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What Things Regulate Speech: CDA 2.0 vs. Filtering

Lawrence Lessig*

In 1995, California passed a statute making it a crime to sell porn in vending machines. More precisely, the statute made it a crime to sell “harmful matter” (meaning harmful to minors) in any vending machine, unless that vending machine is equipped with an adult identification number system.¹ What “harmful matter” is is anyone’s guess.² What an adult identification number system in a vending machine would be, no one quite knows.³

The aim of the statute was obvious. It was to keep kids from porn.⁴ An unattended vending machine can’t tell whether its vendee is 8 or 80. So an unattended vending machine can’t discriminate in its distribution of porn. Porn shouldn’t be distributed by nondiscriminating technologies — or so the California legislature thought. And vending machines are just such a technology.

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¹ California Penal Code § 313.1(c)(2), and (h).

²As I describe more below, the standard is drawn from *Ginsberg v. New York*, 390 U.S. 629 (1968), but as it is applied by juries, its application has produced great variance. For a helpful introduction, see Comment, *The Jury’s Role in Criminal Obscenity Cases*, 28 U. KAN. L. REV. 111 (1979).

³Presumably, a machine that took a credit card would suffice, or tokens sold by news agents — at least if sold by a vendor who checked the age of the purchaser.

⁴ See, e.g., “The purpose of this bill is to prevent children from purchasing from vending machines adult tabloids that contain harmful matter.” SENATE COM. ON THE JUDICIARY, COMMITTEE REPORT ON A.B. 17 (Cal., Feb. 1, 1994).

Free speech activists challenged this statute under the First and Fourteenth Amendments.⁵ Their claims were familiar. The statute, they said, reached too broadly. Its effect reached beyond an effect on just kids. The law effectively banned porn distributed through this medium (since adult identification systems would be too expensive). It effectively required that porn be sold only by humans. By requiring that porn be sold only by people, the statute created two sorts of constraints, both of which would apply to adults as well as kids.

We can sketch these two constraints quite quickly: One is the constraint of norms. Norms frown, or better, sneer on porn consumers. Some of these consumers feel this norm effect. Some — call them wimps, or the well-adjusted, you pick — would therefore prefer to purchase porn anonymously. They would prefer, that is, a machine to a man, for a machine can't sneer. The California statute effectively burdens the speech right of such people. It effectively "abridges" their right to read constitutionally protected speech, by forcing porn through a channel where social norms can have their effect. The source of the constraint might be private; but the constraint is only a constraint because the law requires that people sell porn. But for this law, they would not suffer this constraining effect.

The other is the constraint of cash. Porn (in real space at least) costs money. Porn distributed in machines costs less money. Perhaps not much less, but for the poor, marginal differences are more than marginally significant. By eliminating this form of distribution, California was effectively eliminating a particular kind of porn — namely, poor-persons'-porn. And so again, with respect to these people, the law effectively "abridges" access to constitutionally protected speech.

Despite these constraints, despite this effect, two federal courts upheld the statute.⁶ The interest in protecting kids was stronger than the interests of adults in having access to this speech. Vend-

⁵ Brief Amici Curiae (of Feminists for Free Expression and Californians Against Censorship Together in Support of Plaintiffs-Appellants at 5, 8-13, *Crawford v. Lungren*, 96 F.3d 380 (9th Cir. 1996) (No. 95-56570); Appellant's Brief at 17-37, *Crawford v. Lungren*, 96 F.3d 380 (9th Cir. 1996) (No. 95-56570).

⁶ *Crawford v. Lungren*, 96 F.3d 380 (1996).

ing machines were therefore banned. The plaintiffs appealed the case to the Supreme Court. On March 17, 1997, the Supreme Court denied cert.⁷

There is a special irony in the Court's denial of cert that very week. For the week of March 17th was an important week for technologies that distribute speech anonymously. On Wednesday of that week, the Court heard arguments on the Communications Decency Act⁸ — Congress's own attempt (failed and stupid that it was) to limit the anonymous distribution of porn. Of course there are big differences between the two laws.⁹ But there are similarities as well: Both laws deal with technologies that make porn accessible to kids; both deal with technologies that (in their present state) can't easily discriminate in the distribution of porn to kids. And both create incentives to modify these technologies to enable them to discriminate on the basis of age. Yet while the Court let stand the decision in *Crawford*, it struck down the CDA in *Reno v. ACLU*.¹⁰

I set these two cases next to each other not because I think the issues in the two cases are the same. Lots separates the two statutes, and little can be inferred from the denial of cert. But the contrast is a reminder, a small splash of reality, about the burdens that free speech law allows when courts perceive those burdens to be the only means available to protect kids. From the perspective of *Reno*, *Crawford* may seem extreme. But *Crawford* is closer to the norm, I suggest, than *Reno* might suggest. It stands for a rule that has governed in this area since time immemorial — that at least when kids are at issue, the question is not really whether the regulation is too burdensome on free speech, but whether the regulation is more burdensome than it needs to be. Put another way, when kids are at stake, the only relevant question is whether there

⁷ *Id.*, cert. denied 117 S. Ct. 1249 (1997).

⁸ Telecommunications Act of 1996, Pub. L. 104-104, Title V, 110 Stat. 56, 133-43 (Communications Decency Act).

⁹ One is the difference in the technology regulated; another is the language used to pick out the speech to be regulated. See text at notes 44-46, *infra*.

¹⁰ 117 S.Ct. 2329 (1997).

is some less burdensome way to achieve the same censoring end. If there is not, the law will stand.¹¹

The success in *Reno* then came from convincing the Court that there were other less restrictive means — that techniques did exist for keeping kids from porn,¹² and that these other techniques would be less burdensome on speech. The success was to convince the Court to err on the side of activism — to force Congress to wait, to see what alternatives might develop. Let the market, let the code, let the parents, let something else make sure that porn is kept from kids. It's too early, the Court was convinced, to call in the Marshall.

There was little in the Court's past that suggested that it would tend to such attention. Little in its past to suggest that it would give a new technology the benefit of the doubt. Historically the Court has been slow to get the significance of a new technology. Historically it has allowed extensive regulation early on, only later cutting back on regulatory power.¹³ With the internet, the attitude is different. Thus it is a testament both to the power of the net, and to the amazing work of groups like EFF, CDT, EPIC, and the ACLU, that within a period of two years, our culture could be so infused with a reverence for the net that it could displace the Court's traditional reluctance with new technologies.

¹¹ This point is made well in Eugene Volokh, *Freedom of Speech, Shielding Children, and Transcending Balancing*, 1998 SUP. CT. REV. 31, 38-39 (1998).

¹² Oral Argument of Bruce J. Ennis on Behalf of Appellees. See <<http://www.aclu.org/issues/cyber/trial/sctran.html#ennis>>, ("The court below found as a fact, at pages 32a to 42a of the appendix to the jurisdictional statement, that there is a broad range of technologies and software programs that enable parents either completely to block all access to the Internet, if the parents are really concerned or, more selectively, to screen and filter access to the Internet if they want to allow their children to have access to certain parts of the Internet but not to others").

¹³ This was the history of regulation of movies, and television, and radio as well, see Thomas G. Krattenmaker & L. A. Powe, Jr., *Converging First Amendment Principles for Converging Communications Media*, 104 YALE L.J. 1719 (1995). See also Comment, *Indecent Speech - Communications Decency Act: Reno v. ACLU*, 111 HARV. L. REV. 329, 334 (1997), though as Mark Lemley suggests, this change coincided with a general increase in the protection for free speech.

When the history of the first amendment in this last third of the century is written, these will be real heroes in the story.¹⁴

But this initial success invites responsibility. The “movement” has an authority, and it needs to exercise that authority wisely. It must think through the consequences of its fight. It must think through the consequences of the regulatory strategies it is seen to be supporting. These first moves in this regulatory struggle are critical, and they will set a direction that later on can’t so easily be controlled.

My sense is that this first major victory — in *Reno v. ACLU*— has set us in a direction that we will later regret. It has pushed the “problem” of kids and porn towards a “solution” that will (from the perspective of the interest in free speech) be much worse. The “less restrictive means” touted by free speech activists in *Reno* are, in my view, far more restrictive of free speech interests than a properly crafted CDA would be.¹⁵ And unless we quickly shift ground, we will see Congress embracing these less protective (of speech)

¹⁴ As well, no doubt, as the law clerks who must in large part be responsible for conveying to the court the significance, and power, of the net. See Jeffrey Rosen, *Zoned Out*, NEW REPUBLIC 15 (March 31, 1997).

¹⁵ The ACLU never explicitly embraced the idea of software filters as a remedy to the “problem” of “indecency” on the net at the time the CDA was being litigated, though as I indicate below, its counsel in the case did advert to filters in the argument before the Court. See *infra* note 12. In July, 1997, however, the ACLU came out quite strongly against “voluntary” internet censorship, and its opposition has been absolutely clear since. See <http://www.aclu.org/news/n071697a.html>. EPIC too has critical of software solutions. See Amy Harmon, *A ‘Technical Standard’ or a Muzzle*, THE NEW YORK TIMES p11, Finance (January 20, 1998) (quoting David Sobel). CDT, on the other hand, was an early supporter of PICS, and continues to be so today. *Staying Out of the Net*, NEWSWEEK 5 (August 4, 1997); 3 CDT Policy Post No. 10. EFF’s position has moved from support to skepticism. Compare Testimony of Staff Counsel of the Electronic Frontier Foundation regarding the “Protection of Children From Computer Pornography Act of 1995” (S. 892) before the Senate Judiciary Committee (July 24, 1995) (“This is why I believe that the right role for Congress to play is to encourage the development of software filters that prevent my child and others from being harmed in the first place ... Such an approach does no damage to First Amendment values.”) with <http://www.aclu.org/congress/lg031198a.html> (letter to Congress describing EFF and ACLU’s opposition to internet filtering legislation.).

means, or worse, we will see the success of the President in bullying industry into accepting them.¹⁶

My aim in this essay is to demonstrate the danger in these alternations of the CDA. It is to make clear the constitutional concern. My argument in the end is that the *only* constitutional strategy that Congress can follow for regulating “indecentcy” on the net is a strategy very much like the CDA. I mean to attack “private” blocking as a solution to the “problem” of indecentcy, and I mean my attack to be a constitutional one.

I begin, however, a couple steps back. In the section that follows, I start with a general way to think about “vending technologies,” and a specific way to link thought about these technologies to the question of free speech. Against this background, I sketch the strategy implicit in what I will call “CDA-like” solutions to the problem of indecentcy, and then the strategies offered in CDA’s stead. My claim will be that these alternatives to CDA are far more threatening to free speech interests than a properly crafted CDA, and that it would be unconstitutional, under present free speech law, for Congress to use its power to advance these alternatives.

In the present climate, of course, this is a precarious position to take. Precarious, because the fury of the cyber revolution is quite well advanced. The struggle over defining what cyberspace will be has the feel of the French Revolution. People are shocked at the tone of the debate, terrified at the fury. And one is well advised in such a context not to step out-of-line.

Promoting a CDA-like solution to the “problem” of indecentcy is very much to step out of line. And so let me be clear about a couple points up front (not that I think it will matter to Robespierre). I am not advocating a CDA-like solution because I believe there is any real problem. In my view, it may be best if things were just let alone.¹⁷ But if Congress is not likely to let things alone (or

¹⁶ This was the aim at the recent Internet Online Summit. See <http://www.kidsonline.org/>. See also note 113 *infra*.

¹⁷ Andrew Shapiro argues more forcefully that we should affirmatively have state regulation, so that any censoring effect is subject to review. See Shapiro, *infra* note 72. There is merit to this argument, and if I could be convinced that the burdens on speech from a CDA 2.0 regulation would be small, I would support it without qualification. But again, my view is that nothing is

at least if the President is more likely to bully a “private solution” than leave things alone) then we need to think through the consequences of these different solutions. We need to compare the consequences, from the perspective of free speech, of adopting one regime over the other. However much we may prefer that nothing be done, if something is to be done, whether through public or private regulation, we should reckon its consequences for free speech, and choose the least burdensome path.

THE TECHNOLOGIES OF VENDING MACHINES, VIDEO AND OTHER.

Machines vend.¹⁸ Think about that for a second. If there were a single fact about modern society that would seem most bizarre to citizens of two centuries ago, it would be this. Structures — machines — exist for facilitating and engaging market transactions, automatically. Coke machines, pay-TV, long-distance telephones, machines selling condoms, television, gas station pumps — all keep the markets open, long after the sellers have gone home.

Machines vend, but they vend in very different ways. The techniques of vending are not the same. For our purposes, we can identify two axis along which vending machines array, and then use these matrix to locate four types of vending. One axis distinguishes between *push* and *pull* vending; the other distinguishes *discriminatory* and *nondiscriminatory* vending.

Push vending is vending to the couch potato. Its strategy is to spew forth a string of vending opportunities, and hope that some stick. Television advertising is the best example. People watch TV; products are paraded before them; the hope of the advertiser is that this parade will affect consumption sometime in the future. The picture is of the consumer who wouldn't know better; who, but for this spur, would buy nothing, or maybe buy something else.

Push vending thus depends upon individuals as receptors. And in exploiting this reception, push vending imposes a cost on indi-

better than something, but if there is something, it should be CDA 2.0 rather than state supported filtering solutions.

¹⁸One might quibble with my choice of the term “vend.” One might say that one doesn't “vend” stuff for free. Maybe, but I want assure that the question of technology stands neutrally with respect to commerce. In my view, we should consider vending the same, whether commercial or not.

viduals. The cost is the burden of what is pushed. In some contexts, that cost is relatively slight — billboards on the side of busses. In other contexts, that cost can be quite significant — junk email, or automated telephone solicitations at dinner.

