viewers are equally likely to watch one channel as they are another if both are offering the same type of programming. The numbers in parentheses next to the programming choice represent the minimum number of viewers the programmer can hope to attract given these assumptions, not including the probability that some of the 7.5 million viewers outside the main clusters will also tune in.

The limitations of such a description are obvious. The dropoff in preferences is purposefully dramatic, to illustrate the point. The preferences are obviously more rigidly stated than they are likely to be felt. What this skewed ordering is intended to illustrate is a more subtle effect than the one that Steiner's original model identified. A refinement introduced by Beebe is the possibility of ranked preferences: second-best and lowest-common-denominator preferences (i.e., programs that, while not a first or second best, nonetheless will be watched by all viewers in a market who prefer viewing to doing something else).¹⁷² Imagine then, that sitcoms, sports, local news, and action movies are formats that are of this second-best or even lowest-common-denominator type: They are the first-best preference for some viewers, but for most viewers are simply slightly better than do-

¹⁷² Beebe, *supra* note 171, at 15-16.

TABLE 2

Number of Channels	Programming Available
1	sitcom (1M)
2	sitcom (1M), sports (750K)
3	sitcom (1M or 500K), sports (750K), indifferent between sitcoms and local news (500K)
4	sitcom (500K), sports (750K), sitcom (500K), local news (500K)
5	sitcom (500K), sports (375K), sitcom (500K), local news (500K), sports (375K)
6	sitcom (333K), sports (375K), sitcom (333K), local news (500K), sports (375K), sitcom (333K)
***	***
250	100 channels of sitcom (10K), 75 channels of sports (10K), 50 channels of local news (10K), 25 channels of action movies (10K)
251	100 channels of sitcom (10K), 75 channels of sports (10K), 50 channels of local news (10K), 25 channels of action movies (10K), 1 foreign film channel (9.99K)
252	100 channels of sitcom (10K), 75 channels of sports (10K), 50 channels of local news (10K), 25 channels of action movies (10K), 1 foreign film channel (9.99K), 1 gardening channel (9.98K)

ing something other than watching TV. The highly skewed relationship between the winning formats and others relies on the intuition that people's first-best preferences vary widely with the variety of human individual taste, while people's minimal requirements to make watching a program preferable to doing something other than sitting in front of the TV are shared in much larger clusters. The four popular formats capture not only those who love sports, etc., but also those willing to forgo the coffee shop for the TV if presented with one of these inoffensive alternatives. Beebe establishes that media monopolists would show nothing but common denominator programs and that competition among broadcasters would begin to serve the smaller preference clusters only if a large enough number of channels were available.¹⁷³

In any event, if my assumption in principle represents the real distribution of preferences, then the table of distribution of programming would explain the phenomenon that increases in competition do

¹⁷³ Id. at 26-31.

not necessarily lead to increases in content diversity unless the increases are very substantial. Mara Einstein's recent work on the abolition of the financial-interest and syndication (finsyn) rules offers the clearest empirical evidence that small variations in the number of outlets or their ownership do not translate into content diversity.¹⁷⁴ She tracks the structure of the broadcast industry and the ownership of programming before, during, and after the adoption and repeal of the finsyn rules,¹⁷⁵ and finds that there were clear changes in ownership of programming and in the number of programming producers whose programs were cleared on the air, but no real effects on content diversity. The rules, just as Judge Posner had predicted when he held the Federal Communication Commission's revision of the rules invalid in the early 1990s,¹⁷⁶ effectively shifted program production from the three networks to the eight Hollywood studios. Their repeal moved a lot of program production from the Hollywood studios back to the now six networks, four of which were by that time owned by or affiliated with Hollywood studios. Despite the change from three to eight to six producers and the changes in ownership, and despite Einstein's finding that without finsyn networks did in fact choose to air their own programs, rather than "the best available" programs, Einstein shows that there was no significant change in the diversity of programming following the repeal of finsyn.¹⁷⁷

Such a set of assumptions would also explain the broad cultural sense of "57 channels and nothing on," or the general sense of a lack of diversity, despite empirical findings that current media markets are relatively unconcentrated by the usual economic measures of market concentration.¹⁷⁸ These assumptions similarly would explain why, as

¹⁷⁴ Mara Einstein, *Prime Time Power and Politics: The Financial Interest and Syndication Rules and Their Impact on the Structure and Practices of the Television Industry* (2000) (unpublished Ph.D. dissertation, New York University) (on file with the New York University Library). Finsyn rules, promulgated to enhance diversity in programming by securing financial returns for independent (nonnetwork) programmers, prohibited networks from syndicating their own programs or acquiring syndication rights to programs produced by independent producers. On the limitations of those rules, see *Schurz Communications, Inc. v. FCC*, 982 F.2d 1043, 1045-47 (7th Cir. 1992).

¹⁷⁵ The finsyn rules were adopted in *Competition and Responsibility in Network Television Broadcasting*, 23 F.C.C.2d 382 (1970) (report and order), *aff'd*, *Mt. Mansfield Television, Inc. v. FCC*, 442 F.2d 470, 489 (2d Cir. 1971). The rules were revised in *Evaluation of the Syndication and Financial Interest Rules*, 56 Fed. Reg. 26,242 (June 6, 1991), as amended, 56 Fed. Reg. 64,207 (Dec. 9, 1991) (codified at 47 C.F.R. §§ 73.658(k), 73.659-.662 (1991)). The finsyn rules were repealed in *Evaluation of the Syndication and Financial Interest Rules*, 8 F.C.C.R. 3282 (1993).

