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The Dormant Commerce Clause and the Internet

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The Internet and the Dormant Commerce Clause

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First generation Internet thinkers maintained that Internet communications could not be subjected to local regulation.¹ 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 re-routed. 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.² 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 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 Library Assoc. v. Pataki.⁵ Pataki invalidated New York’s Internet Decency Act, which prohibited the intentional use of the Internet “to initiate or engage” in certain pornographic communications deemed to be “harmful to minors.”⁶ In striking down the law, the Pataki court reasoned as follows. Because it

² For a comprehensive critique, see Lawrence Lessig, Code and Other Laws of Cyberspace (1999).
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, Pataki’s reasoning extends far beyond the regulation at issue in that case. In fact, the dormant commerce clause argument, if accepted, threatens to invalidate nearly every state regulation of Internet communications. For on Pataki’s logic, 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.9 And indeed, many courts have followed Pataki’s logic.10 The decided cases have mostly involved pornography regulations and anti-spam statutes. But the logic of Pataki and the cases that follow its reasoning extends to state anti-gambling laws, computer crime laws, various consumer protection laws, libel laws, licensing laws, and much more.

Many academic commentators support the emerging conventional wisdom among courts that the dormant commerce clause requires invalidation of state Internet communication regulations.11 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.12 Our aim is simply to deflate the emerging conventional wisdom, and to show that the dormant commerce clause, properly understood,

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7 Id. at 168.
8 Id. at 169.
9 See Declan McCullagh, Brick by Brick, www.time.com/time/digital/daily/0%2C2822%2C11738%2C00. For similar sentiments, see, e.g., Glenn Harlan Reynolds, Virtual Reality and "Virtual Welters": A Note on the Commerce Clause Implications of Regulating Cyberporn, 82 Va. L. Rev. 535, 536 (1996) (“Commerce Clause is the most substantive constitutional threat to state regulation of cyberspace”); Spencer Kass, Regulation and the Internet, 26 So.U. L. Rev. 93, 105 (1998) (“courts will find many state statutes which purport to regulate the Internet to be unconstitutional under a Dormant Commerce Clause analysis”).
10 See cases cited infra notes 42, 51-52, and 136.
12 Indeed, an important conclusion of our paper 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.
leaves states with much more flexibility to regulate Internet transactions than is commonly thought.

The analysis proceeds as follows. Section I reviews dormant commerce clause principles and describes how they have been applied to state Internet regulations. Section 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 dormant commerce clause should apply to Internet regulation. 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. Section III then explains why dormant commerce clause analyses of state Internet regulations to date have been flawed. The focus in Section IV is on the two types of state Internet regulation that have been most frequently litigated - prohibitions on pornographic communication with minors, and anti-spam statutes. A conclusion 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.”

If a state law discriminates against out-of-staters, it is subject to “the strictest scrutiny of any purported legitimate social purpose and of the absence of nondiscriminatory alternatives.” Discriminatory state regulations rarely satisfy this standard. A second dormant commerce clause test applies when a state law is non-discriminatory 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 state interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.”

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. However, the dormant commerce clause is also said to prohibit certain state laws that regulate extraterritorially, and certain state laws that lead to inconsistent

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13 U.S. Const. Art. I, sec. 8, cl. 3.
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. The Beer Institute*, which involved a challenge to Connecticut's law requiring beer companies to post prices monthly and affirm that they were not higher than in four 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 that 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," 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." On similar grounds, the Court has struck down a liquor price affirmation scheme, and an Illinois anti-takeover law that governed communications between out-of-state acquiring corporations and the out-of-state shareholders of acquirees.

The scope of the extraterritoriality principle is unclear. 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. Supreme Court dicta suggest that the extraterritoriality prong of the dormant commerce clause goes further, and "preclude[s] 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." This formulation is clearly too broad. Scores of state laws validly apply to and regulate extra-state commercial conduct that produces harmful local effects. In Section II we try to bring clarity to the dormant commerce clause 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 regulation" test is also unclear. It does not, for example, mandate state law uniformity. For 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 multi-state corporate activity with a local contact, even if other states apply different tort regimes (say, negligence); and it permits states to apply differing blue-sky law requirements to the same multi-state securities offering. Section II offers an account of the “inconsistent regulation” concern that accommodates such non-uniformity.

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 most attention: statutes regulating pornographic communications with minors, and anti-spam 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, Pataki, concerned the validity of New York’s Internet Decency Act. The Act prohibited intentional use of the Internet “to initiate or engage” in communications “harmful to minors” that depict “actual or simulated nudity, sexual conduct or sado-masochistic abuse.” The Act established defenses to prosecution for defendants who, among other things, (a) make a reasonable effort to ascertain the minor’s true age; (b) make a reasonable effort to prevent minors from accessing proscribed materials, including of “any method which is feasible under available technology”; (c) restrict minor access by requiring use of a verified credit card or adult personal identification number; or (d) label content in a way that facilitates blocking or screening. Violations of the Act were punishable by one to four years of incarceration.