Pull vending is just the opposite of push. It doesn't depend upon the consumer as receptor, but rather upon the consumer as actor. We imagine the consumer knows what he or she wants. We just make that available, and the consumer will buy it. The Coke machine on the corner is a simple example. The machine stands there politely, waiting to serve. Someone is thirsty, and comes up to buy what the machine has to offer.¹⁹ In this case, the technology simply makes things available; it is the consumer who must come and buy what is available.

Discriminatory vending is vending that is in some way conditional — vending *only if* some condition is met. If you deposit \$1.00, you can have a Pepsi. If you don't, you can't. The technology of the machine is in this sense discriminatory — “discriminatory” not in some pejorative sense. If I only sell books to people who give me money, I am, in the sense I mean, discriminating. In this general sense, there is obviously nothing wrong with that discrimination. (I'm told it's the sort of discrimination that makes the world go round.) But nonetheless, it is discrimination, and my point is to focus on the technology that makes it possible. Again, a machine that is making this discrimination possible.

Finally, *non-discriminatory* vending: This is unconditional vending — distribution whether a particular condition has been met or not. Sometimes the condition might be the need to pay: The newspaper left in an open box; the leaflet at the supermarket; Netscape technologies, posted at <<http://www.netscape.com>>, or Microsoft equivalents at <<http://www.microsoft.com>>. These are examples of something “sold” for free. Sometimes the condition is that someone identify who he or she is: Pepsi Machines vs. ATMs. But in both cases, the question is whether a given condi-

¹⁹ Obviously, the line between push and pull is not sharp. For example, think about the home-shopping network — the couch potato watches a string of second rate products, and then when one comes that he or she wants, he or she calls a special number and buys it. Is this push or pull? Or think of modern coke machines — huge, and well-lit, more like billboards than boxes, pleading and flashing the image of what you should want, pleading that you buy from that machine. Is this push or pull?

tion is imposed before vending is permitted; where that condition is not imposed, the vending is, with respect to that condition, non-discriminating.

These four techniques map into a matrix, and familiar technologies fit within each cell.

	<i>Push</i>	<i>Pull</i>
<i>Non-Discriminating</i>	[1]	[2]
<i>Discriminating</i>	[4]	[3]

Televisions (circa 1965) are box 1 technologies — they are push technologies, non-discriminating in the access that they grant.²⁰ Newspaper boxes offering free newspapers are in box 2 — pull technologies which are also non-discriminating in the access they grant; anyone (the rich as well as the poor, the old as well as the young) can open the box and get the newspaper. Coke machines are box 3 technologies: Only those with 75 cents get access to Coke, but those with 75 cents get to select (pull) precisely what they want. Cable television is a box [4] technology. Only those paying to get access get access, but the range of what they get access to they have not selected (at least not individually).

In *principle*, then, the decision to vend always involves a choice — a choice among different technologies for vending. That choice requires an evaluation: Given the product or ideas to be sold, and given the array of costs and benefits associated with each vending technique, a vendor selects the technique that maximizes the net gain to it. That selection may change, of course, as costs and benefits change, and changing costs might render one choice no longer optimal, or another more directly in competition. But for a given set of technological possibilities, some techniques will be better than others, and we should expect those who gain to select the technique the benefits them most.

²⁰ In a trivial sense, of course, they are discriminatory — you must turn the TV on, so it is in that sense conditional on something. More significantly, it is conditional upon your having a television set. These qualifications are all correct, but unnecessary for the purposes of this essay. The boxes here have fuzzy borders, and it is not essential to find paradigm cases.

Ordinarily this choice will affect private interests alone, and so ordinarily, it will be enough to let private actors make the choice. But sometimes public values overlay these private judgments. Sometimes they compete. And when public and private values do compete, the government may have an interest in mucking about with the vending technology selected by the market. It may, that is, have an interest in regulating the technology that private actors select, so as to assure that public values are not impaired.

Some examples will help make the point:

- It might be cheapest to vend condoms at drug stores, but if one constraint on condom sales is the embarrassment of the purchaser, then more condoms might be sold if they were sold in vending machines in bathrooms. The cost of these machines, however, may exceed their private benefit. So it may make sense for a public that wants more condoms used to subsidize machine vending, or alternatively, to reduce the social meaning cost of buying condoms in public.
- It might be cheapest to vend cigarettes in machines. But since cigarette machines can't discriminate on the basis of age, a public policy against the sale of cigarettes to minors might direct that vending machines not be used.
- A fortiori with whiskey. The sale of whiskey might be maximized if sold in publicly accessible vending machines, 24 hours a day. But uncontrolled access to whiskey would conflict with other public values. These values then may direct that machines not be used to sell this alcohol.
- The same with the ability to vend a particular driving opportunity in a car — more simply, to turn a car on so that one can drive it. Up to now, the relevant discrimination was ownership or license, as secured in a key. He who had the key was presumed to have the license to drive the car that the key would unlock. But the government might have an interest in increasing the ignition-discrimination effected by automobiles by testing for alcohol before permitting a car to be started.

When public and private choices compete, governments have an interest in intervening to assure that public values are preserved.

This intervention can either be through laws that ban certain vending technologies (“no cigarette vending machines”) or subsidies that alter the incentives towards one mode of vending over another (condom vending machines in state universities, or public ad campaigns to change the social meaning costs of one vending over the other). In either case, the government’s aim is to alter the incentives that private actors face, so that they, acting in accord with their incentives, make choices consistent with public values.

This intervention, of course, is not unconstrained. The government, like any actor, faces certain limits. It is limited, for example, first by cost: An intervention may cost more than it is worth. And it is limited, second, (in *principle* at least) by the constraints of law — if a state government, by the constraints of federal law; if the federal government, by the constraints of constitutional law.

My focus here will be these limits of law, and in particular (modern academic that I am), on constitutional limits on the state’s power to muck about with vending techniques. Sometimes the constitution limits the government’s ability to alter private vending choices. For ordinary goods, this limit may be rare. There is an ever shrinking interstate commerce constraint,²¹ but beyond this, with most commodities, the state is relatively free to regulate. There is no constitutional problem, for example, with a law making it illegal to sell cigarettes in vending machines. Nor with a law that bans the sale of spray paint within a particular geographical district, or to minors generally.²² In the ordinary case, the state may discriminate in all sorts of ways to make sure that products are sold only in certain places, and only to certain people.

But the same can’t be said about speech. The constitution may have little to say about the Congress’ power to abridge the freedom of the tobacco industry; but it is quite insistent about Congress’ power to regulate speech about tobacco. To the extent such regulations improperly “abridge the freedom of speech or the press,” the First Amendment has been read to proscribe them.

²¹ *National Paint & Coatings Association v. City of Chicago*, 45 F.3d 1124, 1126 (7th Cir.1995)

²² Though this may well be because of a power granted in the 21st Amendment. How a state owned grocery store would fare is a harder question. Cf. *State Board of Equalization v. Young’s Market Co.*, 299 U.S. 59 (1936) (affirming plenary power over liquor).

I consider these limits on Congress' power to muck about with the technologies that vend speech in the section that follows. But before we consider those directly, consider one point that follows from what I have said so far, and that will be crucial to the analysis to follow.

I've said that one selects one technology of vending over another because of the benefits and costs implicit in one technology over another. But it should be clear — and if it is not clear yet, then let this paragraph make it clear — that one aspect of such benefit (or one feature of such cost) is the regulation that a particular technology itself makes possible. For architectures differ in the regulations that they make possible, and this difference itself may be a reason to prefer one architecture over another. The architecture of broadcast television, for example, makes possible regulations that are different from the architecture of pay-TV. Coin-operated vending machines regulate differently from magazine kiosks. And to the extent these possibilities differ, the selection of these different architectures is also the selection of regulatory capacity. Some architectures will make behavior more *regulable*; some architectures will make behavior less regulable. Thus, the selection of an architecture will in part determine the type of regulation that will then be possible.

Put another way, two architectures may differ only in the regulations that each makes possible. One, that is, might facilitate regulation while the other does not. From a private perspective, this difference may be insignificant; but from a public perspective, the difference will be crucial. Governments will have an interest not only in a particular regulation that a given architecture makes possible, but more generally, it will have an interest assuring regulability generally.

I will return to this point about regulability below. But consider now the limits that the constitution will impose on the state's desire to regulate the vending of speech.

Rules limiting Rules for Vending Speech

For our purposes here, we can understand free speech law to divide speech into three classes. One class is speech that everyone has the right to. Over this class, the state's power is quite slight: The state may effect reasonable time, place, and manner restric-

tions, but no more.²³ The paradigm is political speech, but in effect it includes any speech not described in the next two classes.

A second class is speech that no one has the right to. The model here is obscene speech, or more strongly, child pornography. Here the state's power is practically unlimited.²⁴ With child porn at least, the state can ban the production, distribution, and consumption of such speech; and with obscene speech, the state can for example ban production and distribution.²⁵

The third class is speech that people over the age of 17 have a right to, while people 17 and under do not. This is sometimes, and unhelpfully called, "indecent" speech, but that moniker is plainly too broad. A more precise description would be speech that is "obscene as to children" even though not obscene as to adults.²⁶ The category is obscenity, with the status of the relevant community determined by age rather than geography.

The principal case here is *Ginsberg v. New York*.²⁷ New York banned the sale of certain speech²⁸ to anyone under the age of 17.

²³ See, e.g., *Linmark Associates, Inc. v. Willingboro Twp.*, 431 U.S. 85 (1997); *Clark v. Community for Creative Non-Violence*, 468 U.S. 299 (1984); *U.S. Postal Service v. Council for Greenburgh*, 453 U.S. 114 (1981); *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41 (1986).

²⁴ See, e.g., *Roth v. United States*, 354 U.S. 476 (1957); *Paris Adult Theatre I v. Salon*, 413 U.S. 49 (1973); *Kaplan v. California*, 413 U.S. 115 (1973).

²⁵ This is not to say that there are no limits on the state's power. *R.A.V. v. City of St. Paul*, 112 S.Ct. 2538 (1992), for example, makes it clear that even with "low value speech" the state cannot make certain distinctions in the speech it proscribes. See Elena Kagan, *The Changing Faces of First Amendment Neutrality: R.A.V. v. St. Paul, Rust v. Sullivan, and the Problem of Content-Based Underinclusion*, 1992 SUP. CT. REV. 29.

²⁶ Community standards govern what matter is judged to "appeal to the prurient interest," *Miller v. California*, 413 U.S. 15 (1973), but as *Pope v. Illinois*, 481 U.S. 497 (1987) held, community standards do not determine whether a work lacks "serious literary, artistic, political, or scientific value." It would seem to follow then that the status of being a minor would be relevant only to whether the material appeals "to the prurient interest," and not to whether it is of serious "literary, artistic, political, or scientific value."

²⁷ 390 U.S. 629 (1968). *Ginsberg* must itself be read in line with subsequent case law. As most state legislatures have understood, *Miller v. California*, 413 U.S. 15 (1973) modified *Ginsberg* to require that the three prong *Miller* test

Implicit was the requirement that vendors check the ID of people who wanted to purchase such speech, and no doubt, this burden fell on some who were over the age of 17. Nonetheless, the law was upheld: Because the burden on speech was relatively slight, and because no cheaper discrimination seemed possible, the Court found this burden on adult speech constitutionally permissible.

The essence of the state's power in cases like this is a power to *zone*— a power to condition access to a certain kind of speech on the satisfaction of some rule or requirement, in this case, that one is over the age of 16. The condition here is different from the condition in ordinary zoning cases.²⁹ The zoning of *Ginsberg* is the power of the state to mandate discrimination on the basis of

now be applied to *Ginsberg* speech. See, e.g., *Virginia v. American Booksellers Ass'n*, 484 U.S. 383, 387 (1988) (applying Virginia statute). Similarly, *Erznoznik v. Jacksonville*, 422 U.S. 205 (1975), likely sets a lower limit on *Ginsberg*—a statute that banned “all nudity” could not, under *Erznoznik* survive review. For an argument that *Miller* and *Ginsberg* have been incorrectly tied together, see Marion Hefner, *Roast Pigs and Miller-Light: Variable Obscenity in the Nineties*, 1996 U. ILL. L. REV. 843 (1996).

²⁸The statute in *Ginsberg* defined “harmful to minors” to mean “that quality of any description or representation, in whatever form, of nudity, sexual conduct, sexual excitement, or sado-masochistic abuse, when it: (1) predominantly appeals to the prurient, shameful, or morbid interest of minors, and (2) is patently offensive to prevailing standards in the adult community as a whole with respect to what is suitable material for minors, and (3) is utterly without redeeming social importance for minors.” *Id.* at 644. The Court characterized this test as the obscenity test as applied to minors. See *id.* at 636.

²⁹By “ordinary” zoning cases, I mean zoning rules that affect speech interests. These are a subset of the cases upholding zoning decisions generally. The rule for this larger class is expressed in *Schad v. Borough of Mount Ephraim*, 452 U.S. 61 (1981). As the Court explained there, the test in each case depends upon the right being asserted.

The zoning power is not infinite and unchallengeable; it “must be exercised within constitutional limits.” *Moore v. East Cleveland*, 431 U.S. 494, 514 . . . (1977) (Stevens, J., concurring in judgment). Accordingly, it is subject to judicial review; and is most often the case, the standard of review is determined by the right assertedly threatened or violated rather than by the power being exercised or the specific limitation imposed. *Thomas v. Collins*, 323 U.S. 516, 529-530 (1945).

Id. 68-69.

age. In ordinary zoning cases, the condition is traveling to some specific location or geography — this speech can be vended, but only in places X and Y.³⁰ In both cases, the general right to vend the speech at issue is not at stake. The only question with each is the power of the state to condition that right on the satisfaction of some requirement — age, or location.