¹⁷⁶ *Schurz Communications, Inc.*, 982 F.2d at 1046, 1055.

¹⁷⁷ Einstein, *supra* note 174, at 248-58.

¹⁷⁸ See Ben Compaine, *Mergers, Divestitures and the Internet: Is Ownership of the Media Industry Becoming Too Concentrated?*, Paper Presented at Telecommunications

cable systems significantly expanded channel capacity, we saw the emergence of more channels like Black Entertainment Television or The History Channel, as well as why direct-broadcast satellite may be the first venue in which one can see a twenty-four-hour-a-day cooking channel. These assumptions would tend to support Noam's claim that if cybermedia develops properly, we will not see 5000 channels, but rather as many unique combinations of views as there are individual tastes.¹⁷⁹ The point is that the relationship between diversity of content and diversity of structure or ownership is not smooth. It occurs in leaps. Small increases in the number of outlets just serve large clusters of low-intensity preferences (what people find acceptable). Only once we reach a threshold number of outlets sufficient to capture much smaller clusters can programmers aim to tap higher-intensity preference clusters (what people are really interested in).

The upshot is, if all storytellers in society are profit maximizing and operate in a market, the number of storytellers matters tremendously for the diversity of stories told in a society. It is quite possible to have very active market competition in how well the same stories are told, as opposed to what stories are told, even though there are many people who would rather hear different stories altogether, but who are in clusters too small, too poor, or too uncoordinated to persuade the storytellers to change their stories rather than their props.

Now, a policy choice that predictably will result in there being twenty, or fifty, or a hundred channels, rather than 1500, is a policy that has predictable effects for the diversity of stories that can be told in society and the distribution of opportunities to become a storyteller. And the degree of diversity and the pattern of distribution of the ability to actually become a producer—a storyteller—are important to the personal autonomy of most people in society. The more widely distributed the capacity to tell stories, the more stories of different types will be told and the more closely these stories will reflect the actual diversity of perceptions of how the world can be and how to value different conceptions of the world.

Policy choices that increase the cost of becoming a provider tend both to limit the number of storytellers and to homogenize them. Where the cost of being a producer is very high, all producers must sell access to recoup these costs, and all storytellers operate from a

Policy Research Conference (Sept. 26, 1999), abstract at <http://www.tprc.org/ABSTRACTS99/COMPAINAABS.TXT> (using two different indicators to show that there was little change in media concentration between 1986 and 1997 and that levels of concentration were "extremely low").

¹⁷⁹ Eli M. Noam, *Media Concentration in the United States: Industry Trends and Regulatory Responses* pt. VI (1999), at <http://www.vii.org/papers/medconc.htm>.

similar set of incentives and with a similar set of motives and goals—selling to the largest or highest paying groups possible. Such policies therefore lose, in addition to the quantitative dimension, a qualitative dimension. For if being a producer is cheap enough to be sustained by means other than attracting the largest or highest paying audience, then storytellers, as a practical matter, can be moved by a wider range of incentives or motivations beyond the incentive to aggregate paying customers. And the weaker the necessity to aggregate listeners, the greater the number of stories that can be told that reflect one person or group's perception of how life ought to or at least could be lived, rather than reflecting one person's perception of what a defined market of others would view as an acceptable story about how life can or ought to be lived.

C. *High-Definition TV and Autonomy*

Perhaps no contemporary policy choice better represents a policy preference for concentrated, commercial information production rather than widely distributed, not-purely-commercial information production than the decisions made by Congress and the FCC to assign spectrum allocated for digital television channels to incumbent licensees and the decision by Congress to force these licensees to provide high-definition TV (HDTV). Fear not. This is not another argument about why the spectrum should have been auctioned, not given away;¹⁸⁰ quite the contrary.

HDTV started out as a matter of national competitiveness between Japan, Europe, and the United States, when the Japanese consumer electronics firms developed an analog HDTV standard called MUSE.¹⁸¹ The competition was initially understood as one over the future of analog TV, and analog transmissions using the American NTSC standard require six megahertz of radio frequency spectrum to be transmitted without interference.¹⁸² When the FCC designed its spectrum policy for what was then called advanced television, it operated on the assumption that six megahertz would continue to be the amount of spectrum needed for a television channel.¹⁸³ During the

¹⁸⁰ E.g., Bob Dole, *Giving Away the Airwaves*, N.Y. Times, Mar. 27, 1997, at A29.

¹⁸¹ Advisory Comm. on Pub. Interest Obligations of Digital Television Broadcasters, *Charting the Digital Broadcasting Future 5* (1998) [hereinafter PIAC Report], <http://www.ntia.doc.gov/pubintadvcom/piacreport.pdf>.

¹⁸² Brian Evans, *Understanding Digital TV: The Route to HDTV 70* (1995) (explaining that bandwidth required depends on amount of information used and also noting that higher-definition PAL standard used in Europe requires eight megahertz per television channel).

¹⁸³ *Advanced Television Systems*, 6 F.C.C.R. 7024, 7024 (1991) (notice of proposed rulemaking).