In striking down the Act, the Court began with several claims about the architecture of the Internet. These claims play 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, “once a provider posts content on the Internet, it is available to all other Internet users worldwide.” 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.” The court acknowledged that credit card verification, content filtering, and adult identification technologies can facilitate some geographical and identity discrimination on the Internet. But it maintained that the costs associated with these technologies were “excessive,” and that the technologies were imperfect in any event. The court

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29 See Mite, 457 U.S. at 641.
31 NY Penal Law 235.20(6), 235.21(3) (1998). The Act defines a communication as “harmful to minors” if it (a) appeals “to the prurient interest in sex of minors,” (b) is patently offensive to prevailing standards concerning material suitable for minors, and (c) lacks “serious literary, artistic, political, and scientific value for minors.”
32 Id. at 235.23(3).
33 Class E felony, N.Y. Penal Law § 235.21; N.Y. Sent. Chart I.
34 969 F. Supp. at 167.
35 Id.
36 Id.
concluded that “no user could avoid liability under the New York Act simply by directing his or her communication 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.”

Based on these factual premises, the Court gave three reasons why the New York Indecency Act violated the dormant commerce clause. First, the Act exposed to liability, and thus chilled, persons outside New York who had no intention of communicating with persons in New York. The Act 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 web site, thus precluding it from selling the book in its home state and in third states where such sales would be legal.

Second, the Court held that the Act’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. However, it reasoned that the Act’s local benefits were “limited” by the fact that it only applied to pictorial messages, and that it could not regulate communications from outside the United States. 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.

Third, the court asserted that the Act 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 regulation even if she did not intend communicate with persons in the regulating jurisdiction. The court concluded that such a “haphazard and uncoordinated” patchwork of state Internet regulations violated the dormant commerce clause.

Several courts have followed Pataki’s reasoning in invalidating statutes similar to the New York Indecency Act. Other courts have distinguished Pataki when the state prohibition on pornographic Internet communications with minors included an element of “luring” or “seducing” the minor into illicit sexual relations. These courts reason that the “luring” element

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38 969 F. Supp. at 170-71.
39 Id. at 173-177.
40 Id. at 177-181.
41 Id. at 181-184.
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. Anti-Spam Laws.

Spam is an unsolicited e-mail message, usually sent to many recipients at one time. At least eighteen states have enacted anti-spam legislation of some sort. Here we discuss the statutes of California and Washington that have been subject to judicial challenge.

California's anti-spam law applies to persons “conducting 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. Violations of the California statute can result in a $1,000 fine and/or six months imprisonment per offense, 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 use 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.

Plaintiffs in California and Washington, invoking Pataki, have argued that the anti-spam statutes regulate extraterritorially, create inconsistent obligations, and impose burdens on interstate commerce that outweighed their local benefits. State courts in these states subsequently invalidated their respective anti-spam laws under the dormant commerce clause. The Washington court's analysis was most extensive. It started 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

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44 See Foley, 709 N.Y.S. 2d at 477.
45 See Hatch, 94 Cal Rptr. 2d at 472-73.
48 Id.
50 Id.
51 The California court issued a conclusory order that simply asserted that the California law “unconstitutionally subjects interstate use of the Internet to inconsistent regulations, therefore violating the dormant commerce clause.” Ferguson v. Friendfinder, Inc., No. 307309 (Cal. Sup. Ct., San Francisco, June 9, 2000).
53 Id.
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. A by-product of the opportunity for adults to purchase pornographic material over the Internet is an opportunity for minors to 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 “non-pecuniary externalities,” a term that may seem more familiar when used with 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 is much like the harm to the neighbors of a cement mill. All of these harms befall third parties who are not involved in the transactions that support the activity which generates the harm.

State regulation of pornographic communications, and state anti-spam laws, can in principle redress these in-state third-party harms. The problem is that these state regulations can impose costs out of state. The decisions striking down Internet regulations under the dormant commerce clause suggest that these out-of-state costs render the regulations illegitimate.

Yet, many state regulations of trans-jurisdictional activity affect the costs of out-of-state activities. 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 multi-jurisdictional 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 render them suspect?

This Section lays the groundwork needed to answer these questions. We begin with an introductory discussion about regulatory federalism and the danger of protectionism. We then use the “real-space” example of pollution to develop some simple points about cross-border externalities and their regulation, suggesting when state regulation of these externalities is efficient and when it produces socially inefficient results. We next draw on this analysis to offer an economic interpretation of the “balancing,” “extraterritoriality,” and “inconsistent regulation” strands of reasoning in dormant commerce clause jurisprudence. Section III applies this learning to the problem of state Internet regulation.

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55 A non-pecuniary 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 non-pecuniary 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 non-pecuniary externalities are a source of “market failure” that may benefit from corrective intervention. See David D. Friedman, Price Theory: An Intermediate Text (2d ed. 1990).
Before proceeding, 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. It also allows us to bring some theoretical coherence to the otherwise under-theorized notions of “extraterritoriality” and “inconsistency” that play an important role in the Internet cases.

III. 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. The prevailing attitudes toward gambling and sexually oriented materials, for example, 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 from these principles that regulatory uniformity is often undesirable. Of course, central governments can enact regulatory policies that vary within 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 governments are better able to ascertain and implement the best regulatory

58 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. See, 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.
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.