In both cases, the state has such power, but such power is limited. In the ordinary vending cases, speech can be zoned only if the “predominant concerns” of those enacting such zoning regulation are the secondary effects of the target speech—effects that must be unrelated to the content of the speech at issue.³¹ One can zone

³⁰ See, e.g., *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41 (1986) (non-obscene adult speech could be concentrated in one part of the city); *Young v. American Mini Theatres, Inc.*, 427 U.S. 50 (1976) (non-obscene adult speech could be dispersed within city); *Hefron v. International Society for Krishna Consciousness, Inc.*, 452 U.S. 640 (1981) (religious literature sales could be zoned to booths under generally applicable restrictions).

³¹ *City of Renton*, 475 U.S., at 47. The Court emphasized that the justification for the regulation turned on the city’s justification itself—that the regulation was “justified without reference to the content of the regulated speech.” *Id.* at 48.

The Court in *Reno v. ACLU*, 117 S.Ct. 2329 (1997), suggested in dicta that zoning cases of this second sort (zoning on the basis of age) could not be analyzed under *Renton*, since they were cases that justified their regulation based on the effect of the speech, and *Renton* cases could not justify their regulation on based on the content of the speech. See *id.* at 2343 (quoting *Boos v. Barry*, 485 U.S. 312, 321 (1988) (“Regulations that focus on the direct impact of speech on its audience” are not properly analyzed under *Renton*)).

But with due respect to the Court, this conclusion cannot follow. *Boos* and *Renton* both concerned a class of speech which, with respect to the intended audience, could not be regulated on the basis of its content. It was speech that was non-obscene, or offensive, respectively, and the audience in both cases was adults. *Renton* and *Boos* are properly read to say that the state has no power to restrict *adult access* to non-obscene or offensive speech on the basis of its content. But unless those cases were meant to overrule *Ginsberg*, the same conclusion cannot preclude a zoning analysis in *Ginsberg* cases. For *Ginsberg* clearly upholds the right of the state to restrict speech *to minors* based on the content of the speech. *Ginsberg*, like obscenity cases generally, is a *content based* restriction on speech, and would seem plain that a synthesis of *Ginsberg* and *Renton* should allow a zoning analysis for *Ginsberg* speech as applied to minors even if the same analysis would not be allowed as to adults. Or put another way, *with respect to adults*, “regulations that focus on the direct impact of speech on its audience” are not properly analyzed under *Ren-*

porn shops to certain areas of the city to avoid the harm to property values in another, for example.³²

But in the second class of zoning cases — what we might call status zoning cases — the test is whether the burdens imposed on the unburdenable class (e.g., adults) are too great.³³ One can restrict kids from getting access to *Ginsberg* speech, but only if the restriction does not too significantly burden adults.

How significant is “too” significant is a difficult question to answer. The language of the Court’s opinions makes it sound as if the test is absolute — measuring some objective burden, and rejecting conditions that burden greater than that absolute burden. But I agree with Professor Volokh that in fact the test is simply relative — asking whether the burdens imposed are greater than they have to be.³⁴ This is a simpler question in a sense than an absolute test would be, but it raises an important ambiguity that is at the core of the constitutional question we must consider.

A regulation might “burden” speech in two different ways, or more precisely, the consequence of a particular regulation might be reckoned in two different ways. Some regulations no doubt burden speech, but some regulations can also be said to *reduce* the burden of other regulations on speech. Some regulations, that is, change the *baseline* against which burden is measured, and in consequence, may increase the scope of regulation that is permitted. Put abstractly, a test that makes the scope of permissible regulation turn upon the “burden” of that regulation has the following consequence:

With a given technology X, the state may be permitted regulations A, B, and C. But if regulation D reduces

ton,” *Reno*, 117 S.Ct., at 2343, but if *Ginsberg* is still law, the same cannot be said *with respect to minors*.

³² This again was *Renton*.

³³ More precisely, “statutes for the protection of children must be narrowly drawn in two respects. First, the statute must not be overbroad; the state cannot prevent the general public from reading or having access to materials on the ground that the materials would be objectionable if read or seen by children. Second, the statute must not be vague.” JOHN E. NOWAK & RONALD D. ROTUNDA, *CONSTITUTIONAL LAW* §16.61, p1205 (5th ed. 1995), citing *Butler v. Michigan*, 352 U.S. 380 (1957).

³⁴ See Volokh, *supra* note 11.

the burdens of technology X, then regulation D may increase the range of permissible regulations to include E, F, and G. Regulation D, then, changes the baseline against which regulatory burden is measured, increasing the scope of what can be recycled.

A few examples might better sketch this point:

- One might think too burdensome a requirement that individuals remit a use-tax for products purchased out of state but used in-state; but a regulation that required vendors to remit statements to purchasers at the end of every year, summarizing out of state purchases would be a regulation that reduced the burden of the use-tax on the vendees.
- A rule that placed voting booths in remote places in the city might be too burdensome on the right to vote; but a subsidy for public transportation on election day might sufficiently reduce that burden.
- A rule that required that employers check the citizenship of employees might be considered too burdensome, especially on minorities; but a law that required the state department to issue free passports to every citizen might sufficiently reduce this burden.
- A rule that required gun sellers to check the finger-prints of persons purchasing hand-guns might be too burdensome; but the establishment of a simple electronic verification system might reduce that burdens sufficiently to make the regulation permissible.

Each example, while not each presenting constitutional questions, illustrates, I suggest, a similar point. Each distinguishes between regulations that impose a burden, and regulations that reduce the burden of regulations in that class generally. The former simply imposes a burden; but the latter is a regulation that increases the *regulability* of the domain being regulated. The former simply imposes a requirement; the latter makes it easier to support other requirements imposed by the government. The former takes the baseline for granted; the latter changes the baseline against which burden is measured.

Call regulations of the first kind (regulations that simply impose a burden) type I regulations; and regulations of the second kind (that change the burden of regulations generally) type II

regulations. Modern regulation is a mix of both. But it is the second type in cyberspace that will be the more significant. For the most important regulation in cyberspace just now is regulation that creates the opportunity for type II regulation. And it is type II regulations that might pose the greatest threat to free speech liberty, both on the net and off.

For as I've suggested, type II regulations are regulations that increase the *regulability* of cyberspace. By reducing the burden of regulations generally, type II regulations make other regulation easier, and hence make more regulation possible. We might then ask, Is such regulation permissible? And if so, How should it be evaluated?

The answer to the first question — is it permissible — is obvious. Yes — type II regulation is plainly permissible. There is no constitutional right to an unregulable space, either in real space, or in cyberspace; thus regulations in real space or in cyberspace designed to facilitate otherwise legitimate regulations are, it would seem, plainly permissible. In constitutional terms, type II regulations are the regulations of the necessary and proper clause — regulations that make it easier to carry other regulations into effect, implied in a grant of legislative power even if not expressly granted.

It is the second question, however — how such regulation should be evaluated — that is more difficult. For in a way that parallels the jurisprudence of the necessary and proper clause, we are about to realize that properly configured — or as designers would say, properly architected — cyberspace could be an extraordinarily regulable space. With the proper architecture, behavior could be extremely efficiently regulated. No space is more plastic; no plastic space is more capable of enabling regulation; and no government, I predict, will be able to resist this enabling for long. Governments will act to alter architecture, to make the space within that architecture more easily regulable.³⁵

In some cases, such regulation will appear constitutionally benign — indeed, in some cases, beneficial. The V-chip is a perfect example. The V-chip is designed to facilitate the filtering on

³⁵ See Timothy Wu, Note, *Cyberspace Sovereignty? The Internet and the International System*, 10 HARV. J. L. & TECH. 647 (1997) (describing degree to which governments will seek to regulate the Internet architecture under various theories of state behavior).

broadcast television, based on some set of categories just recently determined.³⁶ Many have voiced constitutional concerns about this regulation, but I think it fair to say that most think the regulation constitutionally benign. One reason is that *relative to the current broadcasting baseline*, the V-chip would increase the diversity of speech, not decrease it. If all television sets had the V-chip, then there would be no further justification for FCC regulations that shift “indecent” material to non-prime time slots. Those regulations were justified under a *Pacifica*³⁷ style of reasoning: they zoned indecent speech to non-prime-time spots because, with existing technologies, time shifting was the only way to protect kids. But if every television had a V-chip (thereby moving television from box [1] to box [4]), *Pacifica* like justifications for regulating content could no longer survive. The chip could achieve the zoning that time-shifting was designed to do, and thus time-shifting would no longer be justified based on the need to zone. At any particular time, a greater diversity of speech exist, meaning the regulation rather than abridging speech, extended it.

But sometimes type II regulations will not seem so benign. Sometimes they will facilitate regulation where to date regulation has not been possible. And in at least some of these cases, a different analysis will be required.

The cases I have in mind go something like this: At one time, regulation (either public or private) is not possible because the costs of regulating are too great. This impossibility creates a kind of “liberty” — liberty constituted, that is, by the limits that cost impose upon the regulation. Imagine now that technology changes, such that a regulation not possible before now becomes possible. Now, a liberty previously guaranteed by a regulation-inefficient architec-

³⁶ See *In the Matter of Implementation of Section 551 of the Telecommunications Act of 1996, Video Programming Ratings*, Federal Communications Commission, CS Docket No. 97-55, FCC 98-35, and *In the Matter of Technical Requirements to Enable Blocking of Video Programming based on Program Ratings*, Federal Communications Commission, ET Docket No 97-206, FCC 98-36, both at <http://www.fcc.gov/vchip/>. See also J. M. Balkin, *Media Filters, the V-Chip, and the Foundations of Broadcast Regulation*, 1996 DUKE L.J. 1131 (1996); ACLU, *Violence Chip*, at <http://www.aclu.org/library/aavchip.html>; Kevin Saunders, *The V-chip: Coming Up Short or Unconstitutional Overreaching?*, http://www.wvjolt.wvu.edu/wvjolt/current/issue1/articles/sanders/ks_ftnts.htm.

³⁷ *FCC v. Pacifica Foundation*, 438 U.S. 726 (1978).

ture is threatened by a regulation-efficient architecture. And thus a question is raised: Should the liberty previously protected by inefficiency automatically yield because regulation has become more efficient?

In many cases, the answer to this question will be yes. In many cases, increased regulability should yield more power to regulate. But in some cases, I suggest, the answer to this question will be no: In some cases, the power over architecture will so significantly shift the regulatory power of the government that any faithful reading of a framing design will reject the resulting increase in regulatory power. Or alternatively we might say, the increase in regulatory power will reveal a liberty that we now need to claim, whether properly claimed by the framers or not.

An analogy might make the point more familiar. Congress' power to regulate Commerce is governed by Article I, section 8, which gives it power to regulate "commerce among the several states," and the power to pass laws "necessary and proper" to the regulation of commerce among the several states. At the framing, these two powers together left much to the exclusive regulation of the states. There was lots of "commerce" that was not "commerce" among the several states, nor commerce which, as *Gibbons*³⁸ put it, affected commerce among the several states.

Time works changes. It has worked significant changes on this initial regulation balance. An increasingly integrated national economy has meant that much less is without the scope of the commerce and necessary and proper power. Much less can be said to be left to the exclusive regulatory authority of the states. Now an increasing range of activity, before within the exclusive domain of the states, can be said to be within the federal reach.

We might imagine two possible responses to this change in regulability. One response is simply to recognize the increasing power of the federal government; to stand by, as it were, as the integration of the national economy renders more and more within the federal government's reach.

A second response, however, is less passive. It understands that the increasing reach of federal authority follows not so much from a framing design, but from a changing regulatory architecture, that

³⁸ *Gibbons v. Ogden*, 22 US (9 Wheat) 1 (1824).

in turn is defeating the framers' original purpose of limited federal authority. And under this view, the proper response would be to intervene, to read the scope of Congress' power clauses more narrowly, in the name of restoring a constitutional balance rendered unbalanced by changing contexts.³⁹

The same strategy is open in the context of cyberspace, but with even greater justification. For in the commerce context, at least, the shift in integration is a shift largely outside of Congress' control. The federal government didn't mandate the industrial revolution or the conditions that made it possible. But in the cases that cyberspace will present, Congress itself will be responsible for the increased regulability of the space. And where this is so, its actions will deserve an even closer scrutiny.

My aim in this essay is not to address this question generally. But I do mean to raise it in the context of a much narrower question — namely the choice of architectures for zoning content on the net. To date, this choice has been narrowed to proposals of two sorts, and my aim in the balance of the essay is to argue that the Constitution tilts against proposals of one of these two kinds. In a single line, what will distinguish these two proposals is the regulability over content that each architecture will yield. My aim is to argue that we should (constitutionally) prefer the architecture that achieves the government's end, with the smallest increase in content regulability made possible.

Applying the Rules Limiting the Rules for Regulating the Vending Speech to Video Vending Machines (a.k.a., computers)

The net itself is a vending machine. It is a type of video vending machine — vending products, and ideas, through computers linked (at a minimum) with the protocols of TCP/IP. But it is not a vending machine that sits within just one cell.⁴⁰ There is no single architecture that defines the vending architecture of the net. Instead, architectures for vending on the net come in all four types. Consider some examples:

³⁹ See, e.g., Lawrence Lessig, *Translating Federalism: United States v. Lopez*, 1995 SUP. CT. REV. 125 (1995)

⁴⁰ See the table in the text at note 21.

