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PORNOGRAPHY AS POLLUTION

JOHN COPELAND NAGLE*

I. INTRODUCTION

Pornography is often compared to pollution. The comparison appeared early in the development of obscenity law in nineteenth century Britain.¹ It was especially common during the 1960s and 1970s, when Congress enacted the Clean Air Act (“CAA”)² and the Clean Water Act (“CWA”)³ while the Supreme Court and legal scholars struggled with governmental efforts to regulate pornography.⁴ One judge enjoined the showing of a pornographic movie at a drive-in theater because “[i]f the owner of land can be prohibited from polluting the community with noxious smoke and unpleasant odors, we conceive of no reason why he cannot be prohibited from polluting the neighborhood with visual material harmful to children.”⁵ Robert Bork wrote, “[P]ornography is increasingly seen as a problem of pollution of the moral and aesthetic atmosphere precisely analogous to smoke pollution.”⁶ In the twenty-first century, climate change is a global environmental problem while pornography has become a global problem thanks to the Internet. And, pollution imagery surrounds both climate change and Internet pornography. Two years before the Supreme Court of the United States ruled that climate

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* John N. Matthews Professor, Notre Dame Law School. I am thankful for the opportunity to present earlier versions of this Article at the UCLA Law School and at the Southwestern University School of Law in Chongqing, China. Amy Barrett, Eric Claeys, Rick Garnett, Abner Greene, and Andy Koppelman provided invaluable comments on an earlier draft.

1. See Matthew Benjamin, *Possessing Pollution*, 31 N.Y.U. REV. L. & SOC. CHANGE 733, 739 (2007) (referring to mid-nineteenth century descriptions of pornography as “poison” and “contamination and pollution”).

2. Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392 (codified as amended at 42 U.S.C. §§ 7401–7671q (2006)).

3. Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566 (codified as amended at 33 U.S.C. §§ 1251–1387 (2006)).

4. See Amy Adler, *All Porn All the Time*, 31 N.Y.U. REV. L. & SOC. CHANGE 695, 700 (2007) (noting that “the Court fought bitterly about obscenity doctrine” between 1957 and 1973).

5. *Cactus Corp. v. State ex rel. Murphy*, 480 P.2d 375, 379 (Ariz. Ct. App. 1971).

6. Robert H. Bork, *Neutral Principles and Some First Amendment Problems*, 47 IND. L.J. 1, 29 (1971).

change is a pollution problem,⁷ the Court's invalidation of a federal Internet pornography law prompted one newspaper to editorialize that the Court's decisions were to blame for "why the Internet is so polluted with pornography."⁸

Legal scholars say the law has failed to control Internet pornography. It is hard to argue with them. Amy Adler observes, "In the escalating war against pornography, pornography has already won."⁹ But, she adds, "[T]he government is not going to lay down its arms."¹⁰ Meanwhile, Andrew Koppelman documents the persistence of objections to pornography, especially claims of moral harm.¹¹ For Adler and Koppelman, the efforts to employ the law against pornography have been unsuccessful because of the First Amendment's protection of free speech, and relatedly because the government is ill-suited to regulate moral harms or pornography generally.¹²

Neither Adler nor Koppelman, though, contends that the widespread prominence of pornography on the Internet is a social good.¹³ Opponents of pornography maintain passionate convictions about how sexually explicit materials harm both those who are exposed to them and the broader cultural environment. Viewers of pornography may generally hold less fervent beliefs, but champions of free speech and of a free Internet object to antipornography regulations with strong convictions of their own. The challenge is how to address the widespread concern about pornography while recognizing the limits of government regulation.

This Article will respond to the law's failures by framing pornography as a pollution problem. Pornography has long been seen as a First Amendment problem—unavoidably and rightly so. But, pornography is not just a First Amendment problem. It may also be ex-

7. See *Massachusetts v. EPA*, 549 U.S. 497, 521 (2007) ("The harms associated with climate change are serious and well recognized.").

8. Editorial, *High Court Backs Pornographers*, CHATTANOOGA TIMES FREE PRESS, July 12, 2004, at B7. The editorial was responding to *Ashcroft v. ACLU*, 542 U.S. 656 (2004), which affirmed a preliminary injunction against the enforcement of the Child Online Protection Act ("COPA").

9. Adler, *supra* note 4, at 695.

10. *Id.* at 710.

11. See Andrew Koppelman, *Does Obscenity Cause Moral Harm?*, 105 COLUM. L. REV. 1635, 1639–43 (2005) [hereinafter Koppelman, *Moral Harm*].

12. See Adler, *supra* note 4, at 703; Koppelman, *Moral Harm*, *supra* note 11, at 1639 (describing the "inevitable clumsiness" of First Amendment jurisprudence related to pornography).

13. See Adler, *supra* note 4, at 695 (claiming to take no "side in the porn wars"); Koppelman, *Moral Harm*, *supra* note 11, at 1679 (arguing that pornography can cause moral harm).

aminated as a problem of pollution. Casual references to pornography as pollution are common,¹⁴ but they have rarely been accompanied by a careful consideration of what this pollution image means.¹⁵ American environmental law has considerable experience battling different kinds of pollution problems—sometimes successfully, sometimes not. Generally, environmental law seeks to (1) *prevent* some pollution from occurring at all, (2) *control* other pollution so it does not enter the environment, (3) facilitate the *separation* of pollution that does reach the environment from those it could harm, and (4) *tolerate* the presence of some pollution.¹⁶ The experience with these four approaches may suggest strategies for addressing pollution that can help respond to concerns about pornography, especially Internet pornography. American environmental law also rebuts the familiar argument that pollution controls necessarily come at the cost of economic growth or other social goods.¹⁷ The experience of other nations—especially

14. See, e.g., *Iraq Reconstruction and Stability Operations: The Way Forward Hearing Before the House Armed Servs. Comm.*, 108th Cong. 73 (2003) (statement of Karl Zinsmeister, American Enterprise Institute) (worrying about “the pollutive effect” of pornography in Islamic countries); 145 CONG. REC. H542 (daily ed. Feb. 10, 1999) (statement of Rep. Pitts) (complaining that a federal district judge’s invalidation of COPA enabled children to “easily access these *pornographic* sites and *pollute* their minds with sexually explicit material” (emphasis added)); 142 CONG. REC. E931 (daily ed. May 29, 1996) (statement of Rep. Hoke) (complaining that the price of pornography shown on cable television “is the pollution of our culture”); Janice Rogers Brown, *The Once and Future First Amendment*, in 2007–2008 CATO SUPREME COURT REVIEW 9, 13 (referring to “conservatives who would treat pornography like smoke pollution”); Jack L. Goldsmith & Alan O. Sykes, *The Internet and the Dormant Commerce Clause*, 110 YALE L.J. 785, 794 (2001) (characterizing Internet pornography as pollution because its harms “are much like the harm to the neighbors of a cement mill”); Seth F. Kreimer, Response, *Lines in the Sand: The Importance of Borders in American Federalism*, 150 U. PA. L. REV. 973, 1010 (2002) (describing the “burning moral desire that no member of my community be polluted by pornography”); Kathleen M. Sullivan, *Free Speech and Un-free Markets*, 42 UCLA L. REV. 949, 952 n.17 (1995) (noting that some people would punish pornographers “for emitting a kind of moral pollution”); Editorial, *Indecent Exposure*, BOS. GLOBE, Feb. 14, 1997, at A22 (“Pornography pollutes the Internet like smog on a sunny day.”).

15. Two writers have developed the argument that pornography is like environmental pollution. See Robert P. George, *The Concept of Public Morality*, 45 AM. J. JURIS. 17, 17–19 (2000); H. Patricia Hynes, *Pornography and Pollution: An Environmental Analogy*, in PORNOGRAPHY: WOMEN, VIOLENCE AND CIVIL LIBERTIES 384, 384–97 (Catherine Itzin ed., 1992). Neither Hynes nor George, however, considers the implications of or the objections to this approach.

16. See John Copeland Nagle, *Climate Exceptionalism*, 40 ENVTL. L. 53, 67 (2010) [hereinafter Nagle, *Climate Exceptionalism*] (noting prevention, control, separation, and tolerance responses to pollution); John Copeland Nagle, *The Four Responses to Pollution* (unpublished manuscript) (on file with author).

17. President Obama’s statement is representative:

Throughout our history, there’s been a tension between those who’ve sought to conserve our natural resources for the benefit of future generations, and those who have sought to profit from these resources. But I’m here to tell you this is a

China—offers insight into far different responses to claims of pornography as pollution.¹⁸

Part II of this Article will explain how pornography is like pollution, and how it is not. Part III will consider the obstacles to relying on regulation to combat pornography. Part IV will turn to the difficulty with simply instructing Internet users to tolerate pornography. Part V will show how viewing pornography as a problem of pollution may assist in devising new ways of responding to the widespread concerns about Internet pornography. Environmental law suggests that victims of pollution should not be burdened with avoiding it, and that filtering and zoning strategies can play a role in helping people avoid exposure to the effects that pornography has on the Internet environment.

II. THE POLLUTION ANALOGY

There are many kinds of environmental pollution, but most air, water, and other environmental pollution share several characteristics. Generally, pollution refers to the introduction of material into an environment where it harms those who are exposed to it or where it results in indirect harms to others in the environment.¹⁹ Comparisons of pornography to pollution presume that graphic sexual material serves as the offending pollutant.²⁰ This material is introduced into the culture or online by parties ranging from curious or predatory individuals to organizations comprising the multibillion dollar online pornography industry.²¹ The most sexually explicit, and the

false choice. With smart, sustainable policies, we can grow our economy today and preserve the environment for ourselves, our children, and our grandchildren. That is what we must do.

Barack H. Obama, Remarks on the 160th Anniversary of the Department of the Interior (Mar. 3, 2009). Supporters of increased domestic energy production voice the same argument about the presumed trade-off between increased domestic energy production and environmental protection. *See, e.g.*, 152 CONG. REC. H3239 (daily ed. May 25, 2006) (statement of Rep. Gibbons) (citing the “false choice between environmental protection and energy production”).

18. *See infra* text accompanying notes 95–128.

19. *See, e.g.*, David N. Cassuto, *The Law of Words: Standing, Environment, and Other Contested Terms*, 28 HARV. ENVTL. L. REV. 79, 107 (2004).

20. These themes are developed by H. Patricia Hynes, an environmental attorney who explains that pornography—like environmental pollution—spreads throughout the environment, harms those who did not consent to its release, is hazardous even in modest amounts, and is defended as beneficial by the industries that produce it. *See Hynes, supra* note 15, at 387–94. “Like polluted ecosystems,” Hynes adds, “women in sexist societies have low occupational diversity and few resources.” *Id.* at 384.

21. *Id.* at 388–89; Frank Rich, *Naked Capitalists*, N.Y. TIMES, May 20, 2001, § 6 (Magazine), at 51.

most violent, pornography is produced by entities specifically committed to this venture. Consumers then further disseminate the materials to other consumers, a process that became dramatically easier with the advent of digital file transfer. Once in the environment, pornography results in a variety of harms to those who choose to be exposed to it, to families in which parents seek to shield their children from such materials, and to those who are affected by the cultural influences of pornography.²²

Despite these similarities, there are also differences between Internet pornography and most types of environmental pollution, though these differences are often exaggerated. First, much exposure to pornography results from the intentional actions of people who seek out such images. Few people are similarly attracted to toxic fumes (though environmental historians tell stories of communities that once boasted of their smoky atmospheres).²³ The desire to be exposed to the pollutant complicates the response to pornography available online. Some Internet pornography, however, is viewed unwittingly via unsolicited e-mails, the entry of an incorrect web address, the use of search terms with double connotations, purposeful efforts by pornographers to mimic seemingly innocent web addresses, and clicking on links of unknown provenance. These exposures to Internet pornography are more analogous to traditional understandings of pollution and thus potentially addressed in a like manner.

A second possible distinction involves the nature of the affected environment.²⁴ There is no agreement concerning the ideal, unpolluted baseline cultural environment. Opponents of Internet pornography seek a “clean” online environment, though there are few (if any) individuals who believe that the Internet should be devoid of any references to or depictions of sexuality. It is equally difficult to iden-

22. See, e.g., *A Nasty Global Problem*, GUARDIAN.CO.UK (Nov. 29, 2001), <http://www.guardian.co.uk/society/2001/nov/29/childrenservices1> (detailing the use of the Internet to disseminate child pornography).

23. See PETER THORSHEIM, *INVENTING POLLUTION: COAL, SMOKE, AND CULTURE IN BRITAIN SINCE 1800*, at 55 (2006) (quoting Claude Monet’s statement that “without the fog London would not be a beautiful city”).

24. The environmental aspect of pornography is referenced in *Paris Adult Theatre I v. Slaton*, 413 U.S. 49 (1973), in which the Court stated that pornography implicates “the interest of the public in the quality of life and the total community environment.” 413 U.S. at 58; see also JACQUES BARZUN, *FROM DAWN TO DECADENCE: 500 YEARS OF WESTERN CULTURAL LIFE, 1500 TO THE PRESENT* 789 (2000) (“The atmosphere of sexuality likewise gave the illusion of real life. And the word *atmosphere* suggests only the enveloping presence: its force was invasive. The air was thick with pictures of half-naked bodies in seductive poses.”).

tify what constitutes “clean” air or “clean” water.²⁵ Besides H₂O, water contains sodium, calcium, chlorine, magnesium, potassium, copper, lead, and zinc.²⁶ The Earth’s atmosphere consists of nitrogen, oxygen, argon, neon, helium, methane, krypton, hydrogen, nitrous oxide, xenon, water, carbon dioxide, ozone, sulfur dioxide, and nitrogen dioxide.²⁷ Natural processes constantly change the composition of air and water.²⁸ Yet we are able to refer to “polluted” air and water even though we cannot identify precisely what constitutes “clean” air and water.²⁹

A third, and perhaps the most common, distinction between pornography and pollution is easily rebutted. It is often asserted—or just assumed—that “pornography” cannot be defined.³⁰ As Justice Stewart put it, “I know it when I see it” is the only way to explain what is obscene.³¹ Justice Stewart wrote this phrase to explain why he agreed to overturn the obscenity conviction of Nico Jacobellis, the manager of a Cleveland Heights theater that showed the 1958 movie *Les Amants*, which featured a bored housewife who has an affair with an archaeology student.³² A number of Cleveland residents employed pollution imagery to voice their disgust with the movie.³³ The Supreme Court of Ohio upheld the obscenity conviction with an ode to the ability of the popular majority to insist on their vision of a desirable moral community.³⁴ Justice Stewart lamented, in defining pornography, the U.S.

25. For a discussion of the baseline aspect of pollution claims, see John Copeland Nagle, *The Idea of Pollution*, 43 U.C. DAVIS L. REV. 1, 50–55 (2009) [hereinafter Nagle, *Idea of Pollution*].

26. *Id.* at 54.

27. *Id.*

28. *Id.*

29. *Id.* at 50–55.

30. Cf. James Lindgren, *Defining Pornography*, 141 U. PA. L. REV. 1153, 1155 (1993) (“Except for those who profit by selling pictures of vaginas, the Supreme Court’s various definitions of obscenity have been unsuccessful, at least in practice.”).

31. *Jacobellis v. Ohio*, 378 U.S. 184, 197 (1964) (Stewart, J., concurring).

32. *Id.* at 195–96 (majority opinion). For details of the movie’s plot, see *infra* note 37.