1990s it became clear that high definition would be digital,¹⁸⁴ but no one in the FCC challenged either of two historical assumptions: that six megahertz of spectrum are needed for the new service¹⁸⁵ and that high-definition was the central relevant application.¹⁸⁶ The failure to challenge these two assumptions resulted in (a) the allocation of six megahertz to all incumbent broadcast licensees and only to them,¹⁸⁷ and (b) the requirement, imposed mostly through congressional pressure to justify the giveaway in the face of fiscal criticisms, that the licensees provide HDTV programming.¹⁸⁸

Regulatory adoption of digital HDTV was a mistake both with regard to the amount of spectrum each incumbent received and with regard to the commitment to support high-definition TV as the central relevant application. The reason that digital was the way to go for HDTV is that digital broadcasting is more efficient than analog broadcasting. An analog broadcast sends from the transmitter to the receiver information about whole frames, one frame at a time. The receiver gets instructions on how to paint the entire screen for frame 1, then receives instructions on how to paint the entire screen for frame 2, etc. In digital transmissions, the receiver gets information about how to paint the entire screen for frame 1 and then only gets information about the differences between frame 1 and frame 2, frame 2 and frame 3, etc. If you imagine a newscaster sitting with a more-or-less stable background filling a screen, the frame-to-frame change is quite small. Shifting from a system that transmits information about the entire screen for each frame to one that transmits only the differences between screens significantly increases the amount of humanly perceivable content that can be sent over a given amount of time or bandwidth, because it takes less machine-perceivable information to encode what we see.

That more information can be conveyed means that more pixels can be conveyed, more information about shade, color, depth etc., re-

¹⁸⁴ PIAC Report, *supra* note 181, at 5-6.

¹⁸⁵ See *Advanced Television Systems*, 12 F.C.C.R. 12,809, 12,814 (1997) (fifth report and order) [hereinafter *Fifth Report*].

¹⁸⁶ See *infra* note 188.

¹⁸⁷ Telecommunications Act of 1996, Pub. L. No. 104-104, § 201, 110 Stat. 56, 107-08 (codified as amended at 47 U.S.C. § 336(a)(1) (Supp. III 1997)) (limiting initial eligibility for advanced television licenses to incumbent licensees); *Fifth Report*, *supra* note 185, at 12,814 (limiting channel size to six megahertz); *id.* at 12,816-17 (noting limitation imposed by Act).

¹⁸⁸ Joel Brinkley, *Under Pressure, 2 Broadcasters Decide They Will Now Run HDTV*, *N.Y. Times*, Sept. 18, 1997, at D1 (describing how broadcasters like ABC and Sinclair were forced by Congress to recant their heretical plans to offer multiple programs, including pay-per-view, over their digital TV allocations, and not to offer single channel in high-definition format).

sulting in a more vivid picture. More information also could mean that over the same amount of spectrum more programs in standard definition could be transmitted. In fact, over the six-megahertz channel allocated to broadcast licensees for digital programming, five or more simultaneous programs can be transmitted in standard definition.¹⁸⁹ Some of the licensees wanted to use this abundance of bandwidth to tell more stories rather than to use better props—i.e., to transmit more than one channel of programming over their six megahertz, in standard, not high, definition.¹⁹⁰ But the legislators who gave them this gift resisted these market signals that more stories, not more signals, were the way to use digital TV.¹⁹¹ Presumably, such a development would imply that the legislators were foolish to give a small number of broadcasters channels that could have been distributed to a much larger number of potential storytellers.

The implications of the HDTV policy for the number of speakers on broadcast television are quite significant. The FCC allotted 270-300 megahertz to digital TV.¹⁹² Licenses were allocated not based on the technical limitations of digital broadcast but on a legacy market rationale. In order to secure for the licensees markets they were familiar with, the FCC replicated—for market-creating, not technical, reasons—the NTSC licenses by setting the technical parameters of operation so that all the licensees had served exactly the same markets using digital TV that they served using their old licenses.¹⁹³ Because of a variety of regulatory commitments to assuring localism in broadcast and avoiding interference with older technologies, NTSC-based television markets usually had three, and even in large markets no more than seven, licensees.¹⁹⁴ If slightly more than one megahertz is all that is necessary to transmit a standard signal in digital form, licenses in fact could have been distributed to anywhere from fifteen to as many as thirty-five broadcasters. Moreover, no consideration was given to how the relative robustness of digital communications could have permitted more efficient geographic reuse, such that even more licenses could have been granted in each geographic area and in adjoining geographic areas. Such possibilities were ruled out by the

¹⁸⁹ PIAC Report, *supra* note 181, at xi-xii; Fifth Report, *supra* note 185, at 12,817.

¹⁹⁰ See *supra* note 188; *infra* note 191.

¹⁹¹ See *supra* note 188. The FCC actually had declined to require licensees to provide HDTV. Fifth Report, *supra* note 185, at 12,826-27.

¹⁹² Advanced Television Systems, 12 F.C.C.R. 14,588, 14,608-09, 14,627-28 (1997) (sixth report and order).

¹⁹³ *Id.* at 14,595-96, 14,605-07.

¹⁹⁴ See Stanley M. Besen, Thomas G. Krattenmaker, A. Richard Metzger, Jr. & John R. Woodbury, *Misregulating Television* 12-16 (1984) (arguing that FCC spectrum allocation limited number of outlets in any given market available for new networks).

commitment to sustaining the existing, much criticized, television market structure.

The result is that in over-the-air digital television we have just as concentrated a market, with just as small a number of broadcasters, as we have with analog broadcast. Digital broadcasters were forced by Congress to adopt expensive production facilities to provide high-definition programming. This decreases the opportunities for becoming a broadcaster and increases its costs. The increase in costs means that, not only is the number of storytellers limited, but they are also more likely to be market-oriented. As the cost increases, it becomes less feasible for non-market-oriented storytellers to emerge—be they political or civic organizations, artist unions, or colleges. This in turn limits the number of speakers and the range of reasons that motivate them to speak and decreases the range and diversity of stories told in society.¹⁹⁵ In other words, there is both a quantitative effect—the number of storytellers declines—and a qualitative effect. The qualitative effect is that as costs increase, only commercial producers who serve aggregate tastes can meet these costs, and therefore only a relatively homogeneous set of storytellers emerges. I have suggested throughout this Article that such a decrease in the opportunity to produce information imposes a cost in terms of lost autonomy for members of a society whose information environment has been so impoverished by its policies.