- Box 1 Some parts of the net embrace non-discriminatory push technologies. This is the newest part of the web, and includes technologies such as Pointcast. In these spaces, the web feeds information without any formal or mandatory discrimination. (The user, of course, can select to block certain kinds of information by selecting other information.)
- Box 2 Other parts of the web (perhaps the largest part today) is non-discriminatory pull technology. Users search for what the web has available, and then go to those places, and retrieve what they want. Where they go is not blocked by who they are, and what they get is determined by what they want.
- Box 3 Another new part of the web is discriminatory pull technology. The best example of these are zines that charge for access — the Wall Street Journal, for example. But charging is not the only discriminatory technology. Some journals require that users register. That registration then is used to profile use, so that the site can sell advertising. Access is conditioned on supply side profits.
- Box 4 Finally, there are spaces on the web that discriminate in access, but have push content. Adult sites are the best example here. Users establish an account (usually one they must pay for), and then get access to spaces where content is pushed to them — chat rooms, or video spaces, where the user, as with television, sits passively at the machine, while the machine feeds content.

One can vend on the net, then with any of the four techniques. Vendors select among the four vending types. And while in real space, the same choice is also made, in cyberspace, I want to argue the choice is more significant.

The choice is significant from the perspective of regulation. For as I suggested before, vending technologies differ in the regulation that each makes possible; thus one can select a technology in part because of the regulation that one wants. Relative to real space at least, the cost of selecting one technology over another is relatively low. To move a product from one box to another requires not some massive investment in real world technology (think of

IDs for real space vending machines) but instead a change in code — bits, organized in software. And as architectures of code on the net become more sophisticated, the ability to alter this code will increase as well.

Vending techniques in cyberspace then are far more plastic than in real space. And this plasticity is both an opportunity and a threat. It is an opportunity because it means that where the state has a legitimate interest in regulating certain kinds of speech on the net, that regulation can be effected at a lower cost. Thus in *principle*, restrictions on *Ginsberg* speech could be effected at a lower cost. And if it is true that these interests in the past have always justified state regulation, then for these topics of regulation, we might expect the burden of the regulation to fall. The same state interests will be advanced, but at a cheaper cost.

But the plasticity is also a threat. The threat is that the discriminations of architectures generalize. And to the extent that speech is shifted into a discriminating architecture, the danger is that this discrimination will extend far beyond the contexts within which discrimination is desired.

We can see the point most plainly in the context of proposals for dealing with “indecentcy” on the net. As I have suggested, the essence of any constitutional scheme⁴¹ for dealing with indecentcy is to facilitate discrimination in the distribution of *Ginsberg*-speech —moving *Ginsberg*-speech, that is, from box 2 to box 3. A number of proposals have emerged for achieving just this; what distinguishes these proposals are (1) burden (how burdensome each architecture of discrimination would be), and (2) generality (how general the discrimination that each facilitates would be). Some proposals are more burdensome than others; some facilitate a more general system of discrimination than others.

So far, in the main, attention has been focused on the question of burden. So far the greatest outcry has been grounded on the fear that such regulation would be too severe for legitimate speech interests. The concern has been that the cost of complying would

⁴¹ The Court has not upheld the right of Congress to regulate “Ginsberg speech” nationally, and it is clear that if it did, the test would have to be significantly narrowed to conform with *Miller*. See *supra* note 27. I am proceeding on the assumption, however, that some form of such regulation would be upheld, despite the obvious complexity that the “community standards” test imports in such a case.

silence too much speech — either because the discriminations would be too crude (thereby chilling valid speech on the margin) or too costly (thereby forcing many to stand silent rather than purchase a ticket to speak.)

But in my view, these concerns about burden are destined to be short lived. Whatever burdens now exist, they will soon be trivial. And when technology does render them trivial, the real question for free speech will shift to the second one: how generally a given architecture facilitates content discrimination.

It is here that the real long term differences among these proposals emerge, and here that these differences rise to a difference of constitutional measure. My aim in the balance of this essay is to sketch this concern, and to make salient its constitutional dimension.

Let me begin with the conclusion: In my view, the government has no legitimate interest, consistent with the First Amendment, in facilitating or pushing technologies that facilitate general rather than narrow content discrimination; the most that the First Amendment can permit, I argue, are regulations that facilitate discrimination in a narrowly drawn sphere. This is not to argue that it would be unconstitutional if the net became a place where general discrimination were possible; it may well become that place, but that's a different point.⁴² My claim is only that the government's role in facilitating generalized content discrimination is quite narrow, and that we should select strategies for advancing its legitimate interests that don't easily generalize to this broader control. In the terms of the matrix that I sketched above, the constitutional question we should ask is how much speech the government's regulation pushes to box 3 structures, and whether such regulation facilitates control by governments and other institutions of censorship.

Among the alternatives that have been suggested for dealing with the "problem" of indecency, my claim is that it is a CDA-like solution that would minimize the amount of speech subject to content discriminating technologies, or more precisely, it is a CDA-like solution that would minimize the role the government has in facilitating this discrimination. And thus, odd as this might

⁴² See, e.g., Andrew L. Shapiro, *Speech on the Line*, in THE NATION, July 21, 1997, at <http://www.TheNation.com/issue/970721/0721shap.htm>.

sound, it is a CDA-like solution that would be most protective of speech.

The argument proceeds in three steps. I first outline the essence of what I mean by a “CDA-like” regulation. I then contrast that regulation with the regulations of two other alternatives, now being proposed by industry and government — both “private” blocking solutions, but one more general than the other. Finally, I sketch the constitutional case against the second form of regulation, and in favor of the first.

The Regulation of the CDA

In June, 1997, the Supreme Court struck down Congress’ first direct regulation of speech behavior in cyberspace — the CDA. The opinion was dramatic both in its sweep and apparent resolve, not even pausing to suggest legitimate alternatives to the regulations that it was striking down. In the battle to protect speech on the net, this was an important first victory.

So it is odd for one who considers *Reno v. ACLU* a victory now to promote the cousin of the statute struck down.⁴³ But it is distant cousin that I would propose, and to make the distance clear, we must distinguish two features of the original CDA — one the scope of speech covered, and the other, the way in which the regulation was to have its effect.

There is no doubt that because of Congress’ carelessness with respect to the first question, the first CDA was unconstitutional. Its definition of the speech covered was far too vague to pass constitutional review. And where it was not too vague, the targeted speech plainly extended beyond the scope of *Ginsberg*-speech, in my view the only possibly legitimate speech that Congress could be purporting to regulate.

But the significance of the CDA for my purposes ties to a second feature — the way in which the regulation was to have its effect. For the statute functioned *first* by banning a certain kind of speech unless *second*, that speech was put behind walls that were “reasonable, effective and appropriate”⁴⁴ for screening out kids.

⁴³I don’t intend to be promoting any particular statute. None of the proposed statutes satisfy the concerns that I raise below. See *infra* at 55.

⁴⁴ 47 U.S.C.A. §225(e)(5)(A) (1997).

The technique was not filtering.⁴⁵ The technique was segregation. The statute required identity checks on any door through which one could pass to reach regulated speech. The method, in short, was zoning.⁴⁶

The scheme depended upon a system of adult identification numbers, and the statute allowed any number of such numbers to suffice.⁴⁷ The IDs didn't have to be perfect — they simply had to be reasonably effective in keeping kids out. One fair reading of “reasonable” — indeed the reading that all of tort law give to the same word — would be “reasonable given the technologies that exist,”⁴⁸ requiring a provider take steps that are technologically feasible to block out kids.⁴⁹

⁴⁵ Though the law didn't specify, and in principle filtering could have satisfied its requirements, the thrust was identity blocking.

⁴⁶ Again, see *supra* note 29, I understand that many don't see this as a “zoning case,” and I hope it is clear that I understand that this is not the ordinary “zoning case.” But whether this is the ordinary zoning case or not, they share a feature that defines the state's interest here—the power to put a kind of speech in a certain place, and by that, keep some away. The kind of box (age verification, or geographic location) is different; and the limitations on the two are different. But we see something I suggest if we see the similarity in structure.

⁴⁷ At present, however, most age verification systems (AVS) work through a similar mechanism. They generally rely on credit cards to verify age, although some allow a drivers license to be mailed in. After charging a fee and verifying the age of the user, the AVS sets up an account that also functions as a valid account for a given number of adult sites. AVS providers compete to provide the largest number of sites accessible per account; some claim to be “universal.” As of this writing, the Yahoo directory lists twenty-two AVS services.

⁴⁸ It is therefore a bit odd that the Court in *Reno* stuck firm in its reading of “effective” to conclude that the statute was too demanding. Why, rather than striking the statute, or any similar statute, it couldn't have read “reasonable, effective, and appropriate” as a negligence standard is unclear.

⁴⁹ Germany has passed a law making ISP's liable if they make illegal content available, and (1) are aware of the content, and (2) fail to use reasonable and technically possible means to block it. See *Germany to Enforce Child-Friendly Internet*, Chicago Tribune, July 5, 1997 at 4; <http://www.iid.de/rahmen/iukdgc.html>.

But when the government argued this case, however, they either had no idea about how the technology worked, or no interest in winning the case. For they stipulated to facts which were not then, and certainly are not now, true.⁵⁰ The picture they had (and with which the plaintiff was happy to agree) was that each site would have to run its own identification number system. The government conceded that the costs of running such a system would be quite high. Nonetheless, they argued, that burden was well worth the benefit of keeping kids from porn.

⁵⁰ Two examples should suffice. In finding 96, the court found that “content providers who publish on the World Wide Web via one of the large commercial on-line services, such as America On-line or CompuServe, could not use an on-line age verification system that requires cgi script because the server software of those on-line services available to subscribers cannot process cgi scripts.” *ACLU v. Reno*, 929 F.Supp 824, 845 (1996). But why? There is nothing magic about making code that can process cgi scripts or their equivalent. The same with the findings regarding age verification technologies. Finding 90 reports that there is “no effective way to determine the identity or age of a user who is accessing material through ... newsgroups.” Well again, that depends on the code. Advances in the Network News Transfer Protocol (NNTP) make this control possible. While the “official” text of the NNTP protocol does not include an authentication command, the major implementations of the NNTP have all included the AUTHINFO USER/PASS authentication command as an extension (An authentication command allows for “a protocol exchange to authenticate and identify the user.”) In addition, many major newsreader clients, including the Netscape and Microsoft clients, include some form of authentication command. Imagina Corporation, for example, sells a NNTP server that allows for identity verification, and it has just announced its intent to sell filtering tools to control the content on its server. (In an email inviting beta testers, Imagina writes “We are offering an opportunity to you as a select Newstand user and valued customer of Imagina, Inc., to take a sneak look at our upcoming new feature which offers the Newstand administrator the ability to filter message content! This means that you will now be able to eliminate the concern over bad words, pictures, SPAM, and other inappropriate content that exists on Usenet, but that you may not wish to exist on your Newstand network.”) And finally, the latest IETF draft NNTP, as of March 1998, includes the standard authentication command AUTHINFO. See Stan Barber, *Internet Draft, Network News Transfer Protocol* (March 1998), available at <ftp://ftp.ietf.org/internet-drafts/draft-ietf-nntpext-base-04.txt> (“AUTHINFO is used to inform a server about the identity of a user of the server. In all cases, clients MUST provide this information when requested by the server.”). Thus the assertion in finding 90 of *Reno v. ACLU* was both conceptually false, and technically false at the time *Reno v. ACLU* was released. For a general discussion of issues related to the authentication command under the NNTP protocol, see the IETF working group discussion on the NNTP, archived at <http://www.academ.com/academ/nntp/ietf>.

Even here, however, the argument should strike one as odd. In real space, there are all sorts of places where IDs must be checked — bars, convenience stores, college parties, airports. But no one thinks that the obligation to check IDs entails the obligation to create an ID system for that purpose. People don't have an ID for their local pub, and different one for their local grocery store. Rather, in real space, standardized IDs develop — drivers licenses, for example — which those required to check may rely upon when they check IDs.

There is no reason to think the same universal system can't develop in cyberspace, every reason to believe it would, and all the evidence to suggest that it already has.⁵¹ The net is filled with ID companies that will, for a fee, issue an ID which then is useable at any number of places to check the age of participants. These ID systems are relatively cheap, and given the low cost of net transactions, their cost is likely to fall even more.⁵²

But adult-IDs are not the only technology that could satisfy the requirements of a CDA-like regime. A better alternative would be the technology of digital certificates. Digital certificates are encrypted digital objects that make it possible for the holder of the certificate to make credible assertions himself. In the ordinary case, such a certificate makes it possible for a person credibly to establish the she is who she says she is.⁵³ But such a certificate can authenticate much more (and less) than identity. An authority, for example, could issue anonymous certificates (traceable but not directly linked to a particular individual) that would also certify attributes

⁵¹ These IDs as well could protect privacy much more than real space IDs, for these could be pseudonymous IDs, just as a license plate number identifies without identifying.

⁵² The cost of digital certificates, which verify much more than the identities that I am discussing, ranges from free, to about \$20. See <http://www.webreference.com/ecommerce/digital.html> for a comparison. Bel-Sin, for example, is a certificate authority for Europe, issues certificates for 750 BEF, or \$20.

⁵³ It does this like this: The certificate is issued by a "certifying authority." That certifying authority takes steps to verify that the person is who he or she says he or she is. And when convinced, it then issues that person a digital certificate that states just that. The confidence in the certificate is assured by dual-key encryption. See the American Bar Association Guidelines for Digital Signatures at <http://www.abanet.org/scitech/ec/isc/dsgfree.html>.

about that individual — for example, that she is over the age of 17, or a citizen of the United States. Such a certificate would reside on the owner’s machine, and as he or she tries to enter a given site, the server *automatically* would check whether the person entering has the proper papers. Such certificates would function as a kind of digital passport which, once acquired, would function invisibly behind the screen, as it were.