33. See Sven Dubie, *Obscene History in the Heights: The Case of Nico Jacobellis and Les Amants*, <http://www.chhistory.org/FeatureStories.php?Story=ObsceneHistory> (last visited Apr. 14, 2011) (quoting contemporary accounts of residents complaining about “foreign film garbage” and the “filth spewing forth from a tarnished screen”).

34. *State v. Jacobellis*, 179 N.E.2d 777, 779–80 (Ohio 1962), *rev’d*, 378 U.S. 184. The court’s opinion was written by Judge Radcliff of the state appeals court, who after acknowledging his temporary status on the supreme court, proclaimed:

History is replete with examples of nations that lost positions of eminence in the world and whose citizens lost their freedom due to decay of their moral fiber resulting in degeneracy and depravity. Legislative bodies must continue to pass laws which attempt to protect the morality of the people from themselves and from their own weaknesses.

Id. at 778–79.

Supreme Court was “trying to define what may be indefinable.”³⁵ He asserted his own conclusion that the First Amendment only permitted the criminal regulation of “hard-core pornography.”³⁶ He then added,

I shall not today attempt further to define the kinds of material I understand to be embraced within that shorthand description; and perhaps I could never succeed in intelligibly doing so. But *I know it when I see it*, and the motion picture involved in this case is not that.³⁷

This “I know it when I see it” test has become the paradigmatic example of a standardless standard. It has been quoted by courts and legal commentators to describe the difficulty in defining terms such as attorney work product, breaches of fiduciary duties, “clothes” governed by labor law, deliberate indifference to a prisoner’s rights, and impermissible “excessive” damages in tort litigation.³⁸ The attention to Justice Stewart’s phrase is rarely flattering, with the phrase often quoted as evidence of the failure to achieve a principled definition of the conduct that the law seeks to encourage or to forbid.³⁹

35. *Jacobellis*, 378 U.S. at 197.

36. *Id.*

37. *Id.* (emphasis added). For more about the facts of *Jacobellis*, see *id.* at 185–87. Justice Brennan explained,

The Lovers involves a woman bored with her life and marriage who abandons her husband and family for a young archaeologist with whom she has suddenly fallen in love. There is an explicit love scene in the last reel of the film, and the State’s objections are based almost entirely on that scene. The film was favorably reviewed in a number of national publications, although disparaged in others, and was rated by at least two critics of national stature among the best films of the year in which it was produced.

Id. at 195–96. Justice Goldberg in concurrence added that “the love scene deemed objectionable is so fragmentary and fleeting that only a censor’s alert would make an audience conscious that something ‘questionable’ is being portrayed.” *Id.* at 197–98 (Goldberg, J., concurring). Justice Goldberg also found the advertising for the movie more offensive than the movie itself. *Id.* The theater responded by showing the film again three days after the Court’s decision, advertising, “Thanks to the U.S. Supreme Court you can now see [the movie] and, in accordance with your constitutional rights, enjoy your freedom of opinion and expression!” Dubie, *supra* note 33.

38. The frequent judicial references to Justice Stewart’s “I know it when I see it” remark include *United States v. Textron, Inc.*, 577 F.3d 21, 34 n.12 (1st Cir. 2009) (Torruella, J., dissenting) (work product), *cert. denied*, 130 S. Ct. 3320 (2010); *Brieger v. Tellabs, Inc.*, 629 F. Supp. 2d 848, 864 (N.D. Ill. 2009) (breach of fiduciary duty); *Spoerle v. Kraft Foods Global, Inc.*, 626 F. Supp. 2d 913, 917 (W.D. Wis. 2009) (employee’s “clothes”), *aff’d*, 614 F.3d 427 (7th Cir. 2010), *cert. denied*, 131 S. Ct. 933 (2011); *Jones v. Oakland County*, 585 F. Supp. 2d 914, 916 n.2 (E.D. Mich. 2008) (deliberate indifference); *Sandoval v. Baker Hughes Oilfield Operations, Inc.*, 215 P.3d 791, 797 n.1 (N.M. Ct. App. 2009) (excessive damages).

39. See, e.g., *Textron, Inc.*, 577 F.3d at 34 n.12 (Torruella, J., dissenting) (“This test is reminiscent of Justice Stewart’s *famously unhelpful test*” (emphasis added)).

Nonetheless, sometimes courts are willing to say what is pornography and what is not. Now Justice Sotomayor illustrated how pornography may be defined during her tenure on the United States Court of Appeals for the Second Circuit.⁴⁰ The case involved Christopher Farrell, who pled guilty to sodomizing four teenage boys and whose subsequent parole conditions stated that he “will not own or possess any pornographic material.”⁴¹ Farrell’s parole office later found a number of problematic publications in Farrell’s apartment, including the book *Scum: True Homosexual Experiences*.⁴² The prosecutors revoked Farrell’s parole, and after serving his full sentence, Farrell brought a Section 1983 civil rights action seeking damages for his alleged unconstitutional re-imprisonment.⁴³ Judge Sotomayor was thus confronted with the question of whether a parole prohibition on pornography was unconstitutionally vague under the First Amendment. She noted the difficulty in defining pornography, but she “doubt[ed] that many people would agree with [Farrell’s] position that pornography includes only sexual materials so ‘extreme’ as to depict children or bestiality.”⁴⁴ She concluded that the book qualified as pornography “within any reasonable understanding of the term.”⁴⁵ It is thus possible for the law to decree that a particular publication is pornographic.

It is also possible for the law to produce a workable definition of pornography that can be used to distinguish between what is pornography and what is not. The identification problem is common to everything that is described as pollution. The late anthropologist Mary Douglas characterized pollution as matter out of place, which invites an often-contested judgment about the boundaries that keep things where they belong.⁴⁶ The manner in which environmental law resolves the identification problem is instructive. Environmental law employs three different solutions to the problem of defining pollution: (1) it treats everything that is added to the environment as pollu-

40. *Farrell v. Burke*, 449 F.3d 470, 476 (2d Cir. 2006).

41. *Id.* (internal quotation marks omitted).

42. *Id.* at 477.

43. *Id.* at 476.

44. *Id.* at 491.

45. *Id.* at 490. No senators asked Judge Sotomayor about *Farrell* during her confirmation hearings to serve on the Supreme Court, though the case did attract the attention of some bloggers and pundits. See, e.g., Arthur S. Leonard, *More Evidence? Sotomayor on Gay Porn*, LEONARD LINK (June 6, 2009), <http://newyorklawschool.typepad.com/leonardlink/2009/06/more-evidence-sotomayor-on-gay-porn.html> (admitting to “some problems” with Judge Sotomayor’s reasoning but doubting that the case displayed any anti-gay bias).

46. See MARY DOUGLAS, *PURITY AND DANGER: AN ANALYSIS OF CONCEPTS OF POLLUTION AND TABOO* 193–94 (1966).

tion (*the comprehensive solution*); (2) it relies upon detailed lists of pollutants or polluters (*the listing solution*); or (3) it relies upon the effects of an alleged pollutant (*the effects solution*).⁴⁷ The breadth of environmental law's understanding of "pollution" is demonstrated by the CAA's application to carbon dioxide, water, and other greenhouse gases that occur naturally in the atmosphere and that are essential for life, as well as by insurance litigation finding that innumerable common substances qualify as pollutants outside the scope of liability coverage.⁴⁸

Each of these solutions could be extended to pornography. Indeed, the listing and effects solutions have already been employed in defining Internet pornography. The Child Online Protection Act ("COPA") embodies the listing solution when it refers to sexual acts, sexual contact, and "exhibition[s] of the genitals or post-pubescent female breast."⁴⁹ The effects solution is seen in the Children's Internet Protection Act's ("CIPA") reference "to visual depictions that are . . . harmful to minors."⁵⁰ Only the comprehensive solution is missing from Internet pornography laws, presumably because no one believes that *everything* contained on the Internet is pornographic. The objections to these definitions of Internet pornography sound in claims of vagueness or overbreadth, which is again like the similar objections that regulated parties offer to definitions of environmental pollution.⁵¹

The claims that pornography is ambiguous are really about something else: the fear of suppressing too much speech. Few people care if the CWA defines water pollution in a manner that encompasses some things that they do not regard as pollution, but laws that regulate speech that is not seen as pornographic provoke free speech—and thus First Amendment—objections. It is useful to remember that pornography is no more difficult to define than air or water pollution, and it is the consequences of an imprecise definition that generate the real concern.

Fourth, pornography and pollution also differ in the harms associated with them, but these harms are not as different as one may

47. See Nagle, *Idea of Pollution*, *supra* note 25, at 29–32 (describing and providing examples of each solution).

48. See Nagle, *Climate Exceptionalism*, *supra* note 16, 68–73 (describing the treatment of greenhouse gases as pollutants within the meaning of the CAA); Nagle, *Idea of Pollution*, *supra* note 25, at 33–37 (summarizing the insurance litigation).

49. 47 U.S.C. § 231(e)(6)(B) (2006).

50. 20 U.S.C. § 9134(f)(1)(A) (2006).

51. See, e.g., Nagle, *Idea of Pollution*, *supra* note 25, at 33–37 (describing that environmental law definitions are "vague or overbroad").

suppose. The most contested aspect of the pornography debate concerns the effects of exposure to sexually explicit materials once they enter the cultural environment. Justice Souter, for example, opined that “as a general matter pornography lacks the harm to justify prohibiting it.”⁵² Moral harm is the concern of much traditional opposition to pornography. Robert George, for example, emphasizes the moral harm of pornography.⁵³ According to George, “[W]here pornography flourishes, as it does in our own culture, it erodes important shared public understandings of sexuality and sexual morality on which the health of the institutions of marriage and family life in any culture vitally depend.”⁵⁴ He also contends that it is “unjust to subject people to powerful temptations to do things that are harmful to them, morally or otherwise, and whether or not they are cognizant of the harm.”⁵⁵ Of course, not everyone accepts the harms that George describes, but Koppelman’s work “concludes that moral harm is a meaningful concept, and that some literature can produce it,” though he also deduces that legal regulation is ill-suited for preventing moral harm.⁵⁶ Besides moral harms, much feminist literature argues that women suffer harms resulting from their mistreatment by men who are exposed to environments polluted by pornography.⁵⁷ The National Research Council’s study of Internet pornography found it “worth mentioning impacts on society as a whole,” observing “that interactions and behavior that result in reduced respect for human life and human dignity can damage the common good and be negative for society.”⁵⁸

Claims of injury and causation for environmental pollution are contested just like claims of injury and causation respecting pornogra-

52. *United States v. Williams*, 553 U.S. 285, 310 (2008) (Souter, J., dissenting).

53. George, *supra* note 15, at 18.

54. *Id.* at 18.

55. *Id.*

56. Koppelman, *Moral Harm*, *supra* note 11, at 1639.

57. See, e.g., Catharine A. MacKinnon, *Pornography, Civil Rights, and Speech*, 20 HARV. C.R.-C.L. L. REV. 1, 16–17 (1985) (“Pornography sexualizes rape, battery, sexual harassment, prostitution, and child sexual abuse; it thereby celebrates, promotes, authorizes, and legitimizes them.”); see also Elizabeth Harmer Dionne, *Pornography, Morality, and Harm: Why Miller Should Survive* Lawrence, 15 GEO. MASON L. REV. 611, 637–42 (2008) (summarizing the social science research on the effects of pornography).

58. COMPUTER SCI. & TELECOMMS. BD., NAT’L. RESEARCH COUNCIL, YOUTH, PORNOGRAPHY, AND THE INTERNET 171–72 (Dick Thornburgh & Herbert S. Lin eds., 2002) [hereinafter NATIONAL RESEARCH COUNCIL REPORT]. Also, in enacting COPA, Congress found that “the physical and psychological well-being of minors” were threatened by Internet pornography. Pub. L. No. 105-277, § 1402, 112 Stat. 2681-736, 2681-736 (1998) (codified at 47 U.S.C. § 231 note (2006)).

phy.⁵⁹ Albert Lin's careful survey of the role of harm in environmental law concluded that "harm can be surprisingly ambiguous and contested," and that the famed "harm principle often disguises inevitable choices about values."⁶⁰ Environmental law views pollution as harmful for several distinct reasons: pollution causes human illnesses; it interferes with the ability to use the affected environment; it injures the environment itself and the wildlife and plants that live in it; it is aesthetically displeasing; and it is immoral.⁶¹ Some environmental harms are famously elusive. For example, wind power may avoid the harms of climate change, but individuals who live near wind farms accuse the structures of despoiling the aesthetics of their prized views.⁶² Climate change itself may result in flooding, drought, warming temperatures in some places and cooling temperatures in others, and a series of changes to the pre-existing environment.⁶³ None of these harms result from direct exposure to greenhouse gases; they may result indirectly from the way in which greenhouse gases change the larger environment.⁶⁴ In addition, these changes are only harms to the extent that they interfere with the expectations of those who have relied upon certain climatic patterns.⁶⁵ Yet, despite the changes, some individuals and communities prefer the changed environment that climate change could produce—just like some people benefit from the sexually explicit materials that others dismiss as pornography.⁶⁶

59. Albert C. Lin, *The Unifying Role of Harm in Environmental Law*, 2006 WIS. L. REV. 897, 900.

60. *Id.*

61. *Id.* at 902–09.

62. *See, e.g.*, *Zimmerman v. Bd. of Cnty. Comm'rs*, 218 P.3d 400, 405–06 (Kan. 2009) (upholding a county moratorium on large commercial wind farms located in scenic Flint Hills because "[t]hey would be incompatible with the rural, agricultural, and scenic character of the County").

63. *See, e.g.*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2007: IMPACTS, ADAPTATION AND VULNERABILITY* 7–22 (Martin Parry et al. eds., 2007) (describing various regional climate changes and the various effects those changes have had on the local resources).

64. *Id.* at 9. The report noted that (1) "the observed increase in the globally averaged temperature . . . is very likely due to the observed increase in anthropogenic greenhouse gas concentrations," and (2) "significant change in many physical and biological systems . . . are consistent with the direction of change expected as a response to warming." *Id.*

65. *Id.* at 12 ("Where extreme weather events become more intense and/or more frequent, the economic and social costs of those events will increase . . .").

66. *See id.* at 11 (noting that crop productivity may increase slightly in some areas and decrease in others); *id.* at 12 (citing the "mixed effects" of climate change as including a decrease of malaria in Africa); *id.* (concluding that "[t]he balance of positive and negative health impacts will vary from one location to another, and will alter over time as temperatures continue to rise").

The fifth possible distinction suggests that the harms of pornography are somehow different in kind or are mediated differently than the harms of environmental pollution. This is untrue to the extent that environmental pollution itself yields the same kinds of harms as pornography, and in those circumstances—such as climate change—the harms result indirectly from the introduction of a pollutant into an environment. This overlap accounts for only a modest number of the harms of pornography and environmental pollution. The broader claim about the balance of pornography's harms is doubtful as well. Frederick Schauer concludes that the harms of free speech are quite similar to the arguments about liberty in general, and that “arguments about the liberty of speech become less discontinuous from arguments about liberty in general.”⁶⁷ To say that pornography—or anything else—is pollution is to make a claim about its undesirability in certain places. “Pollution” always has a negative connotation, but what constitutes “pollution” depends upon societal or individual judgments about particular substances or things. We make judgments about chemicals in the water, carbon dioxide in the atmosphere, pornography on the Internet, money in political campaigns, and racist conduct in the workplace. We may decide to prevent, control, separate, or tolerate. As I explain next, government regulation of pornography is deeply problematic, but so too is simply telling people to tolerate the ill effects they associate with pornography. The problems with each extreme approach suggest that environmental law's other responses to pollution may be more suitable for pornography.