D. Intellectual Property and the Organization of Information Production

Like unnecessarily high entry barriers to broadcasting, strong intellectual property rights have the effect of commercializing, concentrating, and homogenizing the storytelling function in our society. I have provided a more complete economic analysis that explains this phenomenon elsewhere¹⁹⁶ and here will restate the argument only briefly.

Many people in society engage in information production. They produce and exchange symbols for a variety of reasons and using a variety of strategies to appropriate the benefits of their production. While a more detailed typology is possible, it is important to under-

¹⁹⁵ The FCC has been consistent in its statements that increasing the range and diversity of speakers and opening the airwaves to noncommercial speakers from local communities is a central policy objective. Most recently, this policy has been particularly obvious in the low-power radio initiative. See *Creation of Low Power Radio Service*, 15 F.C.C.R. 2205, 2208-09 (2000) (report and order).

¹⁹⁶ Yochai Benkler, *Intellectual Property and the Organization of Information Production* (1999), at <http://www.law.nyu.edu/benkler/Ipec.pdf>.

stand three major divides in the extant distribution of strategies used by information producers in our economy. First, there is the division between commercial and noncommercial producers. Unlike in the production of goods such as wheat or automobiles, the noncommercial sector is of crucial importance in our information production system. Universities, the government (through both direct investment in government labs or research institutes and indirect investment through National Science Foundation grants and the like), political and civic organizations, and amateurs are all integral components of the production of information. Second, there is the division within the commercial sector between those who appropriate the benefits of their investment by relying on property rights and those who appropriate the benefits of their production by relying on early access to the information (like wire services) or by giving the information for free and appropriating the benefits through relationships created around the information (like lawyers who write for the *National Law Journal*). The best empirical data available tell us that at least with regard to patents, the majority of commercial firms in most sectors of the economy do *not* rely on intellectual property rights to appropriate the value of their innovations.¹⁹⁷ Third, and finally, there is the division, *within* those who sell “information goods” in reliance on rights, between those who produce information on a small scale, like individual authors, and those who integrate new production with ownership of large existing-information inventories, like Disney or Time Warner.

The core point to understand about property rights in information is that they have different effects on these different strategies such that changes in the institutional content of property rights can

¹⁹⁷ Wesley M. Cohen, Richard R. Nelson & John P. Walsh, Protecting Their Intellectual Assets: Appropriability Conditions and Why U.S. Manufacturing Firms Patent (or Not) 2-3 (Nat'l Bureau of Econ. Research, Working Paper No. 7552, 2000), <http://www.nber.org> (reporting on most comprehensive survey data currently available; finding that patents are least important means of appropriating benefits of innovation, relative to secrecy and lead time; and suggesting that much patenting in most industries (except pharmaceuticals and medical equipment) is intended defensively, against strategic use of patents by competitors, and not to appropriate benefits of innovation); see also Brownwyn H. Hall & Rose Marie Ham, The Patent Paradox Revisited: Determinants of Patenting in the U.S. Semiconductor Industry, 1980-94, at 2-4 (Nat'l Bureau of Econ. Research, Working Paper No. 7062, 1999), <http://www.nber.org> (reporting similar findings for semiconductor industry specifically and noting potential efficacy of patents, nonetheless, for purposes of facilitating entry into niche product markets). These newer data support similar older findings in Richard C. Levin, Alvin K. Klevorick, Richard R. Nelson & Sidney G. Winter, Appropriating the Returns from Industrial Research and Development, 3 Brookings Papers on Econ. Activity 783, 794-97 (1987); and Edwin Mansfield, Mark Schwartz & Samuel Wagner, Imitation Costs and Patents: An Empirical Study, 91 Econ. J. 907, 916-17 (1981) (concluding that patent protection was not essential for development of most innovations, excluding drugs).

help some of these strategies *at the expense* of others. In particular, increases in the scope and reach of property rights benefit commercial producers who sell information goods, at the expense of both noncommercial producers and commercial producers who appropriate the benefits of their production by means other than sale of rights. The primary culprit forcing this tradeoff is a rather unique attribute of information: It is both the input and the output of its own production process. Increases in the scope of intellectual property protection therefore are thought generally to cause a simultaneous increase both in expected ability to appropriate the value of outputs (and hence increased incentives) and in input costs. Once one recognizes that not all producers rely on rights to sell access to their products, it becomes clear that an expansion of rights indeed increases the *costs* of all producers but increases production *incentives* of only some producers—those who sell information goods in reliance on rights. Expansion of rights increases the returns to commercial producers who sell permission to use, in part by raising the costs of other producers who do not sell rights—either because they are noncommercial or because they appropriate the benefits of their information production by means other than sale of permission. This imbalance in the costs and benefits of intellectual property rights leads to commercialization of information production.