The Court however hesitated before embracing this picture of an ID enabled cyberspace, and its hesitation is quite revealing. No doubt in part the hesitation rested upon the poor state of the record. And in part, the poor state of the record came from a certain *is-ism* that infected the lower court opinions. The findings that Justice Stevens’ opinion relied upon are shot through with language that speaks as if the net as it is is how the net has to be—as if the architecture as it was in 1996 is the only possible architecture for the internet. And thus in turn, they made it seem as if any regulation that aimed at changing the architecture would, for that reason, be either futile or unconstitutional.⁵⁴

But this is-ism is just false. The architecture of the net is no more fixed, or necessary, than is the architecture of television, or telephones. There are any number of architectures that the net could support, or that would support the functionality of the net, and certainly some of these architectures would better facilitate zoning kids away from *Ginsberg*-speech than others. The real question the case should have presented is whether Congress has the power to regulate architectures, such that it better serves Congress’ regulatory ends. Or in terms of the previous section, whether Congress can regulate the architecture of the net to make its content more regulable.

The actual CDA didn’t present this question well, and again, the government’s arguments didn’t help. Moreover, the statute

⁵⁴ For example, the Court held that the “Internet is not as ‘invasive’ as radio or television. The District Court specifically found that ‘communications over the Internet do not ‘invade’ an individuals home or appear on one’s computer screen unbidden.” *Reno*, 117 S.Ct., at 2343. This is certainly true of the internet as it was, but as the emergence of push technologies suggests, there is no reason the net has to be like this. Or again, “the district court categorically determined that there “is no effective way to determine the identity or the age of a user who is accessing material through e-mail, mail ex-ploders, newsgroups, or chat rooms.” But as discussed above, *supra* note 50, companies have offered software that does just this.

seemed ambiguous between two very different meanings. In one sense, the statute seems to be regulating access to “indecent” speech, given the architecture as it was (and then its regulation may well be burdensome). But in another sense, it could be understood to be regulating the architecture of the net itself, so that its zoning restrictions were no longer burdensome.

Consider a law that resolved this ambiguity. This law (call it CDA 2.0) has three parts.⁵⁵ First, it bans — civilly⁵⁶ — the knowing distribution of *Ginsberg*-speech to kids.⁵⁷ Second, it bans — again civilly — the distribution of *Ginsberg*-speech, unless the distributor⁵⁸ verifies the age of the recipient. And third, it establishes, in the Commerce Department, a certificate authority, from which (1) individuals can pseudonymously obtain a digital certificate (an encrypted credential) verifying that they are above a certain age, and where (2) sites can verify the validity of those certificates. Nothing in this third part would require that individuals get

⁵⁵ “CDA 2.0” is different from the bill recently introduced by Senator Coats. See Senate Bill 1482, 105th Congress, 1st Sess. Senator Coat’s bill would impose criminal penalties on the commercial distribution of *Ginsberg* speech to minors. I believe criminal penalties in this context (save perhaps for the intentional violation of such a proscription, as the bill covers in section (e)(3)) are inappropriate. The bill also does not establish or subsidize an adult identification system, or assure as the German law does, see *supra* note 50 that such a system functioned pseudonymously.

⁵⁶ There is no purpose, in my view, in making the general proscription here criminal, and obviously the chill created by a criminal statute is extraordinarily great. I thank Mike Godwin for pointing out this insensitivity in an earlier draft, and other mistakes that I am too embarrassed to admit.

⁵⁷ And again, *Ginsberg*-speech, under this understanding, would be properly localized to community values. See *supra* 27.

⁵⁸ Much in the literature assumes that there is significance to a distinction between commercial and noncommercial speech here—*Ginsberg*, for example, concerned commercial speech only; and the Coats bill purports to regulate commercial speech only. While I believe a narrower bill makes more sense than a broad one, I am not convinced this distinction is of any constitutional significance. In real space, there are no noncommercial distributors of porn, since porn in real space costs lots of money. I don’t think the regulability of real space porn turns on the commercial feature of that porn—if a charity gave out Hustler, I think the local town council could regulate them just as it regulates a 7-11; or if Hustler set up free vending machines in California, I don’t think that would affect California’s right to regulate vending machines under *Crawford*. See *Supra* note 6.

their certificate from the government. The statute would allow a range of organizations to function as certificate authorities.⁵⁹ But by establishing a very cheap certificate authority, the statute would assure that such identity would be available at a very low cost.

This is the CDA that I want to consider as the baseline against which any alternative (as addressed in the next sections) will be measured. Its features are these: First, its restriction extends only as far as constitutionally legitimate governmental interests. The statute functions as a zoning statute, but it does not require, or facilitate, or create, incentive for the zoning of speech any more extensively than this narrow interest. Second, its restrictions do not easily generalize into a more comprehensive system for filtering or blocking *speech*. It is a targeted blocking system, not a generalized one. Its burden would be on those who engage in *Ginsberg* speech — they must do so only in a context where others have been screened — but because of the subsidized ID system, these burdens would not be substantial. From any realistic perspective, the burdens of these on-line IDs would be far less, for example, than the same burden that exists in real space.⁶⁰

Now I don't mean to say that under this statute, there won't be hard questions. As with any standard, the *Ginsberg* standard

⁵⁹ Compare the Utah Digital Signature Statute, at <http://www.commerce.state.ut.us/web/commerce/digsig/dsmain.htm>, and the ABA's guidelines at <http://www.abanet.org/scitech/ec/isc/dsgfree.html>.

⁶⁰ Which is not to say that such systems would have no burden. Speaker-targeted, sanction based systems are inherently more troubling from a free speech perspective than filtering solutions. Especially in a context where the class of regulable speech is vague, the threat of punishment is likely to have a dramatic effect on the willingness to speak. The only counters that CDA 2.0 presents are first, that the cost of blocking would be relatively slight as well, and second, that no criminal penalty is threatened. These are, however, tiny assurances, and on balance they are may well not be sufficient to sustain the statute constitutionally.

One question I do not address here is whether speaker based systems are less effective than filtering systems, and hence not less restrictive means to the same ends. As Professor Volokh argues, ID systems are inherently less effective, since, as he argues, they can easily be avoided. Volokh, *supra* note 11, at 33 n.7. I don't believe that claim is accurate, but when one adds it to the argument that many sites are foreign sights, and hence essentially free from US regulation, it might well be that on balance, ID blocking is not as effective as filtering solutions. In my view, however, the marginal loss in effectiveness would be outweighed by the gain in avoiding generalized filtering.

presents easy cases on both sides, and hard cases in the middle. One easy case would be sites that now identify themselves as “adult sites.” These I believe would plainly be within the reach of legitimate regulation. Another easy case would be sex education or health sites: These plainly cannot be considered within the reach of legitimate regulation.

But in the middle will be many cases much more difficult to resolve. Adult chat rooms? Or any chat rooms where indecent language is used? Or spaces public spaces where people might enter and engage in *Ginsberg*-speech? In my view, *none* of these contexts should be considered regulable. In none should the government have the right to zone out kids. But that’s a battle for later. For now, the important idea is simply the structure of this regulation.

How does it compare with the alternatives?

alt.filter

The alternatives to the CDA are all what we might call “filtering” solutions.⁶¹ They are designed to facilitate content filtering rather than identity blocking, and all depend in the main on third parties rating the content to be filtered.

The alternatives are essentially two. The first is an earlier version of the second, but I will discuss it in any case because it is the version that will be litigated first. This is private blocking software — software like CyberSitter, or SurfWatch. The second alternative is a far more general and powerful filtering standard developed, by the World Wide Web consortium. This is PICS.⁶² In the section that follows, I will quite briefly discuss the problems with blocking software. In the section following that, I will turn to PICS.

⁶¹ From a technical perspective, identity blocking as well is a kind of filtering solution. All use metadata to select what kinds of transactions should be permitted. But my distinction is not intended at the technical level. My focus is on the difference between identity based blocking, and content based blocking. For an early, and excellent, analysis of the same issue, see Jonathan Weinberg, *Rating the Net*, 19 COMM/ENT 453 (1997). Weinberg’s analysis emphasizes a balance in the question of the costs and benefits of rating. My analysis emphasizes who the technology empowers.

⁶² See the description at <<http://www.w3c.org/pics>>

The Bad in Blocking

Private blocking works like this: companies compete to gather lists of sites on the web to which “parents” don’t want their “kids” to go. The companies advertise the kinds of sites that get on their lists. Some have broad categories to filter, such as speech that is sexually explicit, gambling, and violence.⁶³ Some give much finer categories of control.⁶⁴ Still others build lists focused on sites that send the wrong message about sex, or drugs.⁶⁵ The lists are our day’s banned books, yet unlike the past, we never see the actual list of books banned. The list is not public, and indeed, cannot be published without losing its value as a “trade secret.”⁶⁶ Instead, the lists are encrypted, and delivered on a regular basis to purchasers of the software. The software itself cost around \$50.00; updates can cost between \$10-\$20 a cycle.⁶⁷

The idea of this model for filtering sounds good enough — those who need filtering of the web buy it; those who don’t, don’t. The burden thus falls on those who have a need to block access. And because individuals can select among a range of companies and range of products, it may seem that a competition of filters would keep the system pure. Individuals select their censor, just as I select my sensor by choosing one newspaper rather than another, or by subscribing to one cable channel rather than another. The technology thus shifts the architecture of the net (for those who use the software) from a box 2 technology to a box 3 technology

⁶³ SurfWatch is an example. See <http://www.surfwatch.com>.

⁶⁴ CyberPatrol gives users 16 categories of control. See <http://www.microsys.com>.

⁶⁵ These are two of the 11 categories in SafeSurf. See <http://www.safesurf.com>. See the appendix for a table that summarizes the technologies available.

⁶⁶ Cybersitter has reportedly threatened legal action against a founder of an anti-censorship group, on the ground that he obtained illegally a list of sites blocked by the program. See <http://www.mit.edu:8001/activities/safe/safe/safe/labeling/901.html>.

⁶⁷ See, e.g., <http://www.cybersitter.com/cysitter.htm> (Cybersitter costs \$39.95, and has no added charges for filter upgrades); <http://www.cyberpatrol.com/> (Cyberpatrol costs \$29.95, and has a 3 month subscription).

— from a non-discriminating pull technology to a discriminating pull technology.

But, all is not well in private blocking land. For the blocking effected by these systems is crude, and the effect of the blocking created by these systems far too broad.

Consider crudeness first: Private blocking is both crude in its methods, and crude in the population that it excludes. Some rely on simple text recognition to block, and sometimes simply block controversial words (as Jonathan Weinberg describes, “a CyberSitter routine that would therefore render “President Clinton opposes homosexual marriage” as “President Clinton opposes marriage,” because it simply blocked controversial words.”)⁶⁸ Others are more context sensitive, but in the end, there are severe limits to what such a system could accomplish.

But more troubling is the selection of sites that get blocked. As I said, one can't know what sites are on these lists, and there's no simple way to verify that sites are not included for the wrong reasons. Horror stories abound — sites opened to criticize blocking software themselves included in the blocked list,⁶⁹ sites opened to discuss AIDS, or gay rights, excluded because of “mistaken” associations with indecency,⁷⁰ vegetarian pages excluded because of an association with animal rights movements.⁷¹ Controversial sites are easily excluded, yet no one says who gets cut.⁷²

⁶⁸ Jonathan Weinberg, *Rating the Net*, 19 HASTINGS COMMUNICATIONS AND ENTERTAINMENT LAW JOURNAL (COMM-ENT) 453, 460 (1997).

⁶⁹ See, e.g., Weinberg, *supra* note 61.

⁷⁰ The stories are described well in Declan McCullagh, *Jacking in from the Keys to the Kingdom Port*, <http://www.eff.org/pub/Publications/-Declan_McCullagh/cwd.keys.to.the.kingdom.0796.article>

⁷¹ Weinberg, *supra* note 61, at 461.

⁷² The ease with which sites are blocked, of course, is the consequence of private rather than public blocking. Were this a regime of governmental censorship, of course, decisions to exclude a site would be subject to the review of a court. But when simply a private companies decision, no such process is due. This has lead some to suggest, perhaps correctly, that free speech activists should push to make the government the sole source of filtering, to assure at least that filtering decisions get constitutional review. Compare, *e.g.*,

More troubling still are the effects of such software beyond enabling parents to block sites from their kids.⁷³ For as others have argued before, these crude codes of political correctness are being deployed far more broadly than just in the home of concerned parents. They've become the tools of companies, and schools, and most troubling from the perspective of free speech interests, libraries. Their effect thus is not just on kids, but on adult access generally.

Consider the case of public libraries. In an increasing number of cases, libraries are being pushed by local governments to install software that would block access to indecent or obscene material.⁷⁴ Free speech activists have moved quickly to challenge such action, and this challenge is likely to succeed.

As a first step, this much should be clear: if there is more than one machine in a library, it should be clear that the library cannot block all machines from accessing indecent material on the net.⁷⁵ Just as it can't shut out all "indecent" books from a public library,⁷⁶ but instead must segregate them if it wants to keep them from kids, so too can it not filter all internet accessing machines, but instead must separate out a kids machine from adult. There would be no justification for a public library installing such filtering gen-

Andrew Shapiro, *The Danger of Private Cybercops*, N.Y. TIMES, Dec. 4, 1997 at A31.

⁷³ See Weinberg, *supra* note 61.

⁷⁴ See, for example, the litigation involving Loudoun County, <http://www.venable.com/ORACLE/oracle14.htm>. Libraries & counties that have faced the issue have adopted decidedly different approaches, including no blocking (Fairfax county & Chicago), separate computers for children & privacy screens (Sonoma County), blocking of high-profile hardcore sites only (Orange County) and full use of blocking software (Loudoun County). The majority of libraries have not faced the issue. As of this work, only Loudoun county is subject to litigation.

