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Essay

The Internet and the
Dormant Commerce Clause

Jack L. Goldsmith and Alan O. Sykes

First-generation Internet thinkers maintained that Internet communications could not be subjected to local regulation. The argument went as follows: Internet content providers can inexpensively send content via the Internet into every territorial jurisdiction in the world. Territorial governments cannot stop this content at the border and cannot assert regulatory control over the content source located abroad. If governments try to filter content at the border, information can easily be rerouted. And if some governments happen to assert regulatory control over a content provider or its assets, the provider can cheaply and easily relocate to a permissive jurisdiction and continue sending content worldwide from there.

Events during the past five or so years have demonstrated that this conception of the Internet is wrong, or at least incomplete. Contrary to early predictions, governments have taken a variety of steps within their borders to regulate Internet content flows. They have, for example, regulated users, hardware and software, Internet service providers, and

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2. For a comprehensive critique, see LAWRENCE LESSIG, CODE AND OTHER LAWS OF CYBERSPACE (1999).

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financial institutions within their territory. These purely territorial regulations have raised the cost of transmitting and receiving Internet content, and have affected the price and availability of content even when it originates elsewhere.\(^3\)

Many now complain that the Internet is threatened by a patchwork of state, national, and international regulations, and scores of lawsuits have sought to invalidate them. Lawyers in the United States have employed an array of legal weapons in this effort, the most prominent being the Constitution's First Amendment.\(^4\) A less prominent but potentially more powerful weapon—at least with regard to state (as opposed to federal) Internet regulations—is the dormant Commerce Clause.

The dormant Commerce Clause is a judge-made doctrine that prohibits states from regulating in ways that unduly burden interstate commerce. To see how the dormant Commerce Clause has been applied to the Internet, consider the leading case of *American Libraries Ass'n v. Pataki*.\(^5\) *American Libraries Ass'n* enjoined enforcement of a New York statute that prohibited the intentional use of the Internet "to initiate or engage" in certain pornographic communications deemed to be "harmful to minors."\(^6\) In enjoining enforcement of the law, the *American Libraries Ass'n* court reasoned as follows: Because it is difficult for content providers to control access to their websites and communications, a content provider outside New York might inadvertently send proscribed content into New York. Fear of liability in New York thus might chill the activities of a content provider operating legally in California, thereby affecting legitimate commerce wholly outside New York. Moreover, because states regulate pornographic communications differently, "a single actor might be subject to haphazard, uncoordinated, and even outright inconsistent regulation by states that the actor never intended to reach and possibly was unaware were being accessed."\(^7\) These extraordinary burdens on Internet communication were said to outweigh any regulatory benefit in New York. In sum, "the Internet is one of those areas of commerce that must be marked off as a national preserve to protect users from inconsistent legislation that, taken to its most extreme, could paralyze development of the Internet altogether."\(^8\)

As this last sentence suggests, the reasoning of *American Libraries Ass'n* extends far beyond the regulation at issue in that case. In fact, the

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8. *Id.* at 169.
dormant Commerce Clause argument, if accepted, threatens to invalidate nearly every state regulation of Internet communications. For under the logic of *American Libraries Ass'n*, nearly every state regulation of Internet communications will have the extraterritorial consequences the court bemoaned. This explains why the dormant Commerce Clause has been called "a nuclear bomb of a legal theory" against state Internet regulations. And indeed, many courts have followed the logic of *American Libraries Ass'n*. The decided cases have mostly involved pornography regulations and antispam statutes. But the logic of *American Libraries Ass'n* and the cases that follow its reasoning extends to state antigambling laws, computer crime laws, various consumer protection laws, libel laws, licensing laws, and many more.

Many academic commentators support the emerging conventional wisdom among courts that the dormant Commerce Clause requires invalidation of state Internet communication regulations. In this Essay, we take issue with this conventional wisdom, which is flawed in three respects: It rests on an impoverished understanding of the architecture of the Internet, it misreads dormant Commerce Clause jurisprudence, and it misunderstands the economics of state regulation of transborder transactions. We do not argue that state regulation of Internet communications should be immune from dormant Commerce Clause scrutiny. Such a general conclusion would be inappropriate because different state regulations raise different empirical and technical issues that remain unresolved. Our aim is simply to deflate the emerging conventional wisdom, and to show that the dormant Commerce Clause, properly understood, leaves states with much more flexibility to regulate Internet transactions than is commonly thought.

The analysis proceeds as follows: Part I reviews dormant Commerce Clause principles and describes how they have been applied to state Internet regulations. Part II explains why economic efficiency is the appropriate normative criterion under the dormant Commerce Clause and supplies the economic analysis needed to understand how the Clause should apply to

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10. See cases cited infra notes 45, 57-58, 161.


12. Indeed, an important conclusion of our Essay is that one cannot assess the validity under the dormant Commerce Clause of state Internet regulations taken as a whole; rather, the analysis depends very much on the type of Internet service, the costs of geographical identification and filtering associated with that service, the type of regulation, the nature of the penalties, and more.
Internet regulations. This analysis also contributes to dormant Commerce Clause theory generally by bringing theoretical clarity to the "extraterritoriality" and "inconsistent regulations" prongs of dormant Commerce Clause doctrine. Part III then explains why dormant Commerce Clause analyses of state Internet regulations to date have been flawed. The focus in Part III is on the two types of state Internet regulation that have been most frequently litigated: prohibitions on pornographic communication with minors and antispam statutes. The final Part extends the analysis to other state Internet regulations and comments on the treatment of these issues under international law.

I. THE DORMANT COMMERCE CLAUSE AND THE INTERNET: EMERGING CONVENTIONAL WISDOM

In this Part, we briefly review standard dormant Commerce Clause principles, and then describe how those principles have been applied to state regulations of the Internet.

A. The Dormant Commerce Clause

Article I of the Constitution gives Congress the power to regulate commerce "among the several States." 13 Even in the absence of affirmative congressional regulation of interstate commerce, the Supreme Court has long invoked the "dormant" Commerce Clause as a basis for judicial preemption of state law that unduly burdens interstate commerce. The Court has devised a number of tests to serve this end.

The dormant Commerce Clause's central prohibition is on protectionist state legislation that discriminates against out-of-staters. 14 If a state law discriminates against out-of-staters, it is subject to "the strictest scrutiny of any purported legitimate local purpose and of the absence of nondiscriminatory alternatives." 15 Discriminatory state regulations rarely satisfy this standard. 16 A second dormant Commerce Clause test applies when a state law is nondiscriminatory on its face but nonetheless impinges on interstate commerce. In this context the Court applies a balancing test: "Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it

16. A rare exception is found in Maine v. Taylor, 477 U.S. 131 (1986), which upheld a ban on the importation of bait fish.
will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.” 17

The heightened scrutiny test for discriminatory state legislation and the balancing test for neutral state legislation that burdens interstate commerce form the core of dormant Commerce Clause jurisprudence. The dormant Commerce Clause, however, is also said to prohibit certain state laws that regulate extraterritorially and others that lead to inconsistent regulatory burdens. These aspects of the dormant Commerce Clause are unsettled and poorly understood, but they play an important role in the Internet cases.

The Supreme Court sometimes invalidates state legislation on the ground that it regulates extraterritorially. Consider Healy v. Beer Institute, 18 which involved a challenge to a Connecticut law requiring beer companies to post prices monthly and affirm that they were not higher than in three contiguous states. The statute had the effect of limiting the ability of out-of-state beer shippers to alter their prices outside of Connecticut during the month in which they had affirmed prices in Connecticut. After noting that the “critical inquiry” under the dormant Commerce Clause “is whether the practical effect of the regulation is to control conduct beyond the boundaries of the State,” 19 the Court invalidated the statute. It reasoned that the Connecticut law had the “extraterritorial effect . . . of preventing brewers from undertaking competitive pricing in Massachusetts based on prevailing market conditions.” 20 On similar grounds, the Court has struck down a liquor price affirmation scheme 21 and an Illinois antitakeover law that governed communications between out-of-state acquiring corporations and the out-of-state shareholders of acquirees. 22

The scope of the extraterritoriality principle is unclear. 23 The Full Faith and Credit and Due Process Clauses prohibit states from regulating out-of-state conduct unless the conduct creates a “significant contact” or “significant aggregation of contacts” with the state. 24 Supreme Court dicta suggest that the extraterritoriality prong of the dormant Commerce Clause goes further and “precludes the application of a state statute to commerce that takes place wholly outside of the State’s borders, whether or not the

19. Id. at 336.
20. Id. at 338.
commerce has effects within the State." This formulation is clearly too broad. Scores of state laws validly apply to and regulate extrastate commercial conduct that produces harmful local effects. In Part II, we try to bring clarity to the dormant Commerce Clause’s concern with extraterritorial regulation.

The dormant Commerce Clause also prohibits state regulations that "adversely affect interstate commerce by subjecting activities to inconsistent regulations." The meaning of the inconsistent-regulations test is also unclear. It does not, for example, mandate state-law uniformity; despite the dormant Commerce Clause, firms that operate in interstate commerce often face different regulations in different states. To take two of dozens of examples, the dormant Commerce Clause permits states to apply local conceptions of tort law (say, strict liability) to multistate corporate activity with a local contact, even if other states apply different tort regimes (say, negligence), and it permits states to apply different blue-sky laws to the same multistate securities offering. Part II offers an account of the inconsistent-regulations concern that accommodates such nonuniformity.

B. The Internet Context

An emerging conventional wisdom among courts and scholars reads these dormant Commerce Clause principles to require the invalidation of much state Internet regulation. Two types of state Internet regulation have received the most attention: statutes regulating pornographic communication with minors and antispam statutes.

1. Pornographic Communication with Minors

Several courts have applied the dormant Commerce Clause to state criminal laws concerning Internet transmissions of pornographic materials to minors. The leading case is American Libraries Ass'n v. Pataki. American Libraries Ass'n concerned the validity of a New York statute that prohibited intentional use of the Internet "to initiate or engage" in

25. Healy, 491 U.S. at 336 (quoting MITE, 457 U.S. at 642-43 (plurality opinion)) (emphasis added).
26. Such cases form the bread and butter of the field of conflict of laws. See, e.g., Wood v. Hustler Magazine, Inc., 736 F.2d 1084 (5th Cir. 1984) (holding that Texas law applies for an invasion of privacy caused by a publication in California); Rutherford v. Goodyear Tire & Rubber Co., 943 F. Supp. 789, 790-91 (W.D. Ky. 1996) (holding that Indiana product-design law governs even though products were designed in other states), aff'd, 142 F.3d 436 (6th Cir. 1998).
29. MITE, 457 U.S. at 641 (plurality opinion).
communications "harmful to minors" that depict "actual or simulated nudity, sexual conduct or sado-masochistic abuse." 31 The statute established defenses to prosecution for defendants who, among other things, (1) make a reasonable effort to ascertain the minor's true age; (2) make a reasonable effort to prevent minors from accessing proscribed materials, including "any method which is feasible under available technology"; (3) restrict minors' access by requiring use of a verified credit card or adult personal identification number; or (4) label content in a way that facilitates blocking or screening. 32 Violations of the statute are punishable by one to four years of incarceration. 33

In enjoining enforcement of the New York statute, the court began with several claims about the architecture of the Internet. These claims played a crucial role in its dormant Commerce Clause analysis and have been embraced by other courts. The court first noted that information transmitted via the Internet can appear simultaneously in every state. As a result, "[o]nce a provider posts content on the Internet, it is available to all other Internet users worldwide." 34 Second, "Internet users have no way to determine the characteristics of their audience that are salient under the New York Act—age and geographic location." 35 The court acknowledged that credit card verification, content filtering, and adult identification technologies can facilitate some geographical and identity discrimination on the Internet. 36 But it maintained that the costs associated with these technologies were "excessive" and that the technologies were imperfect in any event. 37 The court concluded that "no user could avoid liability under the New York Act simply by directing his or her communications elsewhere, given that there is no feasible way to preclude New Yorkers from accessing a Web site, receiving a mail exploder message or a newsgroup posting, or participating in a chat room." 38

Based on these factual premises, the court gave three reasons why the New York statute violated the dormant Commerce Clause. First, the statute exposed to liability, and thus chilled, the activities of persons outside New York who had no intention of communicating with persons in New York.