Increases in the scope and reach of property rights also favor large-scale organizations that own information inventories over small-scale organizations (including individuals) that do not own such inventories. The mechanism for this effect is as follows. An increase in intellectual property rights increases the input costs of all producers who need to buy more inputs—more uses of information—that previously were not subject to anyone's right, in other words, that were available from the public domain at their marginal cost of zero. An organization that owns a large inventory of existing information can respond to the loss of public domain inputs by intensifying reutilization of its owned inventory and will do so to the extent that its inventory provides even rough substitutes for information inputs otherwise available only by purchase from others. Since the marginal cost of reutilization is zero (information is "nonrival"),¹⁹⁸ but the (supply)

¹⁹⁸ Every economic good can be defined by the degree to which it is excludable, and the degree to which it is rival. A good is excludable to the extent that its producer can appropriate its benefits by excluding those who benefit from it unless they pay a price. A good is rivalrous to the extent that its use by one person prevents (rivals) its use by another person. The former is a function of the available technology for exclusion, and the institutional (legal) framework that permits or facilitates such technically feasible exclusion. The latter is purely "technological." It is an attribute of the good itself, that either can or

price at which information is available from the market must be positive, a firm will see lower costs to utilization of owned inventory even when the social cost of using intrafirm resources is identical to the social cost of utilizing market-purchased inputs. This is so because of the nonrivalry, independent of and cumulative to any transaction-cost effects.¹⁹⁹ Organizations and individuals that do not have such an inventory do not have the reutilization option and are forced to buy from the market information inputs no longer available from the public domain. This increases their input costs more rapidly than the rise in input costs of large-scale organizations that vertically integrate information production with inventory management. This disproportionate benefit of integrating new production with ownership and investing makes strong intellectual property rights an impetus for concentration of information production.

Finally, because owners of inventory cushion the increased costs associated with increased property rights by reutilizing their owned inventory, they systematically will produce information by reference to what they already own, as opposed to what would be the best information product possible to make at the time they are making it. Whenever a product can be produced with internally owned information inputs, it will be produced instead of an alternative product that requires inputs owned by others, even if the alternative product is "better" (could be sold at a higher price), throughout the range in which the lower cost of production outweighs the lower price the product produced from internal resources will command. Put simply, Disney employees work with Mickey and Goofy, AOL-Time Warner employees with Bugs and Daffy.²⁰⁰ Strong intellectual property rights therefore tend to foster the production of variations on existing themes owned by the producer. Disney makes *Aladdin and the King of Thieves* or *The Return of the Little Mermaid*. This effect amplifies the homogenization of information produced in a strong intellectual property environment, adding to the homogenization effects of con-

cannot, as a practical matter, be used by many people without degradation or rivalry. A pure private good is one that is excludable and rivalrous. A pure public good is one that is nonexcludable and nonrivalrous. When a good is public in the sense of being nonexcludable, it is so because no firm can capture the social value of its provision. It therefore must be provided publicly, if at all. By definition, a nonrivalrous good is one that can be used by one person without preventing or degrading its use by any other person. See Paul M. Romer, *Endogenous Technological Change*, *J. Pol. Econ.*, Oct. 1990, at S71, S73-74 (explaining rivalry and excludability). Any additional person who uses the good imposes no social cost. Its optimal demand price is therefore zero. At that price, it would not be produced by private interests and must be provided publicly. At a higher price that would induce private production, it will be under-consumed, and hence under-produced.

¹⁹⁹ See Benkler, *supra* note 196, at 29-33.

²⁰⁰ See *id.* at 41 (discussing economics of "Mickey organizations").

centration and commercialization that I explored in the context of media concentration.²⁰¹

The result, as was the case with the HDTV decision, is that strong intellectual property rights tend to drive out noncommercial producers by increasing their costs. They also tend to favor commercial sellers of information products and favor concentration of production in the hands of a small number of firms that own large information inventories. These effects will tend to limit the diversity of stories told in society, because they will limit the number of storytellers, the range of reasons that might cause them to sit in the shade and tell a story, and the set of materials with which they work to spin it.

E. Filtration and Accreditation: The Babel Objection

An important concern regarding widely distributed information production systems is the issue of information overload and the absence of means to determine what is worthwhile and what is not.²⁰² How, one might worry, can a system of information production enhance the ability of an individual to author her life, if it is impossible to tell whether this or that particular story or piece of information is credible or whether it is relevant to her particular experience? Will individuals spend all their time sifting through mounds of inane stories and fairy tales, instead of evaluating which life is best for them based on a small and manageable set of credible and relevant stories? This type of concern raises what I call "the Babel objection," because it emphasizes the value of coherence and standardization to the pursuit of a meaningful enterprise, be it building a tower or authoring and living a life.²⁰³

There are three kinds of answers to the Babel objection. First, there is the problem of the power that inheres in the editorial function. The extent to which information overload is an acceptable problem depends on the extent to which the editor who solves it thereby gains power over the life of the user of the editorial function and how the editor uses that power. Second, there is the question of whether

²⁰¹ See *supra* Parts III.B, III.C.

²⁰² See Ira S. Nathenson, *Internet Infoglut and Invisible Ink: Spamdexing Search Engines with Meta Tags*, 12 *Harv. J.L. & Tech.* 43, 51-57 (1998) (describing literature that treats overload or "data smog" as primary problem in information economy).

²⁰³ Neil Netanel recently has published a sophisticated defense of the value of large commercial media for democracy, in significant part in reliance on the value these large media outlets provide by filtration and accreditation. Neil Weinstock Netanel, *Market Hierarchy and Copyright in Our System of Free Expression*, 53 *Vand. L. Rev.* 1879, 1920-22 (2000). That article was published as this Article was going to press, and the following text anticipates the argument in broad terms, but does not attempt to respond to the full argument as he develops it there.

users can select their editor freely or whether the editorial function is bundled with other communicative functions and sold by service providers among which users have little choice. Finally, there is the availability of alternative models of filtration and accreditation that are distributed and hence that resolve the problem of information overload without raising the problem of editorial control.