⁷⁵ Loudoun County in Virginia has done so in part because its view about the requirements of sex harassment law — that it would be a hostile environment if patrons were permitted to view pornography in the library. In my view, this is simply a misapplication of harassment law. I do think there are contexts within which it is harassment for people to consume pornography; the library, however, is not such a context.

⁷⁶ I am not addressing the quite separate issue of libraries in schools. See *Board of Education v. Pico*, 457 U.S. 853, 871-72 (1982).

erally. Any justification for such filters would be limited, then, only to kids.⁷⁷

But even so limited, my sense is that the challenges to these regulations will succeed. The First Amendment will prohibit extensive use of blocking software in public libraries, though I don't believe the argument in the end is an easy one.

Two traditions, one express, one implied, mark the history of libraries. The express is a tradition of open access: Libraries have long upheld the ideal that speech should be made available to citizens regardless of content, or viewpoint, and that the library would not serve as a censor for the local or political community. In the spirit of this tradition, the American Library Association, for example, has strongly opposed the use of blocking software in libraries, and has actively fought the development of blocking software to be used in contexts of public access.⁷⁸

The other tradition, however, is a history of selection, and exclusion. Historically, libraries have always had to choose what material to bring into a library. That choice has been influenced in part by the interests of the community served, in part by budget constraints, and in part, no doubt, by the values of the person making the selection. On any realistic account of this process of selection, the selection of material can't help but exclude material based on the content. On any realistic account, librarians have always made such exclusions.

The first tradition clearly supports the conclusion that it would be unconstitutional for libraries to adopt blocking software to exclude material on the internet from local library computers. But the second tradition puts pressure on that conclusion. For the second tradition supports the claim of local communities that libraries ought to exercise discretion in its choice of where children can go while sitting in a local public library.

As I've said, in my view the first tradition will prevail. But we should be straight about the significance of the second. The first

⁷⁷ The Santa Clara Library System's Board, for example, recently installed filters with a kid's section of the library, but not on library machines generally.

⁷⁸ Bruce Ennis, from the American Library Association, sounded as if he was arguing as much in the Supreme Court. See *supra* note 12

will prevail because the analogies line up fairly clearly on the free speech side. Old doctrine in a case like this helps in; old rules applied to this new problem seem to apply even stronger.⁷⁹

Using software to block sites seems more like the removal of books, rather than a choice not to subscribe. And more fundamentally, it will seem like a decision to remove that has been delegated to private companies (which in effect is what the purchase of such software means) rather than exercised by librarians themselves.⁸⁰ Finally, even ignoring the decision to delegate, it is plain that the scope of the sites being blocked far exceeds the narrow category of *Ginsberg* speech. These companies are not filtering on the basis of *Ginsberg* speech; they are filtering on the basis of what the market in parental protection happens to want. In many cases, this speech is speech that kids plainly have a right to view. And while parents are free to block their kids from such a view, they cannot make the state their censor.

But that is not to say that the other tradition in the history of libraries will not put pressure on this ultimate decision. For the second tradition does throw into relief facts that will cause trouble for courts reaching the conclusion that I have just sketched. And it will help to see just how.

Notice how the net has flipped the traditional relationship between a library and the material outside the library. The reality of real world libraries has always been that libraries were opt-in institutions. The library started with no books, or with an initial collection donated to start the library, and then had to make choices about which books to include. The ethics and traditions of the librarian then are traditions developed against that background. Libraries were to be places where contrary views could be explored; so choices to acquire books were not to be guided by viewpoint about controversial political questions. Both sides should be included; neither side censored.

⁷⁹ It is not always like this. In the context of the Fourth Amendment, for example, the old rules (tied to property) did not apply well to the new circumstance of electronic communication. See *Olmstead v. United States*, 277 U.S. 438 (1928).

⁸⁰ See Susan Essoyan, *Librarians: Shelve Privatization Plan*, PORTLAND OREGONIAN (May 18, 1997).

Yet again, and of course, the opt-in library plainly excluded. And even if its exclusions were not viewpoint based, no doubt it was taken for granted that certain topics would be excluded. There will always be material that “does not seem appropriate” for a library, and this material, in an opt-in world, will not be acquired.

Libraries in cworld are different. Once a library connects to the net,⁸¹ in principle, everything is available. The librarians role in acquiring works has been erased since everything is automatically acquired. The question then becomes whether this change in the architecture of acquisition changes the role that the librarian will have in this fundamentally different context.

The answer, as I have said, is not an easy one. But in the end, courts will see that the alternative of permitting express blocking would be far more threatening to our traditions than the alternative of identity blocking described in the previous section. Thus again, if the legitimate concern is a child’s access to *Ginsberg* speech, then the less restrictive means here (between private blocking software and CDA 2.0) is, I suggest, CDA 2.0.

The Worse in Labels

As bad as private blocking is, however, it does have its virtues. I’ve argued that its aim is to make some speech subject to box 3 filtering. Its virtue is that it leaves the balance of speech in box 2. Its aim is not to make all speech subject to discriminating technologies. It targets discriminatory technology to just some kinds of speech, and it applies it to just some users. This narrowness is its virtue, though a virtue with significant vices.

The second alternative is not so discriminating. This is the technology of PICS. PICS is a more efficient long term solution to the problem of filtering than blocking software — it is cheaper and more general and more open to competition. And its consequences for the net generally, and free speech in particular, are more dramatic as well.

⁸¹ According to the complaint filed in the *Loudoun v. Board of Trustees the Loudoun County Library*, 60% of libraries are now connected to the internet (up from 28% in 1996); almost 45% of all U.S. households visited a public library within the last month. See complaint, para. 50, 51, Case No. 97-2049-A (E.D. Va.) (Proposed Complaint for Declaratory and Injunction Relief).

To see why, return to a hype that was common at the birth of the net. The rhetoric went something like this: Cyberspace is an unregulable space. It is a space where the cost of exit is extremely slight.⁸² Because so slight, any burdens imposed by a central authority are burdens that are cheaply routed around. In one of the clichés of the e! generation — the net interprets censorship as failure, and simply routes around it.⁸³

In the area of content regulation, this unregulability was unavoidable. One could not regulate content, it was said, because it was essentially impossible to identify content. The best machines in the world couldn't distinguish an obscene short story from a sex education text book, or a skin-zine from a medical text. And because automatic identification was impossible, the theorists told us, automatic filtering was computationally impossible as well.

This impossibility in turn was the ground of our freedom. It couldn't be done, and therefore we didn't need to fear it. The limits of the net would assure that speech on the net was free.

But there is a caveat to this story, as one of cyberspaces' most important theorists saw early on — a caveat in the form of a warning. For while it is true that with the present architecture of the net, machines couldn't censor, a tiny change, Nicholas Negroponte warned, could erase impossibility.⁸⁴ For if material were labeled, then filtering would be trivial. The dumbest machines on the net could then filter. And hence to enable censorship, Negroponte warned, governments would only have to enable labeling. Facilitate labeling, and you would turn the net in to a fundamentally *regulable* space.

PICS is a system, and an incentive, for enabling such labeling. Its idea is at once simple, and ingenious. Content control, its developers realized, involves two conceptually distinct issues. One is the problem of filtering — software actually to enforce any given decision to block. The other is the problem of rating — a system for categorizing content on the net. W3C, the designers of PICS,

⁸² David G. Post, *Anarchy, State, and the Internet: An Essay on Law-Making in Cyberspace*, 1995 J. ONLINE L. art. 3. (1995).

⁸³ This is attributed to John Gilmore. See <http://www.cygnus.com/~gnv>.

⁸⁴ See NICHOLAS NEGROPONTE, BEING DIGITAL 18 (1993).

separated these two questions, and establish a set of technical specifications that made possible the independent implementation of each.

The idea was this: first establish a language within which labeling and filtering can occur, and then others will develop labels, and filters, using that language. (If you build it, they will come.) The system thereby enables a certain competition in both domains — rating bureaus compete in their labeling of content; and software developers compete in their development of filtering mechanisms for implementing these ratings. These parallel competitions will yield products that implement PICS, and thereby make possible PICS filtering of content on the net.

In some ways, this may seem ideal. For PICS not only enables individuals to select the rating system they want, it also empowers individuals or groups to set up ratings that compete. The system in this sense is *horizontally* neutral — the Christian Right can have a rating system, as can the Atheist Left — and individuals are free to select the ratings he or she thinks best.

But this neutrality creates its own problems. As I've described it, PICS is *horizontally* neutral. It is neutral, that is, among viewpoints; any viewpoint can be coded with PICS labels. But PICS is neutral *vertically* as well. It not only allows any number of filters to be selected among; it also allows these filters to be imposed — invisibly — at any level in the distributional chain. The filter can be imposed at the level of the individual's computer. But it can also be imposed at the level of the ISP. Or at the level — *in principle* — of a nation-state. PICS doesn't discriminate in favor of local control, or against centralized control. It is, as its founders describe it, "neutral" among these different locations for the imposition of the PICS filter.⁸⁵

⁸⁵ PICS proponents say that it is not "neutral" vertically — that indeed, it takes no position on the vertical filtering. But this is a partial analysis. The assumption of the system is that the market will create an incentive for rating bureaus to develop, and the assumption about such rating bureaus is that they can rate the net more cheaply than any individual can. The cost of rating then will fall, and if the cost falls, my assumption is, more will rate. The technology or architecture alone might then make no difference; but the technology and the market it assumes certainly will. See text at notes 94-96, *infra*.

This point is important, so it will pay to spell it out with a bit more care. PICS is an application level filtering protocol.⁸⁶ Its use is end-to-end: The filter gets invoked in a user's application. The filtering is not designed to interfere with the flow of the network itself: No system between the sender and the receiver need make a judgment about whether to deliver content based on the content of message. The system, like the post office, simply delivers packets, regardless of the content in the packets. PICS is just a convention for labeling these packets, so that the recipient can make a decision about what to do once the packet is received.

This design is consistent with the philosophy of design for the internet generally. That philosophy is to facilitate exchange. Any system for blocking or filtering content within the context of this design must do so without *requiring* interruption midstream. And to do so, it must be a system that can be implemented at the user level alone. PICS again is such a system.

But PICS comports with a more fundamental design aesthetic as well. For it is a general filtering solution. While it need not be imposed at any level other than the user level, it certainly can be imposed at a level other than the user level. Because a general design, a PICS filter can be imposed at any level in the distributional chain. Nothing restrict it to a narrower scope; nothing limits it to only one kind of filtering duty. Consistent with the ideal that it is better for a system to be general than specific, PICS is general.

PICS thus comports with the values of computer science; it comports with the aim of systems design. But however virtuous PICS might be from these virtuous perspectives, it should be obvious that these are not the only norms against which the architecture of the net should be tested, nor the most important. The question we should ask instead is whether the design comports with free speech values. And in my view, PICS plainly does not.⁸⁷

⁸⁶ The analysis in this section tracks the argument of Sandra Batista, *Content Regulation in the Internet Architecture* (unpublished manuscript, 1998).

⁸⁷ Whether concerns from a "First Amendment" perspective is a separate question, which I address in the next section. The gap between the two questions is this: By the "free speech perspective," I mean a perspective that considers the constitutional interests in free speech; by "the first amendment perspective," I mean the particular constitutional constraints imposed by the first amendment that are, in principle, aiming at achieving the objectives sought in the "free speech perspective." The two are not the same. Consider

PICS is doubly neutral — neutral both about the values used to filter, and about who gets to impose the filter. But the first amendment is not doubly neutral. While the censorship of the user is certainly consistent with free speech values, governmentally enabled up-stream censorship is not.⁸⁸ Or put differently, between two free speech architectures, one which enables user control only, and one which enables both user control, and upstream control, my argument is that the government has no legitimate interest in pushing upstream control, except in a very narrow range of cases. And thus, between an architecture that facilitates upstream filtering generally, and an architecture that facilitates upstream filtering in only a narrow range of cases, Congress has a legitimate interest in the latter only.

I develop this constitutional argument more extensively in the section that follows. But before that, I must do more to sustain the claim that *relative to the existing architecture*, PICS would enable upstream filtering, and that this filtering is a feature of PICS design.

An example is the use of PICS by a search engine. While a user might have chosen not to filter content at all, the search engine the user deploys might itself filter the results of a search, based on a PICS filter. Thus the user would only get access to data that the search engine has already filtered.⁸⁹ This, in my sense, is upstream filtering. But what makes this example particularly troubling is that nothing in the design requires that the individual know that the site is being filtered by the search engine. The upstream filtering, that is, can be invisible. Indeed, as Jon Weinberg

an analogy: There is an objective of permitting people the quiet enjoyment of their home. Trespass law is enacted to serve that objective. For any given invasion, then, we can ask both whether it interferes with the general objective, and whether it interferes with the specific limitations of trespass law. A particular invasion — for example, loud music — may clearly interfere with the general objective (making it hard, for example, to sleep) but also plainly not interfere with the specific limitation (the music would not, that is, be “trespassing” on an owners’ property). Though to be fair to the designers, only one is properly a consequence of the values implicit in PICS. The other, however, is expressly an ideal of the designers — that PICS can be used to block whatever content is desired.

⁸⁸ See the final section, *infra*.

⁸⁹ See, e.g., Net Shepherd’s PICS compliant content rating system? Its at <http://www.netshepherd.com/Solutions/search/search.htm>

reports, the idea of reporting this fact was explicitly considered by those who designed the protocols. It was considered, and rejected.⁹⁰

The system does not inhibit upstream filtering; nor does it require that upstream filtering be reported; nor does it have built within it any narrowing of the range of content that can be filtered, or that is filterable. The system is instead general and neutral — a general filtering standard that leaves the choice of what can be filtered, and where, to those who would implement the system. And all this is no accident of design: For again, the designers report that they stand neutral about both the scope of the filterable,⁹¹ and where that filter is to be imposed. The design was a choice, and the choice fundamentally implicates free speech concerns.