III. THE PROBLEM WITH REGULATION

The distribution of pornography was once a federal offense.⁶⁸ Not anymore. Federal law prohibits “obscene” materials.⁶⁹ It does not regulate pornography that is not obscene nor do many state laws.⁷⁰ Similarly, much environmental pollution remains uncon-

67. Frederick Schauer, *The Phenomenology of Speech and Harm*, 103 *ETHICS* 635, 635 (1993).

68. See Act of March 3, 1873, ch. 258, 17 Stat. 598 (prohibiting the use of the mail to send “obscene, lewd, or lascivious” matter).

69. The federal statute still refers to “lewd, lascivious, or filthy” materials, 18 U.S.C. § 1465 (2006), but is now interpreted to apply materials that satisfy the Court's constitutional obscenity standard, see Adler, *supra* note 4, at 705 n.63 (providing examples of recent obscenity prosecutions).

70. The most notable exception is child pornography, which is prohibited by federal statute, see 18 U.S.C. § 2251, though for reasons that focus upon the harm to the children exploited in producing the pornography rather than the harm to those who later view that

trolled. But, three reasons for the paucity of antipornography laws—constitutional constraints, commitment to free speech regardless of constitutional commands, and ineffectiveness of regulation—explain why most environmental pollution controls are not an effective tool for addressing pornography.

A. *Regulation Is Unconstitutional*

The First Amendment's application to pornography is surprisingly nuanced. Pornography did not receive any constitutional protection until half a century ago. Some scholars insist that pornography is not speech at all and thus not entitled to the protection of the First Amendment.⁷¹ But, the Supreme Court held otherwise in *Roth v. United States*⁷² in 1957, when it ruled that "obscene" materials could be regulated consistently with the First Amendment while the balance of pornographic material was constitutionally protected.⁷³ The Court struggled to distinguish prohibited obscenity from protected pornography until *Miller v. California*⁷⁴ in 1973, when the Court announced a three-part test for obscenity: (1) "the average person, applying contemporary community standards would find that the work, taken as a whole, appeals to the prurient interest"; (2) "the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law"; and (3) "the work, taken as a whole, lacks serious literary, artistic, political, or scientific value."⁷⁵

Even after *Miller*, the First Amendment has applied differently to pornography that occurs in different environments. The Court has accepted a significant degree of regulation regarding the placement of businesses featuring pornographic materials.⁷⁶ Regulating the pos-

pornography, *see* *New York v. Ferber*, 458 U.S. 747, 756–57 (1982) ("It is evident beyond the need for elaboration that a State's interest in 'safeguarding the physical and psychological well-being of a minor' is 'compelling.'" (quoting *Global Newspaper Co. v. Superior Court*, 457 U.S. 596, 607 (1982))). Even so, those who possess child pornography may be civilly liable to pay restitution to the children who appeared in pornographic movies. *See, e.g., United States v. Yang*, 2010 U.S. Dist. LEXIS 54925 (E.D. Cal. May 18, 2010) (ordering a defendant convicted of child pornography to pay \$2,851.20 in restitution to a child pornography victim).

71. *See generally* Andrew Koppelman, *Is Pornography "Speech"?*, 14 *LEGAL THEORY* 71 (2008) (reviewing the debate about the status of pornography as speech within the meaning of the First Amendment).

72. 354 U.S. 476 (1957).

73. *Id.* at 491–92.

74. 413 U.S. 15 (1973).

75. *Id.* at 24 (quoting *Kois v. Wisconsin*, 408 U.S. 229, 230 (1972)) (internal quotation marks omitted).

76. *See infra* text accompanying note 274.

session of pornography is only acceptable and permissible when the material is judged obscene according to the local community's standards.⁷⁷ Materials that qualify as "obscene" under the Court's *Miller* test may be regulated—even criminalized—by the government.⁷⁸ Adler worries that "obscenity law has begun to stage a dramatic and surprising comeback."⁷⁹ Therefore, communities have a limited say in deciding what pornographic material is allowed in their local environments.

The Supreme Court has been unwilling to accept regulation of the Internet environment. The Internet is often characterized as an especially fruitful forum for the exercise of free speech, as witnessed by the Court's repeated invalidation of laws designed to regulate speech on the Internet. In 1997, the Court struck down provisions of the Communications Decency Act ("CDA") that prohibited the transmission of obscene or indecent messages to minors.⁸⁰ In 2002, the Court rejected a facial challenge to COPA, which contained a similar prohibition but added a defense for those who restrict access to such material.⁸¹ In 2004, however, the Court held that COPA was unconstitutional because the federal government failed to demonstrate that there were not any less restrictive alternatives than the measures contained in COPA.⁸² The trilogy of decisions prompted two leading scholars to ask if there is "any regulation that Congress might constitutionally impose upon Internet transmission of sexually explicit material."⁸³ It is this context—a legal pass for most Internet pornography but harsh prosecution for the few materials that are judged to be obscene—that troubles opponents of Internet pornography and champions of free speech.⁸⁴

77. See *Miller*, 413 U.S. at 25.

78. *Id.* at 27–28.

79. Adler, *supra* note 4, at 697.

80. See *Reno v. ACLU*, 521 U.S. 844, 849 (1997) (holding that the CDA's "indecent transmission" and "patently offensive display" provisions abridge the freedom of speech protected by the First Amendment).

81. See *Ashcroft v. ACLU*, 535 U.S. 564, 585–86 (2002) (enjoining the government from enforcing COPA pending further action in the lower courts because "COPA's reliance on community standards to identify 'material that is harmful to minors' does not *by itself* render the statute substantially overbroad for the purpose of the First Amendment").

82. *Ashcroft v. ACLU*, 542 U.S. 656, 673 (2004) (upholding the decision to enjoin provisions of COPA).

83. KATHLEEN M. SULLIVAN & GERALD GUNTHER, *FIRST AMENDMENT LAW* 163 (3d ed. 2007).

84. The mixed constitutional treatment of pornography becomes even more confusing when it is compared to the constitutional status of other kinds of speech that are said to pollute societal environments. One such type of speech, violent entertainment, is broadly protected by the First Amendment but has been linked to specific instances of violence

B. *Regulation Is Harmful*

Constitutionality aside, any effort to control pornography confronts claims of censorship. Consider the Attorney General's Commission on Pornography, established by Attorney General William French Smith but typically associated with his successor, Attorney General Edwin Meese.⁸⁵ The Commission's 1986 report never described pornography as pollution. Instead, the idea of pollution was invoked by the American Civil Liberties Union, which titled its attack on the Commission's report "Polluting the Censorship Debate."⁸⁶ From this comes the criticism that pornography regulation interferes with the marketplace of ideas in which all types of speech compete for the allegiance of interested readers and listeners.⁸⁷ More ominously, Internet activists worry that governments who say they are only interested in regulating pornography are actually eager to stifle political dissent: "The

and general cultural acceptance of violence. See *Am. Amusement Mach. Ass'n v. Kendrick*, 244 F.3d 572, 579–80 (7th Cir.) (Posner, J.) (remanding with instructions to enter a preliminary injunction against the enforcement of an Indianapolis ordinance restricting the access of minors to video game machines), *cert. denied*, 534 U.S. 994 (2001); JAMES T. HAMILTON, *CHANNELING VIOLENCE: THE ECONOMIC MARKET FOR VIOLENT TELEVISION PROGRAMMING* 20–30 (1998) (analyzing violent entertainment as a pollution problem). Another type of speech that receives mixed treatment is campaign money, which has been accused of polluting political and legislative processes, and whose regulation depends upon a questionable distinction between contributions and spending. See generally John Copeland Nagle, *Corruption, Pollution, and Politics*, 110 *YALE L.J.* 293 (2000) (reviewing ELIZABETH DREW, *THE CORRUPTION OF AMERICAN POLITICS: WHAT WENT WRONG AND WHY* (1999)) (suggesting campaign money "pollutes the system"). A third type of speech that receives little constitutional protection are words that result in hazardous workplaces polluted by discrimination, which subject an employer to liability under federal civil rights laws with little constitutional scrutiny. See, e.g., *Burlington Indus., Inc. v. Ellerth*, 524 U.S. 742, 767 (1998) (Thomas, J., dissenting) (referring to "a work environment 'heavily polluted with discrimination,' because of the deleterious effects of such an atmosphere on an employee's well-being." (quoting *Rogers v. EEOC*, 454 F.2d 234, 238 (5th Cir. 1971), *cert. denied*, 406 U.S. 957 (1972))); *Harris v. Forklift Sys., Inc.*, 510 U.S. 17, 22 (1993) (same); *Meritor Savings Bank, FSB v. Vinson*, 477 U.S. 57, 66 (1986) (same); Eugene Volokh, *What Speech Does "Hostile Work Environment" Harassment Law Restrict?*, 85 *Geo. L.J.* 627 (1997) (discussing the parameters of "hostile work environment" harassment law). I hope to explore the constitutional basis for these distinctions in the future, but for now it suffices to observe that the First Amendment prohibits much government regulation of pornography, especially on the Internet.

85. See ATTORNEY GENERAL'S COMM'N ON PORNOGRAPHY, FINAL REPORT OF THE ATTORNEY GENERAL'S COMMISSION ON PORNOGRAPHY 3 (1986) [hereinafter ATTORNEY GENERAL COMM'N REPORT] (explaining that Attorney General William French Smith established the Commission and that Attorney General Edwin Messe later publicly announced the Commission's formation).

86. See ACLU, POLLUTING THE CENSORSHIP DEBATE: A SUMMARY AND CRITIQUE OF THE FINAL REPORT OF THE ATTORNEY GENERAL'S COMMISSION ON PORNOGRAPHY (1986).

87. Martin H. Redish, *The Value of Free Speech*, 130 *U. PA. L. REV.* 591, 639–40 (1982) (asserting that one's choice to view pornography evokes the same principles of autonomy as selecting one's political leaders).

power to regulate pornography has been persistently abused, not only to suppress great works of literature, but also to suppress frank discussions of sexual ethics and to deprive women of information about birth control.”⁸⁸

The regulation of environmental pollution faces similar criticisms. Concerns about economic and social impacts confront environmental legislation. The 2009 proposed law to regulate greenhouse gases⁸⁹ that contribute to climate change offers the most recent illustration. Members of Congress who opposed the American Clean Energy and Security Act of 2009 said it would “raise your energy taxes, dictate your lifestyle and devastate your jobs.”⁹⁰ Much First Amendment scholarship asserts that the regulation of speech is fundamentally more dangerous than the regulation of economic markets, but this distinction does not persuade everyone. As one environmental attorney asked, “If they can limit ‘free enterprise’ without fundamental damage to a free market economy, then why can’t they limit ‘free speech’ without fundamental damage to First Amendment rights?”⁹¹ Perhaps they can.⁹² But, the dangers of regulation are real and for many they are more dangerous than pornography itself.⁹³

C. *Regulation Is Ineffective*

Environmental law seeks to prevent much pollution from happening and to control the release of pollutants that are produced. A

88. Andrew Koppelman, *Why Phyllis Schlafly Is Right (but Wrong) About Pornography*, 31 HARV. J.L. & PUB. POL’Y 105, 123 (2008) [hereinafter Koppelman, *Phyllis Schlafly*].

89. American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009).

90. 155 CONG. REC. H8691 (daily ed. July 23, 2009) (statement of Rep. McCotter); see, e.g., 155 CONG. REC. H9254 (daily ed. July 31, 2009) (statement of Rep. LaTourette) (worrying that the bill will regulate Christmas lights); 155 CONG. REC. H7460 (daily ed. June 26, 2009) (statement of Rep. Graves) (asserting that the bill’s “actual goal is to direct more taxpayer dollars to the government coffers” and that it will result in “an average tax increase of \$3100 for families; additional regulatory and administrative costs on small businesses; higher energy expenses for all—especially those in rural areas; and significant job loss”); 155 CONG. REC. H7396 (daily ed. June 25, 2009) (statement of Rep. Foxx) (contending that “[t]he bill will result in an enormous loss of jobs that would ensue when U.S. industries are unable to absorb the cost of the national energy tax and other provisions” and that “the tax would outsource millions of manufacturing jobs to countries such as China and India”).

91. Hynes, *supra* note 15, at 388.

92. See Goldsmith & Sykes, *supra* note 14, at 815 (suggesting “that courts have overstated the extent of the pornography statutes’ chill on Internet commerce”).

93. See, e.g., Press Release, Pew Research Ctr. for the People & the Press, New Concerns About Internet and Reality Shows: Support for Tougher Indecency Measures, but Worries About Government Intrusiveness 1 (Apr. 19, 2005) (reporting that forty-eight percent of those surveyed were more concerned about undue government restrictions on the Internet while forty-one percent were more concerned about harmful content).

prevention and control strategy applied to pornography would seek to eliminate pornography from the Internet. But, it is doubtful that government regulation could eliminate pornography from the Internet, even if such regulations were enacted and enforceable.⁹⁴

Imagine that neither First Amendment nor general free speech principles prohibited government regulation of pornography. Actually, we need not imagine this because China provides an illustration. China has waged periodic campaigns against “spiritual pollution”—primarily western influences—since the 1960s.⁹⁵ China turned its attention to environmental pollution during the 1990s as numerous Chinese cities were listed as among the worst polluted in the world.⁹⁶ Now, with the advent of the Internet, China is engaged in an unprecedented—though not especially successful—effort to control Internet pornography.

The Chinese government is trying to cleanse the Internet of the pollution of pornography.⁹⁷ The Supreme People’s Court of the People’s Republic of China issued a press release in January of 2010 entitled “Online Distributors of Pornographic Contents Will Be Harshly Punished by Law” that boasted that 1,580 individuals were successfully prosecuted for spreading pornography during the first ten months of 2009.⁹⁸ The government took credit for shutting down or blocking more than 15,000 pornographic websites that contained 1.5 million

94. See NATIONAL RESEARCH COUNCIL REPORT, *supra* note 58, at 112–14 (observing that the Internet is a global medium subject to different nations’ sensitivities toward explicit materials and explaining how effective regulation of pornography on the Internet hinges on a number of factors, including training and education).

95. See generally ORVILLE SCHELL, TO GET RICH IS GLORIOUS: CHINA IN THE EIGHTIES 170–75 (1984) (describing Chinese campaigns against “spiritual pollution”).

96. See ELIZABETH C. ECONOMY, THE RIVER RUNS BLACK: THE ENVIRONMENTAL CHALLENGE TO CHINA’S FUTURE 28 (2004) (remarking that part of what sets China apart from other countries at the same level of economic development is the scale of its environmental degradation).

97. For instances of Chinese officials describing pornography as pollution, see *China Desires a PG Web*, EWEEK, Feb. 22, 2008 (reporting that the State Administration of Radio, Film and Television stated that pornographic websites had “seriously polluted the online environment”); *China’s Zhou Yongkang Urges Crackdown on Pornographic Web Sites*, BRITISH BROADCASTING COMPANY, July 25, 2004 (quoting a Chinese Communist Party official who asserted that Internet pornography “polluted the social environment”); Jonathan Fenby, *Google Blazes a Trail with China Rift*, GUARDIAN.CO.UK (Jan. 13, 2010, 3:00 PM), <http://www.guardian.co.uk/commentisfree/libertycentral/2010/jan/13/google-china-politics-censorship> (indicating that China’s “senior official in charge of media has talked of the country acting ‘proactively’ to set up its own system to prevent the spread of moral pollution from abroad”).