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 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, for example, or that email users everywhere will react to common forms of spam (e.g., 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 a large stake in a policy outcome will organize to influence it; those with a smaller stake 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 protectionism. Economic theory holds that when a jurisdiction undertakes to insulate its producers from competition through restrictions on the importation of goods and services from elsewhere, 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 dormant commerce clause cases -

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61 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. See Friedman, supra note 55, 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.

62 See supra notes 14-16 & 56. 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 non-neutral 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 regulation can induce consumers to choose domestic products over imported products even when the imported goods are superior in quality or less costly to produce, other things being equal. Any regulatory benefits could be achieved more cheaply through non-
especially in recent years -- have indeed concerned discriminatory state legislation that suggests underlying protectionism.\footnote{See Donald Regan, Movement of Goods Under the Dormant Commerce Clause and the European Community Treaty (forthcoming 2001).}

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 cases or the literature. This is the problem presented by state regulation of cross-border externalities.

A. 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 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 non-pecuniary externality that affects citizens outside of the regulating state. Because of collective action problems and other transaction costs issues,\footnote{See Ronald Coase, The Problem of Social Cost, 3 J. L. & Econ. 1 (1960).} market solutions to non-pecuniary externalities often will not emerge -- the individuals harmed by externalities are often unable to act collectively to purchase relief from them. The result, absent appropriate government action, is an economically excessive scale of the activity producing the external harm, and an excessive level of the associated harm.

Figure I 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 each level of output.\footnote{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.} Let us 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 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.

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

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See Arthur Cecil Pigou, The Economics of Welfare (1920).
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 costs 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.67 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,68 that the parties affected by "external harms" will bargain to a satisfactory treatment of them, 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 seems exceedingly unlikely that the 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).

It is of no moment to the analysis to this point whether the external harm befalls people in the same jurisdiction as the activity that creates it or not. 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 are then unlikely to pressure their governing officials to fix the problem. Those who are harmed by the externality, by contrast, 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 I. 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 wherever the consumer is located (in Figure I, from \( P_c \) to \( P_0 \)). The aggregate profits of firms producing the good or service at issue

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67 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.

68 See Coase, supra.
will fall.\textsuperscript{69} 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 also raises a cautionary flag.\textsuperscript{70} Often, as in Figure I, 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 $t$ as in Figure I, but a jurisdiction imposes in some fashion a tax or penalty greater than $t$ 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 I 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.

B. "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 conceptualize these problems under the rubric of "balancing" analysis, "extraterritorial" regulation, and "inconsistent regulation." 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.\textsuperscript{71}

1. Balancing Analysis

Proper correctives for non-pecuniary externalities yield net welfare gains to society as a whole, as we illustrated in the last section. When the corrective tax is imposed, the losses to the consumers (from higher prices) and the producer(s) (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 producer(s) 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.

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\textsuperscript{69} This effect can be seen in Figure I 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 $S+t$, and to the left of $D$.

\textsuperscript{70} See Levmore, supra note 58; Fischel, supra note 28.

\textsuperscript{71} Such as revenue taxation cases. See, e.g., Quill Corp. v. North Dakota, 504 U.S. 298 (1992).
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 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 a fortiori. 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 it does not equal $t$ for some reason. 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 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 shall 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 of 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, and indeed 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 problem presented by Internet communications. A firm that sells real-space pornography incurs costs in identifying restrictive “community standards” (which differ not just at the state level, but at the local level) and in tailoring the content to that community (which might entail barring the content from the community). 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.\textsuperscript{74}

The Court made this comment in 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. Multi-state firms often face precisely this kind of cost with respect to varying state tax laws, libel laws, securities requirements, charitable registration, franchise law, tort, 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. Following 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 understanding of the "extraterritoriality" concern fits with the Court’s modern extraterritoriality decisions.

Consider MITE, the fount of the modern extraterritoriality decisions. MITE involved an Illinois anti-takeover law that placed significant prior restraints on tender offers for companies with either 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.\textsuperscript{75} The plurality’s extraterritoriality analysis emphasized that the Illinois regulation did far more than necessary to protect Illinois interests. The Court 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 to Illinois.”\textsuperscript{76} The Court further noted that the Act could even “regulate a tender offer which would not affect a single Illinois shareholder.”\textsuperscript{77} Immediately after describing these implications of the Act, the Court concluded that it was “therefore apparent that the Illinois statute . . . has a sweeping extraterritorial effect.”\textsuperscript{78} MITE can thus be interpreted as saying that a law with such a significant out-of-state burden on communications between non-citizens was not justified by the meager benefits achieved in Illinois by the Illinois law.