31. N.Y. PENAL LAW §§ 235.20(6), .21(3) (McKinney, WESTLAW through 2000 legislation). The Act defines a communication as "harmful to minors" if it (a) "appeals to the prurient interest in sex of minors," (b) "[i]s patently offensive to prevailing standards" concerning material suitable for minors, and (c) "lacks serious literary, artistic, political and scientific value for minors." Id. § 235.20(6).
32. Id. § 235.21(3).
33. Id. § 70.00; see id. § 235.21.
35. Id.
36. Id. at 166-67.
37. Id. at 180 (citing ACLU, 929 F. Supp. at 855-56).
38. Id. at 171.
The statute thus imposed costs on wholly out-of-state conduct. For example, the court noted that fear of liability in New York might lead an out-of-state bookseller to remove a book from its website, thus precluding it from selling the book in its home state and in third states where such sales would be legal. 39

Second, the court held that the statute’s out-of-state burdens outweighed its local benefits. The court acknowledged that protection of children against exposure to pornography was a legitimate state objective. It reasoned, however, that the statute’s local benefits were “limited” by the fact that it only applied to pictorial messages 40 and could not regulate communications from outside the United States. 41 The court also asserted that the act’s out-of-state harms were “extreme” because the act applied to every transaction in the world, and its chilling effect would dramatically exceed the cases actually prosecuted. 42

Third, the court asserted that the statute was invalid because it subjected out-of-state Internet users to inconsistent burdens. The court noted that every state could enact legislation governing indecent Internet communications to minors. Every out-of-state content provider would then need to comply with the New York regulation and every other state’s related regulation. This in turn would mean that every out-of-state content provider would be forced to comply with the most restrictive state’s regulation even if she did not intend to communicate with persons in the regulating jurisdiction. The court concluded that such a “haphazard and uncoordinated” 43 patchwork of state Internet regulations violated the dormant Commerce Clause. 44

Several courts have followed the reasoning of American Libraries Ass’n in invalidating statutes similar to the New York statute. 45 Other courts have distinguished American Libraries Ass’n when a state prohibition on pornographic Internet communications with minors included an element of “luring” or “seducing” the minor into illicit sexual relations. 46 These

39. Id. at 173-77.
40. Id. at 179.
41. Id. at 178.
42. Id. at 177-81.
43. Id. at 183.
44. Id. at 181-84.
45. See ACLU v. Johnson, 194 F.3d 1149 (10th Cir. 1999) (invalidating under the dormant Commerce Clause a New Mexico statute criminalizing dissemination by computer of materials harmful to minors); PSINet, Inc. v. Chapman, 108 F. Supp. 2d 611 (W.D. Va. 2000) (enjoining enforcement of a Virginia pornographic communication law at the preliminary injunction stage, in part on dormant Commerce Clause grounds); Cyberspace Communications, Inc. v. Engler, 55 F. Supp. 2d 737 (E.D. Mich. 1999) (invalidating under the dormant Commerce Clause a Michigan statute criminalizing the use of computers to distribute sexually explicit materials to minors).
courts reason that the "luring" element eliminates any genuine commercial value in the regulated activity. They also assert that there is no reason to think state prosecutors will enforce the law against out-of-state seducers.

2. **Antispam Laws**

Spam is unsolicited e-mail messages, usually sent to many recipients at one time. At least eighteen states have enacted antispam legislation of some sort. Here we discuss the statutes of California and Washington, which have been subject to legal challenge.

California’s antispam law applies to persons “conducted business” in California. It requires the sender of unsolicited e-mails to include pertinent terms in the subject line (such as “ADV” for “advertisement” or “ADLT” for “adult material”) and to provide an easy means for the receiver to notify the sender to cease sending such e-mails. Each violation of the California statute can result in a $1000 fine, six months imprisonment, or both, as well as a civil action for injunctive relief.

The Washington statute, by contrast, applies to anyone who sends e-mail from a computer located in Washington or to an e-mail address that the sender knows or has reason to know is held by a Washington resident. It prohibits spam that disguises the true origin of the message, that contains false or misleading information in the subject line, or that uses a third party’s e-mail address without permission. Washington residents who receive spam in violation of the Act may sue for civil damages in the amount of $500 per violation or actual damages, whichever is greater.

Defendants in California and Washington, invoking American Libraries Ass’n, have argued that the antispam statutes regulate extraterritorially, create inconsistent obligations, and impose burdens on interstate commerce that outweigh their local benefits. State courts in these states have subsequently invalidated their respective antispam laws under the dormant Commerce Clause. The Washington court’s analysis was the more extensive than that of the California court. The Washington court started

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47. Foley, 709 N.Y.S.2d at 477.
50. CAL. BUS. & PROF. CODE § 17538.4 (West 2000).
51. Id.
52. Id. § 17538(f).
53. Id. § 17538.45(f).
55. Id.
56. Id. § 19.190.040.
57. The California court simply issued a conclusory order asserting that the California law “unconstitutionally subjects interstate use of the Internet to inconsistent regulations, therefore
from the factual premises that the Internet "doesn’t recognize geographical boundaries" and that potential spammers could not determine the geographical location of someone with an Internet e-mail address. The court thought state regulation of spam might subject spammers to "fifty different standards of conduct" and that these "inconsistent regulatory schemes could paralyze development of the Internet altogether." For these reasons, the court concluded that the Washington statute was "unduly restrictive and burdensome" of interstate commerce.

II. SOME SIMPLE ECONOMICS OF THE DORMANT COMMERCE CLAUSE AND THE REGULATION OF CROSS-BORDER EXTERNALITIES

The activities that are the subject of Internet regulation and associated dormant Commerce Clause litigation are valuable to some individuals. Pornographic websites provide the opportunity for consumers who desire such material to purchase it. Bulk e-mail advertising provides information that is valuable to some consumers who respond by purchasing the advertised goods and services.

But these activities also cause harms. One by-product of the opportunity for adults to purchase pornographic material over the Internet is that some minors might access the material, contrary to the wishes and judgment of their parents. A by-product of bulk e-mail advertising is that some individuals may be inundated with solicitations that they do not desire and that are costly to distinguish from useful e-mail that they need to read. Economists call these harms "nonpecuniary externalities," a term that may seem more familiar when used in reference to harms such as pollution. The harm to minors associated with pornography on the Internet and the harm to consumers from unwanted bulk e-mail are much like the harm to the neighbors of a cement mill. All of these harms befall third parties who violating the dormant Commerce Clause." Ferguson v. Friendfinder, Inc., No. 307309, at 2 (Cal. Super. Ct. June 2, 2000) (order sustaining demurrer).


59. Id.


61. A nonpecuniary externality is conventionally defined as a harm or benefit from a transaction that is not transmitted through the price system. A pecuniary externality, by contrast, is reflected in prices. Pollution from an industry that harms people other than those in the industry itself and its customers is the paradigm example of a nonpecuniary externality. The harm to an unsuccessful bidder at an auction (the loss of an opportunity to consummate a purchase at a favorable price) that results from being outbid is an example of a pecuniary externality. Only nonpecuniary externalities are a source of "market failure" that may warrant corrective intervention. DAVID D. FRIEDMAN, PRICE THEORY: AN INTERMEDIATE TEXT 517-26 (2d ed. 1990).
are not involved in the transactions that support the activity that generates the harm.

State regulations of pornographic communications and state antispam laws can in principle redress these in-state third-party harms. The problem is that these state regulations can impose costs outside the state. The decisions striking down Internet regulations under the dormant Commerce Clause suggest that such out-of-state costs render the regulations illegitimate.

Yet many state regulations of transjurisdictional activities affect out-of-state costs. Nuisance actions against polluters across the border will assuredly affect their costs; so too will products liability actions against out-of-state manufacturers, local obscenity restrictions on real-space pornography providers, and state blue-sky registration requirements on multijurisdictional issuers. The dormant Commerce Clause plainly does not strike down all such local regulations simply because of their extraterritorial effect. How can one tell when these costs are appropriate and when they are not? What is it about the out-of-state costs of Internet regulations that renders them suspect?

Before proceeding to these questions, we should say a word about the use of economic efficiency to inform our analysis of the dormant Commerce Clause. Courts and commentators offer two theoretical justifications for the dormant Commerce Clause. The primary justification is that the dormant Commerce Clause ensures free trade among the states and thereby secures the associated economic benefits. This justification is directly grounded in economic efficiency and thus supports the use of efficiency as a normative gauge for policy.

A secondary justification for the dormant Commerce Clause is that it protects out-of-state actors who are burdened by a state’s regulation but lack a voice in the political process that generates it. The difficulty with the process justification, however, is that it sweeps too broadly. Innumerable state laws affect outsiders, and no one thinks that all (or even most) of these laws violate the dormant Commerce Clause. What is needed is a way to distinguish legitimate from illegitimate out-of-state effects. Our economic perspective does just this by distinguishing between state regulations that enhance overall economic welfare despite their


extraterritorial effects and state regulations that lower overall economic welfare. In this manner, we unify the efficiency and process justifications for the dormant Commerce Clause in a way that is consistent with much of the pertinent case law. The economic perspective also allows us to bring some theoretical coherence to the otherwise undertheorized notions of extraterritoriality and inconsistency that play an important role in the Internet cases.

A. Decentralized Regulation, Protectionism, and Discrimination

The costs and benefits of regulation often vary geographically. Citizens of wealthier jurisdictions, for example, may be willing to pay more to protect health, safety, the environment, and the like than citizens of poorer jurisdictions. The tastes of citizens may also vary across jurisdictions in ways that affect the costs and benefits of regulation. Prevailing attitudes toward gambling and sexually oriented materials, for instance, may depend on the religious and cultural backgrounds of the local citizenry. Finally, geographic factors may directly affect the value of regulation; auto emissions are much more likely to cause dangerous concentrations of pollutants in the Los Angeles basin than on the open prairie. For such reasons, the benefits that a local citizenry derives from a particular regulation, and its willingness to bear the costs, will commonly differ across jurisdictions. The optimal regulatory policy will differ across jurisdictions as well.