The founders of PICS might be neutral about the control that PICS enables, but we should not. We should not be neutral about a technology that facilitates state censorship as well as individual censorship, just as we should not be neutral about distributing nuclear bombs to the North Koreans. At the very least, it is a dangerous idea (from a free speech perspective) to implement a technology that enables cheap centralized filtering. At a minimum, we should ask in some context where the political implications of this can be measured, whether it is a good thing for us to flip the essential character of the net — not just for us, but for the world — just because we have this obsession with indecency.

And flip the character PICS no doubt would.⁹² Because as it has become almost trite to remark, the very design of the old ar-

⁹⁰ See Weinberg, *supra* note 61, n108

⁹¹ This is described in <http://www.w3c.org/PICS/iacwcv2.htm> (Governments may want to restrict reception of materials that are legal in other countries but not in their own.).

⁹² Michael Froomkin, ever the careful scholar that he is, objects that I have not demonstrated that the architecture I attack will in fact become a standard. And indeed, of course, he is right. My aim however has never been to predict. My aim is to map — to map the consequences of architectures that are promoted by supposed friends of free speech. The danger I speak of is certainly a function of empirical facts — like whether PICS is adopted, whether rating systems develop, etc. But to know what facts we should be looking for, we should begin by understanding the danger.

chitecture of the internet was to resist just this sort of control. Before anyone realized any better, the architecture we exported under the name of the “internet” succeeded in establishing a crucially important element of free speech protection across the world. But now, because of an obsession with a “problem” called “porn”, we are retrofitting the net to enable control. PICS enables just this sort of control. And it facilitates this control not just with respect to indecency — but with respect to any specific content, as well as wide range of other topics. PICS enables filtering on the basis of indecency, or Nazi speech, or criticism of the Chinese government, or questioning of the Singapore parliament. The architecture is scaleable in a way that a CDA architecture is not.

Supporters of PICS respond to this criticism in three different ways, two of which I believe are just incomplete, and the third, while a common way to think about technology, simply misguided.

The first response is grounded in choice: that PICS will block only where the user chooses to block. It does not mandate blocking; it does not even mandate that sites participate in the blocking. The system is purely voluntary, and any user has the choice to simply turn off the filter.

While technically true, the defense is misleading. Certainly if PICS does not become a de facto standard, the burden on users would be quite slight.⁹³ But if it does become a de facto standard, its effect will not be so benign. For if systems implement PICS by blocking unrated sites, then that system creates a strong incentive for individuals to rate. As I describe more fully in the section that follows, the burden of self-rating is significant. If self-rating is implemented, then to exist on the net, one must classify one’s self, and if one falsely classifies, then there is a growing threat of legal liability. Both requirements raise important first amendment concerns.⁹⁴

⁹³ See Brian McWilliams, *Netscape Adds Content-Filtering to Browser* PC World News Radio (March 26, 1998), <http://www.pcworld.com/news/daily/data/0398/980326110727.html>.

⁹⁴ The argument is that requiring the production of a label is a violation of the first amendment right “to refrain from speaking at all.” *Wooley v. Maynard*, 430 U.S. 705 (1977). As the Supreme Court put it in *Riley v. National Federation of the Blind of North Carolina*, 487 U.S. 781, 795 : “Mandating speech that a speaker would not otherwise make necessarily alters the content

The second response in defense of PICS simply denies the causality: PICS itself, it is said, isn't enabling any filtering. The Chinese government can just as well filter without PICS as with it. Filtering is enabled by firewall technology. And a country that wanted to filter would simply impose firewall requirements, and police the list of permissible or impermissible sites.

But this argument is incomplete. A central assumption of the enterprise of PICS is that a market will develop for ratings.⁹⁵ This market will facilitate a competition among labelers. And as this competition among labelers begins to occur, we might well expect the cost of labeling to fall. For no doubt, the marginal cost of a second labeling system is far below the marginal cost of the first.⁹⁶ Once one rating is done, it would be much cheaper to develop a translation for that rating into another rating. Thus the cost of rating would drop if this market of labelers developed. And if this cost of rating dropped, then not only China, but Taiwan, and

of the speech. We view [doing so] as a content-based regulation of speech." But see Chris Kelly, *The Spectre Of A 'Wired' Nation": Denver Area Educational Telecommunications Consortium v. FCC and First Amendment Analysis In Cyberspace*, 10 HARV.J.L. & TECH. 559 (1997) (asserting that compelled labeling is probably constitutional); *Meese v. Keene*, 481 U.S. at 480 ("[T]he Act [requiring certain films to be labeled] places no burden on protected expression.").

⁹⁵ The market would be made up of "rating services." See Rating Services and Rating Systems (and Their Machine Readable Descriptions), <http://www.w3.org/PICS/services.html>.

⁹⁶ For example, Net Shepherd plans to create a "label bureau" that takes extensive advantage of its existing collection of web sites ratings. According to a press release, "Net Shepherd will use its proprietary ratings technology to create a powerful new third-party PICS compliant label bureau. The resulting label bureau will combine LookSmart [a navigation service]'s online database of quality web sites . . . with New Shepherd's growing online database [of] rated and categorized English language web sites." Net Shepherd's stated long term goal is to

provide internet users with numerous and varied label bureaus that reflect the widest variety of community standards, opinions, and beliefs. In addition to Net Shepherd's World Opinion's database, we now offer LookSmart's category rich database and in the near future we will plan to introduce Fundamentalist Christian and Arab World label bureaus.

Net Shepherd Press Release, September 10, 1997, available at <http://www.netshepherd.com/News&Media/PressReleases/97sep10.htm>

IBM, and Harvard University, and every local school board would be put in the position of purchasing its own labeling system.⁹⁷ Again, this would simply mean that discrimination in the market for speech would increase. Drop the price of labels to rate the net, and you increase the number of ratings of the net. Increase the number of ratings of the net, and you increase the content discrimination built into the net.

The third response is a more sophisticated version of “guns don’t kill people, people kill people.” Mike Godwin, though claiming himself apparently not a supporter of PICS, makes this argument quite forcefully.⁹⁸ The technology is coming, Godwin says, whether we like it or not; and thus rather than attacking the technology, Godwin says, we should be attacking uses of the technology.

But choices are not so limited. There is more to the question than simply attacking the technology, or attacking its use. For example, there is criticism of the technology’s design. Compare: Imagine that with very little cost, we could build bullets that would not enter the body of children. For any adult, the bullet would operate in the ordinary way. But for a child, the bullet would simply bounce off the kid’s skin. If that were technologically possible, and more strongly, cheap, it would be a hollow argument that said “don’t attack the technology (here bullets); attack those who would shoot kids.” Better to say: attack *both* the technology that does not discriminate, and the people who would shoot kids. For if one can design the technology to remove the most dangerous uses, why not argue for that design? And why not hold designers to the standard that requires they design their technologies to minimize the cost of accidents?

Ordinarily, of course we do. Ordinary tort law is premised in large part on just such an analysis. Builders can’t simply say, “the problem is the design” and escape liability if the system could be

⁹⁷ Taiwan, for example, has begun exploration of a system that would impose a state-sponsored PICS filter on all local ISPs. No doubt, the will to censor in Taiwan is not so great as to support the project if Taiwan had to rate the net itself. But if it can rely on the ratings of others, then it is apparently willing to enter the rating game. It is this class of countries that most concern me — countries that otherwise wouldn’t be in the business of filtering, but because of PICS, now would.

⁹⁸ See Mike Godwin, *Don’t Blame the Tools*, 5.10 WIRED, Oct. 1997.

designed differently. And that is just the standard that we ought to hold the design of the internet to. At each moment, we should ask whether there isn't a design that better advances constitutional values, whether or not that design comports with some other set of design principles of computer scientists. Scientists may have their aesthetics; but the question for us should be the aesthetics of the constitution.

My point here is not so much to argue against PICS. I confess my initial reaction against it was stronger than it has become. Labeling of some sort may be inevitable; the metadata architecture of PICS generalizes into extremely valuable uses.⁹⁹ Whether over all it is system that makes most sense is a hard question, and one we should not try to answer in the context of this very specific debate about indecency.

My aim instead is about the relationship between PICS and Congress' power. The question is the scope of Congress' power, and to answer that, we don't need to resolve any general question about PICS. For whether PICS is the best architecture or not, in my view, Congress cannot, constitutionally, embrace PICS in order to deal with the problem of indecency.

My aim in the last section of this essay is to sketch that argument. I argue that the most Congress can do, if in fact it has to do anything, is adopt CDA 2.0. If it tries to do more, then it crosses a constitutional line. The market may develop PICS, and may eventually adopt it. But Congress can't — consistent, at least with First Amendment values.

There is, however, a more significant point than the point about the First Amendment. Whether you buy my argument about the constitution, you should not ignore the consequence of this shift in architecture for the net generally. Whether or not PICS facilitates filtering more broadly than it should, it certainly facilitates a more centralized filtering than the existing internet does. The First Amendment may protect us against the consequences of such centralization. But it does not protect others without this tradition of free speech.

⁹⁹ The most obvious virtue is the protections to privacy the system facilitates. Since the system is simply a way to verify assertions, one could verify that a site was privacy protecting by filtering it according to some privacy protection list. The browser would then block me from accessing sites where my privacy wasn't protected.

The Constitutional Problem with General Filtering

The constitutional problem with a state-sponsored or induced PICS regime can be stated in a word: narrow tailoring.¹⁰⁰ Such a regime would result in a wider range of filtered speech than the legitimate interests of government would allow. PICS would push the architecture of the net from box 2 to box 3 generally.¹⁰¹ It would, that is, push the architecture of the net from a default of nondiscrimination, to a default of discrimination. And it would push this default not just for a narrowly defined class of speech, but for speech quite generally. It would push the net to facilitate discrimination across the full range of speech, and it would push this discrimination at any level in the net's distributional chain.

In my view, this change is far beyond any legitimate interest that the government may have in facilitating discrimination on the net. The government may have an interest in labels — or in filters, or in blocking access to speech — but its *legitimate* interest is narrow. That narrowness should limit the kinds of labeling regimes that the government can, legitimately, support. Put most directly, the claim is this:

If the government has a legitimate interest in filtering speech of kind X, but not speech of kind Y and Z, and there are two architectures, one that would filter speech X, Y and Z, and one that would filter only speech of kind X, then Congress may constitutionally push technologies of the second kind, but not the first. It may push architectures that filter speech of kind X only, and not architectures that facilitate the filtering of speech of kind X, Y, and Z.

¹⁰⁰ As others have described, there is a distinction between the narrow tailoring requirements of content-neutral regulations, and content-based regulations. The requirements of the former, that is, are looser than the requirements in the latter. See Eugene Volokh, *Freedom Of Speech, Permissible Tailoring and Transcending Strict Scrutiny*, 144 U. PA. L. REV. 2417, 2421 n. 29 (1996). As I argue below, however, in my view PICS will fail even the looser test.

¹⁰¹ I'm making a big assumption here about the tipping effect that this architectural change would have. I acknowledge I haven't proven that here. The strongest arguments for the fear rest in the concerns about "network effects." See Mark A. Lemley & David McGowan, *Legal Implications of Network Economic Effects*, 86 CAL. L. REV. __ (forthcoming, May 1998).

My claim is that CDA 2.0 is an architecture of the first kind; PICS is an architecture of the second.

The authority for this argument follows directly from the requirement of narrow tailoring alone.¹⁰² But it draws as well on two distinct, but related lines of case, which I will sketch here. The thrust of these cases, and the principles that they stand for, significantly constrains Congress' power over the architecture of the speech market.

The first line are cases where Congress has attempted to shift the vending of otherwise protected speech from push to pull. The technology here was the mails, and the activity was direct mail marketing. *Bolger v. Youngs Drug Products Corp*¹⁰³ is the most recent example. At issue was a statute that banned the unsolicited mailing of information about contraceptives. This information was not obscene, and not even *Ginsberg*-obscene (obscene for kids). Nonetheless, Congress believed (perhaps correctly) that most would find such material offensive. And thus to avoid such offense, Congress (1) banned the push vending of information on contraception, and (2) facilitated a form of pull vending of the same material (through "pre-mailing.") That combination was to assure that contraceptive material would only enter homes where it was (presumably) not offensive.

The Court struck the statute. Banning push distribution was impermissible, the Court held, even if Congress facilitated pull distribution. The speech affected was protected speech; a ban on protected speech could not be excused simply by disguising it as a mere change in the mode of vending. Offensiveness was not a sufficient condition for giving the government regulatory power. Something more was needed. If the market wanted to vend via push, the government could not mandate that it vend only via pull. The essence was that the government couldn't interfere to tilt the balance one way or the other, through a regime that banned one vending mode.

¹⁰² See, e.g., *Ward v. Rock Against Racism*, 491 U.S. 781, 797 (1989).

¹⁰³ 463 U.S. 60 (1983).

The same conclusion had been reached much earlier in *Lamont v. Postmaster General*.¹⁰⁴ There the question was whether the government could hold at the post office “foreign communist propaganda,” and require that the intended recipient return a postcard, requesting that it be delivered. This again was a regulation that was aimed at changing a vending structure for protected speech. The Court struck the statute. The government had no role in determining within which architecture this speech would be vended. Or more narrowly, it had no role in singling out one kind of speech for special treatment because of the public’s reception of that speech. The first amendment required that it not interfere in the manner of its distribution.¹⁰⁵

In both cases, Congress was prohibited from stopping the push of protected speech, even when permitting the same speech to be vended by pull. But this does not mean that Congress has no power to shut off push vending in any case. Content neutral regulations, when buttressed by a concern with “residential privacy,” have sometimes withstood first amendment scrutiny.¹⁰⁶ But more importantly, when the category of speech is what I earlier called the third category — speech that adults have a right to, but “kids” do not — then the state does have the power to shift vending from push to pull. This, of course, was *Ginsberg* itself, but the same principle has been upheld in a range of similar context.¹⁰⁷

¹⁰⁴381 U.S. 301 (1965).