\textsuperscript{74} Sable Communications of California, Inc. v. FCC, 492 U.S. 115 (1989); see also Hamling v. United States, 418 U.S. 87, 104-06 (1974).
\textsuperscript{75} Edgar v. MITE Corp., 457 U.S. 624(1982) (plurality opinion).
\textsuperscript{76} Id. at 642.
\textsuperscript{77} Id.
\textsuperscript{78} Id (emphasis added).
Other extraterritoriality decisions can also be viewed in this manner. Recall Healy, the Connecticut beer price affirmation case.79 The Court clearly believed that Connecticut's limitations on the price of beer sold elsewhere was an excessive response to its regulatory concern of preventing price gouging within the state. The Court expressed a similar concern in BMW v. Gore, where 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.80 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.”81

Our “balancing test” gloss on the extraterritoriality decisions does not accord with some of the Court's overbroad “extraterritoriality” dicta.82 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 proportionality 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.83 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”84 in relation to its costs. 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 Regulation

We now turn to the “inconsistent regulation” prong of dormant commerce clause analysis. The inconsistent regulation 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 multi-jurisdictional firms. There is nothing unusual about non-uniform 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.

79 See supra notes 18-20 and accompanying text.
81 Id. at 572-73.
82 See, e.g., MITE, 457 U.S. at 642-43 (dormant commerce clause “preclude[s] 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”); 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”). Moreover, it is clear that in some cases, the Court acts as if the extraterritoriality and balancing analyses are distinct.
84 See Pike, 397 U.S. at 142.
A more plausible interpretation of the “inconsistent regulation” concern is that non-uniform state regulations might impose compliance costs that are so severe that they counsel against permitting the states to regulate a particular subject matter. In 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 are completely redundant of 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 regulation” cases too are a variant of balancing analysis.

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, mud guards, and the like. These decisions sometimes refer to the evil of “inconsistent regulations,” and sometimes make conclusory references to the need for uniformity. 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 regulation analysis in the state takeover cases. MITE made no mention of the inconsistent regulation concern. But its successor case, CTS Corp. v. Dynamics Corp. of Am., distinguished MITE in the course of rejecting an inconsistent regulation 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 extraterritoriality – a concern which, as we explained above, is at bottom about the proportionality of regulatory response.

In sum, “inconsistent regulation” cases, like the 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 regulation can be struck down, leaving national regulation as an alternative, and often leaving open the door to the possibility that less restrictive alternatives at the state level may survive scrutiny.

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

We now turn to the problem of Internet externalities. Should the “polluter pay” 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 effort to

85 Cf. Fischel, supra note 28, at 90 (suggesting this as a possible reading of CTS).
86 See, e.g., Southern Pacific Co. v. Arizona, 325 U.S. 761 (1945); Kassel v. Consolidated Freightways Corp., 450 U.S. 662 (1981); Raymond Motor Transp. v. Rice, 434 U.S. 429 (1978); see also Regan, supra note 58 (noting that transportation cases are balancing cases).
88 Brown-Forman, 476 U.S. at 583-84; Healy, 491 U.S. at 337.
induce the producers of Internet externalities to internalize them? Or are they excessive along 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 is not nearly as clear or simple as the courts in this area would seem to have it. We begin by explaining why judicial assumptions about the architecture of the Internet are flawed, and why trans-jurisdictional control of Internet content is increasingly feasible. Against this background, we consider the balancing, extraterritoriality, and inconsistency prongs of the dormant commerce clause.

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 laws, or state consumer protection laws, or state franchise laws, or state 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, web site operators can obtain the software needed to operate this system from one of twenty-five or so adult identification firms. Web site operators can earn commissions of up to 60% of fees generated by the adult identification services. The adult identification firms, in turn, charge

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89 This is true, for example, of web gambling operators, see, e.g., www.planetluck.com, and of some financial service pages, see, e.g., www.wsj.com.

90 Other currently less effective methods, not discussed here, include credit card verification, content-filtering software, and digital certificates.

91 See, for example, www.adultcheck.com.

approximately 17 dollars for receivers to obtain an adult PIN (although firms are now beginning to offer the adult PINs for free.)\(^{93}\) 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 Web sites.\(^{94}\)

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 receiver. The web page operator must organize prohibited content on the web page 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 this cost to be excessive, and will not therefore acquire a PIN. This, in turn, can lead to a loss of traffic for content providers who must condition access on age identification.\(^{95}\)

Geographical Filtering. Many of the techniques for age identification can 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.\(^{96}\) There are at present no third party firms akin to the age identification services who provide geographical PINs via credit cards.

Much more promising are developing technologies that allow web page content providers instantly to determine the content receiver’s geographical identity on the basis of the Internet Protocol address of the user’s computer.\(^{97}\) Several firms now provide software with algorithms that identify the geographical source of a content receiver’s Internet Protocol address.\(^{98}\) The algorithms determine the geographical identity of the content receiver by cross-comparing results from (a) a mapping of Internet Protocol addresses in the content receiver’s header with IP address databases, and (b) a tracer analysis of the path of the Internet transmission, which is

\(^{93}\) See ACLU v. Reno, 217 F. 3d 162, 170-71 & n. 15 (2000) (reference omitted). To obtain an adult PIN, one must pay by credit card on-line, or fax or mail an application and a check and a copy of a passport or driver’s license to the adult identification firm. See 31 F. Supp. 2d at 489. The on-line process takes a few minutes. A free adult PIN can be obtained at www.freecheck.com.

\(^{94}\) 31 F. Supp. 2d at 489.

\(^{95}\) Id.

\(^{96}\) Id. at 488.