It follows that regulatory uniformity is often undesirable. Of course, central governments can enact regulatory policies that vary across their territories (although they rarely do, at least in the United States). To complete the case for letting lower levels of government pursue their own regulatory policies, therefore, one must further believe that lower levels of government are better able to ascertain and implement the best regulatory policy for the local citizenry than the central government. This situation plausibly arises much of the time. Local government officials will often be drawn from the local population and will have closer connections to local constituencies, resulting in better knowledge of local preferences about regulatory issues. Local representatives to central governments will often represent a small minority of the central governing bodies and have insufficient influence on policy outcomes to ensure the proper degree of regulatory heterogeneity.

64. Several prominent treatments of the dormant Commerce Clause have used economic efficiency as the touchstone for harmonizing the economic and process rationales for the doctrine. E.g., Saul Levmore, Interstate Exploitation and Judicial Intervention, 69 VA. L. REV. 563, 567-68 (1983); Mark Tushnet, Rethinking the Dormant Commerce Clause, 1979 WIS. L. REV. 125, 130-40.
This is the essence of the case for decentralized regulation, and it seems to us to have no less force in the Internet context than elsewhere. There is no reason to suppose, for example, that the perceived harm to minors from access to pornographic material will be the same everywhere regardless of the cultural and religious background of the citizenry, or that e-mail users everywhere will react to common forms of spam (for example, sexually oriented advertisements) in the same manner.

But decentralized regulation is not without its problems. One problem is that the political process in any jurisdiction may fail to pursue policies that are in the best interests of its citizens as a whole. Individuals and other entities with large stakes in a policy outcome will organize to influence it; those with smaller stakes often will not bother. Policies that are on balance undesirable may thus be enacted if the costs are diffused widely enough that resistance is ineffective.

A common example is trade protectionism. Economic theory holds that when a jurisdiction undertakes to insulate its producers from competition through restrictions on the importation of goods and services, overall economic welfare declines as the losses to in-state consumers and out-of-state producers exceed the gains to the protected in-state producers. Protectionist policies nevertheless may be politically attractive in many cases because the beneficiaries are often well-organized groups of in-state firms. As mentioned above, the central purpose of the dormant Commerce Clause is to prevent such protectionism, and the primary judicial tool for effectuating this purpose is a prohibition on state regulations that discriminate against out-of-state actors. The bulk of the Supreme Court's

65. For a general theoretical treatment, see, for example, WALLACE E. OATES, FISCAL FEDERALISM 11-13, 54-63 (1972). For application in the American federal context, see, for example, Michael W. McConnell, Federalism: Evaluating the Founders’ Design, 54 U. CHI. L. REV. 1484, 1504 (1987). For application in the international context, see, for example, Alan O. Sykes, The (Limited) Role of Regulatory Harmonization in International Goods and Services Markets, 2 J. INT’L ECON. L. 49 (1999).

66. See generally JAMES M. BUCHANAN & GORDON TULLOCK, THE CALCULUS OF CONSENT (1962) (discussing the role of interest groups in legislation in various voting systems); MANCUR OLSON, THE LOGIC OF COLLECTIVE ACTION (1965) (discussing the formation and effectiveness of pressure groups).

67. Such restrictions reduce competition and raise prices. A welfare loss occurs because goods or services are purchased from higher-cost domestic suppliers rather than lower-cost foreign suppliers, and because higher prices cause some consumers to exit the market even though they could benefit from transacting at the lower price that protectionism forecloses. FRIEDMAN, supra note 61, at 537-42; PETER H. LINDERT, INTERNATIONAL ECONOMICS 123-26 (9th ed. 1991). Some caveats exist, but none are essential to what follows and they need not detain us.

68. Supra text accompanying notes 14-16, 62. To see why discrimination against outsiders serves as a marker for protectionism, consider an environmental law that requires pollution-control devices on foreign-manufactured automobiles but not on locally manufactured automobiles. It is difficult to imagine a justification for such a nonneutral policy other than a desire on the part of local regulators to confer a cost advantage on local manufacturers and thus to protect them to a degree from the consequences of foreign competition (or, equivalently, a desire to shift the costs of regulation to foreign firms). A welfare loss arises because discriminatory
dormant Commerce Clause cases—especially in recent years—has indeed concerned discriminatory state legislation that suggests underlying protectionism.\textsuperscript{69}

The protectionist concern, however, is not generally implicated by the Internet pornography and spam cases. The porn and spam regulations apply equally to in-state and out-of-state content providers, and there is no independent reason to believe that they are a pretense for protectionism. Instead, the Internet cases implicate a different efficiency problem with decentralized regulation, a problem that has not been well-theorized in either the dormant Commerce Clause cases or the literature. This is the problem presented by state regulation of cross-border externalities.

B. Some Economics of Externalities and Corrective Measures

Suppose that an agricultural operation in one state draws water from a stream that flows into another state. The first state may have little incentive to regulate water consumption by its agricultural operation, even if the result would be that little water is left for downstream users in the other state and that the total value of the states' combined agricultural production could be increased if the upstream user were to engage in efforts to conserve water. The potential regulatory failure here arises because of a nonpecuniary externality that affects citizens outside of the regulating state. Because of collective action problems and other transaction cost issues, market solutions to nonpecuniary externalities often will not emerge; the individuals harmed by externalities are often unable to act collectively to purchase relief.\textsuperscript{70} The result, absent appropriate government action, is an economically excessive scale of the activity producing the external harm and an excessive level of the harm itself.

Figure 1 illustrates this problem without reference to jurisdictional borders. The horizontal axis represents the quantity produced of some good or service. The vertical axis is dollars. The downward-sloping function $D$ represents the demand for the good or service by consumers at any given price. The upward sloping-function $S$ represents the supply of the good or service from the (assumed competitive) industry at any price. That supply is determined by (and equal to) the industry's marginal cost of production at


\textsuperscript{70} R.H. Coase, The Problem of Social Cost, 3 J.L. & ECON. 1, 16-17 (1960).
each level of output. Assume, however, that each unit of output imposes a harm equal to $t$ on individuals who are not party to the transaction between the buyers and sellers. Then the "social marginal cost" of production in this industry is $S + t$, which is also depicted in the figure.

We assume that the individuals suffering the harm of $t$ per unit of output are unable to organize themselves to "bribe" the producer of the good or service to abate the harm. We also assume initially that nothing is done by the government about the harm. Competitive equilibrium then occurs where supply and consumer demand balance—where $S$ and $D$ intersect. The resulting price and quantity are denoted $P^c$ and $Q^c$, respectively. This level of output is economically excessive, however, because price is below the social marginal cost of production ($P^c < S + t$ at $Q^c$). That is, the value of the last unit of output to the marginal consumer is $P^c$, but the marginal cost of that unit of output to society exceeds that amount (by the value of the external harm $t$). The economically efficient level of output in this industry (assuming for the moment that abatement of the harm through means other than a reduction in output is infeasible) is instead determined by the intersection of the functions $D$ and $S + t$ at the quantity $Q^o < Q^c$ and price $P^o > P^c$. At this level of output, consumers value all units of output at an amount that equals or exceeds their social marginal cost of production.

71. A competitive industry will produce output as long as the price equals or exceeds marginal cost. Thus, the last unit produced at any price will have a marginal cost equal to the price.
This analysis makes out the standard case for government intervention to repair the market failure caused by the externality. If the government knows about the externality and the magnitude of the associated harm, it can impose a corrective tax (often termed a Pigouvian tax) equal to \( t \) on each transaction in the industry. Consumers then face the supply curve \( S + t \) instead of \( S \), and the new competitive equilibrium will occur at the efficient point where \( D \) and \( S + t \) intersect. Such a Pigouvian tax, set at the proper level, forces the parties to the transactions that create the external harm to internalize the externality. That is, the purchasers of the good or service that causes the external harm now bear not only the marginal cost of producing the good or service to the firm that sells it, but also the marginal cost of the external harm to third parties. They respond by purchasing the good or service only up to the point where their valuation of it would no longer cover the social marginal cost of production. Putting aside the administrative costs of this system, the result of a properly calibrated Pigouvian tax is to induce the market to behave efficiently.

In the environmental arena, this proposition supports what is often known as the "polluter pays" principle.

Of course, Pigouvian taxes are not the only possible solution to externality problems. Criminal proceedings, private litigation, and command-and-control regulation can also address external harms, and, if they are administered and calibrated properly, they can mimic the equilibrium that results from an efficient Pigouvian tax.

It is also possible, as Coase emphasizes, that the parties affected by external harms will bargain to a satisfactory solution, even if that means that those who are victimized must pay those who create the harms to abate them. Our analysis of regulatory correctives presupposes that Coasean bargaining is not a superior solution. This assumption seems compelling in the Internet setting, as it is exceedingly unlikely that all fifty states will come together through bargaining to address the problems that have been the subject of state regulation in the area. We certainly see nothing of the sort thus far.

Up to this point in the analysis, it is of no moment whether the external harm befalls people in the same jurisdiction as the activity that creates it.

73. If partial or complete abatement of the harm is possible through means other than a reduction in output (pollution-control technology, for example), the analysis is much the same. The proper Pigouvian tax will still equal the value of the external harm from each unit of output, although the tax must adjust in accordance with whatever abatement measures are in place. Producers of the harm will then have a choice between paying the tax and investing in abatement measures that reduce or eliminate the tax. They will choose the most cost-effective option, and the resulting equilibrium with a possibly lower or zero tax due to abatement will also be efficient.
74. See Friedman, supra note 61, at 520 (discussing effluent fees charged to polluters).
75. Coase, supra note 70, at 6-8.
Likewise, if the harm does cross jurisdictional boundaries, it matters not in principle which jurisdiction takes the corrective action.

If we add a political economy dimension to the analysis, however, we might predict that the citizenship of the individuals harmed by an externality and of those benefiting from the transactions that generate it may well affect the likely locus of any corrective response. The parties to the transactions that create the externality may derive little or no benefit from the corrective measures, and hence may be unlikely to pressure their governing officials to fix the problem. By contrast, those who are harmed by the externality may well demand political action to ameliorate it. Where the latter group is concentrated in a particular jurisdiction, therefore, we might predict that this jurisdiction will be the most likely candidate to attempt intervention.

If the jurisdiction in which the harm arises takes appropriately measured action, calibrated as above to the magnitude of the harm caused by the externality, it can correct the problem and induce an efficient equilibrium as in Figure 1. Plainly, such corrective action will have consequences outside of the jurisdiction taking action. The price charged to consumers of the good or service associated with the externality will rise (in Figure 1, from $P_c$ to $P^O$) wherever the consumers are located. The aggregate profits of firms producing the good or service at issue will fall.\footnote{76. This effect can be seen in Figure 1 as a decline in the producer surplus earned by sellers. In the initial competitive equilibrium, producer surplus is depicted as the area below the dashed line at $P_c$, above the function $S$, and to the left of the function $D$. After the corrective tax is imposed, producer surplus falls to the area below the dashed line at $P^O$, above $S + \tau$, and to the left of $D$.} Notwithstanding the fact that these costs may be borne to a great extent by people outside of the jurisdiction taking corrective action, they are fully consistent with that action producing a gain in economic welfare from an internalization of the externality.