Filtration and accreditation are integral parts of all communications.²⁰⁴ Filtration refers to the determination that a given communication is relevant for a given sender to send to a given recipient and relevant for the recipient to receive. Accreditation is in some measure a subset of filtration and deals with further filtering relevant information for credibility. Decisions of relevance for purposes of filtration and accreditation are made with reference to the values of the person filtering the information, not the values of the person receiving the information. The editor of a cable-network newsmagazine decides whether a given story is relevant to send out. The owner of a cable system decides whether it is, in the aggregate, relevant to its viewers to see that newsmagazine on its system. And if it so decides, each viewer chooses whether or not to view the story. Of the three decisions that are layers of the recipient's relevance filtration system, only one is under the control of the individual recipient. And, while the editor's choice might be perceived in some sense as inherent to the production of the information, the cable operator's choice is purely a function of its role as proprietor of the infrastructure. The point to focus on is that the recipient's judgment is dependent on the cable operator's having released the program.

As with any flow, control over a point in the flow of a communication gives the person who controls that point power to control the entire flow downstream from it. This power enables the provision of a valuable filtration service—a service that assures the recipient that she is not spending hours gazing at irrelevant materials. But plainly filtration only enhances autonomy if the editor's notions of relevance and quality resemble those of the sender and the recipient. Imagine a recipient who really wants to be educated about African politics but also likes sports. Under perfect conditions, he would seek out information on African politics most of the time, with occasional searches for information on sports. The editor, however, makes her money by selling advertising. For her, what is relevant is what will keep the viewer's attention most closely on the screen while maintaining a pleasantly

²⁰⁴ See Yochai Benkler, *Communications Infrastructure Regulation and the Distribution of Control Over Content*, 22 *Telecomm. Pol'y* 183, 186-87 (1998) (differentiating communication functions).

acquisitive mood. Given a choice between transmitting information about famine in southern Sudan, which she worries will put viewers in a charitable rather than acquisitive mood, and transmitting a football game that has no similar adverse effects, she will prefer the latter.

The general point should be obvious. To the extent that the values of the editor diverge from those of the user, an editor does not facilitate user autonomy by selecting relevant information based on her values, but rather imposes her own preferences regarding what should be relevant to users. A parallel effect occurs with accreditation. An editor might choose to treat as credible a person whose views or manner of presentation draw audiences, rather than necessarily the wisest or best informed of commentators. The wide range in quality of talking heads on television should suffice as an example.

The second response to the Babel objection has to do with the organization of filtration and accreditation in a concentrated or homogeneous, rather than a distributed, information environment. The cable operator owns its cable system by virtue of capital investment and (perhaps) expertise in laying cables and hooking up homes. But its control over the pipeline into the home gives it an editorial role in the materials that reach the home. Given the concentrated economics of cable systems, this editorial power is not easy to replace and is not subject to open competition. The same phenomenon occurs with other media that are concentrated and where the information production and distribution functions are integrated with relevance filtration and accreditation, from one-newspaper towns to broadcasters or cable-broadband service providers. An edited environment that frees the individual to think about and choose from a small selection of information inputs becomes less attractive when the editor takes on that role as a result of the ownership of carriage media or content, rather than as a result of selection by the user. The existence of an editor means that there is less information for an individual to process. It does not mean that the values according to which the information was reduced are those that the user would have chosen absent the tied relationship between editing and either content production or carriage.

Finally, just like content production and carriage, relevance and accreditation can be produced in a distributed fashion with the right kind of communications and processing capabilities. Instead of relying on the judgment of a record label and a DJ of a commercial radio station as to what music is good, users could compare notes as to what they like. Music search engines could track user preferences (that are not personalized and do not involve identifiable personal information) so that if one liked songs *l*, *m*, and *n*, one could learn that seventy-five

percent of others who liked those songs also liked song o. This is obviously just an example.

The broader point is that we have seen both as to infrastructure and as to content the emergence of options to restructure radically the organization of information production and exchange towards a distributed, peer-produced model. Filtration and accreditation functions are part of the information production and exchange process and like the other components could be produced on this model. Relevance and quality no longer would be based on the “authority” of the person providing the stamp of approval. However, once one separates filtration and accreditation from content production and delivery, nothing prevents “authorities” from setting up competing filtration and accreditation services so that users would decide to go to Warner Records’ recommended list—they just wouldn’t be forced to do so by having their access provided only by a Time Warner cable. Relevance and accreditation would be produced, in the first instance, by mutual pointing and referencing of people who would see each other as peers and would rely on each other’s judgments—whether by knowing who the individuals are, as when one goes to a website one trusts to see what other sites are relevant to one’s search—or by identifying specific similarities relevant to the individual, like the music search engine I describe.

The core response to the Babel objection is to accept that filtration and accreditation are crucial to an autonomous individual. Nonetheless, that acknowledgement does not suggest that the filtration and accreditation systems that we have in place, tied as they are to the system of content production and exchange that we have, are the appropriate means to protect autonomous individuals from paralysis by information overload. Property in infrastructure and content provides control over filtration and accreditation. To that extent, property provides the power for some people to shape the will-formation processes of others. The adoption of a peer-produced, distributed information-production system does not mean that filtration and accreditation lose their importance. It only means that these communicative functions, like others, must be available on a peer-produced, open model in order to secure the autonomy of individuals who rely on the information that comes through these filters. And the same policy recommendations entailed by a commitment to peer-produced, noncommercial content-production and communications infrastructure also serve to provide the institutional space necessary for the development of peer-based filtration and accreditation.