98. Press Release, The Supreme People’s Court of the People’s Republic of China, Online Distributors of Pornographic Contents Will Be Harshly Punished by Law, Jan. 13, 2010, <http://english.cqyfy.gov.cn/view.php?id=10302505201035250520105125052010582505201064250520>.

items of “lewd content” during 2009.⁹⁹ The government receives aid in its efforts from an army of individuals who receive payments for tipping off government officials about pornographic websites.¹⁰⁰

Additionally, China has developed and employs one of the largest and most sophisticated Internet filtering systems in the world.¹⁰¹ Dubbed “the great firewall of China,” the system “uses a variety of overlapping techniques for blocking content containing a wide range of material considered politically or socially sensitive by the Chinese government.”¹⁰² It is manned by tens of thousands of censors who have blocked an even larger number of websites containing pornographic content.¹⁰³ These efforts are supplemented by an extraordinarily complex legal regime that is enforced by more than a dozen governmental entities.¹⁰⁴ Several regulations prohibit the use of the Internet to access pornography, including a 2009 rule that targets

99. *China Blocks 15,000 Porn Websites*, XINHUA NET (Jan. 12, 2010, 8:53:04 PM), http://news.xinhuanet.com/english/2010-01/12/content_12798331.htm.

100. *See China Rewards 215 People for Tip-Offs on Porn Websites*, XINHUA NET (Jan. 18, 2010, 8:44:59 PM), http://news.xinhuanet.com/english/2010/china/2010-01/18/c_13141392.htm (reporting that the government paid 215 whistleblowers between \$146 and \$1,146 each for providing 90,000 tip-offs about pornographic websites during a six-week period).

101. OPENNET INITIATIVE, INTERNET FILTERING IN CHINA 1 (2009), available at http://opennet.net/sites/opennet.net/files/ONI_China_2009.pdf (describing China’s Internet filtering system).

102. ROBERT FARIS ET AL., OPENNET INITIATIVE, CHINA’S GREEN DAM: THE IMPLICATIONS OF GOVERNMENT CONTROL ENCROACHING ON THE HOME PC 12 (2009), available at http://opennet.net/sites/opennet.net/files/GreenDam_bulletin.pdf; see also Shawn Healy, *The Great Firewall of China*, 71 SOC. EDUC. 158, 158 (2007) (claiming that nowhere is the Communist Party’s control over political freedom more apparent than “on the Information Superhighway”).

103. *See China Begins Month-Long Crackdown on Web Porn*, XINHUA NET (Jan. 6, 2009, 12:45:17 AM), http://news.xinhuanet.com/english/2009-01/06/content_10608944.htm (quoting a Chinese government official who said that “[t]he government will continue to expose, punish or even shut down those infamous websites that refuse to correct their wrongdoing. . . . Immediate action is needed to purify the [I]nternet environment.”); *China Closes 1,600 Internet Cafes in Six Months*, XINHUA NEWS AGENCY, Nov. 1, 2004 (reporting that China shut down 1,600 Internet cafes and imposed 12 million dollars in fines in order to address “the online cultural market”); *China Closes 44,000 Pornographic Websites in 2007*, XINHUA NEWS AGENCY, Jan. 23, 2008 (reporting that the Chinese government arrested 868 people and closed down 44,000 domestic websites and homepages); *Chinese Police Forces Crack Down on Porn Websites Using Foreign Proxy Servers*, XINHUA NET (July 12, 2009, 10:38:18 PM), http://news.xinhuanet.com/english/2009-07/12/content_11697859.htm (reporting that “[m]ore than 1,000 websites have been blocked for distributing porn and other lewd materials since the government launched the Internet clean-up campaign at the beginning of this year”); *Facts and Figures: China’s Efforts in Fighting Porn, Illegal Publications in 2010*, XINHUA NET (Dec. 30, 2010, 11:43:32 PM), http://news.xinhuanet.com/english/2010/china/2010-12/30/c_13671264.htm (“China has shut down more than 60,000 porn websites since launching a crackdown in December 2009.”).

104. *See generally* OPENNET INITIATIVE, *supra* note 101, at 7–14 (describing China’s complex legal and regulatory frameworks for filtering online content).

“sexually suggestive or provocative content that leads to sexual thoughts.”¹⁰⁵ The Chinese government imposes a variety of sanctions for violation of its rules, including criminal liability, fines, licensing and registration requirements, the closure of websites, loss of jobs, and instructions for self-monitoring.¹⁰⁶

China pushed its antipornography efforts further in 2009. In May, the Ministry of Industry and Information Technology (“MIIT”) notified computer manufacturers that any new computers sold in China needed to contain filtering software known “Green Dam Youth Escort.”¹⁰⁷ The purpose of the software is to block access to pornographic websites.¹⁰⁸ It seeks to accomplish this goal by preventing a computer from opening websites that are contained on a constantly updated blacklist.¹⁰⁹ Thus the “Green” Dam would prevent any pornography from polluting “a green and healthy cyberspace.”¹¹⁰

The Green Dam mandate prompted a backlash in China, the United States, and elsewhere. Technical experts criticized the software as poorly designed for its intended purpose.¹¹¹ The company that developed Green Dam faced accusations of copyright violations

105. *Id.* at 10 (quoting a March 30, 2009 notice “detailing twenty-one unusually specific and wide-ranging additional content categories that online video providers should edit or delete,” including “distortions of Chinese culture and history; disparaging depictions of revolutionary leaders, heroes, police, army or judiciary; depictions of torture; mocking depictions of catastrophe, including major natural disasters; excessively frightening images and sounds effects,” as well as “sexually suggestive or provocative content that leads to sexual thoughts”) (internal quotation marks omitted).

106. *See* FARIS ET AL., *supra* note 102, at 14 (describing China’s legal control over the Internet).

107. *See id.* at 4 (explaining that the purported intent of the Green Dam Youth Escort software announced in the May notice was to prevent harmful information from reaching youth and to promote “a healthy and harmonious Internet environment”); OPENNET INITIATIVE, *supra* note 101, at 21–22 (describing the May 2009 Green Dam Youth Escort software as much more powerful than China’s pre-existing, centralized filtering system).

108. *See* OPENNET INITIATIVE, *supra* note 101, at 21–22 (reporting that the purported intent of the Green Dam Youth Escort software is to block pornography, but also observing that an early technical assessment of the software found it was ineffective at preventing access to pornography although it did unpredictably block political and religious content).

109. *See* FARIS ET AL., *supra* note 102, at 6–7 (explaining that the Green Dam Youth Escort is a Windows client application that inserts “hooks deeply into the operating system” that will block content based on whether it calls for certain behaviors: “success,” “network reset,” “browser kill triggered by content,” or “browser kill triggered by location entry”); SCOTT WOLCHOK ET AL., ANALYSIS OF THE GREEN DAM CENSORWARE SYSTEM (rev. 2.41 June 11, 2009), *available at* <http://www.cse.umich.edu/~jhalderm/pub/gd/> (providing details about the operation of the Green Dam Youth Escort and describing how it blacklists political and adult content).

110. *Chinese Ministry Spokesman Answers Reporters’ Questions on Internet Filter*, BBC WORLDWIDE MONITORING, July 1, 2009 (quoting an MIIT spokesman).

111. *See* FARIS ET AL., *supra* note 102, at 2 (noting that “a combination of poor implementation and opaque design makes it very difficult for even expert users to understand what

and death threats from Chinese Internet users.¹¹² The U.S. Trade Representative and Commerce Departments threatened to challenge the legality of the Green Dam mandate under international trade treaties.¹¹³ More broadly, civil liberties groups worried that the Chinese government would use Green Dam to regulate political and religious discussions, not just pornography.¹¹⁴

This time the Chinese government backed off. It announced a delay in the Green Dam mandate one day before it was to become effective in July, and then the government withdrew the requirement altogether in August.¹¹⁵ It was all a “misunderstanding,” insisted Chinese officials.¹¹⁶ The episode prompted some observers to suggest that the Chinese government was finally becoming sensitive to domestic Internet users and foreign complaints.¹¹⁷ But, Green Dam remained mandatory in schools and Internet cafes, and the rest of the Great Firewall of China remains in place.¹¹⁸ A U.S. State Department official agreed that “to try and prevent minors from being exposed to pornography” is “laudable.”¹¹⁹

China initiated a second dispute regarding Internet pornography in 2009 with Google China.¹²⁰ In June, the MIIT and the Chinese Internet Illegal Information Reporting Centre accused Google China

the system is doing by default, let alone understand the impact and scope of auto-updates and configuration changes”).

112. See *Dammed If You Do; China's Internet Censors*, ECONOMIST (U.S.), June 27, 2009 (reporting that Green Dam Youth Escort has caused an uproar and sparked Internet venting, repeated attacks on the software's developers, 1,000 harassing calls, and death threats).

113. See Press Release, Office of the U.S. Trade Representative, Secretary Gary Locke and USTR Ron Kirk Call on China to Revoke Mandatory Internet Filtering Software (June 24, 2009), <http://www.ustr.gov/about-us/press-office/press-releases/2009/june/secretary-gary-locke-and-ustr-ron-kirk-call-china-rev> (describing a joint letter by U.S. Secretary of Commerce Gary Locke and U.S. Trade Representative Ron Kirk expressing concerns about the flawed Green Dam Youth Escort software and calling into question the compliance of China's MIIT and Ministry of Commerce with World Trade Organization rules).

114. See FARIS ET AL., *supra* note 102, at 1 (calling Green Dam Youth Escort a new and powerful control mechanism that blocks political and religious content).

115. See Michael Wines, *China Scales Back Software Filter Plan*, N.Y. TIMES, Aug. 14, 2009, <http://www.nytimes.com/2009/08/14/world/asia/14censor.html>.

116. *Id.* (quoting the head of the MIIT) (internal quotation marks omitted).

117. Editorial, *China's Great Firewall; The Green Dam Episode Suggests That the West Has Some Influence in Preserving Internet Freedom*, WASH. POST, Aug. 17, 2009 at A12 (noting that China backed off of its Internet censorship software after opposition from the Chinese people and foreign companies).

118. See *id.*

119. Daily Press Briefing, Ian Kelly, U.S. Dep't of State (June 22, 2009), <http://www.state.gov/r/pa/prs/dpb/2009/jun/125229.htm>.

120. Minnie Chan, *Beijing Singles Out Google in Attack on Pornography; Internet Giant's Links "Severely Harmed" China's Youth*, S. CHINA MORNING POST, June 19, 2009, at 6.

of facilitating the dissemination of pornography.¹²¹ “Google China has not conducted the oversight required according to China’s laws and regulations,” the agencies claimed, “and a large volume of foreign [I]nternet pornographic information has entered our borders through this website.”¹²² Google quickly agreed to “fix any problems.”¹²³ In January 2010, though, Google threatened to abandon the Chinese market in part because of the Chinese government’s attempts to “limit free speech on the web.”¹²⁴ This time the U.S. Government criticized China’s Internet censorship, with Secretary of State Hillary Clinton championing “the freedom to connect—the idea that governments should not prevent people from connecting to the [I]nternet, to websites, or to each other.”¹²⁵ China’s Ministry of Foreign Affairs responded, “China’s [I]nternet is open” and, somewhat paradoxically, added that the government “supervises [the] [I]nternet according to law” and consistent with the nation’s “own national conditions and cultural traditions.”¹²⁶

The Google China dispute began with concerns about pornography and morphed into a broader debate about Internet freedom. One fact was lost during the controversy: Pornography is ubiquitous in China despite the government’s efforts. Half of China’s Internet users have visited pornographic websites, more than the global average of forty-one percent.¹²⁷ That is fifty percent of the over 450 million Internet users in China—the largest population of Internet users in the world.¹²⁸ Apparently, China’s restrictive antipornography regulations have not worked.

121. *Id.*

122. *Id.* (quoting the China Internet Illegal Information Reporting Centre) (internal quotation marks omitted).

123. Yan Hao, *Google Pledges to Comb Out Porn Results in China*, XINHUA NEWS AGENCY (June 20, 2009) (quoting a Google statement).

124. David Drummond, *A New Approach to China*, OFFICIAL GOOGLE BLOG (Jan. 12, 2010, 3:00 PM), <http://googleblog.blogspot.com/2010/01/new-approach-to-china.html> (official statement by Google’s chief legal officer). The immediate cause for Google’s threat to leave China was the hacking of the Google e-mail accounts of Chinese human rights activists. *Id.*

125. Hillary Rodham Clinton, U.S. Sec’y of State, Remarks on Internet Freedom (Jan. 21, 2010), <http://www.state.gov/secretary/rm/2010/01/135519.htm>.

126. Ma Zhaoxu, Spokesperson, Ministry of Foreign Affairs of the People’s Republic of China, Remarks on China-related Speech by U.S. Secretary of State on “Internet Freedom” (Jan. 22, 2010), <http://www.fmprc.gov.cn/eng/xwfw/s2510/t653351.htm>.

127. Press Release, Symantec, Parents, Get a Clue!: Norton Online Living Report Reveals What Your Cyber-Savvy Children Know That You Don’t (Feb. 13, 2008), <http://investor.symantec.com/phoenix.zhtml?c=89422&p=irol-newsArticle&ID=1107653&highlight>.

128. *1st LD China’s Online Population Rises To 450 Mln: Official*, XINHUA NEWS AGENCY (Dec. 30, 2010, 1:25 AM). There were 298 million Internet users in China as of 2008.

IV. THE PROBLEM WITH TOLERANCE

Toleration is the central message of most scholarly writing about pornography and about free speech generally. Perhaps the best indication that free speech is all about tolerance appears in Lee Bollinger's book *The Tolerant Society*.¹²⁹ Bollinger champions the value of tolerance as the defining characteristic of the American devotion to the protection of free speech, even demonstrably harmful speech.¹³⁰ "Tolerance," he explains, refers to "a social capacity to control feelings evoked by a host of social encounters."¹³¹ Bollinger identifies the principle undergirding our commitment to free speech as "the choice to exercise extraordinary self-restraint toward injurious behavior as a means of symbolically demonstrating a capacity for self-control toward feelings that necessarily must play a role throughout social interaction, but which also have a tendency to get out of hand."¹³² Tolerance, in other words, is the acceptance of some harms because intolerance portends still more dire results. But, Bollinger is surprisingly equivocal both about the values of tolerance and about the uniqueness of speech's claim to tolerance. He insists that "[t]here are times when tolerance constitutes moral weakness and is itself properly to be condemned, just as there are times when responding 'intolerantly' is a sign of admirable moral strength."¹³³ Further, Bollinger proclaims that "the most favorable attribute of all of the term is that we regularly use it to describe our reactions to nonspeech as well as speech behavior."¹³⁴ That said, much of Bollinger's book is devoted to identifying why toleration of speech is such a virtue, as opposed to intolerance of speech or tolerance of other activities.¹³⁵ According to Bollinger, speech can be harmful but is generally less harmful than other actions, so toleration of speech's harms is an appropriate appli-

CHINA INTERNET NETWORK INFO. CTR., STATISTICAL SURVEY REPORT ON THE INTERNET DEVELOPMENT IN CHINA 3 (Jan. 2009), available at <http://www.cnnic.cn/uploadfiles/pdf/2009/3/23/153540.pdf>.

129. See LEE C. BOLLINGER, *THE TOLERANT SOCIETY: FREEDOM OF SPEECH AND EXTREMIST SPEECH IN AMERICA* (1986) (discussing the link between the concept of tolerance and free speech).

130. See generally *id.* at 9–10.

131. *Id.* at 10.