Of course, if the external harm from a transaction falls primarily in one jurisdiction, and the benefits of the transaction fall primarily in others, a simple political economy analysis raises a cautionary flag.\footnote{77. See Fischel, \textit{supra} note 28, at 75; Levmore, \textit{supra} note 64, at 570-75.} Often, as in Figure 1, some level of the external harm is economically desirable because the costs of eliminating it would exceed the benefits. But if the jurisdiction taking action sees only the harm and none of the benefits, it may be motivated to take excessive corrective action. If the harm from a unit of output is $\tau$, as in Figure 1, but a jurisdiction imposes in some fashion a tax or penalty greater than $\tau$ per unit of output, price will be forced above its efficient level ($P^O$) and output will be reduced below its efficient level ($Q^O$). If the tax is large enough, overall economic welfare can decline.
Thus, where harms cross jurisdictional boundaries, there may at times be a need for some mechanism to ensure that corrective measures are properly calibrated. Mechanisms may also be necessary to ensure that properly calibrated correctives imposed by one jurisdiction are effective in another. The mere fact that measures undertaken by one jurisdiction have effects on citizens elsewhere, however, is by itself no objection to them. As Figure 1 suggests, one state’s regulation of cross-border externalities will typically cause prices to rise and output to fall for the out-of-state industries that generate the externalities. From an economic standpoint, the issue is not whether correction of cross-border externalities will produce these out-of-state effects, but rather whether the magnitude of these effects is appropriate.

C. *Balancing, Extraterritoriality, and Inconsistent Regulations*

The Internet cases involve one state regulating cross-border harms caused by Internet communications that originate in another state. Courts applying the dormant Commerce Clause address these regulations under the rubrics of balancing analysis, extraterritoriality, and inconsistent regulations. Below we offer observations from the economic perspective on the proper interpretation of these three strands of doctrine. Our analysis is limited to cases in which states police externalities, and may not afford a complete perspective on the dormant Commerce Clause in other factual contexts.  

1. *Balancing Analysis*

As we illustrated in the preceding Section, appropriate correctives for nonpecuniary externalities yield net welfare gains to society as a whole. When a proper corrective tax is imposed, the losses to the consumers (from higher prices) and the producers (from lower profits) are exceeded by the gains to the regulating state (in tax revenue) plus the gains to those harmed by the externality (from a reduced level of harm). This remains true when the producers of the good or service in question are outside of the regulating jurisdiction—along with many, if not all, of the consumers—and those hurt by the external harm are primarily inside the regulating jurisdiction.

To recast this point in the language of balancing, we can say that the benefits to the regulating jurisdiction and its citizens exceed the losses to those outside the jurisdiction; that is, the regulatory benefits exceed the

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78. *E.g.*, Quill Corp. v. North Dakota, 504 U.S. 298 (1992) (holding that the dormant Commerce Clause prohibits states from imposing a use tax on mail-order firms).
burden on commerce. Whenever regulatory policy corrects for external harms in a precisely optimal fashion, economic welfare will rise; the gains to those who benefit then exceed the losses to those who suffer. If all state regulation of external harms embodied the ideal corrective response, therefore, there would be no role for balancing analysis because the outcome of such analysis would always favor the regulation in question. But for various reasons, including limited information and defects in the political process, states may not impose the ideal corrective for external harm. When states correct for external harms in an imperfect fashion, the question arises whether they have perhaps made things worse. This question is what balancing analysis seeks to address.

To continue with our illustration, imagine that the regulating state imposes some Pigouvian tax on output in response to the external harm, but that for some reason it does not equal $t$. It is not difficult to show that any tax less than or equal to $t$ will nevertheless improve overall economic welfare (administrative costs again to the side) by inducing a reduction in output toward the social optimum. If the tax exceeds $t$, however, it is straightforward to show that output will fall below the social optimum. And if the tax exceeds $t$ by an amount that is large enough, the possibility arises that economic welfare will decline relative to the situation with no corrective for the external harm at all.

The function of balancing analysis in the scrutiny of state regulation is, in a rough way, to check whether state regulation makes things better or worse in this fashion. This conclusion says nothing, of course, about the relative competence of various institutions to perform the balancing analysis. We return to the problem of comparative institutional competence below.

2. Extraterritorial Regulation

We now offer an economic interpretation of the dormant Commerce Clause decisions that evince concern for extraterritorial regulation. As we have shown, a proper corrective measure put in place by one jurisdiction for a harm that originates elsewhere will generally have some impact outside the regulating jurisdiction. The fact that a state regulation of cross-border harms has an impact on out-of-state actors cannot by itself be the touchstone for illegality under the extraterritorial-regulation strand of analysis. State regulations are routinely upheld despite what is obviously a significant impact on outside actors.

We have already offered examples for this point, but consider one more that is similar to a problem presented by Internet communications. A

79. Supra p. 795.
firm that sells real-space pornography incurs costs in identifying restrictive "community standards" (which differ not just at the state level, but also at the local level) and in tailoring the content to that community (which might entail barring the content from the community altogether). As the Supreme Court has said with respect to a "dial-a-porn" firm:

[The content provider] is free to tailor its messages, on a selective basis, if it so chooses, to the communities it chooses to serve. While [it] may be forced to incur some costs in developing and implementing a system for screening the locale of incoming calls, there is no constitutional impediment to enacting a law which may impose such costs on a medium electing to provide these messages. Whether [the content provider] chooses to hire operators to determine the source of the calls or engages with the telephone company to arrange for the screening and blocking of out-of-area calls or finds another means for providing messages compatible with community standards is a decision for the message provider to make. . . . If [the firm's] audience is comprised of different communities with different local standards, [it] ultimately bears the burden of complying with the prohibition on obscene messages.81

The Court made this comment in a case involving a First Amendment challenge to a federal statute. But the point is relevant to the dormant Commerce Clause as well. Real-space pornography providers typically incur costs in keeping abreast of regulatory developments in different communities and in taking steps to comply with the regulations. And yet no decision suggests that local obscenity laws in real space violate the dormant Commerce Clause. Multistate firms often face precisely this kind of cost with respect to varying state tax laws, libel laws, securities requirements, charitable registration requirements, franchise laws, tort laws, and much more.

For these reasons, extraterritoriality analysis under the dormant Commerce Clause must be more fine-grained. It must, that is, distinguish between permissible and impermissible out-of-state costs that result from the regulation of cross-border externalities. Consistent with our economic analysis, we submit that the appropriate statement of the extraterritoriality concern is that states may not impose burdens on out-of-state actors that outweigh the in-state benefits in the sense that we described above. This

80. Under the First Amendment, the constitutionality of a prohibition on obscenity turns on "community standards" that differ across (small) jurisdictions. Miller v. California, 413 U.S. 15, 24-25 (1973).

81. Sable Communications, Inc. v. FCC, 492 U.S. 115, 125-26 (1989); see also Hamling v. United States, 418 U.S. 87, 106 (1974) ("The fact that distributors . . . may be subjected to varying community standards in the various federal judicial districts . . . does not render a federal statute unconstitutional . . . ").
understanding of the extraterritoriality concern fits with the Court’s modern extraterritoriality decisions.

Consider *Edgar v. MITE Corp.*, the fount of the modern extraterritoriality decisions. *MITE* involved an Illinois antitakeover law that placed significant prior restraints on tender offers for companies that either had 10% of their shareholders in Illinois, or for which two of the following conditions were met: The corporation’s headquarters were in Illinois, it was incorporated in Illinois, or 10% of its capital and paid-in surplus were in Illinois. The plurality’s extraterritoriality analysis emphasized that the Illinois regulation did far more than necessary to protect Illinois interests. It noted that the Illinois law prohibited transactions “not only with [target company] stockholders living in Illinois, but also with those living in other States and having no connection with Illinois.” The plurality further noted that the act could even “regulate a tender offer which would not affect a single Illinois shareholder.” Immediately after describing these implications of the act, the plurality concluded that it was “therefore apparent that the Illinois statute . . . has a sweeping extraterritorial effect.” *MITE* can thus be interpreted as saying that an Illinois law with such a significant out-of-state burden on communications between noncitizens was not justified by the meager benefits achieved in Illinois.

Other extraterritoriality decisions can also be viewed in this manner. Recall *Healy*, the Connecticut case involving beer price affirmation. The Court clearly believed that Connecticut’s limitations on the price of beer sold elsewhere were an excessive response to its regulatory concern of preventing price gouging within the state. The Court expressed a similar concern in *BMW of North America, Inc. v. Gore*, in which it invoked *MITE* and *Healy* in the course of striking down, on due process grounds, an Alabama award of punitive damages that was designed to change defendant BMW’s lawful conduct in other states. As the Court explained, “Alabama may insist that BMW adhere to a particular disclosure policy in that State,” but it “does not have the power . . . to punish BMW for conduct that was lawful where it occurred and that had no impact on Alabama or its residents.”

82. 457 U.S. 624 (1982).
83. Id. at 626-27.
84. Id. at 642 (plurality opinion).
85. Id.
86. Id.
89. Id. at 572-73.
Our balancing-test gloss on the extraterritoriality decisions does not accord with some of the Court's overbroad extraterritoriality dicta. But it is consistent with the case outcomes and with the general concerns evinced in the extraterritoriality decisions. The principle thus makes room for states to apply properly calibrated correctives for cross-border harms, even if they produce out-of-state effects. In this sense it serves the dormant Commerce Clause's purpose of achieving efficiency in interstate relations. The principle also reconciles the extraterritoriality prong of the dormant Commerce Clause with the scores of choice-of-law decisions that have cross-border effects, as well as with constitutional limitations on choice of law. Finally, our gloss on extraterritoriality simplifies dormant Commerce Clause jurisprudence, for it effectively folds the extraterritoriality concern into a balancing analysis framework that asks whether a state's regulatory response to a cross-border harm is "clearly excessive" in relation to its benefits. This means, of course, that the proportionality principle suffers from the same institutional concerns as balancing analysis, a point to which we return below.

3. Inconsistent Regulations

We now turn to the inconsistent-regulations prong of dormant Commerce Clause analysis. The inconsistent-regulations cases do not concern inconsistencies in the sense that acts required in one state are prohibited in another. Rather, they concern different regulations across states that heighten compliance costs for multijurisdictional firms. There is nothing unusual about nonuniform regulations in our federal system. States are allowed to make their own regulatory judgments about scores of issues. The mere fact that states may promulgate different substantive regulations of the same activity cannot possibly be the touchstone for illegality under the dormant Commerce Clause.