\(^{97}\) The information in this and the following paragraph is based on a technical memorandum by a leading geographical identification firm, Infosplit.com, see InfoSplit Core Technology (September 25, 2000) (copy on file with authors), as well as on interviews with two experts in geographical filtering of the Internet, Cyril Houri of Infosplit.com (September 7, 2000) and Martin Hald of Xdrive.com (September 18, 2000). The information in these paragraphs has not been publicly documented – geographical filtering technology using redundant algorithms is a new, developing, and still largely proprietary technology. Nothing in our analysis turns on the precise accuracy of this information. The general point that matters is that geographical filtering is increasingly feasible at some cost, that cost is dropping, and courts should inquire into these costs in performing a dormant commerce clause analysis.

\(^{98}\) See, for example, , www.akamai.com (EdgeScape technology), www.bordercontrol.com, www.infosplit.com, and www.digitalisland.com (TraceWare technology).
checked against a database of the nodes through which the transmission traveled and their geographic location. While neither method, taken alone, is adequately accurate, redundant cross-referencing of these databases holds the promise to be extraordinarily accurate. This software can be installed in the content provider’s web page, and can allow 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 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. On the disadvantage side, geographical identification is, at the moment, significantly more expensive for the web page operator than age identification technology, which is free. It is also less accurate, at least at the moment. The technology correctly identifies the content receivers’ geographical identity at the national level over 99% of the time, but at the state level only 80-90% of the time. It currently works even less well with the 25 million America Online customers who use AOL’s proprietary proxy server. Finally, these geographical identification technologies can, at the moment, 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. These technologies are imperfect, as described above; but the imperfections have solutions, and there is good reason to believe that geographical identification technology will precise and inexpensive in the near future. In the meantime, many will point to the imperfections and conclude that the technologies “won’t work” or are “infeasible” or “useless.” 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. We don’t conclude from the fact that minors obtain and use fake IDs 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 we assume that imperfections in Internet identification and filtering technology render these technologies useless. Regulation works by raising the cost of the proscribed activity, and 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 do so at a certain cost, and this cost can be prohibitive for most.


100 See, e.g., Pataki, 969 F. Supp. at 180; Burk, supra note 11, at 1114; Johnson and Post, supra note 1, at 1374.

2. Electronic Mail

Unlike the World Wide Web, which involves a two-way transmission between the content receiver and sender, e-mail transmissions are effectively one-way transmissions from the content sender to 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 (by software that removes these addresses from the spam list) prior to sending the spam. No state has yet done this, however.

Fortunately, ex ante identification and filtering is unnecessary in this context, for none of the anti-spam statutes prohibit unsolicited commercial e-mails outright. Rather, they simply require spammers to accurately label subject lines and headers, and/or to provide clear information to allow the receiver to easily remove herself from the spamming list. To be sure, compliance with these various laws still impose costs on the spammer. To ensure compliance with the various anti-spam laws, he must accurately label headers and subject lines, must start subject lines with ADV or ADV:ADLT, when appropriate, must establish a valid e-mail reply system, and must 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 it turns on complicated predictions about the economic effects of Internet regulations. We aim not to show that that the Internet regulations are cost-justified, but rather that judicial cost-benefit analyses to date are seriously flawed. We address the pornography statutes and the spam statutes in turn. We then query whether Congress, and not the federal judiciary, might be best suited to perform this cost-benefit analysis.

1. Pornography Statutes

Pataki and its progeny acknowledge that the pornography statutes’ aim to protect children from pedophilia “is a quintessentially legitimate state objective.” These decisions conclude, however, that the local benefits of the statute are small because the state laws have no

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103 Senator Robert Torricelli has proposed something like this in national legislation. See Electronic Mailbox Protection Act of 1997, S. 875, 105th Cong.
104 The State of Washington maintains a registry of e-mail addresses of Washington residents who do not want to receive spam. See http://registry.waisp.org. But in order to ensure that the registry itself is not used as a spamming database, addresses registered on it can only be verified one address at a time.
105 969 F. Supp. at 177.
effect on communications abroad, and because the statutes were 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 they "cast [their] nets worldwide" and because "the chilling effect that [the statutes] produce[ are] bound to exceed the actual cases that are likely to be prosecuted, as Internet users will steer clear of the [statutes] by a significant margin."\textsuperscript{106}

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 content and scope of the local harm it wishes to redress. The state's narrowing of the statute can be viewed as a reasonable effort to balance concerns about pedophilia with competing concerns about restricting adult free speech. The statute still protects minors against pictorial representations of a sexually explicit nature, and in conjunction with other state laws that protect children against sexual exploitation,\textsuperscript{107} this narrower Internet regulation might well fully address the problem that concerns parents in the jurisdiction. The courts certainly have not offered any reason to think otherwise, and in any event courts applying the dormant commerce should not lightly "second-guess the empirical judgments of lawmakers concerning the utility of legislation."\textsuperscript{108}

The fact that the statute cannot be applied as a practical matter to websites overseas, whose operators are not realistically subject to prosecution in the United States, also reduces its efficacy. But this reduction in efficacy does not make the regulation worthless, and does not suffice to establish that its local benefit is outweighed by its burden. State governments can regulate content flows from abroad even if the offshore website providers lack presence or assets within the state.\textsuperscript{109} Minors might not be able to perfectly substitute unblocked foreign websites.\textsuperscript{110} Foreign jurisdictions may undertake measures to prevent minors from accessing pornographic material found on sites within their jurisdiction. And even if foreign websites were perfect substitutes for domestic ones, the purposes of the New York Act would still be served to some extent by this forced substitution, for it would be more difficult for the substituted foreign content providers to sexually exploit New York children.\textsuperscript{111} Any serious cost-benefit analysis of the state Internet regulations must take these factors into account. No court to date has.