¹⁰⁵ Subsequent cases have limited the holding of *Lamont*, in my view, improperly. *Meese v. Keene*, 481 U.S. 465 (1987), in upholding a labeling requirement for foreign movies containing “political messages”, distinguished *Lamont* by describing it as concerned with “the physical detention of the materials.” *Id.* at 480. See also *Block v. Meese*, 793 F.2d 1303, 1311 (D.C. Cir. 1986) (*Lamont* limited to access conditioned “on any type of official act.”). If the case is understood this narrowly, then it would have no application to my point about PICS. But again, I do not believe this narrow reading of its principle is warranted. Compare *Keene*, 481 U.S., at 489 (Blackmun, J. dissenting).

¹⁰⁶ See, e.g., *Moser v. FCC*, 36 F.3d 1303, 1311 (D.C. Cir. 1986) (upholding law that banned automated telemarketing machines without prior express consent of the party; upheld as a “time, place, manner” restriction when the governmental interest was “residential privacy.”).

¹⁰⁷ See, e.g., *Upper Midwest Booksellers Assoc. V. City of Minneapolis*, 780 F.3d 1389 (4th Cir. 1986); see also *M.S. News v. Casado*, 721 F.2d 1281 (10th

Thus while these cases impose strict limits on Congress' power to block push vending for protected speech, they do not limit the state's power to block vending for *Ginsberg*-speech.

The second line of authority is admittedly more ambiguous. This is the principle in *Rowan v. US Post Office*.¹⁰⁸ The question in *Rowan* was a regulation that permitted an individual to order the post office not to deliver material from a particular individual. The court permitted this filtering, so long as it was the individual who was fundamentally responsible for the selection of what got blocked, and what came through. The government couldn't be charged with making the judgment of "similar" senders, or erecting a regime that made the blocking turn on its judgment of similarity. It could only execute the wish of the recipient, consistent with the first amendment.

Many take this case to stand for the idea that government can enable filtering. But I believe the case stands both for much less and for much more. The case didn't endorse a governmental regime for filtering; it allowed, in the context of a push technology, the realization of a consumer choice. That the government effected that choice (by no longer delivering the mail) was a necessary consequence of the government's monopoly over mail. It should not be understood to stand for a more general idea that the government can get into the business of erecting schemes for filtering speech.

In any case, even if it did, the case would establish this only in the context of push technologies — permitting individuals a defense against the intrusion of the mails. And so limited, it might extend to the context of junk mail in cworld. But it would not generalize to all aspects of the internet. For most of the internet — as *Reno v. ACLU* found¹⁰⁹ — is pull, not push. Most is space where an individual goes and collects, rather than sits back, and receives. And whatever justification might support schemes to protect in push contexts, that would not necessarily extend to pull.

Cir. 1982)(upholding a requirement that obscene-as-to-minors magazines be placed in "blinder racks").

¹⁰⁸ 397 U.S. 728 (1970).

¹⁰⁹ See *Reno*, 117 S.Ct., at 2342.

The principle that does extend to pull contexts, however, is the limitation that *Rowan* recognized. For what was significant about the government's role was that it was essentially ministerial. The government was allowed to execute a decision by a patron, but was not allowed to exercise judgment about similar senders, or similar content. This limitation has an important corollary in any context where the government would push filtering regimes. For there is no single architecture for filtering; no single design for blocking. *Any* design would involve choices about classes of speech; any design would involve the government in such selection. But *Rowan* limits the government's power in such selection — originally in the context of push technology, but even more strongly in the context of pull.¹¹⁰

The meaning, I suggest, of these two lines together is this: That when regulating protected speech, the government is constrained in its role facilitating filtering. While in narrow contexts, the state can channel speech to pull rather than push, in the general case, it cannot so push speech. It cannot, that is, push an architecture for filtering that extends beyond these narrow categories. Or at least, it cannot so push when an alternative exists that would achieve the government's legitimate objective without simultaneously inducing the more general filtering.

State sponsored, or induced, PICS would violate just this requirement. For to be effective, the default of such a regime would require labeling. Thus it would be imposing a burden on speaker to label, or self-rate, or risk falling off the screen of the internet. This self-labeling raises its own free speech concerns,¹¹¹ but the im-

¹¹⁰ See also *Martin v. City of Struthers*, 319 U.S. 141 (1943), we there court distinguished the power of a citizen to block door to door sales from the power of the state to pass a law to the same effect. The law represented the state's own impermissible input into the vending decision, even though the state could enforce the will of the resident. See also *City of Watseka v. Illinois Public Action*, 479 U.S. 1048 (1987) (White, J., dissenting from denial) (arguing that statute banning door-to-door solicitation during certain hours was proper protection of privacy); but see *Bread v. Alexandria*, 341 U.S. 622 (1951).

¹¹¹ The argument is that requiring the production of a label is a violation of the first amendment right "to refrain from speaking at all." *Wooley v. Maynard*, 430 U.S. 705 (1977). As the Supreme Court put it in *Riley v. National Federation of the Blind of North Carolina*, 487 U.S. 781, 795 : "Mandating speech that a speaker would not otherwise make necessarily alters the content of the speech. We view [doing so] as a content-based regulation of speech."

portant point is that it would effect a shift of speech generally from push to pull. It is as if the state required that all magazines be vended from behind counters, accessible only upon request.¹¹² While the justification for such a regulation would suffice as to *Ginsberg*-speech magazines, it could not suffice for the balance of the magazines. Even assuming the staffing burden were insignificant, the state cannot ban the push vending of all magazines simply because it can ban the push vending of some.

Or again, it can't do so at least where there is a less restrictive alternative. CDA 2.0 is that alternative. For under CDA 2.0, the only speech that is burdened is *Ginsberg*-speech. All other speech is available without state imposed burden. Individuals can still filter as they wish. But the important point is that vendors of political or offensive speech get to vend in whatever mode they wish.

One final point to complete the argument: Any constitutional problem with PICS of course depends upon state involvement. Laws which require PICS filtering satisfy this limit; encouragement by the executive probably does not.¹¹³ In the middle, however, would be rules that require accurate self-labeling, in a context where the architecture requiring labeling has been brought about

But see Chris Kelly, *The Spectre Of A 'Wired' Nation": Denver Area Educational Telecommunications Consortium v. FCC and First Amendment Analysis In Cyberspace*, 10 HARV.J.L. & TECH. 559 (1997)(asserting that compelled labeling is probably constitutional); *Meese v. Keene*, 481 U.S. at 480 (“[T]he Act [requiring certain films to be labeled] places no burden on protected expression.”).

¹¹² The example is Tim Wu's.

¹¹³ The President, for example, has argued for an “E-chip for the Internet Event” : “For these controls to work to their full potential, we also need to encourage every Internet site, whether or not it has material harmful for young people, to label its own content” *See* Remarks By The President At Event On The E-Chip For The Internet, White House Press Release, July 16, 1997, available at <<http://www.whitehouse.gov/WH/New/Ratings/19970716-6738.html>>. But under current doctrine, executive bullying is not yet state action. See also Laurence Tribe, *American Constitutional Law* §12-4 at 804 (2nd ed. 1988)(section entitled “Distinguishing Government's Addition of its Own Voice From Government's Silencing of Others”).

in large part by governments inducements. In my view, such requirements should suffice for the state action requirement.¹¹⁴

CONCLUSION

Law regulates speech, but not only law. Norms regulate speech; and so too does the market. But the regulator that I have tried to focus in this essay is the regulation of architecture — the regulation that gets effected by the very design or code of a free speech place.¹¹⁵

As the internet was just a few years ago, its architecture facilitated very little centralized control of content on the net. Its design disabled such control. The consequence of this design was that speech was free.

Our obsession with indecency on the net is pushing us to change this fundamental architecture of the internet. My aim in this essay has been to consider the consequences of two very different architectural changes. One change requires that attributes of individuals be authenticated; the other requires that content be labeled. My argument has been that the second change would have

¹¹⁴ The closest recent case to raise the state action is *Denver Area Educ. Telecom. Consortium v. F.C.C.*, 116 S.Ct. 2374 (1996). In that case, the Court considered a statute that permitted operators of leased cable lines to exclude “indecent” programming. The lower court had concluded that the provision did not violate the First Amendment, because the permission could not constitute “state action.” *Id.* at 2382. The Court rejected this argument. While acknowledging that ordinarily permissions may not constitute state action, where a “‘permissive’ law *in actuality* will ‘abridge’ their free speech,” *id.* 2383, the law was considered state action. For a rich development of the state action doctrine in the context of a right to read anonymously, see Julie E. Cohen, *A Right to Read Anonymously: A Closer Look at “Copyright Management” in Cyberspace*, 28 CONN. L. REV. 981 1019-30 (1996).

¹¹⁵ This theme of course has been dominant in thinking about cyberspace from its beginning. Mitch Kapor was an early proponent of the idea, more in real space than in writing. See *The Software Design Manifesto*, http://www.kei.com/homepages/mkapor/Software_Design_Manifesto.html; *A Note on the Politics of Privacy and Infrastructure*, <<http://icg.stwing.upenn.edu/cis590/reading.045.html>>. In cworld, he is the father of “architecture is politics.” See <http://www.cs.yorku.ca/~peter/4361/quotes.html>. For a more extensive scholarly treatment of the same idea, see WILLIAM J. MITCHELL, *CITY OF BITS* (1995).

a much more profound consequence for speech on the net, both within the United States, and outside the United States.

We have won the first battle in the struggle over free speech on the net. We must now make certain that we don't lose the war. The victory in *Reno* will push Congress to be more careful before it acts again. It might push it not to act again at all. This, again, in my view would be bad. But in this lull, the threats that it will act, and the cajoling of the President to get private interests to act, are changing the architecture of the net. The threat now is not so much a regulation by Congress; the threat now a regulation by the code. Our attention must be on how the architecture of the net is regulation — what its values are, and what the government's role is in making the values as they will be.

Our tradition is to fear government's regulation, and turn a blind eye to private regulation. Our intuitions are trained against laws, not against code. But my argument in this essay has been that we understand the values implicit in the internet's architecture as well as the values implicit in laws. And they would be as critical of the values within the architecture as we are of the values within the law.

America gave the world the internet, and thereby, the world an extraordinarily significant free speech context. We are now changing that architecture. My concern is that our change not take away what the internet originally gave.

APPENDIX

	Program Name	Categories	Rating/Evaluating Systems Used
xstop.com	X-STOP	List of “trigger” words that will block sites is claimed to be proprietary information. Includes ethnic, racial, and foul words, pornography, and sites with dangerous information like bomb-making instructions. No other “categories” were revealed.	MUDCRAWLER searches out pornography and other types of sites on the Internet using 44 criteria. Once site is flagged, it is no longer accessible. List of “trigger” words can be customized.
intergo.com	Safe Search	4 categories with 5 settings for each category: Violence, Nudity, Sex, Language	RSAC
intergo.com	Safe Search	9 categories with 9 settings for each category: Profanity, Violence, Nudity, Heterosexuality, Sex and Violence, Drug use, Homosexuality, Bigotry, Other	SafeSurf
microsys.com	Cyber Patrol	12 categories: Partial Nudity; Nudity; Sexual Acts/Text; Gross Depictions; Intolerance; Satanic or Cult; Drugs and Drug Culture; Militant/Extremist; Violence/Profanity; Questionable/Illegal & Gambling; Sex Education; and Alcohol & Tobacco. Four other categories can be personalized/added.	The sites on the CyberNOT List and the CyberYES List are reviewed by a team of professionals at Microsystems Software, including parents and teachers. Updated weekly.
net-nanny.com	Net Nanny	Trigger words and phrases provided by list can basically be divided into several categories: Sex; Violence; Drugs/Alcohol; Militant/Extremist. Unfortunately, it was difficult to tell what some of the blocked sites were about by their URL’s.	Net Nanny screens out user defined ‘Words’, ‘Phrases’, and Content that user determines is inappropriate. Basically completely user defined. Web site provides biweekly updated list of questionable sites for users to screen themselves.
netshepherd.com (sheperd.com did not exist)	Net Shepherd	2 scales: Maturity Rating (measures maturity level required to view content, age specific, based on subjective opinion) and Quality Rating (refers to text, graphics, etc.)	Uses a “rating community” representative to rate various sites
newview.com	PlanetView	13 categories: Advertising; Gay, Lesbian, & Transgender Subjects; Bulletin Boards; Cartoon Violence; Gambling; Games; Nudity;	Simple age-based Web page filtering, with capabilities for customization. Can also

		Politics; Religion; Sexual Material; Speech/Content; Text; Violence	restrict access to chat groups and file transfers
surfwatch.com	Surfwatch	4 main categories: Sexually explicit; Violence/hate speech; Drugs/alcohol; Gambling	SurfWatch employs people to locate questionable sites. "Eyes on page" content evaluation is supplemented by pattern blocking technology which detects words that indicate inappropriate content.
solidoak.com	CYBER-sitter	7 categories: Advertising; Adult or sexual issues; Illegal activities; Bigotry; Racism; Drugs; Pornography	Uses phrase filtering function. Rather than block single words or pre-defined phrases, CYBERSitter looks at how the word or phrase is used in context. Provides automatically downloaded lists of questionable sites.