A more plausible interpretation of the inconsistent-regulations concern is that nonuniform state regulations might impose compliance costs that are

90. E.g., Healy, 491 U.S. at 336 ("[A] statute that directly controls commerce occurring wholly outside the boundaries of a State exceeds the inherent limits of the enacting State's authority and is invalid regardless of whether the statute's extraterritorial reach was intended by the legislature."); MITE, 457 U.S. at 642-43 (plurality opinion) (holding that the dormant Commerce Clause "precludes the application of a state statute to commerce that takes place wholly outside of the State's borders, whether or not the commerce has effect within the state"). Moreover, it is clear that in some cases, the Court acts as if the extraterritoriality and balancing analyses are distinct. See, e.g., MITE, 457 U.S. at 641-46.


so severe that they counsel against permitting the states to regulate a particular subject matter. At the limit, actors may become subject to different regulations to such an extent that compliance becomes effectively impossible if they are to engage in interstate commerce. Similarly, firms may become subject to regulatory requirements in one jurisdiction that accomplish no more than different regulatory requirements imposed by another jurisdiction, with the result that regulatory compliance costs increase significantly for no good reason. The same regulatory benefits could be obtained at lower cost if the states simply adopted the same policies or restated their policies in terms that allowed regulated entities to comply by choosing among the various equally effective compliance options. Even in less extreme cases, the proliferation of different state regulations may impose compliance costs that outweigh any plausible regulatory benefits. Viewed this way, the inconsistent-regulations cases, too, are a variant of balancing analysis.93

This principle is also consistent with the decided cases. Begin with the transportation cases. The Court has been aggressive in invalidating state transportation safety regulations concerning rail and truck length, mudguards, and the like.94 These decisions sometimes refer to the evil of inconsistent regulations95 and sometimes make conclusory references to the need for uniformity.96 But it is clear that the cases turn on the judicial judgment that the regulatory benefits of the transportation regulation were illusory while the costs of complying with the local regulation were severe. The same is true of the inconsistent-regulations analysis in the state takeover cases. MITE made no mention of the inconsistent-regulations concern. But its successor case, CTS,97 distinguished MITE in the course of rejecting an inconsistent-regulations claim. One basis for the distinction was that Indiana’s statute was more narrowly tailored than Illinois’s, applying only to corporations incorporated in Indiana. Finally, the price-affirmation cases tie the concern with inconsistent regulations to the concern for extraterritoriality98—a concern that, as we explained above, is at bottom about the proportionality of regulatory response.

95. E.g., Bibb, 359 U.S. at 526-27.
96. E.g., S. Pac. Co., 325 U.S. at 770-71, 774.
97. 481 U.S. 69.
In sum, inconsistent-regulations cases, like extraterritoriality cases, should be viewed as just another variant of balancing analysis. One of the risks of allowing the states to regulate is the possibility that different regulatory judgments may create costs of compliance with the various state regimes that are clearly out of proportion to the benefits of permitting decentralized regulation. When this problem arises, state regulations can be struck down, leaving national regulation as an alternative, and often leaving open the possibility that less restrictive alternatives at the state level may survive scrutiny.

III. INTERNET EXTERNALITIES, STATE REGULATION, AND THE DORMANT COMMERCE CLAUSE

We now turn to the problem of Internet externalities. Should the "polluter pays" principle apply to the harm to minors from the availability of pornography and the harm to e-mail users from unwanted bulk e-mail? If so, are state regulations of these activities a reasonable way to induce the producers of Internet externalities to internalize them? Or are they excessive in one of the dimensions described above?

The answers to these questions turn on empirical matters that we cannot fully resolve, and so we do not offer definitive answers. Our aim here is to rectify the analytical confusion that prevails in the judicial decisions and commentary, and to suggest that the case against state regulation in this area is not nearly as clear or simple as the courts would seem to have it. We begin by explaining why judicial assumptions about the architecture of the Internet are flawed and why transjurisdictional control of Internet content is increasingly feasible. Against this background, we consider the balancing, extraterritoriality, and inconsistency prongs of dormant Commerce Clause analysis.

A. Identification and Filtering

The Internet dormant Commerce Clause decisions assume that content providers cannot know where or to whom content goes and cannot control the distribution of content by geography or age. These assumptions are important. For if Internet content providers could cheaply and easily identify receivers in restrictive jurisdictions, they could tailor their communications to comply with each state's law, just as multistate firms tailor their products to comply with differing state libel, consumer protection, franchise, or pornography laws. We consider the validity of these assumptions with respect to the two most important Internet services: the World Wide Web (which is at issue in the porn cases) and e-mail (which is at issue in the spam cases).
1. **World Wide Web**

   It is a mistake to claim that Web content providers cannot control content flows on the World Wide Web. They frequently do this by conditioning access to content on the presentation of payment information. They can also condition access on the presentation of geographical or age identification. The process of conditioned access can, of course, be costly. If a content receiver must establish geographical identification by sending the content provider a facsimile, or establish age identification by mailing to the content provider a copy of a driver's license, the process of content distribution slows significantly. We discuss the extent of these costs in a moment. The point for now is that the pertinent issue is not the impossibility of geographical and age identification and filtering, but rather the cost and effectiveness of these services.

   **Age Identification.** There are several ways that content providers can verify the age of a content receiver and thus, through conditioned access, block underage receivers' access to content. The most successful method is to condition access on the presentation of an adult personal identification number (PIN). In a matter of minutes and for no charge, website operators can obtain the software needed to operate this system from one of twenty-five or so adult identification firms. Website operators can earn commissions of up to sixty percent of fees generated by the adult identification services. The adult identification firms, in turn, charge approximately seventeen dollars for receivers to obtain an adult PIN (although firms are now beginning to offer the adult PINs for free). As of February 1999, one adult identification firm, Adult Check, had issued approximately three million valid PINs, and these PINs were accepted by approximately 46,000 websites.

   Age identification technology is an effective way to condition content on satisfaction of age criteria, and it can even generate revenues for the content provider. But the technology has costs as well, both to the content provider and to the receiver. The webpage operator must organize

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99. This is true, for example, of Web gambling operators, such as Planet Luck, http://www.planetluck.com (last visited Nov. 22, 2000), and of some financial service pages, such as WSJ.com (the Wall Street Journal's online page), http://www.wsj.com (last visited Nov. 22, 2000).

100. Other methods that are currently less effective include credit card verification, content-filtering software, and digital certificates.


103. ACLU v. Reno, 217 F.3d 162, 170-71 & n.15 (3d Cir. 2000). To obtain an adult PIN, one must pay by credit card online, or fax or mail an application and a check and a copy of a passport or driver's license to the adult identification firm. ACLU, 31 F. Supp. 2d at 490. The online process takes a few minutes.

104. ACLU, 31 F. Supp. 2d at 490.
prohibited content on the webpage behind the adult screen and must implement tools (provided for free by the adult identification services) to prevent fraud. Content receivers in every jurisdiction (including permissive jurisdictions) who desire to obtain content behind the adult screen must take the time to obtain an adult PIN and must pay a small sum for it. Such individuals must reveal personal information to obtain a PIN. Many find these costs to be excessive and therefore will not acquire a PIN. In turn, these costs can lead to a loss of traffic for content providers who must condition access on age identification.105

Geographical Filtering. Many of the techniques for age identification can also be used for geographical identification. For example, an address associated with a credit card can be used as proof of geographical identification. There are special costs associated with this method of identification. The credit card provides only a permanent address, and the user might be temporarily located at a computer in another jurisdiction. But this will very much be the exception rather than the rule. More significant is the fact that it currently costs hundreds and perhaps thousands of dollars to establish and maintain a credit identification system.106 There are at present no third-party firms akin to the age identification services that provide geographical PINs via credit cards.

Much more promising are developing technologies that allow webpage content providers instantly to determine the content receiver’s geographical identity on the basis of the Internet protocol (IP) address of the user’s computer.107 Several firms now provide software with algorithms that identify the geographical source of a content receiver’s IP address.108 The algorithms determine the geographical identity of the content receiver by cross-comparing results from (1) a mapping of IP addresses in the content

105. Id. at 491.
106. Id. at 488.
107. The information in this and the following paragraph is based on a technical memorandum by Infosplit.com, a leading geographical identification firm, Memorandum, Infosplit Core Technology (Sept. 25, 2000) (on file with authors) [hereinafter InfoSplit memo], as well as on interviews with two experts on geographical filtering of the Internet, Telephone Interview with Martin Hald, Xdrive.com (Sept. 18, 2000); Telephone Interview with Cyril Houri, Infosplit.com (Sept. 7, 2000), various news reports, e.g., Stefanie Olsen, Geographic Tracking Raises Opportunities, Fears, at http://www.news.cnet.com/news/0-1005-200.3424168.html (last visited Nov. 22, 2000), and the findings in the recent Yahoo decision, Ligue Contre le Racisme et L’Antisémitisme v. Yahoo! Inc., T.G.I. Paris, Nov. 20, 2000, available at http://www.juriscom.net/tx/jurisfr/cit/giparis20001120.pdf (last visited Jan. 29, 2001); infra notes 165-167 and accompanying text. This technology is in flux, and nothing in our analysis turns on the precise accuracy of this information. The point that matters is that geographical filtering is increasingly feasible at some cost, that cost is dropping, and courts should inquire into these costs on a contemporary basis in performing a dormant Commerce Clause analysis.
receiver’s header with IP address databases, and (2) a tracer analysis of the path of the Internet transmission, which is checked against a database of the nodes through which the transmission traveled and their geographic location. While neither method, taken alone, is sufficiently accurate, redundant cross-referencing of these databases holds the promise to be extraordinarily accurate. This software can be installed in the content provider’s webpage, allowing the provider to tailor content to comply with differing regulations in each geographical unit.

This system has advantages and disadvantages when compared to age identification technology. On the advantage side, content providers can determine receivers’ geographical identification without the content receiver having to do anything. The system operates invisibly from the content receiver’s perspective. There are thus no privacy costs associated with the content receiver’s disclosure of personal information. Similarly, content receivers in permissive jurisdictions do not have to incur the cost of acquiring an identification in order to obtain content. In this sense geographical identification is more fine-grained than age identification. Among its disadvantages, geographical identification is at the moment significantly more expensive for the webpage operator than age identification technology, which is free. It is also less accurate, at least for now. The technology correctly identifies the content receivers’ geographical identity at the national level between ninety and ninety-eight percent of the time, but at the state level only eighty to ninety-five percent of the time.109 It currently works even less well with the twenty-five million America Online customers who use AOL’s proprietary proxy server.110

Finally, these geographical identification technologies can presently be defeated by Internet anonymizers, remote sessions via Telnet, and remote dial-up connections.

Many firms already use geographical identification technologies, both to tailor content by geography and to comply with various territorial laws.111 Although these technologies are imperfect, the imperfections have

109. See InfoSplit memo, supra note 107; Telephone Interview with Martin Hald, supra note 107; Telephone Interview with Cyril Houri, supra note 107; Olsen, supra note 107.

110. See Telephone Interview with Martin Hald, supra note 107; Telephone Interview with Cyril Houri, supra note 107; Olsen, supra note 107.

111. To take three of many examples: JumpTV.com uses geographical filtering to ensure that its retransmission of television signals via the Internet in Canada does not enter the United States and thereby violate U.S. copyright law. Steven Bonisteel, JumpTV Aims To Be Next iCraveTV—Without Lawsuits, at http://www.newsbytes.com/pubnews/00/155297.html (Sept. 15, 2000). Medical and science publisher HiWire Publishing relies on geographic filtering software “to avoid criminal liability for advertising pharmaceuticals on the Web in countries where they are banned.” Max Smetannikov, Digital Island To Release “Traceware,” at http://www.zdnet.com/filters/printerfriendly/0,6061,2338594-35,00.html (Sept. 21, 2000). And Nevada’s recent Internet gambling scheme uses a technology that ensures that gambling is taking place in Nevada. Ronna Abramson, Nevada Takes Small Step for Online Gambling, at http://www.thestandard.com/article/display/0,1151,19410,00.html (Oct. 13, 2000).
solutions, and there is good reason to believe that geographical identification technology will be precise and inexpensive in the near future. In the meantime, many will point to the imperfections and conclude that the technologies are "unworkable" or "futile." This is a persistent error in thinking about Internet regulation; the conclusion simply does not follow from the premise. Regulatory slippage is a fact of life in real space and cyberspace alike. One does not conclude from the fact that minors obtain and use fake identification to purchase beer, or that thieves sometimes crack safes, or that gray-market goods are imported into the United States, that drinking laws and criminal laws and trademark laws are useless. Nor should one assume that imperfections in Internet identification and filtering technology render these technologies useless. Regulation works by raising the cost of the proscribed activity, not necessarily by eliminating it. Computer-savvy users might always be able to circumvent identification technology, just as burglars can circumvent alarm systems. But they would do so at a certain cost, and this cost would be prohibitive for most.