132. *Id.* at 142–43.

133. *Id.* at 11.

134. *Id.* at 10.

135. See generally *id.* at 3.

cation of tolerance.¹³⁶ In Bollinger's final analysis, tolerance of harmful speech is an ongoing American experiment.¹³⁷

Toleration plays a surprisingly common role in the law's response to environmental pollution. Generally, as former EPA official E. Donald Elliott explains, "[S]etting standards defining the levels of various pollutants that we are willing to tolerate has been the basic method that we use for regulating pollution in environmental law."¹³⁸ Consider the National Ambient Air Quality Standards ("NAAQS") that lie at the core of the Federal CAA.¹³⁹ The Supreme Court has explained that the EPA establishes these standards based upon the "the maximum airborne concentration of a pollutant that the public health can *tolerate*," with a margin for error to protect health.¹⁴⁰ Toleration even appears in the CAA's response to the most hazardous air pollutants: the permitted "toxicity is based on an estimated maximum exposure to a pollutant that can be *tolerated* by a human exposed continuously for seventy years without having any adverse health effects."¹⁴¹ The water quality standards that operate as the backup regulatory scheme under the Federal CWA display a similar tolerance of some water pollution.¹⁴² States establish total maximum daily loads based upon the amount of pollution a given body of water "can *tolerate* while still meeting water quality goals."¹⁴³ So while environmental law does have a stated preference for preventing pollution, the law's actual regulatory regimes tolerate much pollution. Specifically, environmental law shows that the presence of pollutants in the environment is tolerated up to the point at which those pollutants cause unacceptable harms.

Writing about pornography reveals a similar approach. We should "tolerate the tolerable," according to the 1986 report prepared by the Attorney General's Commission on Pornography (a document not generally regarded as championing an expansive view of free

136. *Id.* at 59.

137. *See id.* at 142 (describing the American response to free speech issues as an "evolved . . . approach with no single, overarching rule").

138. *See generally* E. Donald Elliott, *Environmental Law at a Crossroad*, 20 N. KY. L. REV. 1, 4 (1992).

139. *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 462–63 (2001) (explaining the requirements of the CAA related to NAAQS).

140. *Id.* at 465 (emphasis added).

141. Arnold W. Reitze, Jr. & Randy Lowell, *Control of Hazardous Air Pollution*, 28 B.C. ENVTL. AFF. L. REV. 229, 273 (2001) (emphasis added).

142. *See* J.B. Ruhl, *Farms, Their Environmental Harms, and Environmental Law*, 27 *ECOLOGICAL Q.* 263, 300–01 (2000) (describing the Total Maximum Daily Load program requirements regarding water quality).

143. *Id.* at 301 (emphasis added).

speech).¹⁴⁴ But what is tolerable? Environmental law says that we tolerate pollution that is harmless, but we need not tolerate pollution that is harmful. The process is not quite so simple because of the imprecise ability to measure harms and because different people suffer harm from different levels of pollution. The harms of pornography are even more contested, as social scientists debate the effect of pornography on those who are exposed to it and on the broader culture and as the very nature of injuries, such as moral harm, is subject to debate as well.¹⁴⁵

Toleration presents special challenges on the Internet, where the same images are available to all types of communities or even sent unsolicited to individuals with contrasting desires. Criticizing COPA, Justice Stevens asserted “that the Government may not penalize speakers for making available to the general World Wide Web audience that which the least tolerant communities in America deem unfit for their children’s consumption.”¹⁴⁶ We prefer an online environment that is free of most regulation, even if the cost of that freedom is an environment polluted by Internet pornography. That is the lesson the Court sent as it twice blocked the enforcement of laws Congress enacted to protect children from Internet pornography.¹⁴⁷ China, by contrast, would make a different choice.¹⁴⁸ Most Chinese citizens are willing to tolerate an online environment that is regulated by the government.¹⁴⁹ According to a March 2008 Pew Research Center study, eighty percent of Chinese citizens believe that Internet pornography should be controlled, with almost eighty-five percent of respondents favoring government control.¹⁵⁰ The Pew study noted that many Chinese worry about “a bad online atmosphere.”¹⁵¹

Internet pornography presents a special challenge because some communities place a special value on free speech and the availability

144. ATTORNEY GENERAL COMM’N REPORT, *supra* note 85, at 73.

145. *See supra* text accompanying notes 49–58.

146. *Ashcroft v. ACLU*, 542 U.S. 656, 674 (2004) (Stevens, J., concurring).

147. *See Ashcroft v. ACLU*, 535 U.S. 564, 586 (2002) (allowing a preliminary injunction against COPA to remain in effect); *Reno v. ACLU*, 521 U.S. 844, 864 (1997) (affirming the district court’s judgment to grant a preliminary injunction against the enforcement of the CDA).

148. *See* Deborah Fallows, *Few in China Complain About Internet Controls*, PEW RESEARCH CTR. (Mar. 27, 2008), <http://pewresearch.org/pubs/776/china-internet> (noting that “most Chinese say they approve of internet control and management, especially when it comes from their government”).

149. *Id.*

150. *Id.* (citing GUO LIANG, RESEARCH CTR. FOR SOC. DEV., CHINESE ACAD. OF SOC. SCIS., SURVEYING INTERNET USAGE AND IMPACT IN FIVE CHINESE CITIES (Nov. 2007)).

151. *Id.*

of sexually explicit materials while others are more concerned about the harms associated with pornography, but we all share the same global Internet. The courts disagree about whether to judge Internet pornography according to the standard of a particular community or according to the nation as a whole.¹⁵² Climate change presents an analogous problem in which a polluter in one location affects everyone throughout the world. Such singular environments suggest that society must choose between toleration and regulation. But environmental law has experience with addressing pollution that some regard as a serious harm, even if the rest of society questions whether this harm is serious or even exists. The law may tolerate pollution, but this does not mean individuals who are exposed to this pollution must tolerate it as well.

V. BETWEEN REGULATION AND TOLERANCE

If Internet pornography may be usefully compared to pollution, but if direct governmental regulation of Internet pornography violates the First Amendment, then how must we respond to pollution in the absence of legal regulation? This is not as strange a question as it may first seem. Many efforts to combat environmental pollution must proceed without the preferred legal tools, either because they are unavailable or because they are not adequately enforced. Those who are concerned about climate change are grasping to find a federal law—any law—that can be employed to regulate climate change in the United States.¹⁵³ Similarly, there are no laws that effectively control Internet pornography. The government struggles to address the harms associated with pornography, but private individuals and organizations are entitled to decide for themselves what constitutes harmful pollution.

Thus, Internet pornography is like pollution that the law cannot prohibit. Experience with environmental policy teaches that pollu-

152. Compare *United States v. Little*, 365 F. App'x 159, 164 (11th Cir. 2010) (applying a local community standard in an online obscenity prosecution), and *United States v. Harb*, No. 2:07-CR-426TS, 2009 WL 499467 (D. Utah Feb. 27, 2009) (applying the *Miller v. California*, “contemporary community standard” to deny a motion to dismiss an indictment of federal obscenity statutes), with *United States v. Kilbride*, 584 F.3d 1240, 1254 (9th Cir. 2009) (applying a national standard).

153. See *Massachusetts v. EPA*, 549 U.S. 497, 528 (2007) (Clean Air Act); *Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008) (National Environmental Policy Act); J.B. Ruhl, *Climate Change and the Endangered Species Act: Building Bridges to the No-Analog Future*, 88 B.U. L. REV. 1, 26–31 (2008) (Endangered Species Act). The House approved sweeping climate change legislation, see American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009), but the Senate declined to act on similar legislation.

tion may be attacked by (1) norms that evolve from educational campaigns resulting in voluntary actions, (2) advances in technology that eliminate the production of pollution or that prevent its release into and spread throughout the environment, or (3) avoidance strategies that facilitate the separation of the pollution from those who would be harmed by it, perhaps by using the law to facilitate such separation.

A. Social Norms, Education, and Voluntary Actions

Once pollution is identified, the polluter may simply stop polluting. Indeed, most pollution would soon disappear if polluters stopped polluting. This sounds simplistic, but in many instances it really is that simple. Sometimes polluters will stop polluting even if the law does not require them to do so. Or if the law prohibits pollution, the limited ability to enforce the law makes voluntary compliance essential. As Thomas McGarity explains, “Because there will never be a large enough federal environmental police force to ensure that each of the millions of commuters in large urban areas complies with the law, a large degree of voluntary compliance is necessary for the successful implementation of any program of mobile source air pollution controls.”¹⁵⁴ Far from being a luxury, voluntary pollution controls will be the only pollution controls in these circumstances. Yet many polluters are not willing to stop polluting. Voluntary decisions play an invaluable role in reducing pollution, but the response to pornography must recognize that no type of pollution has ever ended because of the voluntary choices of the polluters.

Environmental scholars promote norm entrepreneurs who seek to create a culture in which pollution becomes unacceptable. Some studies suggest that controlling environmental pollution through individual actions is difficult because “social norms are less likely to develop within large groups.”¹⁵⁵ Michael Vandenberg’s research, however, is more hopeful of the cultivation of antipollution norms. Vandenberg focuses on personal norms (“obligations that are enforced through an internalized sense of duty to act and guilt or related emotions for failure to act”) rather than on social norms (“informal obligations that are enforced through social sanctions or rewards”).¹⁵⁶ He cites evidence that generalized personal norms of environmental protection already exist, and he encourages the law to

154. Thomas O. McGarity, *Regulating Commuters to Clear the Air: Some Difficulties in Implementing a National Program at the Local Level*, 27 PAC. L.J. 1521, 1619 (1996).

155. Ann E. Carlson, *Recycling Norms*, 89 CALIF. L. REV. 1231, 1235 (2001).

156. See Michael P. Vandenberg, *Order Without Social Norms: How Personal Norm Activation Can Protect the Environment*, 99 NW. U. L. REV. 1101, 1104 (2005).

“provide the information necessary to induce individuals to form new beliefs about the *mean* and *aggregate* effects of individual behavior.”¹⁵⁷

Many programs designed to encourage voluntary decisions to reduce environmental pollution demonstrate the power of antipollution norms. The EPA asserts that “[v]oluntary partnership programs play an important role in achieving environmental results like improving air quality, lowering greenhouse gases, and reducing solid waste.”¹⁵⁸ EPA’s 33/50 program helped companies reduce their releases of toxic chemicals by millions of pounds.¹⁵⁹ Bell Atlantic reduced its waste production by more than 2.9 million pounds and saved more than six million dollars through EPA’s WasteWise program.¹⁶⁰ The Galveston Bay Estuary Program and the Texas Natural Resource Conservation Commission “developed one of the largest voluntary prevention programs in the country” to reduce water pollution from businesses situated along the Houston Ship Channel.¹⁶¹ The publication of information that documents polluters changes behavior as well, as evidenced by the response of the chemical industry to the establishment of the Toxic Release Inventory (“TRI”).¹⁶² Such programs and other decisions to voluntarily reduce pollution have yielded numerous success stories.

Air pollution illustrates the promise and limits of voluntary pollution control. Then-Governor of Texas George W. Bush championed voluntary actions against air pollution (in part because the Federal CAA exempted many of the most polluting facilities in the state), but one scholar described Bush’s voluntary program as “a spectacular failure.”¹⁶³ Also, consider the ease with which air pollution from cars can be reduced. Manufacturers can produce zero emission vehicles that, while not cutting emissions actually to zero, yield substantial reduc-

157. *Id.* at 1106.

158. See, e.g., *Heat Island Effect: Where You Live*, EPA, http://yosemite.epa.gov/gw/heatisland.nsf/webpages/HIRI_Initiatives.html (last updated Apr. 14, 2011) (cataloguing state and local initiatives designed to “cool communities while saving energy and improving air quality”).

159. OFFICE OF POLLUTION PREVENTION & TOXICS, EPA, EPA-745-R-99-004, 33/50 PROGRAM: THE FINAL RECORD 1–2 (Mar. 1999).

160. SOLID WASTE & EMERGENCY RESPONSE, EPA, EPA 530-N-99-003, WASTEWISE UPDATE: THE MEASURE OF SUCCESS—CALCULATION WASTE REDUCTION 5 (July 1999).

161. 146 CONG. REC. H2623 (daily ed. May 8, 2000) (statement of Rep. Bentsen) (praising the Galveston program).

162. See Vandenberg, *supra* note 156, at 1139–46 (“The TRI data . . . appear to have induced firms to reduce toxic releases.”).

163. Jacqueline Lang Weaver, *The Federal Government as a Useful Enemy: Perspectives on the Bush Energy/Environmental Agenda from the Texas Oilfields*, 19 PACE ENVTL. L. REV. 1, 43 (2001).

tions in pollution.¹⁶⁴ Less dramatically, but still very effectively, manufacturers can produce cars that use less gas and thus emit less pollution. Consumers (including individuals, corporations, and governmental procurement officers) can then choose to buy cars that pollute less. Consumers can also do the “[t]hree easy things” the EPA lists on its website: “avoid unnecessary driving,” “maintain your car properly,” and drive your car “wisely.”¹⁶⁵ But, of course, most consumers do no such thing. Instead, they drive what they want, where they want, and how they want. One poll indicated that Californians blame other people’s cars for the serious threat of air pollution: fifty-eight percent of the people consider air pollution a “serious health threat,” but only forty-four percent are concerned that their own cars polluted too much; just four percent of those surveyed view pollution as the most important factor in buying a new car.¹⁶⁶

Pornography reveals a similar dynamic. Koppelman asserts that “moral criticism of pornography is an urgent necessity.”¹⁶⁷ Vandenberg’s research suggests that such criticism could establish personal norms “that are enforced through an internalized sense of duty to act” once the law “provide[s] the information necessary to induce individuals to form new beliefs about the *mean* and *aggregate* effects of individual behavior.”¹⁶⁸ Likewise, several of the leading reports on responses to Internet pornography champion voluntary actions. The Commission on Child Online Protection, established by Congress in COPA, concluded that “voluntary approaches provide powerful technologies for families.”¹⁶⁹ Parental education programs, the creation of acceptable use programs, and public information resources play a prominent role in strategies to minimize the existence

164. See *Zero Emission Vehicle (ZEV) Program*, CAL. EPA, <http://www.arb.ca.gov/msprog/zevprog/zevprog.htm> (last updated Feb. 23, 2011) (“In order to meet California’s health based air quality standards and greenhouse gas emission reduction goals, the cars we drive and the fuel we use must be transformed away from petroleum.”).

165. OFFICE OF MOBILE SOURCES, EPA, EPA 420-F-93-002, *YOUR CAR AND CLEAN AIR: WHAT YOU CAN DO TO REDUCE POLLUTION* (Aug. 1994), available at <http://www.epa.gov/oms/consumer/18-youdo.pdf>.

166. See *Californians Hate Air Pollution, Love Cars, Says Poll*, YUBANET.COM (July 12, 2003, 8:08 AM), http://yubanet.com/california/Californians_hate_air_pollution_love_cars_says_pol_3891.php (reporting on a poll conducted by the Public Policy Institute of California and the Hewlett, Irvine, and Packard Foundations).