CONCLUSION
PATHS FOR THE TAKING

Respect for personal autonomy, or the capacity of individuals to govern their own lives, seems to be a basic normative commitment of liberal systems. I have not tried, however, to make a normative argument for or against autonomy here. I assume that many in our society do in fact hold some conception of the idea that a liberal legal system should respect the autonomy of individuals, and in any event I write primarily for those who do hold some such view. My goal here is, in a sense, positive, not normative. It is to outline how law might be understood to affect autonomy other than by direct prohibition on actions or choices, so that those who do value autonomy can evaluate laws in terms of their implications for that value.

To evaluate law based on a commitment to autonomy, I suggest that we look at the effects of law on the degree to which people can be and are in fact autonomous. A conception of autonomy for individuals who are born into a set of circumstances and live in the context of others would suggest that a wide range of constraints, some internal, some external, affect the extent to which people can in fact be autonomous. By structuring the relations among individuals and firms in society, law can affect the shape of the constraints under which all or some subgroups of its subjects operate. A legal agenda that would seek to correct for internal constraints—failure of rationality or self-control, in particular—would, however, raise serious concerns with paternalistic regulation that itself undermines respect of autonomy. I therefore have excluded these effects from my analysis. Because my purpose is to explore how laws that are not usually thought of as constraining autonomy may nonetheless do so, I also excluded from my analysis laws whose deleterious effects on autonomy are too obvious—laws that directly prohibit many important actions or life choices, for example.

The result is a focus on two primary effects of laws. The first is the degree to which a legal framework makes some individuals more or less subject to the control of others. When a lawmaker adopts a law that predictably makes some people likely to become the objects of control by others, that lawmaker is compromising the autonomy of those who would be treated as objects, rather than subjects. The second effect that law can have on autonomy arises when a law is likely to cause significant changes in the range of options about which individuals know. Laws that predictably lead to significant decreases in the number and variety of options perceived by individuals in society impose a normative cost in terms of personal autonomy.

As a guide for information law and policy, this framework enables us to understand the fundamental First Amendment commitment to an information environment in which information is available from “diverse and antagonistic sources”²⁰⁵ as rooted in respect for autonomy, as well as in respect for robust political discourse. Autonomy, no less than democracy, urges us to adopt policies that increase the range of options perceived by many people in society and that do not systematically subject some set of people to the influence of others. Laws that have negative effects on autonomy along these dimensions must be justified in light of the recognition of this cost, rather than by ignoring it.

Specifically, I suggest that our information policy’s almost exclusive focus on privatization and on commercialization imposes a cost on autonomy. When compared to information and communications commons, private property in information and communications facilities tends systematically to subject most people in society—the users of information—to some measure of control by a few—the owners of information products and of communications infrastructure. It also limits the range of options seen by most people in society. It limits the number of people who tell stories in society, and it homogenizes the types of people who have an opportunity to tell stories that will be available to many people, thereby limiting the diversity of options perceived by many as available to them.

The combined effect of these observations is to suggest that autonomy, like democracy and robust political discourse, supports a strong normative commitment to attaining an information environment in which stories are told by diverse and antagonistic sources. Moreover, it suggests a policy commitment to developing publicly available resources for communication and information production that attenuate the effects of private property in communications facilities and existing information on autonomy. Specifically, I suggest that a commitment to autonomy provides normative support for a program of developing a series of commons in the information environment at its various levels. These include the level of physical infrastructure (dedicating a commons in the radio frequency spectrum), logical infrastructure (adopting policies that support open-source software development and open standards), and content (adopting a more robust commitment to the public domain in copyright and associated laws).²⁰⁶

²⁰⁵ *Associated Press v. United States*, 326 U.S. 1, 20 (1945).

²⁰⁶ On the three levels of the information environment—the physical layer, comprising wired and wireless infrastructure, the logical level, comprising the software and standards for connection, and the content level—see Benkler, *supra* note 24, at 562-63.

At the level of physical infrastructure, I have argued that we devote radio frequency spectrum to a commons, rather than fully commoditize and auction it.²⁰⁷ Independently of the availability of such a commons, a commitment to autonomy would suggest policies aimed at separating infrastructure ownership from content control. Most immediately, such a decision is involved in the FCC's current inquiry into whether to require cable providers who offer broadband Internet access to offer competing ISPs open access to their distribution facilities.²⁰⁸

At the level of logical infrastructure, the Microsoft case²⁰⁹ is the most prominent instance of government intervention to prevent the leveraging of control over one part of this infrastructure to control how people interact with their information environment more generally. A useful example is the control that Microsoft exerts over the first screen seen by Internet users, which the court found to have sufficiently great influence on the choices users make among ISPs that Microsoft was able to require AOL to use Microsoft's Internet Explorer as the default browser for its service, even after AOL bought Netscape, in exchange for placing AOL on the first screen.²¹⁰ Policies that foster openness of the logical infrastructure attenuate its efficacy as a point of control over the choices of its users. This effect has implications for intellectual property rights in standards, as well as for other decisions that support or undermine the development of open standards and open-source software.

Most immediately, a commitment to an open logical layer of the information environment counsels a repeal or radical modification of the antidevice provision of the Digital Millennium Copyright Act (DMCA).²¹¹ This provision prohibits selling or otherwise making available any device or service that would enable users to get around encryption used by owners of copyright to control the access users have to their digitized information goods. This provision has flowered into a completely new right to control perfectly access to copyrighted works without any reference to fair use or similar user privileges. The

²⁰⁷ Benkler, *supra* note 104.

²⁰⁸ For current proceedings and releases, see FCC, Broadband, at <http://www.fcc.gov/broadband/>.