2. Electronic Mail

Unlike the World Wide Web, which involves a two-way transmission between the content receiver and sender, e-mail transmissions are one-way transmissions from the content sender to the receiver. When combined with the fact that e-mail addresses do not necessarily (or even usually) correspond with a geographic location, the result is that it is at present extraordinarily costly for a spammer to identify and screen persons in prohibited jurisdictions ex ante. It is easy to imagine ways to alter the architecture of the Net to change this fact. For example, a jurisdiction that wishes to prohibit spam could maintain a registry of e-mail addresses that the spammer would have to check and accommodate (using software that removes these addresses from the spam list) prior to sending the spam. No state has yet done this, however.

112. Burk, supra note 11, at 1114.
113. Johnson & Post, supra note 1, at 1374.
117. The state of Washington maintains a registry of e-mail addresses of Washington residents who do not want to receive spam. Wash. Ass'n of Internet Serv. Providers, WAISP Registry Page, at http://registry.waisp.org (last visited Jan. 20, 2001). But in order to ensure that the registry itself is not used as a spamming database, addresses registered on it can be verified only one address at a time.
Fortunately, ex ante identification and filtering are unnecessary in this context, for none of the antispam statutes prohibit unsolicited commercial e-mails outright. Rather, they simply require spammers to label subject lines and headers accurately or provide clear information to allow the receiver to easily remove herself from the spamming list.\textsuperscript{118} To be sure, compliance with these various laws still imposes costs on the spammer. To ensure compliance with the various antispam laws, he must accurately label headers and subject lines, start subject lines when appropriate with "ADV" or "ADLT," establish a valid e-mail reply system, and comply with requests to be removed from e-mail lists. Because there is no cost-effective way (at present) to identify e-mail addresses by geography, he must take these steps even for e-mail recipients in jurisdictions where these steps are not required.

With these thoughts in mind, we turn to the dormant Commerce Clause.

B. Balancing Analysis

The claim that the burdens of state Internet regulations are excessive in relation to their local benefits turns on complicated predictions about the economic effects of Internet regulations. We aim not to show that the Internet regulations are cost-justified, but rather that judicial cost-benefit analyses to date have been seriously flawed. We address the pornography statutes and the spam statutes in turn. We then query whether Congress might be better suited than the federal judiciary to perform this cost-benefit analysis.

1. Pornography Statutes

The decisions invalidating state pornography statutes on dormant Commerce Clause grounds acknowledged that the pornography statutes’ aim of protecting children from exposure to pornography “is a quintessentially legitimate state objective.”\textsuperscript{119} These decisions concluded, however, that the local benefits of the statutes were small because the state laws had no effect on communications abroad and had been interpreted to apply to pictorial and not textual materials. The courts also concluded that the burdens of the laws on interstate commerce were “extreme” because the laws “cast[] [their] nets worldwide” and because “the chilling effect that [the statutes] produce [was] bound to exceed the actual cases that are

\textsuperscript{118} Supra notes 50-56 and accompanying text.

likely to be prosecuted, as Internet users will steer clear of the [statutes] by a significant margin." 120

It is true that the absence of coverage for textual communications reduces the protection afforded to minors. But under the dormant Commerce Clause, states have broad discretion to determine the nature and scope of the local harm they wish to redress. States’ narrowing of the statutes can be viewed as a reasonable effort to balance concerns about exposure to pornography against competing concerns about restricting adult free speech. The statutes still protect minors against pictorial representations of a sexually explicit nature, and in conjunction with other state laws that protect children against sexual exploitation, 121 this narrower Internet regulation might fully address the concerns of parents in the jurisdiction. The courts certainly have not offered any reason to think otherwise, and in any event courts applying the dormant Commerce Clause should not lightly “second-guess the empirical judgments of lawmakers concerning the utility of legislation.” 122

The fact that the statutes cannot be applied as a practical matter to websites overseas, whose operators are not realistically subject to prosecution in the United States, also reduces their efficacy. But this reduction in efficacy does not make the regulations worthless and does not suffice to establish that their local benefits are outweighed by their burdens. State governments can regulate content flows from abroad even if the offshore website providers lack presence or assets within the state. 123 Minors might not be perfectly able to substitute unblocked foreign websites. 124 Foreign jurisdictions may undertake measures to prevent minors from accessing pornographic material found on sites within their jurisdictions. And even if foreign websites were perfect substitutes for domestic ones, the purposes of the state statutes would still be served to

120. Id.
121. See id. (discussing such state laws).
123. Most prominently, they can regulate the in-state financial intermediaries and Internet service providers that facilitate Internet communications with offshore sites. See Goldsmith, supra note 3, at 1222-23; Jack Goldsmith, Regulation of the Internet: Three Persistent Fallacies, 73 CHI.-KENT L. REV. 1119, 1223-27 (1999).
124. On the assumption that pornography sites from the United States were effectively blocked to children in regulating states, children would incur costs, perhaps nontrivial costs, in substituting unblocked foreign pornography websites. On most search engines, searches using terms such as “sex” or “nude” produce an enormous number of popular U.S. sites that children would have to cull through before finding foreign, unregulated sites. This could be a time-consuming process that would deter children’s access at the margin. Of course, clever children can circumvent this process, blocking regulations in the United States might lead foreign sites to become more prevalent, and discrimination technology can make it easier for children to reach desired offshore sites. It still seems likely, however, that substitution to foreign websites would not be costless on average. The last five years of Internet history have made it clear that territorial governments can, through a variety of means, raise the cost of Internet flows from abroad. See sources cited supra note 123.
some extent by this forced substitution, for it would be more difficult for the substituted foreign content-providers to exploit New York children sexually.\footnote{125}{See Am. Libraries Ass'n, 969 F. Supp. at 179 (noting that prevention of sexual exploitation of minors is a major purpose of the New York statute).} Any serious cost-benefit analysis of the state Internet regulations must take these factors into account. No court to date has considered them.

More significantly, the courts' emphasis on the inability of states to enforce their laws against foreign websites weakens the claim that the pornography statutes will be a significant burden on interstate commerce. Foreign webpage operators cannot be burdened by a criminal law that cannot be enforced against them. But there are significant hurdles against enforcing such laws even in the United States. For New York to enforce its criminal law against an offender in California, it must extradite him. But extradition from one state to another is limited to individuals who have fled the state that seeks extradition.\footnote{126}{E.g., Innes v. Tobin, 240 U.S. 127, 131 (1916); Gee v. Kansas, 912 F.2d 414, 418 (10th Cir. 1990).} A website operator who has never had a presence in the regulating state, therefore, is unlikely to face a realistic threat of extradition. The point is somewhat less certain with respect to civil liability. An out-of-state webpage content provider is not subject to personal jurisdiction in another state unless she has an interactive (as opposed to passive) website with independent indicia of communication with that state.\footnote{127}{See, e.g., Cybersell, Inc. v. Cybersell, Inc., 130 F.3d 414, 418-20 (9th Cir. 1997).} But it is false to assume, as the courts have done, that every website is exposed to liability in every jurisdiction where its content appears.

These factors suggest that the ability of a state to enforce its rules against out-of-state website operators may be limited whether they are foreign or domestic. This point cuts both ways, as it suggests that state Internet pornography statutes are less effective. But it also suggests that out-of-state websites need not fear prosecution under the statutes, so that the "chill" on interstate commerce emphasized in American Libraries Ass'n\footnote{128}{969 F. Supp. at 173-77.} is greatly exaggerated.

There is another reason to believe that courts have overstated the extent of the pornography statutes' chill on Internet commerce. The pornography statutes contain defenses for defendants who make reasonable efforts to prevent access by minors, efforts that are satisfied by, among other things, a verified credit card or adult identification code. These defenses do not require perfect identification and filtering. They require best efforts. The content provider thus need not worry about slippage in the effectiveness of attempts at identification, as long as he makes a good faith effort. The
content providers' worries about misidentification and any attendant chills on speech are perhaps unacceptable burdens on First Amendment rights. But in the absence of some showing that states are construing these defenses unreasonably narrowly, there is much less reason to worry about technological imperfections in the dormant Commerce Clause context. And there is no reason for the dormant Commerce Clause to credit burdens on interstate commerce that arise from an unjustified overreaction to a state regulation.

Here one encounters perhaps the most significant error in the Internet cases. Courts in these cases erroneously assume that geographical and age identification technologies are infeasible, and that in any event technological imperfection renders them useless. The court in American Libraries Ass'n reached this conclusion based on findings of fact from a 1996 decision, and the other Internet decisions have followed American Libraries Ass'n on this score without further analysis. But technology in this area has improved enormously since then, and it will only continue to improve in response to demands from parents, governments, and especially businesses. A genuine cost-benefit analysis must inquire into contemporary costs of identification and screening. For example, the decision that American Libraries Ass'n relied on for its assumptions about Internet architecture determined, in 1996, that adult identification services were scarce and their products were expensive and imperfect. By the end of 1998, however, there were dozens of such firms serving millions of users, and their services were free and extraordinarily effective. The affordability and accuracy of age identification technology, combined with the "best efforts" defenses in the pornographic communication statutes, mean that liability under these statutes can be avoided rather simply and cheaply. This fact alone means that the pornography statutes should survive dormant Commerce Clause scrutiny. Of course, age identification technology carries the costs described above. But these costs are more relevant to the First Amendment than the dormant Commerce Clause, where they matter only if they exceed the local benefits from the regulation. Courts have generally failed to take into account the rapid fall on the cost side of this equation.

We have focused thus far on analytical errors that cut in favor of state Internet regulation. But courts have also overlooked two potential concerns

129. See ACLU v. Reno, 217 F.3d 162, 166 (3d Cir. 2000) (invalidating the Child Online Protection Act on First Amendment grounds).
130. See LESSIG, supra note 2, at 54-58 (arguing that identification technology, even if imperfect, facilitates effective Internet regulation); Goldsmith, supra note 3, at 1229-30 (same).
131. See supra notes 34-38 and accompanying text; see also cases cited supra note 45 (following the assumptions in Am. Libraries Ass'n).
that cut against such regulation. The first concern flows from the fact that many pornographic communication statutes criminalize the conduct at issue. As we explained in Part II, it is important that corrective measures for cross-border harms be properly calibrated to the magnitude of the harms. The criminal remedy raises a cautionary flag that the penalties imposed by these statutes might excessively burden interstate commerce relative to the local benefits.