167. Koppelman, *Phyllis Schlafly*, *supra* note 88, at 124.

168. Vandenberg, *supra* note 156, at 1104–06.

169. COMM’N ON CHILD ONLINE PROTECTION, REPORT TO CONGRESS 39 (Oct. 20, 2000) [hereinafter COPA REPORT], available at <http://www.copacommission.org/report/COPAreport.pdf>.

and the effects of Internet pornography.¹⁷⁰ The government may play a role in encouraging voluntary actions by funding programs that, for example, “protect students against . . . unwanted exposure to inappropriate material.”¹⁷¹ Even China purports to encourage voluntary action against pornography. In 2005, Chinese Internet providers made a public pledge to “[r]efrain [] from producing, posting or disseminating . . . obscenity.”¹⁷² There is some evidence that such programs can reduce exposure to Internet pornography. For example, the receipt of 100,000 e-mail complaints persuaded Yahoo to remove pornography from its video store within days after it had first offered it for sale.¹⁷³

The government’s own speech can play a central role in the creation of these antipollution norms. Sometimes, however, the government’s speech is itself the problem. In *Ashcroft v. Free Speech Coalition*,¹⁷⁴ the Supreme Court struck down the Child Pornography Prevention Act’s (“CPPA”) prohibition on any visual depictions of a minor engaging in sexually explicit conduct.¹⁷⁵ The Congress that enacted CPPA provided detailed findings concerning the evils of child pornography.¹⁷⁶ Justice Kennedy, by contrast, wrote of the virtues of movies such as *Romeo & Juliet*, *Traffic*, and *American Beauty*, offering an account of the plot of each and explaining the important role that child sexuality played in each.¹⁷⁷ Those three movies had each received critical praise (including nine Academy Awards and five nominations), but they had also been characterized as cultural pollution during the public debate in the aftermath of the Columbine massa-

170. See Dan Gray, *Talking to Youth About Pornography*, CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS, <http://combatingpornography.org/cp/eng/parents/prevent/article/talking-to-youth-about-pornography> (last visited Apr. 14, 2011) (“As parents and priesthood leaders speak openly with youth about intimacy, they will be able to help them understand and avoid the spiritual, emotional, and physical dangers of pornography.”).

171. Student Internet Safety Act of 2009, H.R. 780, 111th Cong. § 2(2).

172. *Public Pledge of Self-Regulation and Professional Ethics for China Internet Industry*, INTERNET SOC’Y OF CHINA (Jan. 25, 2005, 3:40 PM), <http://www.isc.org.cn/20020417/ca278881.htm>.

173. See Saul Hansell, *After Complaints, Yahoo to Close Access to Pornographic Sites*, N.Y. TIMES, Apr. 14, 2001, at C1 (reporting that “Yahoo will remove a wide range of pornographic material from its site and make other such information harder to find”).

174. 535 U.S. 234 (2002).

175. *Id.* at 257–58.

176. See Adam Walsh Child Protection and Safety Act of 2006, Pub. L. No. 109-248, § 501, 120 Stat. 587, 623 (describing the “effect of the intrastate production, transportation, distribution, receipt, advertising, and possession of child pornography on the interstate market in child pornography”).

177. See *Free Speech Coalition*, 535 U.S. at 247–48 (describing the movies *Romeo and Juliet*, *Traffic*, and *American Beauty* as having been inspired by “teenage sexual activity and the sexual abuse of children”).

cre.¹⁷⁸ Whatever the merits of those movies, the congressional findings of the horrors of child pornography received only passing mention in Justice Kennedy's opinion.¹⁷⁹ The effect, intentional or not, is to suggest that the Supreme Court cares more about the findings of the Academy of Motion Picture Arts and Sciences than those of the U.S. Congress. This is not just a complaint about unnecessary dicta filling the pages of the *United States Reports*. Precisely because the First Amendment limits government regulation of speech, the alternative means of addressing the harms of such speech take on added importance. Perhaps the government cannot stop the harms associated with the child pornography at issue in *Free Speech Coalition* or with the Internet pornography discussed here, but the government can certainly discourage it instead of encouraging it.

The voluntary discontinuance of Internet pornography confronts the same difficulties as the voluntary elimination of air or water pollution. Pollution pays, preventing pollution is costly, and those benefits will neither be surrendered nor will those costs be incurred without some coercion. Regardless of the good intentions of polluters or the pressure of concerned parties, reliance upon voluntary efforts to reduce pollution often fails.¹⁸⁰ It is a mistake, therefore, to present voluntary actions and legal regulation as mutually exclusive alternatives to addressing Internet pornography. This dichotomy, however, appears in the statements of judges—including Justice Stevens—who emphasize the distinction between their roles as judges and as par-

178. See generally Jason Kovar, *Columbine Effect*, HOLLYWOOD UNMASKED, <http://www.hollywoodunmasked.com/columbineeffect.html> (last visited Apr. 21, 2011) (commenting on "The Columbine Effect" and the "gross effects of the nonstop and influential media").

179. See *Free Speech Coalition*, 535 U.S. at 244–45 ("In its legislative findings, Congress recognized that there are subcultures of persons who harbor illicit desires for children and commit criminal acts to gratify the impulses. Congress also found that surrounding the serious offenders are those who flirt with these impulses and trade pictures and written accounts of sexual activity with young children." (citations omitted)).

180. Scott Dewey has recorded many of these failures in the battle against air pollution. See generally SCOTT HAMILTON DEWEY, *DON'T BREATHE THE AIR: AIR POLLUTION AND U.S. ENVIRONMENTAL POLITICS, 1945–1970* (2000). The establishment of the first air pollution control district in Los Angeles County occurred "only after the observed failure of efforts to gain voluntary cooperation from pollution sources and incorporated cities." *Id.* at 42. New York City apartment owners ignored the pleas of the city's commissioner of air pollution control to operate their incinerators only during appointed hours, leading Dewey to conclude that the commissioner "had stubbornly failed to learn . . . a lesson control agencies throughout the nation took forever to learn: that scientific research and persuasion alone brought few if any results." *Id.* at 127–29. Florida's Governor Leroy Collins advised concerned citizen to "approach the phosphate industry about sharing the cost of uncovering the facts about air pollution," even though "such naive faith in the conscientiousness and magnanimity of corporate America in voluntarily shouldering costs of environmental cleanup would often prove misplaced." *Id.* at 187.

ents.¹⁸¹ Congress thought differently when it enacted COPA, finding that “parental control protections and self-regulation . . . have not provided a national solution to the problem of minors accessing harmful material on the World Wide Web,” apparently because “the widespread availability of the Internet presents opportunities for minors to access materials through the World Wide Web in a manner that can frustrate parental supervision or control.”¹⁸² Likewise, Chief Justice Burger wrote on the inadequacy of self-regulation,

Nor do modern societies leave disposal of garbage and sewage up to the individual “free will,” but impose regulation to protect both public health and the appearance of public places. States are told by some that they must await a “laissez-faire” market solution to the obscenity-pornography problem, paradoxically “by people who have never otherwise had a kind word to say for laissez-faire,” particularly in solving . . . environmental pollution problems.¹⁸³

These failures of voluntary pollution control are predictable, for voluntary decisions involve financial sacrifices. Polluting can be lucrative, and many polluters are unwilling to forego that lucre voluntarily.

In sum, voluntary efforts to reduce or eliminate pollution are worthy of societal praise and the law’s encouragement. In the words of proposed federal environmental audit legislation, “[I]t is in the interest of the United States to promote voluntary efforts to maximize compliance with environmental laws and to increase protection of the environment and public health.”¹⁸⁴ Cass Sunstein wrote that voluntary self-regulation “is emerging as a regulatory strategy of choice” because it offers industry more flexibility and protects the government from informational overload.¹⁸⁵ Reliance upon voluntary pollution control efforts also allows private individuals and organizations to make their own determinations of what constitutes pollution. Voluntary actions are especially important when the law cannot or will not intervene. An undeniable point, however, exists where voluntary ef-

181. Compare *Ashcroft v. ACLU*, 542 U.S. 656, 675 (2004) (Stevens, J., concurring) (distinguishing what he would do “[a]s a parent, grandparent, and great-grandparent” and “[a]s a judge”), with *PSINET, Inc. v. Chapman*, 362 F.3d 227, 241 (4th Cir. 2004) (Davis, Dist. J., concurring) (distinguishing “my proper role as judge” from the role of “the doting grandfather that I am proud to be”).

182. Pub. L. No. 105-277, § 1402, 112 Stat. 2681-736, 2681-736 (1998) (codified as amended at 47 U.S.C. § 231 note (2006)).

183. *Paris Adult Theatre I v. Slaton*, 413 U.S. 49, 64 (1973) (citing IRVING KRISTOL, ON THE DEMOCRATIC IDEA IN AMERICA 37 (1972)).

184. Environmental Protection Partnership Act, S. 1661, 106th Cong. § 2(1) (1999).

185. See Cass R. Sunstein, *Television and the Public Interest*, 88 CALIF. L. REV. 499, 551-52 (2000).

forts become insufficient. Educational campaigns and parental supervision are key strategies in addressing the effects of Internet pornography on children.¹⁸⁶ Even so, it is no more likely that such voluntary actions or social norms will solve the problem of Internet pornography than it is that those strategies would have remedied the air and water pollution that ultimately inspired Congress to enact the CAA and the CWA.

B. Technology

Technology is both the genesis of and the solution to many pollution problems. The technology that fueled the industrial revolution resulted in unprecedented air pollution in cities such as London, Pittsburgh, and St. Louis.¹⁸⁷ Cars and other motor vehicles produced the smog that engulfed Los Angeles by the middle of the twentieth century.¹⁸⁸ Congress viewed technology as the solution to environmental pollution when it enacted the CAA and the CWA. The CAA mandates that industries and businesses must satisfy various technological standards.¹⁸⁹ The CWA dictates the specific technology that a facility in a particular business must employ.¹⁹⁰

Often the necessary pollution control technology does not exist when an environmental regulation becomes effective. The CAA and the CWA seek to force the development of new pollution reducing technologies.¹⁹¹ Technology-forcing laws require pollution reductions that cannot be achieved with existing technologies, thereby requiring technological innovation.¹⁹² The use of such technology-

186. Martha McCarthy, *The Continuing Saga of Internet Censorship: The Child Online Protection Act*, 2005 BYU EDUC. & L.J. 83, 92–93, 101.

187. See generally Jeffrey K. Stine & Joel A. Tarr, *At the Intersection of Histories: Technology and the Environment*, 39 TECH. & CULTURE 601 (1998) (describing the effects of technology on the environment).

188. See 42 U.S.C. §§ 7408–12 (2006).

189. See 33 U.S.C. § 1311(b)(1)(A) (2006).

190. See *id.* (describing the requirement that regulated facilities employ “the best practicable control technology”).

191. See *Union Elec. Co. v. EPA*, 427 U.S. 246, 257 (1976) (concluding that the CAA was “expressly designed to force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible”); see also *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 490–93 (2001) (Breyer, J., concurring in part and concurring in the judgment) (reviewing the technology-forcing aspects of the CAA).

192. See *Riverkeeper, Inc. v. EPA*, 475 F.3d 83, 107–08 (2d Cir. 2007) (Sotomayor, J.) (concluding that the CWA’s “statutory directive requiring facilities to adopt the *best* technology cannot be construed to permit a facility to take measures that produce second-best results, especially given the technology-forcing imperative behind the Act” (citation omitted)), *rev’d sub nom.* *Entergy Corp. v. Riverkeeper, Inc.*, 129 S. Ct. 1498 (2009); *Kennecott Greens Creek Mining Co. v. Mine Safety & Health Admin.*, 476 F.3d 946, 957 (D.C. Cir. 2007) (“When a statute is technology-forcing, the agency ‘can impose a standard which

forcing requirements has helped to achieve the statutory air and water quality goals. Recent laws (such as the CAA's cap-and-trade scheme for utilities whose emissions produce acid rain) give more flexibility to individual facilities to determine which technology will best achieve the required pollution reductions.¹⁹³ Most recently, environmental activists Ted Nordhaus and Michael Shellenberger argue that ordinary environmental pollution regulations are misplaced in the case of climate change, and that climate change is best approached by massive investments in new energy technologies.¹⁹⁴

Technology is a bane and a curse for pornography. Adler cites "technological innovation" as "the most prominent factor" that yielded "the mainstreaming of porn."¹⁹⁵ Another writer suggests that the relationship is reciprocal, that pornography is actually "a positive good that encourages experimentation with new media" and thus helped to facilitate the development of printing, photography, television, and videotaping before it reached the Internet.¹⁹⁶ From this perspective, the expansion of the Internet and the increased availability of pornography go hand in hand.

Opponents of pornography also rely upon technological developments. Software that filters unwanted pornographic material and verification technology that limits access to permitted (usually adult) users have played a significant role in efforts to limit exposure to pornography. Jack Goldsmith and Alan Sykes wrote that "technology in this area has improved enormously" in the past five years, and they accurately predicted that "it will only continue to improve in response to demands from parents, governments, and especially businesses."¹⁹⁷

only the most technologically advanced plants in an industry have been able to achieve—even if only in some of their operations some of the time" (quoting *United Steelworks v. Marshall*, 647 F.2d 1189, 1264 (D.C. Cir. 1980)).

193. See 42 U.S.C. §§ 7651–51o (outlining the CAA acid rain cap-and-trade program); see also American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (proposing to establish a cap-and-trade program for greenhouse gases).

194. See TED NORDHAUS & MICHAEL SHELLENBERGER, *BREAK THROUGH: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY* (2007), available at http://www.thebreakthrough.org/PDF/death_of_Environmentalism.pdf; TED NORDHAUS & MICHAEL SHELLENBERGER, *THE EMERGING CLIMATE CONSENSUS: GLOBAL WARMING POLICY IN A POST-ENVIRONMENTAL WORLD* (2009), available at <http://www.thebreakthrough.org/blog/PDF/EmergingClimateConsensus.pdf>.

195. Adler, *supra* note 4, at 696.

196. Peter Johnson, *Pornography Drives Technology: Why Not to Censor the Internet*, in *PORNOGRAPHY: PRIVATE RIGHT OR PUBLIC MENACE* 81 (Robert M. Baird & Stuart E. Rosenbaum eds., rev ed. 1998).

197. Goldsmith & Sykes, *supra* note 14, at 816.

More generally, Jay Kesan and Rajiv Shah analyze the role of technology forcing on the Internet.¹⁹⁸ They admit that “setting optimal technology-forcing standards is difficult” because of “[t]he unpredictability of technological advances.”¹⁹⁹ Additionally, they emphasize that “[t]he government must also have a clear understanding of the harm it is trying to prevent or the benefit it is trying to produce when it sets technology-forcing standards.”²⁰⁰ The government needs clarity in order to enact the proper regulations to remedy the desired harm.²⁰¹ Kesan and Shah cite “numerous examples of code-based technology-forcing regulation: filtering software, closed captioning, the V-chip, accessibility, enhanced 911, and digital broadcasting.”²⁰² The authors also explain why the CDA failed:

Congress ignored market-based incentives, instead instituting an inefficient technology-forcing regulation. The availability of existing technologies that prevented minors from accessing inappropriate content, such as filtering products, could also have provided an alternative approach. The CDA could have been designed to foster the efficient and expedient diffusion of these existing technologies, an approach likely to have been even more efficient than a market-based approach. Instead, the CDA led to the development of new technologies such as PICS [Platform for Internet Content Selection], which has not solved the problem of minors gaining access to inappropriate content. Thus, the CDA can be seen as a failed opportunity to leverage the efficiency of the technology-forcing approach in diffusing existing technologies.²⁰³

By contrast, successful technological limitations on Internet use often prompt a backlash from individuals who are prevented from accessing their favorite websites and from privacy advocates who promote a free online environment. The challenge is to identify technologies that satisfy those who desire pornography on the Internet and those who oppose it, which returns the discussion to the contested state of the affected environment.