²⁰⁹ *United States v. Microsoft Corp. (Microsoft III)*, 84 F. Supp. 2d 9 (D.D.C. 1999) (findings of fact), 87 F. Supp. 2d 30 (D.D.C.) (conclusions of law), 97 F. Supp. 2d 59 (D.D.C. 2000) (final judgment).

²¹⁰ See *Microsoft III*, 84 F. Supp. 2d at 77-86 (findings of fact).

²¹¹ 17 U.S.C. § 1201(a)(2) (Supp. IV 1998) (banning manufacture or import of devices designed to circumvent access controls to copyrighted works). I have argued that these provisions are unconstitutional under the First Amendment. See Benkler, *supra* note 12, at 414-29.

Hollywood studios have argued, and at least one court accepted their argument,²¹² that the DMCA includes no fair-use exception to the prohibition on circumventing encryption. Once an owner of copyright encrypts its work, no fair uses can be made of it without permission of the owner, because the decryption necessary to make such a fair use is itself prohibited, and *that* prohibition is not itself subject to a fair-use exemption. Irrespective, then, of how broadly or narrowly the substantive rights of owners are interpreted legally, the DMCA in its current form will permit owners to construct the architecture of the digital information environment,²¹³ so that owners have perfect property rights in their information products—with all the attendant negative implications for autonomy that I explored throughout this Article.

At the content level the most important implications are in the area of intellectual property. The past few years have seen a tremendous drive toward enclosure. The term of copyright was extended, retroactively, by twenty years.²¹⁴ The owners of famous trademarks were given a statutory right to control use of their marks that is based on a property-like conception of dilution, entirely separate from, and broader than, the traditional confusion rationale of trademark.²¹⁵ The database protection legislation currently before Congress²¹⁶ would give the producers of compilations of facts strong rights in the facts they collect that have not previously been recognized under copyright law.²¹⁷ This enclosure movement is a serious cause for concern in terms of autonomy, for it increasingly subjects the cultural commons from which we draw to form our understandings of the world to the control of a small number of professional commercial producers.

My goal in this Article is not to argue the full merits, all things considered, of each of these policy choices. It is, rather, to provide a workable means of analyzing how autonomy factors into them. My analysis suggests that too complete a reliance on property rights and on commercial provision of information resources and communica-

²¹² *Universal City Studios, Inc. v. Reimerdes*, 82 F. Supp. 2d 211, 219 (S.D.N.Y. 2000); see also Memorandum of Law in Opposition to Cross-Motion to Vacate the Preliminary Injunction pt. IV.B.2, *Universal City Studios* (No. 00 Civ. 0277), <http://eon.law.harvard.edu/openlaw/DVD/filings/NY/0502-pl-reply.html>; Brief of Amicus Curiae Professor Yochai Benkler, id.

²¹³ See Lessig, *supra* note 125, at 19-20 (explaining how proper architecture of Internet is necessary for regulability).

²¹⁴ Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, § 102(a), 112 Stat. 2827, 2827 (1998). The constitutionality of this senseless statute was challenged, without success as of the time of this writing, in *Eldred v. Reno*, 74 F. Supp. 2d 1, 3 (D.D.C. 1999).

²¹⁵ Federal Trademark Dilution Act of 1995, Pub. L. No. 104-98, § 3(a), 109 Stat. 985, 985 (1996) (codified at 15 U.S.C. § 1125(c) (Supp. IV 1998)).

²¹⁶ H.R. 354, 106th Cong. (1999).

²¹⁷ See Benkler, *supra* note 12, at 412-14 (criticizing Act as unconstitutional).

tions infrastructure undermines personal autonomy. In order to secure for individuals in society an adequate information environment, we would have to provide for resource spaces within which no one is susceptible to manipulation by others, at least not as a result of legally-backed rights to provide or deny access to information and communications resources. We also would have to secure sufficient minimal access to the means of producing and exchanging information and cultural expressions so as to provide to all a robust and diverse set of perspectives on how life can be lived and on why life is better lived one way than another.

Many of the decisions we are making about law in the digital environment are seen through the prism of the First Amendment. It is inevitable that, when law so pervasively adjusts itself to a transformation in how we produce, store, process, and communicate information, it often will raise concerns about regulation of speech. As we make legal decisions, it is important that we make them with as clear as possible a sense of the relationship between the transformation our information environment is undergoing and the core values underlying the First Amendment. Significant work has been done by Niva Elkin-Koren,²¹⁸ Neil Netanel,²¹⁹ Jamie Boyle,²²⁰ Larry Lessig,²²¹ and Terry Fisher²²² on the relationship between these legal changes (call them cyberlaw or Internet law, or, as I prefer to, information law) and democracy.²²³ Not as much has been done to relate them to autonomy, with the exception of Julie Cohen's work on data privacy and personal autonomy.²²⁴ I hope this Article can serve to work out some of the basic implications of the policy choices we make for this second important value animating the First Amendment.

²¹⁸ Niva Elkin-Koren, *Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace*, 14 *Cardozo Arts & Ent. L.J.* 215 (1996).

²¹⁹ Neil Weinstock Netanel, *Copyright and a Democratic Civil Society*, 106 *Yale L.J.* 283 (1996).

²²⁰ James Boyle, *A Politics of Intellectual Property: Environmentalism for the Net?* (1997), at <http://www.wcl.american.edu/pub/faculty/boyle/intprop.htm>.

²²¹ Lessig, *supra* note 125.

²²² Fisher, *supra* note 91.

²²³ See also my own work in the various papers cited in this Article.

²²⁴ Julie E. Cohen, *Examined Lives: Informational Privacy and the Subject as Object*, 52 *Stan. L. Rev.* 1373 (2000).