It is difficult to know whether the criminal penalties are properly calibrated here, for it is difficult both to place a monetary value on the harm caused by the exposure of minors to pornography and to translate the expected criminal penalty faced by a pornographic website operator into dollar terms. Private civil actions for actual damages against website operators who expose children to pornography would certainly raise less of a concern.\textsuperscript{134} On the other hand, criminal penalties administered by the state can sometimes be a better response to external harms than private damages actions. If the harm to each citizen is small, and if it is difficult to assemble and certify a class action, private damages actions may never be filed. Further, the mere fact that criminal penalties may seem severe in relation to the harm in question does not prove that they are excessive. If enforcement actions are expensive to bring or many violators escape detection, the probability of a penalty being imposed against any one violator may be quite small, so that a stiffer penalty is required to ensure that the expected penalty is sufficient for proper deterrence.\textsuperscript{135} For these reasons, a state Internet regulation should not be condemned simply because it relies on criminal penalties for enforcement. The courts should perhaps scrutinize criminal penalties to ensure that there is a plausible relationship between the expected penalty and the harm being addressed. If the costs of compliance or avoidance to the out-of-state content provider are less than a properly calibrated penalty, the criminal regulation raises no dormant Commerce Clause concern.

The second concern is that the state pornography statutes at issue, even if aimed at legitimate harms, nevertheless excessively micromanage the solution to those harms. In dormant Commerce Clause jurisprudence, this concern is captured by the least-restrictive-means test, which asks whether the state regulation "could be promoted as well with a lesser impact on interstate activities."\textsuperscript{136} The government need not employ "the least restrictive means conceivable," but rather "must demonstrate narrow

\textsuperscript{134} An early response to spamming was a common-law action for trespass to chattels. See, \textit{e.g.}, Compuserve, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1017 (S.D. Ohio 1997).

\textsuperscript{135} Indeed, economists have long argued that with costly enforcement, high penalties imposed on rare occasions may be the cheapest way to achieve optimal deterrence. \textit{E.g.}, Gary S. Becker, \textit{Crime and Punishment: An Economic Approach}, 76 J. POL. ECON. 169, 183-84 (1968).

\textsuperscript{136} Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
tailoring of the challenged regulation to the asserted interest—a fit that is not necessarily perfect, but reasonable; that represents not necessarily the single best disposition but one whose scope is in proportion to the interest served."

As applied to the Internet pornography statutes, the least-restrictive-means test ensures that states have not overlooked clearly more efficient ways of protecting children from harmful Internet pornography. To the degree that a variety of methods might be employed to ascertain the age of a Web surfer visiting a pornographic site, for example, the operator should be able to select the cheapest alternative, and the best option may vary across websites. The pornography statutes that have been enacted to date appear easily to satisfy this standard. The New York statute at issue in American Libraries Ass’n, for example, gave the website operator a general defense for using any of a number of devices to ascertain the age of the user, including credit card and third-party adult verification services. A related concern is whether there are clearly cheaper ways for in-state content receivers to identify and screen out offending content with the same degree of accuracy. It is doubtful at the moment whether such screening technologies exist, but if they did they would be relevant to the balancing calculus.

2. Spam Statutes

The antispam statutes also address a legitimate state objective. Bulk e-mail can raise costs to Internet service providers and Internet users in terms of wasted time, slower operating systems, lost accounts, repairs, equipment, and the like. In addition, many consumers find spam more annoying than real-space junk mail because they are paying for time on the Internet and because spam, unlike most real-space junk mail, is often not identifiable from its “cover.”

The Heckel court acknowledged that reduction of these costs was a legitimate state purpose. But like the court in American Libraries Ass’n, it concluded that the statute at issue did not achieve this purpose. The court noted that Washington’s truthfulness requirements concerned only the form

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137. Greater New Orleans Broad. Ass’n v. United States, 527 U.S. 173, 188 (1999) (citations and internal quotation marks omitted). Greater New Orleans Broadcasting applied intermediate scrutiny in the First Amendment context, but there is no reason to believe that the balancing test and associated level of least-restrictive-means scrutiny are any different in the dormant Commerce Clause context.

138. Supra note 32 and accompanying text.

139. See Derek Simmons, No Seconds on Spam, 3 J. SMALL & EMERGING BUS. L. 389, 390-97 (1999).

of the message and would not redress the costs of spam associated with its bulk.\textsuperscript{141} This point has some force. But it overlooks the fact that the truthfulness requirements (such as the requirement not to misrepresent the message's Internet origin) make spamming unattractive to the many fraudulent spammers, thereby reducing the volume of spam. Moreover, the court's assertion that truthful identification in the subject header would do little to relieve the annoyance of spam is simply wrong. This identification alone would allow many people to delete the message without opening it (which takes time) and perhaps being offended by the content. Once again, the court here is unusually and inappropriately aggressive in second-guessing the content and scope of the state's regulatory interest.\textsuperscript{142}

Even assuming that the antispam laws do not significantly further the state's interest, it is hard to see how the antispam laws burden interstate commerce at all. The spam laws essentially require truthfulness in the header, return address, and subject line of the e-mail. Far from burdening commerce, the truthfulness requirement facilitates it by eliminating fraud and deception. Compliance with the various antispam statutes is easy compared to noncompliance, which requires the spammer to incur the costs of forging, re-mailing, and the like.

If there is any concern about the spam statutes, it is that they excessively micromanage in the sense described above.\textsuperscript{143} Unlike the pornography statutes, the spam statutes do not give the content provider a variety of options for compliance. Rather, each regulating state imposes affirmative requirements (such as header accuracy and subject line identification) that must be satisfied to avoid liability. While it is not impossible to comply with these varying state requirements, the same regulatory end might be achieved more cheaply if spammers were given other equally feasible options for compliance, such as a state registry of protected e-mail addresses that could be automatically excluded from a spamming list.\textsuperscript{144}

More concretely, the concern is that, for example, one state might require the spammer to label an advertisement with "ADV" in the subject line, while another state might pursue the same regulatory end by requiring a different label, such as "ADVERT." Spammers could comply with both regulations at a small cost (by putting both "ADV" and "ADVERT" in the subject line), but there is no conceivable regulatory benefit from this redundancy. Employing a least-restrictive-means analysis, courts faced with this issue might require states to explain why they did not coordinate on the

\textsuperscript{141} Id.
\textsuperscript{142} See supra note 122 and accompanying text.
\textsuperscript{143} Supra notes 136-138 and accompanying text.
\textsuperscript{144} See supra notes 116-117 and accompanying text. As we explained in note 117, these technologies are potentially self-defeating.
label of the first mover, or write their regulations in such a way as to deem a spammer in compliance when it uses the perfectly synonymous label of another regulating state.

3. **Comparative Institutional Competence**

The above discussion identified the considerations a decisionmaker should take into account in determining whether the cross-border harms of a state Internet regulation are excessive when compared with the regulation's benefits. Here we offer thoughts on comparative institutional competence with respect to these considerations.

Congressional inertia, combined with the multitude of state Internet regulations, leads many to conclude that Congress is not up to the task of policing the many cross-border harms of state Internet regulations. Federal courts, by contrast, can police a much broader array of cases. In theory, they can also respond more quickly to the rapid changes in technology that are so central to the balancing calculus. But there is a growing consensus that courts, though perhaps competent to enforce an antidiscrimination regime, are ill-suited to make the many difficult value judgments that the balancing test requires. Commentators have made this point for years. Recently, the Supreme Court has begun to express skepticism about its ability to balance. It is probably no accident that few of its decisions in the past twenty years have turned on a balancing analysis. These concerns have particular valence in the Internet context. As we have shown, courts have failed properly to identify and weigh the costs and benefits of state Internet regulations.


146. In a recent Supreme Court dormant Commerce Clause decision, every opinion acknowledged the Court's relative incompetence at balancing. Gen. Motors v. Tracy, 519 U.S. 278, 308-09 (1997) ("[The] Court is institutionally unsuited to gather the facts upon which economic predictions can be made, and professionally untrained to make them. We are consequently ill qualified to develop Commerce Clause doctrine dependent on any such predictive judgments." (citations omitted)); id. at 312-13 (Scalia, J., concurring) (affirming Scalia's opposition to dormant Commerce Clause balancing); id. at 315 (Stevens, J., dissenting) (noting that "speculation about the 'real-world economic effects' of a decision like this one is beyond our institutional competence"). On this reading of Tracy, see Regan, *supra* note 69, at 15-18. Among the Justices, Scalia has pressed the case against balancing most vigorously. E.g., Tyler Pipe Indus. v. Wash. State Dep't of Revenue, 483 U.S. 232, 259-65 (1987) (Scalia, J., dissenting).

147. Among the forty or so dormant Commerce Clause decisions during the past twenty years, only two—*Bendix Autolite Corp. v. Midwesco Enterprises, Inc.*, 486 U.S. 888 (1988), and *Edgar v. MITE Corp.*, 457 U.S. 624 (1982)—turned on a balancing rationale. In *Bendix*, the Court suggested that balancing was unnecessary because the statute in question, a discriminatory tolling provision, "might have been held to be a discrimination that invalidates without extended inquiry." 486 U.S. at 891. For a count and analysis of dormant Commerce Clause cases since 1980, see Regan, *supra* note 69.
The Internet context might provide special reasons to expect political solutions at the federal level. Congressional inertia seems less of a problem in this context. Unlike many of the subjects that form the basis for dormant Commerce Clause scrutiny, the Internet is an extraordinarily important phenomenon for the United States, and Congress and several federal agencies have shown extensive interest in it. Indeed, Congress has paid special attention to the pornography and spam issues that have been most subject to dormant Commerce Clause scrutiny. It has enacted two statutes regulating child pornography, both of which have been invalidated under the First Amendment. And there are several antispam bills pending in Congress, one of which has been approved by the House.

In one respect, this nascent federal legislation makes the dormant Commerce Clause issues seem less urgent, for it suggests that Congress might resolve the substantive issues on its own. But this perspective is too static. Federal laws addressing porn and spam on the Internet have benefited enormously from the various state attempts to regulate these issues. Congress has learned from and drawn explicitly on the experience (and errors) of the state legislatures, which can address these issues more quickly than Congress. Experimentation is especially important with respect to regulation of fast-changing new technologies. Going forward, the aggressive regime of judicial invalidation of state Internet regulations threatens to pretermit this useful state experimentation in various contexts. It also makes it likely that there will be underregulation of Internet transactions until Congress acts, and possibly suboptimal legislation even when Congress acts (because of the relative absence of experimental evidence). There may also be reasons to prefer state heterogeneity in the regulatory approach for the reasons given earlier relating to differences across states in taste and culture.

It follows from these reflections that judges should be cautious in striking down a state Internet regulation under a balancing rationale. However, we do not go so far as to say that they should never do so, for there may indeed be situations when a balancing analysis reveals that a state Internet regulation’s costs are clearly excessive in comparison to its benefits.

149. Supra note 4.
152. See supra Section II.A.
C. Extraterritoriality

In the pornography cases, courts reason that because Web content providers cannot know the location or age of the receiver, they must comply with the law of the regulating jurisdiction to avoid prosecution, thereby reducing available content for receivers outside the regulating jurisdiction. The assumption here that a content provider is unable to identify the user by age or geography is, as we suggested above, incorrect. In this light, the concern must be restated as follows: Web content providers might find the costs of compliance with the pornography statutes (that is, geographical identification and screening costs) to be greater than the costs of removing offending content from the webpage, thereby affecting the availability of content for receivers in nonrestrictive jurisdictions. Alternatively, content providers might pass along the costs of geographic identification required by regulating jurisdictions to content receivers in nonregulating states. A final extrastate cost of the pornography regulations might be that the adult PIN required by content providers to comply with regulating states' restrictions chills the activities of potential content receivers in nonregulating states. The extrastate costs of the antispam statutes are presumably similar.