\textsuperscript{106} Id. at 179.
\textsuperscript{107} See 969 F. Supp at 179.
\textsuperscript{108} CTS, 481 U.S. at 92 (citations omitted).
\textsuperscript{109} 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).
\textsuperscript{110} On the assumption that pornography sites from the United States were effectively blocked to children in regulating states, children would incur costs, perhaps non-trivial, in substituting to unblocked foreign pornography web sites. On most search engines, searches using terms such as "sex" or "nude" would produce an enormous number of popular U.S. sites which children would have to cull through before finding foreign, unregulated sites. This could be a time-consuming process that would deter childrens' 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 clear that territorial governments can, through a variety of means, raise the cost of Internet flows from abroad. See Lessig, supra note 2, and sources cited in n. 114.
\textsuperscript{111} See Pataki, 969 F. Supp. at 179 (prevention of sexual exploitation of minors is a major purpose of New York Act).
More significantly, the court’s emphasis on the inability of states to enforce its law against foreign websites weakens its claim that the pornography statutes will have a significant burden on interstate commerce. Foreign web page 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 seeking extradition. 112 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 web page content provider is not subject to personal jurisdiction in another state unless she has an interactive (as opposed to passive) web site with independent indicia of communication with that state. 113 But it is false to assume, as the courts have done, that every web site 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 the efficacy of the statute at protecting is less. But it also suggests that out-of-state websites need not fear prosecution under the statute, so that the "chill" on interstate commerce emphasized in Pataki is greatly exaggerated.

There is another reason to believe that courts have overstated the nature of the pornography statute’s chill on Internet commerce. The pornography statutes have 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 card. 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 identification efforts, as long as he makes a good faith best effort. The content providers’ worries about misidentification, and any attendant chills on speech, are perhaps unacceptable burdens on First Amendment rights. 114 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 we encounter 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. 115 Pataki reached this conclusion based on findings of fact from a 1996 decision, and the other Internet decisions have followed Pataki on this score without further analysis. 116 But technology in this area has improved enormously since then, and will only continue to do so in response to demand from parents, governments, and especially business. A genuine cost-benefit analysis must inquire into contemporary costs of identification and screening. For example, the decision that Pataki relied on for its assumptions about Internet architecture determined, in 1996, that adult

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112 See, e.g., Innes v. Tobin, 240 U.S. 127, 131 (1916); Gee v. Kansas, 912 F. 2d 414, 418 (10th Cir. 1990); see generally Goldsmith, supra note 3, at 1220.
113 See, e.g., Cybersell, Inc. v. Cybersell, Inc., 130 F. 3d 414, 419-20 (9th Cir. 1997); see generally Goldsmith, supra note 3, at 1218.
115 See Lessig, supra note 2 (extended argument against Internet architectural essentialism).
116 See supra notes 34-38 and accompanying text; see also cases cited in note 42.
identification services were scarce and their products were expensive and imperfect.\footnote{See ACLU v. Reno, 929 F. Supp. 824, 845 (E.D. Pa. 1996) (finding of fact), aff’d, 521 U.S. 844 (1997).} By the end of 1998, however, there were dozens of such firms servicing millions of users, and their services were free and extraordinarily effective.\footnote{See ACLU v. Reno, 31 F. Supp. 2d 473, 489-92 (E.D. Pa. 1999) (finding of fact).} The cheapness and accuracy of age identification technology, combined with the “best efforts” defenses in the pornographic communication statutes, means that liability under these statutes can be avoided rather simply and cheaply. This fact alone makes it likely that the pornography statutes 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 only matter if they exceed the local benefit from the regulation. Courts have generally failed to take into account the rapidly falling 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 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 Section II, it is important that corrective measures for cross-border harms be properly calibrated to the magnitude of the harm. The criminal remedy raises a cautionary flag that the penalties imposed by these statutes might excessively burden interstate commerce in relation to the local benefit.