This is a greater challenge with respect to controlling pornography than it is for controlling environmental pollution. Unlike environmental pollution, Internet pornography generates technology

198. See Jay P. Kesan & Rajiv C. Shah, *Shaping Code*, 18 HARV. J.L. & TECH. 319 (2005).

199. *Id.* at 335.

200. *Id.* at 336.

201. *Id.*

202. *Id.* at 338 (footnotes omitted).

203. *Id.* at 339.

paces in which efforts to restrict pornography compete with efforts to defeat those restrictions.²⁰⁴ Also unlike environmental pollution, the First Amendment constrains the government's ability to impose technological mandates. The result is a complicated technological landscape that began with the efforts of American libraries to regulate pornography in order to receive federal funds.²⁰⁵ Governments in Iran and China then hijacked the technology to regulate the Internet for their own purposes, which prompted the Falun Gong²⁰⁶ to develop methods to avoid the controls.²⁰⁷ Iranian dissidents used these anticontrol technologies to protest the announced results of the country's June 2009 election.²⁰⁸

C. Separation

A typical response to concerns about pornography is to simply avoid it. More precisely, concerned individuals are instructed to avert their eyes, turn the channel, or click on something else. This advice is foreign to discussions of environmental pollution, which expect the polluter, instead of the victim, to move. Here, I consider the appropriate placement of the burden of avoiding the harms of pornography and review the roles of the leading separation strategies of filtering and zoning.

1. *The Burden of Avoidance*

Regulation is addressed to polluters while toleration is addressed to victims, but polluters and victims both have the ability to render pollution harmless. The initial question facing the choice of these techniques asks whether the law should expect the polluter to stop harming the victims, or whether the victims should be responsible for avoiding the harms caused by the pollution. This is the issue addressed in one of the most famous scholarly discussions of pollution: Ronald Coase's theorem questioning any presumption concerning

204. See Eli Lake, *Hacking the Regime: How the Falun Gong Empowered the Iranian Uprising*, NEW REPUBLIC (Sept. 3, 2009, 12:00 AM), <http://www.npr.com/article/politics/hacking-the-regime> (describing the competition between the Chinese government and organizations seeking to outwit Chinese filtering tools).

205. See *infra* text accompanying notes 259–61.

206. THOMAS LUM, CONG. RESEARCH SERV., RL 33437, CHINA AND FALUN GONG 2 (May 25, 2006), available at <http://fpc.state.gov/documents/organization/67820.pdf> (noting that Falun Gong is a belief system in China that “combines an exercise regimen with meditation, moral values, spiritual beliefs, and faith” and that the Chinese government charges “that the Falun Dafa [Falun Gong] has disrupted social order and contributed to the deaths of hundreds”).

207. See Lake, *supra* note 204.

208. *Id.*

the identity of the harmed party.²⁰⁹ The very example with which Coase begins his article concerns a factory that emits smoke that harms its neighbors.²¹⁰ In popular discourse, the factory is the polluter, and the neighbors are the victims.²¹¹ But Coase sees the problem as reciprocal: “To avoid the harm to B would inflict harm on A. The real question that has to be decided is: should A be allowed to harm B or should B be allowed to harm A?”²¹² Moving from air pollution to water pollution that kills fish, Coase asks whether “the value of the fish lost [is] greater or less than the value of the product which the contamination of the stream makes possible.”²¹³ Indeed, Coase’s formulation encompasses every conceivable instance of pollution: a noisy hotel that keeps neighbors from sleeping, an employee whose racist comments offend his co-workers, video game aficionados enjoying a violent game in the lobby of a restaurant, and residents of a once pastoral community complaining about the sprawl that brings an influx of unwanted newcomers.²¹⁴ The appellation “pollution” connotes that the wrongdoer and the victim are readily identified, but Coase’s theorem insists otherwise.

The policy question for Coase and for the generation of economists and law and economics scholars whom he has inspired is how the law should help the competing parties resolve their dispute. My concern here is simply with Coase’s initial assertion that every instance of harm resulting from pollution is reciprocal.²¹⁵ Coase has correctly identified one sense in which that is so: a factory can object to being harmed if its operations are constrained because neighboring residents complain that their environment has been polluted by toxins discharged from the factory.²¹⁶ There is another sense that supports the distinction between polluter and victim, and it is the sense that follows from the very definition of pollution. Recall my suggestion that the essence of pollution is the introduction of a pollutant into an environment.²¹⁷ The factory that discharges toxins into the environ-

209. See generally R.H. Coase, *The Problem of Social Cost*, J.L. & ECON., Oct. 1959, at 1.

210. *Id.* at 1.

211. *Id.* at 1–2.

212. *Id.* at 2. Coase’s own examples involve several things commonly described as pollution: noise, *id.* at 8–9; air pollution, *id.* at 1, 10–13, 41–42; and odors, *id.* at 26.

213. *Id.* at 2.

214. See, e.g., Nagle, *Idea of Pollution*, *supra* note 25, at 16–17, 20, 24, 53 (providing examples of the following activities being described as pollution: noise, offensive language, video games, and unwanted community members).

215. See Coase, *supra* note 209, at 2 (“We are dealing with a problem of a reciprocal nature.”).

216. See *id.* at 1–2 (noting that it is not always desirable punish the polluter).

217. See *supra* text accompanying note 19.

ment is a polluter; the people living nearby are not. My idea of pollution helps to explain the intuitive sense that the factory is the cause of the harm rather than the neighboring residents. The question remains whether the burden to avoid this harm should be placed upon the polluter or the residents. This is the question Coase sought to answer, and it is a question the law frequently addresses as well. Not surprisingly, the law offers different answers for different kinds of pollution.

Generally, environmental law places the burden to eliminate the harm on the polluter. Consider *Richmond Manufacturing Co. v. Atlantic DeLaine Co.*,²¹⁸ an 1871 dispute between two textile producers along the Woonasquatucket River in Rhode Island.²¹⁹ Richmond complained that it could not use the water from the river because of the dyes and other pollutants that Atlantic discharged into the river less than one mile upstream.²²⁰ The case presents a perfect illustration of Coase's reciprocal harms: to rule in favor of either company would harm the business of the other.²²¹ Each producer pointed to steps the other could take to resolve the problem.²²² Richmond wanted an injunction to prevent Atlantic from discharging pollutants into the river.²²³ Atlantic countered that Richmond "might have protected themselves from all injury by a properly constructed filter."²²⁴ The state supreme court had no trouble deciding the case, even though it ruled nearly a century too early to have benefitted from the insights offered by Coase.²²⁵ Atlantic was enjoined from further pollution because riparian owners do not have the right to pollute the water.²²⁶ Richmond, by contrast, was "under no obligation" to filter the water, "and the respondents have no right to put them to the expense of doing it."²²⁷

218. 10 R.I. 106 (1871).

219. *Id.* at 108–09.

220. *Id.*

221. A holding in favor of Richmond would require Atlantic to shut down its \$1.5 million manufacturing facility and cost the community 800 jobs. *Id.* at 108–10. A holding in favor of Atlantic would require Richmond to close branches of its business or spend money creating filtering systems to purify the stream water. *Id.*

222. *See id.* at 110 (noting Atlantic's argument that Richmond could filter the water prior to use and Richmond's argument that Atlantic could stop polluting the stream).

223. *Id.*

224. *Id.*

225. *See id.* at 110 (noting that "[t]he principles of law which govern the case are well settled").

226. *Id.* at 111.

227. *Id.* at 110.

To be sure, the victims of air, noise, and other kinds of environmental or sensory pollution can purchase filters, install shields, or simply move away from it. Historically, those who complained about environmental pollution were sometimes told to move somewhere else. As early as 1905, an American Medical Association official spoke in Cincinnati about “the inhabitants who have fled their homes, many of them elegant and even palatial establishments, leaving them at a great loss to the ravages of smoke.”²²⁸ Thousands of people moved away from Los Angeles in the 1950s and 1960s to escape the air pollution, often heeding their doctors’ advice.²²⁹ By August 1968, “sixty faculty members of the UCLA School of Medicine . . . distributed a formal warning to the public stating that those able to move away from the smoggiest areas of Los Angeles should do so immediately.”²³⁰ More recently, Congress instructed the EPA to relocate the few remaining people of Treece, Kansas, after their town was rendered uninhabitable by hazardous wastes.²³¹ Sometimes the polluter facilitates the removal of the victims instead of the pollution. In 2002, for instance, American Electric Power responded to local concerns about air pollution from the utility’s power plant by purchasing the homes of all 221 residents of Cheshire, Ohio, so the residents could move elsewhere.²³² Nor is it only people who flee from pollution: Fish engage in the same response when they avoid thermal pollution simply by swimming away.²³³ Moving away is thus a traditional response to pollution. But environmental law does not force people to make that choice.

Constitutional law does. First Amendment cases are filled with exhortations to offended parties to simply avert their eyes, turn off the radio or television, or visit another website. *Erznoznik v. City of Jacksonville*²³⁴ provides the best illustration. In that case, people in a residen-

228. Charles A. L. Reed, *An Address on the Smoke Problem*, in CONSERVATION IN THE PROGRESSIVE ERA: CLASSIC TEXTS 75 (David Stradling ed., 2004).

229. See *Smog and Health*, S. COAST AIR QUALITY MGMT. DIST., http://www.aqmd.gov/smog/historical/smog_and_health.htm (last visited Feb. 13, 2011) (citing a 1956 survey sent by the Los Angeles County Medical Association to physicians that revealed 43.3% of physicians had recommended patients move out of the area due to the smog).

230. See DEWEY, *supra* note 180, at 92, 105 (describing people fleeing Los Angeles).

231. Act of Oct. 30, 2009, Pub. L. No. 111-88, § 430, 123 Stat. 2904, 2964 (encouraging the Administrator of the EPA to consider the residents of Treece, Kansas).

232. Katharine Q. Seelye, *Utility Buys Town It Choked, Lock, Stock, and Blue Plume*, N.Y. TIMES, May 13, 2002, at A1.

233. See FED. WATER POLLUTION CONTROL ADMIN., INDUSTRIAL WASTE GUIDE ON THERMAL POLLUTION 29–30 (rev. ed. Sept. 1968) (reporting that some fish species would be eliminated from areas of thermal pollution).

234. 422 U.S. 205 (1975).

tial neighborhood complained that a local drive-in movie theater was showing a pornographic movie that could be seen from their homes and from the city streets.²³⁵ Recall that when a state court in Arizona confronted a similar case in 1971, it enjoined the theater, pointedly asking why cultural pollution should be accepted more than environmental pollution.²³⁶ Most courts reached a similar conclusion in like cases that had arisen in other states.²³⁷ In *Erznoznik*, the Supreme Court invalidated a Jacksonville city ordinance because it singled out exhibitions of nudity in violation of the First Amendment.²³⁸ The Court held that “the burden normally falls upon the viewer to ‘avoid further bombardment of [his] sensibilities simply by averting [his] eyes.’”²³⁹ The only exception to that burden occurred if “the degree of captivity makes it impractical for the unwilling viewer or auditor to avoid exposure.”²⁴⁰ The Court refused to force drive-in theaters to “construct adequate protective fencing which may be extremely expensive or even physically impracticable.”²⁴¹ In dissent, then-Chief Justice Warren Burger would have imposed the burden upon the theater to shield the screen from public view.²⁴² Chief Justice Burger noted three points favoring his allocation of that burden: (1) “the screen of a drive-in movie theater is a unique type of eye-catching display that can be highly intrusive and distracting”; (2) the screen could not be turned off, unlike the radio; and (3) those interested in the movie could see it at several indoor theaters in the area.²⁴³

The distinction between *Richmond* and *Erznoznik* could simply illustrate Coase’s belief that the parties will reach the best solution. The law, however, makes the parties start at the opposite points: environmental law favors the victims of pollution, whereas most First Amendment jurisprudence favors the polluters. Which choice is preferable will depend upon the nature of the pollution and the harms it causes, an economic analysis of the costs that would be borne by either party, the existence of any constitutional protections, and the nature of the pollution technique to be employed.

235. *Id.* at 206–07.

236. *See supra* text accompanying note 5.

237. *See, e.g.*, *People v. Valley Cinemas, Inc.*, 194 Cal. Rptr. 859, 862–63 (Cal. Ct. App. 1983) (finding the factual record indistinguishable from *Erznoznik*), *dismissed as moot*, 211 Cal. Rptr. 689 (Cal. 1984).

238. *Erznoznik*, 422 U.S. at 217–18.

239. *Id.* at 210–11 (alterations in original) (quoting *Cohen v. California*, 403 U.S. 15, 21 (1971)).

240. *Id.* at 209–10.

241. *Id.* at 217.

242. *Id.* at 222–23 (Burger, C.J., dissenting).

243. *Id.* at 222.

It is unreasonable to expect the victim of environmental pollution to move. Such advice represents a failure of pollution control, not an instance of it. Economic and family constraints make such moves impossible for many victims of pollution. For example, residents of impoverished communities suffering from polluted water and air cannot really escape that pollution. Exit is not always a realistic option for many victims of pollution, and even if it is, the law should not presume that people will exercise it.

Nor should the law be so casual in assuming the ability of those exposed to an environment polluted by violent entertainment or pornography to escape any harmful exposures. One survey found that eighty-four percent of boys and sixty percent of girls had been accidentally exposed to sex sites on the Internet.²⁴⁴ Other surveys indicate that the presence of Internet pornography keeps some people offline altogether.²⁴⁵ Robert George rejects the idea that individuals have the burden to avoid pornography because it is “unjust to subject people to powerful temptations to do things that are harmful to them, morally or otherwise.”²⁴⁶ Schauer observes that averting one’s eyes does not necessarily prevent the infliction of harm because the wounds from even a brief glance at an undesirable sight “linger in our minds as long as (and sometimes longer than) the wounds produced by physical intrusions.”²⁴⁷ The pollution analogy suggests that the escapist assumption of some First Amendment jurisprudence should be revisited.

Finally, the burden of avoiding pollution may also depend upon *who* is being harmed. Children, for example, are uniquely susceptible to environmental pollution because they spend more time outside, they consume more food and water than adults relative to their body mass, and children’s developing bodies are particularly sensitive to pollution and less capable of rendering pollution harmless.²⁴⁸ Environmental law, however, has little to teach pornography about pro-

244. See Michael Flood, *Exposure to Pornography Among Youth in Australia*, 43 J. SOCIOLOGY 45, 53 (2007).

245. See AMANDA LENHART ET AL., PEW INTERNET & AM. LIFE PROJECT, THE EVER-SHIFTING INTERNET POPULATION: A NEW LOOK AT INTERNET ACCESS AND THE DIGITAL DIVIDE 4, 16 (Apr. 16, 2003) (finding that larger than a third of those who do not use the Internet cited worries “about online pornography, credit card theft, and fraud”). The same study found that only one percent of those surveyed cited pornography as a reason for dropping off the Internet. *Id.* at 22.

246. George, *supra* note 15, at 18.

247. Schauer, *supra* note 67, at 648.

248. See generally The National Children’s Study Interagency Coordinating Comm., *The National Children’s Study of Environmental Effects on Child Health and Development*, 111 ENVTL. HEALTH PERSP. 642 (Apr. 2003), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/>

tecting children because environmental law has been slow to protect them.²⁴⁹ By contrast, the law has been eager to protect children from Internet pornography. That is why Congress enacted COPA,²⁵⁰ CIPA,²⁵¹ and numerous other provisions aimed at protecting children from the harms of Internet pornography.²⁵² Another bill would have required schools to “protect students against . . . unwanted exposure to inappropriate material.”²⁵³ Studies of Aboriginal children in Australia tell an especially chilling story of the effects of repeated exposure to pornography.²⁵⁴ Children are at greater risk to all sorts of pollution,²⁵⁵ so the unwillingness to tolerate the effects of Internet pornography upon children should come as no surprise.