As we have shown, these out-of-state costs do not necessarily or even usually implicate dormant Commerce Clause scrutiny. Proper correctives for cross-border externalities typically impose costs that affect parties outside of the jurisdiction. Far from being undesirable, these effects might well be efficient. Absent a showing that the out-of-state costs are clearly excessive under the balancing analysis outlined above, they should not trigger condemnation under the dormant Commerce Clause.

American Libraries Ass'n itself reveals the difficulty with extending dormant Commerce Clause scrutiny to the type of out-of-state regulatory effects that we have defended. American Libraries Ass'n assumed, in dicta, that New York's criminalization of the sale of obscene materials to children over the Internet would survive the extraterritorial prong of the dormant Commerce Clause. The court offered no reason for its differential treatment of New York's prohibition on pornographic communications with minors and its prohibition on the sale of obscenity to minors. While the prohibitions differ in substance, as applied to the Internet their extraterritorial effects are identical: Both regulations affect the pricing decisions of Web content providers in other states, and this influence on price may affect consumers in permissive jurisdictions outside of New York. Such differential treatment suggests that the court's extraterritoriality

153. See supra notes 100-114 and accompanying text.
reasoning may be flawed. Indeed, as we have explained, the court’s logic would condemn an extraordinary array of state laws as applied to cross-border activity that no one heretofore viewed as problematic.

D. Inconsistent Regulations

Courts applying the inconsistent-regulations criterion in the Internet cases worry that an Internet content provider faces fifty different standards of conduct within the United States and that such "haphazard and uncoordinated" state regulation violates the dormant Commerce Clause. We have shown that both on the Web and by e-mail, it is rarely impossible to comply with all fifty state Internet regulations. The factual issue is almost always the cost, not the possibility, of compliance; the legal issue is the balance of costs and benefits, not inconsistency. As we have emphasized, it is common for firms doing business in the United States to incur costs learning about and complying with fifty state regulations. To the extent that courts in the Internet context have attempted to weigh these costs against legitimate local benefits, they have committed manifold errors. Absent a showing that the local regulation is excessive under the balancing test, a point we have questioned above, there should be no further concern about inconsistent Internet regulations.

IV. EXTENSIONS AND COMPARISONS

We have focused thus far on state antipornography and antispam statutes. But the dormant Commerce Clause potentially condemns a wide array of other state Internet regulations. Below we briefly sketch how the analysis applies to these other state regulations. We also touch on how analogous problems are handled on the international stage.

A. Domestic Extensions

Some so-called Internet regulations do not in fact necessitate any Internet-specific analysis. Consider three recent dormant Commerce Clause challenges to state bans on cross-border sales via the Internet. Winemakers who want to sell directly to consumers over the Internet are challenging state requirements that restrict the sources—both in-state and out-of-state—from which out-of-state wine can be bought. Automakers who want to

155. Id. at 183.
156. Supra Section III.B.
sell cars directly to consumers via the Internet are challenging state laws that prohibit manufacturers from selling cars directly to consumers.\textsuperscript{158} And a cigarette manufacturer is challenging a New York regulation that effectively precludes the sale of cigarettes via the Internet by prohibiting interstate cigarette shipments directly to consumers.\textsuperscript{159} These state regulations might or might not violate the dormant Commerce Clause, depending on whether they discriminate against interstate commerce or fail the balancing test. (The wine cases are especially complex because of the Twenty-First Amendment.\textsuperscript{160}) But the fact that the communications before sale take place over the Internet does not mean that any unusual problems are presented under the dormant Commerce Clause. This is because these cases involve the sale and delivery of real-space goods. Unlike cases involving the transmission of digital goods over the Internet, the out-of-state provider of real-space goods knows the real-space location of the recipient and can take steps to keep the offending goods out of the regulating jurisdiction. To be sure, these steps impose costs: The content provider must determine where the goods are going and research and comply with local regulations. But these are the same costs faced by the out-of-state seller when orders are placed by mail or telephone. As we made clear above, these costs are commonplace in our federal system and do not usually implicate dormant Commerce Clause scrutiny.

Here one can draw a general lesson: Concerns about the cross-border costs of state Internet regulation are heightened when the sale and transmission of digital goods as opposed to real-space goods are at issue. The pornography and spam cases are harder than the wine, automobile, and cigarette cases precisely because in the former context it appears more costly for out-of-state regulated entities to identify and filter their communications and deliveries by geography.

There are other laws besides the porn and spam statutes that implicate the concerns of \textit{American Libraries Ass'n}. Consider Consolidated Cigar Co. v. Reilly.\textsuperscript{161} The district court read a Massachusetts cigar advertising law not to apply to Internet advertising, reasoning that such regulation of the Internet "would likely run into significant difficulty... due to the heavy burden it would place on interstate commerce."\textsuperscript{162} The First Circuit rejected the district court's narrower reading but agreed, with no analysis,

\begin{itemize}
  \item \textsuperscript{158} E.g., Ford Motor Co. v. Tex. Dep't of Transp., 106 F. Supp. 2d 905 (W.D. Tex. 2000).
  \item \textsuperscript{159} Santa Fe Natural Tobacco Co. v. Spitzer, No. 00 Civ. 7274, 2000 WL 1694307 (S.D.N.Y. Nov. 13, 2000).
  \item \textsuperscript{160} See, e.g., Bridenbaugh v. Freeman-Wilson, 227 F.3d 848 (7th Cir. 2000).
  \item \textsuperscript{161} 218 F.3d 30 (1st Cir. 2000).
\end{itemize}
that the regulation as applied to the Internet violated the dormant Commerce Clause.\textsuperscript{163}

We do not know why the court reached this conclusion, but presumably it did so because of the out-of-state burdens of the advertising regulation, and especially because of the difficulty out-of-state Web advertisers would have in keeping offending content out of Massachusetts. Understood this way, the tobacco advertising regulation is like the porn and spam statutes and unlike the wine, automobile, and cigarette regulations in the sense that out-of-state persons face the special difficulties of identifying and controlling the flow of digital information. The same is true for state regulations of Web gambling, attorney advertising, marketing disclosure, auctions, lotteries, and securities—all of which involve the delivery of digital goods, all of which will become subjects of dormant Commerce Clause challenge,\textsuperscript{164} and all of which are subject to the analysis in this Essay.

B. \textit{International Comparisons}

The issues implicated by dormant Commerce Clause litigation also arise in numerous contexts on the international stage. Consider a prominent recent French decision involving the auction sites of the American company Yahoo! Inc.\textsuperscript{165} Through servers located in the United States, Yahoo! offered Nazi paraphernalia for auction. The offer of these goods is legal in the United States but illegal in France. Web users in France, however, can access the U.S. site. Can France regulate the foreign website that produces local effects deemed harmful in France?

The issues here are very similar to the domestic U.S. pornographic communication statutes. Activity deemed legal in one jurisdiction (an Internet auction of Nazi goods conducted via U.S. computers) has effects deemed harmful in another (the offer and sale of Nazi paraphernalia in France). If France does nothing, its regulatory interests are undermined. If France orders Yahoo! to remove the offending content, the regulations might (if Yahoo! takes the items off its page) have the effect of limiting the sale of Nazi items in places where they are legal, or they might (if Yahoo!

\textsuperscript{163} Consol. Cigar, 218 F.3d at 55-57.

\textsuperscript{164} See H. Joseph Hameline & William Miles, \textit{The Dormant Commerce Clause Meets the Internet}, 41 BOSTON B.J. 8, 8 (1997).

passes along the costs of complying with the French regulation to auction users) raise the cost of the Yahoo! service for persons outside France.

As we have suggested courts should do, the French court inquired into the cost and effectiveness of geographical screening prior to its decision. The court received a report from three Internet architecture experts that concluded that such technology could at present filter out French users with a ninety percent accuracy rate. Relying on this report, the French court ordered Yahoo! to employ available geographical screening technology to block French users from accessing the Nazi memorabilia on Yahoo!’s U.S. website. The court did not penalize Yahoo! for all Nazi content that appeared in France, but only for content that Yahoo! could, through reasonable efforts, keep out of France.

It is unlikely that either of the two potentially applicable international law regimes places limits on the French court action. The first potential restriction is customary international law limits on a nation’s ability to regulate extraterritorial events. Although the precise contours of this constraint are unclear, customary international law generally allows a nation to regulate foreign activity that has substantial and reasonably foreseeable local effects. These limits are akin to the limitations that the Due Process and Full Faith and Credit Clauses impose on extraterritorial state regulation. France’s regulation of unwanted Nazi information sent from a Yahoo! server in the United States appears to satisfy this standard.

The second potential international regulation concerns the rules of international trade as embodied in the treaties creating the World Trade Organization (WTO). These rules, which are akin to our domestic dormant Commerce Clause, allow France to regulate the offshore Nazi content. Under WTO law, the primary constraint on the ability of member nations to regulate imported goods is a nondiscrimination or “national treatment”

167. Id. at 2, 20.
169. See Goldsmith, supra note 3, at 1217-19.
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requirement. In addition, there is a general exception to WTO obligations for measures "necessary to protect public morals," with the word "necessary" understood to impose a least-restrictive-means requirement. Notably absent from WTO law is any authority for a dispute resolution panel to engage in open-ended balancing of the burdens on international commerce against the benefits of regulation. The judgment that any such balancing ought to be left to the political process of negotiation among member states perhaps tells us something about the wisdom of such balancing in domestic courts.

V. CONCLUSION

We have provided a general theoretical framework for analyzing dormant Commerce Clause challenges to state Internet regulations. Five points bear emphasis. First, the out-of-state costs of state regulation of cross-border externalities are commonplace and often desirable from the efficiency perspective that informs the meaning and scope of the dormant Commerce Clause. Second, the appropriate question about these state regulations is not whether they produce out-of-state costs, but rather whether they are properly calibrated to redress local harms. Third, the real concern underlying the extraterritoriality and inconsistent-regulations prongs of dormant Commerce Clause analysis is not out-of-state effects and nonuniformity per se, but rather whether the out-of-state burdens of a regulation outweigh its local benefits. Fourth, courts applying the dormant Commerce Clause to state Internet regulations have committed significant errors in identifying and weighing the regulations' costs and benefits. Fifth, as a general matter, the federal political branches may be better suited than the federal courts to balance and redress the harms and benefits of state Internet regulations.

To date, dormant Commerce Clause analysis of state Internet regulations has been marred by the same general error that infects much thinking about Internet regulation more broadly. The error is the belief that the Internet is a unique phenomenon that requires suspension of the normal principles that govern cross-border conduct. In the dormant Commerce Clause context, as in other regulatory contexts, this assumption is false. Insight about Internet regulation comes, at least in the first instance, from

171. GATT, supra note 170, art. XX(a).
focusing not on how the Internet is different from other communications systems, but rather on the many ways in which it is similar.