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 that expose their children to pornography would certainly raise less of a concern.\footnote{An early response to spamming was a common law action for trespass to chattels. See Compuserve, Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015, 1017 (S.D. Ohio 1997).} 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 and/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.\footnote{Indeed, economists have long argued that with costly enforcement, high penalties imposed on rare occasion may be the cheapest way to achieve optimal deterrence. See Gary S. Becker, Crime and Punishment: A Law and Economic Approach, 76 J. Pol. Econ. 169 (1968).} 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 the state pornography statutes at issue, even if aimed at legitimate harms, nevertheless “micromanage” the solution to those harms excessively. 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

\begin{itemize}
\item \footnote{See ACLU v. Reno, 31 F. Supp. 2d 473, 489-92 (E.D. Pa. 1999) (finding of fact).}
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\item \footnote{Indeed, economists have long argued that with costly enforcement, high penalties imposed on rare occasion may be the cheapest way to achieve optimal deterrence. See Gary S. Becker, Crime and Punishment: A Law and Economic Approach, 76 J. Pol. Econ. 169 (1968).}
\end{itemize}
interstate activities." The government need not employ "the least restrictive means conceivable," but rather "must demonstrate narrow 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 appear easily to satisfy this standard. The New York statute at issue in Pataki, for example, gave the website operator a general defense for using any of a number of best efforts to ascertain the age of the minor, 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 anti-spam statutes also address a legitimate state objective. Bulk e-mail can raise Internet Service Provider and Internet user costs in terms of wasted time, slower operating systems, lost accounts, repair costs, equipment costs, 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 Pataki court, it concluded that statute did not achieve this purpose. The court noted that Washington's truthfulness requirements concerned only the form of the message, and would not redress the costs of spam associated with its bulk. 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. For this identification alone will allow many people to simply 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.

122 Greater New Orleans Broadcasting Assoc. v. United States, 527 U.S. 173, 188 (1999) (citations and internal quotations eliminated). Greater New Orleans Broadcasting applies intermediate scrutiny in the First Amendment context, but there is no reason to believe the balancing test and associated level of least restrictive means scrutiny is any different than in the dormant commerce clause.
123 See supra note ___ and accompanying text.
125 See supra note 109 and accompanying text.
Even assuming that the anti-spam laws do not significantly further the state's interest, it is hard to see how the anti-spam 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 interstate commerce by eliminating fraud and deception. Compliance with the various anti-spam statutes is easy compared to the process of non-compliance, 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. 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.

Perhaps the most concrete concern about the spamming statutes is that one state will, for example, require "ADV" to signify an advertisement, while another state tries to achieve the same regulatory end by requiring a different label, such as "ADVERT." Spammers can 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 state to explain why they did not coordinate on the label of the first mover, or to 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. But we have emphasized that balancing these considerations is difficult, and that the balancing process turns on technological and empirical issues that are uncertain and changing. Here we ask which branch of the federal government is best suited to perform this balance - the federal political branches or the federal courts.

Congress (or a federal agency) may be in the best position to balance the benefits of state Internet regulation against its burdens on interstate commerce. Congress can best make the factual assessments that underlie balancing, and it can respond in a more fine-grained manner than federal courts, which can only invalidate state law and not legislate affirmatively. But congressional inertia, combined with the multitude of state Internet regulations, lead many to conclude that Congress is not up to the task of policing, and will not in fact be able to police, the many cross-border harms of state Internet regulation.

126 See supra 124-26 and accompanying text.
127 See supra notes 106-07 and accompanying text. As we explained in notes 106-07, these technologies are potentially self-defeating.
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 anti-discrimination regime, are ill-suited to make the many difficult value judgments 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 hope to have shown, courts have failed to properly identify and weigh the costs and benefits of state Internet regulations.

The Internet context might provide special reasons to prefer political rather than judicial solutions at the federal level. Congressional inertia seems less of a problem in this context. Unlike many of the subjects which form the basis for dormant commerce clause scrutiny, the Internet is an extraordinarily important phenomenon for the United States generally, 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 anti-spam 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 in any event. But this perspective is too static. Federal Internet porn and spam legislation 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 we have witnessed threatens to preclude this useful state experimentation in various contexts. It also makes it likely that there

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129 In a recent dormant commerce clause decision, every member of the Court acknowledged the Court’s relative incompetence at balancing. See General Motors v. Tracy, 519 U.S. 278 (1997). Justice Scalia has pressed this point most vigorously. See, e.g., Tyler Pipe Industries v. Washington State Dep’t of Revenue, 483 U.S. 232, 259-265 (1987) (Scalia, J., dissenting). On these general points, see Regan, supra note 65.

130 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, and 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. On the count and analysis of dormant commerce clause cases since 1980, see Regan, supra note 65.


132 See supra note 4.

133 See Unsolicited Electronic Mail Act, H. R. 3113, 106th Congress, 2d Session (approved 427-1).

will be under-regulation of Internet transactions until Congress acts, and possibly sub-optimal legislation even when Congress acts (because of that relative absence of experimental evidence).

It follows from these reflections that judges should be cautious in striking down a state Internet regulation under a balancing rationale. We do not go so far as to say 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” by comparison with its benefits.

B. 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 by age or geography is, as we just learned 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 (i.e. geographical identification and screening costs) to be greater than the cost of removing offending content from the web page, thereby affecting the availability of content for receivers in non-restrictive jurisdictions. Related, content providers might pass along the costs of geographic identification required by regulating jurisdictions to content receivers in non-regulating states. A final extra-state cost of the pornography regulations might be that the adult PIN required by content providers to comply with regulating states chills potential content receivers in non-regulating states. The extra-state costs of the anti-spam statutes are presumably similar.

As we hope to 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 simply should not trigger condemnation under the dormant commerce clause.