2. Filtering

Filtering has become an especially common approach to the concerns about Internet pornography.²⁵⁶ The goal of filtering software is to block access to unwanted websites while allowing access to other material. Numerous companies produce filtering software designed to screen online material that a consumer finds undesirable, especially sexually explicit websites. Likewise, filtering has long played a

PMCI241458/ (discussing how children are more susceptible than adults to environmental pollution).

249. See generally J.B. RUHL, JOHN COPELAND NAGLE & JAMES SALZMAN, *THE PRACTICE AND POLICY OF ENVIRONMENTAL LAW* 1284–93 (2007) (describing environmental law’s efforts to protect children).

250. Pub. L. No. 105-277, 112 Stat. 2681-736 (1998).

251. Pub. L. No. 106-554, 114 Stat. 276A-335 (2000).

252. See generally Fight Fraud Act of 2009, H.R. 1748, 111th Cong. § 3031(b)(3) (defining “high-tech crime” to include “cybercrime or computer crime, including internet-based crime against children and child pornography”).

253. Student Internet Safety Act of 2009, H.R. 780, 111th Cong. § 2(2) (2009).

254. See generally E.P. MULLIGHAN, *CHILDREN ON ANANGU PITJANTJATJARA YANKUNYTJATJARA (APY) LANDS: COMMISSION OF INQUIRY—A REPORT INTO SEXUAL ABUSE*, at xxvi (Apr. 30, 2008), available at http://www.papertracker.com.au/pdfs/Mullighan_Report.pdf (recommending restrictions to access to pornographic materials by children and recommending “education campaign[s] on the dangers of exposing children to pornography”); NORTHERN TERRITORY GOV’T, AMPE AKEIYERNEMANE MEKE MEKARLE “LITTLE CHILDREN ARE SACRED”: REPORT OF THE NORTHERN TERRITORY BOARD OF INQUIRY INTO THE PROTECTION OF ABORIGINAL CHILDREN FROM SEXUAL ABUSE 32, 65 (2007), available at <http://www.inquirysaac.nt.gov.au/> (recommending community education campaigns on children’s exposure to pornography).

255. The National Children’s Study Interagency Coordinating Comm., *supra* note 248.

256. For the best discussions of the role of filtering in controlling Internet pornography, see ACCESS DENIED: *THE PRACTICE AND POLICY OF GLOBAL INTERNET FILTERING* (Ronald Deibert et al. eds., 2008); COPA REPORT, *supra* note 169, at 19–22; NATIONAL RESEARCH COUNCIL REPORT, *supra* note 58, at 267–304; Derek E. Bambauer, *Cybersieves*, 59 DUKE L.J. 377 (2009); R. Polk Wagner, *Filters and the First Amendment*, 83 MINN. L. REV. 755 (1999); Jonathan Weinberg, *Rating the Net*, 19 HASTINGS COMM. & ENT. L.J. 453 (1997).

role in environmental pollution control as businesses seek to discharge wastes while preventing harmful materials from entering the natural environment.²⁵⁷ Filtering depends, however, on an understanding of which materials are desirable and which are undesirable, as well as on the engineering capacity to distinguish between the two categories. This is not an especially serious problem with environmental pollution—except, for example, in the unlikely event that a filter reduced the flow of water to a trickle in the process of screening the harmful materials. But, accurate Internet filtering presents real problems because of the lack of consensus regarding the desirability of certain materials, and because a particularly fine filter will block access to websites that everyone agrees are valuable.²⁵⁸

The Supreme Court has championed filtering, even to the exclusion of other techniques. According to CIPA, any public library that receives federal monies to provide Internet access must install and operate filters that block obscenity and child pornography, and that shield minors from material that would be harmful to them.²⁵⁹ The American Library Association and other concerned groups objected that the available filters were overinclusive, blocking medical and educational information that no one found objectionable.²⁶⁰ The Supreme Court rejected a facial challenge to the law as contrary to the First Amendment, emphasizing that the law allowed the filters to be disabled at the request of a patron.²⁶¹ A similar attraction to filters emerged from the Court's 2004 decision invalidating COPA.²⁶² The doctrinal framework imposed by First Amendment jurisprudence asked whether the means chosen by Congress to control harmful speech was the least speech restrictive means available.²⁶³ Justice Kennedy extolled filtering as less restrictive and more effective than the verification screens relied upon by Congress in enacting COPA.²⁶⁴

257. See, e.g., INDUS. ENVTL. RESEARCH LAB., EPA, EPA-600/7-78-087, THIRD SYMPOSIUM ON FABRIC FILTERS FOR PARTICULATE COLLECTION (June 1978) (compiling technical papers presented at a 1977 symposium regarding research and technology for environmental filtering).

258. See Bambauer, *supra* note 256 (noting that various countries differ considerably on what content should and should not be filtered out).

259. *United States v. Am. Library Ass'n*, 539 U.S. 194, 200–01, 207 n.3 (2003); see also 47 U.S.C. § 254(h) (2006) (noting that libraries must certify they have an Internet safety policy in place before receiving telecom discounts).

260. See *Am. Library Ass'n*, 539 U.S. at 206–08.

261. *Id.* at 209, 214.

262. *Ashcroft v. ACLU*, 542 U.S. 656, 673 (2004).

263. *Id.* at 666–68.

264. *Id.* at 667–68 (noting that a person may escape conviction under COPA by restricting a minor's access to certain content by requiring use of a credit card or by implementing a digital certificate that verifies age).

Justice Breyer, in dissent, criticized such heavy reliance upon filtering because it “underblocks, imposes a cost upon each family that uses it, fails to screen outside the home, and lacks precision.”²⁶⁵ Justice Breyer also observed that COPA represented the congressional determination that “despite the availability of filtering software, children were still being exposed to harmful material on the Internet.”²⁶⁶

Environmental law teaches that Justice Breyer is right. Filters are not the definitive solution to air or water pollution. To cite one example, the City of Honolulu once argued that a CWA lawsuit should be dismissed as moot because the city had just installed a new filter at its sewage treatment plant, but the court kept the case alive because “the new filter is hardly the panacea the City claims it to be.”²⁶⁷ Filters, moreover, are part of the traditional command-and-control approach of environmental law, whereas second generation environmental thought insists that “new approaches are needed to address remaining and emerging environmental problems.”²⁶⁸ A preoccupation with any one means of solving a perceived pollution problem further contradicts the insights of second generation environmental law, which posits that there is no single solution to any pollution problem. This experience with other pollution problems suggests that filters can play a significant role in controlling Internet pornography, but perhaps not the central role that the Court and some other proponents expect. Justice Breyer’s insistence that there are no “magic solutions” to Internet pornography echoes the lessons of environmental pollution.²⁶⁹

3. Zoning

Zoning is another common response to pollution. As with filtering, zoning can be the result of voluntary action to separate polluting activity from its victims, but most zoning is accomplished by law. Many local zoning laws require polluting facilities to be located in areas away from residences, schools, and hospitals.²⁷⁰ Similarly, zoning is a

265. *Id.* at 686 (Breyer, J., dissenting). Presumably a similar concern arises when the government prescribes a particular Internet filter, which is what sparked the outcry against China’s Green Dam, *see supra* text accompanying notes 107–19, even though individuals could disable the filter if they chose to do so.

266. *Ashcroft*, 542 U.S. at 684. (Breyer, J., dissenting).

267. *Save Our Bays & Beaches v. City & Cnty. of Honolulu*, 904 F. Supp. 1098, 1120 (D. Haw. 1994).

268. Second Generation of Environmental Improvement Act of 1999, H.R. 3448, 106th Cong. § 2(1).

269. *Ashcroft*, 542 U.S. at 688 (Breyer, J., dissenting).

270. Juliana Maantay, *Zoning Law, Health, and Environmental Justice: What’s the Connection*, 30 J.L. MED. & ETHICS 572, 575–76 (2002).

common response to pornography. Many local governments have enacted ordinances that specify where businesses selling or displaying pornographic materials may or may not be located.²⁷¹ The theory justifying the concentration of such enterprises is that pollution is best limited to one place that concerned individuals may avoid;²⁷² the theory justifying the opposite approach of requiring such enterprises to be spread throughout a city is that their effects will be diluted.²⁷³ The Court has upheld such laws because they regulate the secondary effects of pornographic businesses, such as traffic and crime, so long as a municipality affords sufficient alternative sites for those businesses.²⁷⁴ Koppelman understands the Court's decisions "as an effort to restrict the geographic scope of a certain kind of moral harm," which is precisely how local zoning laws seek to address environmental pollution, albeit in response to different harms.²⁷⁵

The Supreme Court has been less accepting of federal laws seeking to "zone" pornography on the Internet. The Court held that both the CDA and COPA violated the First Amendment.²⁷⁶ Both laws sought to enforce a boundary between children and pornographic websites, first by prohibiting the knowing transmission of material to minors (in the CDA)²⁷⁷ and then by mandating age verification tools to restrict access to those websites (in COPA).²⁷⁸ Indeed, Justice O'Connor described the CDA as "little more than an attempt by Congress to create 'adult zones' on the Internet."²⁷⁹ But, the Supreme Court held that the operative terms in the CDA were unconstitutionally vague, and then it held that the government had failed to show

271. See *FW/PBS, Inc. v. Dallas*, 493 U.S. 215, 252 (1990).

272. See John Fee, *The Pornographic Secondary Effects Doctrine*, 60 ALA. L. REV. 291, 312 (2009) (noting that some members of the public, as consumers and homebuyers, want to avoid adult entertainment areas).

273. *Cf. id.* (noting that "adult businesses" are prone to becoming high-crime districts which may support the dilution approach, yet also noting members of the public, as consumers and homebuyers, want to avoid such areas, supporting a cluster approach).

274. See, e.g., *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41, 54-55 (1986) (upholding an ordinance requiring the concentration of pornographic businesses); *Young v. Am. Mini Theatres, Inc.*, 427 U.S. 50, 72-73 (1976) (upholding a Detroit ordinance prohibiting the concentration of pornographic businesses). For a perceptive and critical view of these zoning decisions, see generally Fee, *supra* note 272.

275. Koppelman, *Moral Harm*, *supra* note 11, at 1674.

276. See Lawrence Lessig & Paul Resnick, *Zoning Speech on the Internet: A Legal and Technical Model*, 98 MICH. L. REV. 395, 396-97 (1999) (discussing how the COPA and the CDA were struck down).

277. *Reno v. ACLU*, 521 U.S. 844, 859 (1997).

278. *Ashcroft v. ACLU*, 542 U.S. 656, 662 (2004).

279. *Reno*, 521 U.S. at 886 (O'Connor, J., dissenting). For another outline of how a federal statute could constitutionally employ a zoning response to Internet pornography, see Lessig & Resnick, *supra* note 276.

that COPA employed the least speech restrictive approach to controlling Internet pornography.²⁸⁰ A similar problem arises in the cases questioning whether an individual community is permitted to employ its own standards to judge what pornographic materials are obscene and thus beyond the protection of the First Amendment.²⁸¹ The inability to enforce boundaries between Internet pornography and those whom it is said to injure thus eliminates a common and effective tool for the control of many kinds of pollution.

Nor are the Supreme Court's suggested alternatives likely to be as effective. In striking down COPA, the Court endorsed another federal statute that authorizes a "Dot Kids" domain containing material suitable for children under the age of thirteen.²⁸² Such a "Dot Kids" domain relies upon zoning ideas, as does the converse proposal to isolate all pornographic materials in a "Dot XXX" domain. The theory justifying the "Dot Kids" domain is that children will be more interested in websites that are designed for them than in websites featuring sexually explicit materials.²⁸³ Which websites will actually attract more children is questionable, and the zoning fails if there are no means of restricting minors from accessing the pornographic materials. The "Dot Kids" domain thus echoes the efforts to dilute pollution. The dilution of pornography was questioned as early as 1930, when the Supreme Judicial Court of Massachusetts held that a bookseller could not assume that children who read an obscene passage in a book "would continue to read on until the evil effects of the obscene passages were weakened or dissipated with the tragic denouement of a tale."²⁸⁴ In 1986, the Attorney General's Commission on Pornography observed that "[m]any of these materials may present the message in a more diluted form, but certainly their prevalence more than compensates for any possible dilution."²⁸⁵ Environmental law learned this lesson long ago, and the aphorism that "dilution is

280. See *Reno*, 521 U.S. at 885 (upholding injunction against CDA); *Ashcroft*, 542 U.S. at 673 (affirming injunction against COPA).

281. Compare *United States v. Little*, 365 F. App'x 159, 164 (11th Cir. 2010) (applying a local community standard in an online obscenity prosecution), and *United States v. Harb*, No. 2:07-CR-426TS, 2009 WL 499467 (D. Utah Feb. 27, 2009) (applying the *Miller v. California*, "contemporary community standard" to deny a motion to dismiss an indictment of federal obscenity statutes), with *United States v. Kilbride*, 584 F.3d 1240, 1254 (9th Cir. 2009) (applying a national standard).

282. *Ashcroft*, 542 U.S. at 663.

283. *Id.* (describing the "Dot Kids" domain provision of 47 U.S.C. § 941 (2006)); NATIONAL RESEARCH COUNCIL REPORT, *supra* note 58, at 335-39, 327-34 (examining the "Dot Kids" domain and considering a "Dot XXX" domain).

284. *Commonwealth v. Friede*, 171 N.E. 472, 474 (Mass. 1930).

285. ATTORNEY GENERAL COMM'N REPORT, *supra* note 85, at 52.

the solution to pollution” only appears in environmental history books, not in environmental statutes.²⁸⁶

VI. CONCLUSION

Andrew Koppelman laments that “[m]ost of the serious discussions about the moral import of pornography take place in the context of proposals to criminalize it. Criminalizing pornography is a mistake. But discussion of pornography’s moral import is urgently needed.”²⁸⁷ Environmental law is familiar with discussions of pollution, a term that derived from a sense of moral defilement.²⁸⁸ Our experience addressing environmental pollution also identifies a broad middle ground between enforcing criminal prohibitions and relying upon moral condemnation. As with environmental pollution, there is no single solution to the problems presented by pornography. One response should be a continued discussion about how pornography affects those who are exposed to it as well as the broader cultural environment. Additionally, the law should facilitate efforts by concerned individuals to avoid such exposure—perhaps by encouraging filtering or zoning strategies—even though such efforts might require a rethinking of some First Amendment jurisprudence that expects the victims of pornography to avoid its harms. The most difficult task for the law is to identify how to address the claims of cultural pollution associated with pornography, but again, environmental law is likely to be instructive in this effort as well.

286. See N. William Hines, *A Decade of Nondegradation Policy in Congress and the Courts: The Erratic Pursuit of Clean Air and Clean Water*, 62 IOWA L. REV. 643, 643 (1977) (admitting that “[t]he idea of reducing pollution by spreading out discharge sources to take fuller advantage of the assimilative capacity of existing areas of high ambient air and water quality seems eminently sensible,” but asserting that “[d]ilution is not the solution to pollution”).

287. Koppelman, *Phyllis Schlafly*, *supra* note 88, at 124.

288. See Nagle, *Idea of Pollution*, *supra* note 25, at 6–15 (explaining the etymology of “pollution”).