Pataki itself reveals the difficulty with extending dormant commerce clause scrutiny to the type of out-of-state regulatory effects that we have defended. Pataki asserted, without analysis, 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 (a) New York’s prohibition on pornographic communications with minors and (b) 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. We do not know why the court refused to extend its logic to the sale of obscenity to minors. But the Court’s refusal to do so reveals that there is something wrong with the logic. And indeed, as we have explained, the Court’s logic would condemn an

\[\text{Id.}^{135}\]

\[\text{Perhaps the court believed that no state permitted sale of obscene materials to minors, and thus that there were no out-of-state costs of this regulation. But on this logic the Court should have inquired about the extent to which New York’s prohibition on pornographic communications with minors differed from the laws of several states. The Court also might have been confounding First Amendment analysis with Dormant Commerce Clause analysis.}\]
extraordinary array of state laws as applied to cross-border activity that heretofore no one viewed as problematic.

C. Inconsistent Regulations

Courts applying the “inconsistent regulation” 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; and the legal issue is the balance of costs and benefits, not inconsistency. As we have emphasized, it is a commonplace for firms doing business in the United States to incur costs learning about and complying with fifty state regulations. As we have also shown, 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 is no further concern about “inconsistent regulations.”

V. Extensions and Comparisons

We have focused thus far on state anti-pornography and anti-spam 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.137 Automakers who want to sell cars directly to consumers via the Internet are challenging state laws that prohibit manufacturers from selling cars directly to consumers.138 A cigarette manufacturer is challenging New York’s ban on cigarette sales via the Internet.139

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 more complex yet because of the 21st Amendment.) But the fact that the communications before sale take place over the Internet means that no unusual problems are presented under the dormant commerce clause. This is because these cases involve the sale and delivery of real-space goods. Unlike in 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

140 See Bridenbaugh v. Freeman-Wilson, __ F. 3d __ (7th Cir. Sept. 13, 2000).
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 precise 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 that do not usually implicate dormant commerce clause scrutiny.

Here we 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 in issue. The pornography and spam cases are harder than the wine, automobile, and cigarette sale cases precisely because in the former context it appears more costly for out-of-state regulated entities to identify and filter its communications and deliveries by geography.

There are other cases besides the porn and spam statutes that implicate Pataki’s concerns. Consider Consolidated Cigar Co. v. Reilly. 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 in to serious difficulty... due to the heavy burden it would place on interstate commerce.” The First Circuit rejected the district court’s narrower reading but agreed, with no analysis, that the regulation as applied to the Internet violated the dormant commerce clause.

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 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 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 subject of dormant commerce clause challenge, and all of which are subject to the analysis in the Essay.

B. International Comparisons

The issues implicated by dormant commerce litigation also arise in numerous contexts on the international stage. To take a prominent recent example, France has threatened to order Yahoo.com, a U.S. Internet service provider, to prohibit French citizens from accessing Nazi memorabilia available through Yahoo.com’s auction site but prohibited in France. The situation should by now be familiar: Activity deemed legal in one jurisdiction (an Internet auction of Nazi paraphernalia conducted via U.S. computers) has effects deemed harmful in another (the offer and sale of Nazi paraphernalia in France). French regulation of the U.S. site

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141 218 F. 3d 30 (1st Cir. 2000).
143 218 F. 3d at 66-71.
144 See H. Joseph Hameline and William Miles, The Dormant Commerce Clause Meets the Internet, Boston Bar Journal, September/October 1997.
might (if Yahoo takes the items off its page) have the effect of limiting the sale of Nazi items in places where they are illegal; or it might (if Yahoo passes along the costs of complying with the French regulation to auction users) raise the cost of the Yahoo service for persons outside France. A French judge is set to rule in November on whether Yahoo can be forced to block the offending web sites or face liability. The primary issue in the case under French law appears to be the cost and effectiveness of geographical screening—precisely the issues we have emphasized.

It is unlikely that either of the two potentially applicable international law regimes would restrict France’s anti-pornography regulation of an offshore Internet content provider like Yahoo.com. The first potential restriction concern customary international law limits on a nation’s ability to regulate extraterritorial events. Although the precise contours of this restriction are unclear, customary international law generally allows a nation to regulate foreign activity with 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 embodies in the treaties creating the World Trade Organization (WTO) and the North American Free Trade Agreement (NAFTA). 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 non-discrimination or “national treatment” requirement. And 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. The rules of the NAFTA are quite similar. Most notably absent from WTO or NAFTA 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 be left to the political process of negotiation among member states perhaps tells us something about the wisdom of such balancing in domestic courts.

146 See sources cites infra note 139.
148 See Goldsmith, supra note __ at 1207-09.
150 GATT Art. XX(a).
152 Id. 108-09.
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 a commonplace, and are 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 the local harm. Third, the real concern underlying the “extraterritoriality” and “inconsistent regulation” prongs of dormant commerce clause should be with the proportionality of the regulation, not with its out-of-state effects and non-uniformity per se. 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 and not the federal courts are best suited to balance and redress the harms and benefits of state Internet regulation.

Dormant commerce clause analysis of state Internet regulations to date have been marred by the same general error that infects much thinking about Internet regulation. 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, in the first instance anyway, from focusing not on how the Internet is different from other communications systems, but rather on the many ways in which it is similar.

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