
**Filtering the Internet Like a Smokestack: How the Children's
Internet Protection Act Suggests a New Internet Regulation
Analogy.**

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I. INTRODUCTION

The development of new technologies often presents society with novel legal issues. Rarely, however, do technological innovations present problems that are wholly unique. For example, a new medium of communication used to disparage a person's reputation would likely fall under the doctrine of libel. To apply traditional, print media libel precedent to a case when the slanderous speech is electronic, the law analogizes the electronic medium to the printed page. The law's relevance in the face of new technology, therefore, relies on its use of analogies that frame unforeseen legal issues in terms of established principles.

The application of established law to the multi-faceted Internet, however, resists a single, overarching analogy. Instead, courts, lawmakers and commentators have had to employ an evolving set of metaphors in their attempts to analyze the medium. Regulation of the Internet has been promoted with the "information superhighway" metaphor, analyzed with the "cyberspace" conception and explored with the "Internet as real space" comparison.² The government's

1. Suffolk University Law School, J.D., 2005.

2. Jonathan H. Blavin and I. Glenn Cohen, *Gore, Gibson, and Goldsmith: The Evolution of Internet Metaphors in Law and Commentary*, 16 HARV. J.L. & TECH. 265 (2002).

interest in protecting minors from harmful Internet content has even been likened to the zoning of real property, like distancing schools from adult-oriented commercial spaces.³

Although Internet filtering technology continues to develop and improve, filters are currently unable to analyze the content of *images* on the Internet.⁴ The Children's Internet Protection Act (CIPA),⁵ however, is based on a policy that requires the use of Internet filters that can discern between appropriate and inappropriate Internet *images*.⁶ The statute's apparent technological infeasibility raises unresolved questions regarding the interpretation and application of CIPA's Internet filtering provisions.

Although no single metaphor is sufficient for analogizing the myriad legal issues presented by the Internet, CIPA necessitates an appropriate analogy to address the statute's unresolved regulatory concerns.⁷ Fortunately, environmental law has encountered and resolved analogous technological infeasibility issues.⁸ In bridging the gap between current regulatory aspirations and potentially available technological tools, environmental law has established a vocabulary of statutory construction and interpretation that forces technology to develop in order to accomplish forward-looking regulatory goals.⁹ Reading CIPA as a technology-forcing goal statute like the Clean Air Act (CAA)¹⁰ explains how the apparently infeasible Internet filter statute may be interpreted and applied in the face of technological limitations.

3. *Id.* at 283-83. Analogizing the Internet to geographic space, Justice O'Connor has observed that enhanced technological control of the Internet allows cyberspace to be treated like the physical world. *Reno v. ACLU*, 521 U.S. 844, 890 (1997) (O'Connor, J., concurring in part and dissenting in part).

4. *United States v. Am. Library Ass'n*, 539 U.S. 194, 221 (2003) (Stevens, J., dissenting). The Children's Internet Protection Act only covers online "visual depictions." *Id.* But, as both the District Court and Justice Stevens noted, image recognition technology is currently too crude and ineffective to be used to filter Internet image content. *Id.*

5. Codified at 20 U.S.C. § 9134(f); 47 U.S.C. § 254(h)(6).

6. 20 U.S.C. § 9134(f)(1)(A)(i); 47 U.S.C. § 254(h)(5)(B)(i); and see *infra* note 45.

7. STUART BIEGEL, *BEYOND OUR CONTROL?: CONFRONTING THE LIMITS OF OUR LEGAL SYSTEM IN THE AGE OF CYBERSPACE* 356-37 (The MIT Press 2001). As Biegel argues, the Internet is "too large, too complex, and too varied" for a unified regulatory metaphor to capture the host of legal issues presented in and around cyberspace. *Id.* "Metaphors invoking comparisons with analogous settings," however, can be useful starting points for analyzing particular Internet regulatory questions. *Id.*

8. THOMAS J. SCHOENBAUM ET AL., *ENVIRONMENTAL POLICY LAW* 882-887 (Foundation Press 2002).

9. *Id.*

10. Codified at 42 U.S.C. § 42.

After reviewing free speech concerns and Congress' interest in protecting minors from harmful Internet content, this note will summarize the history of Congress' efforts to regulate online pornography. The paper will then describe current Internet filtering technology and compare CIPA to the CAA. Borrowing from environmental principles such as the "best available technology" standard, this note will then suggest an approach to interpreting CIPA that resolves the law's technologically problematic positions.

II. INTERNET REGULATORY POLICY AND THE FIRST AMENDMENT

The First Amendment to the United States Constitution protects both the expression and the receipt of information.¹¹ In *United States v. Am. Library Ass'n*,¹² the Supreme Court of the United States considered whether CIPA, a congressional act that conditions the receipt of public library Internet subsidies on the library's use of filtering software, violates the First Amendment.¹³ Upholding the Act, the Court held that, at least facially, it does not violate First Amendment rights.¹⁴ The Act's mandate to employ a "technology protection measure" capable of blocking access to obscene *images* is, however, virtually impossible to comply with.

That the First Amendment does not cover all speech is well established. Since its drafting, the amendment has been interpreted to intentionally omit obscene and profane forms of expression from its protection.¹⁵ The constitutionality of laws aimed at outlawing such obscene speech, however, is a source of perennial controversy.

11. U.S. Const. amend. I.; *Stanley v. Georgia*, 394 U.S. 557, 564 (1969) (recalling that the freedom of speech and press includes the right to receive information and ideas, regardless of their social worth); *Martin v. City of Struthers*, 319 U.S. 141, 143 (1943) (outlining the breadth of the democratic ideal of First Amendment free speech rights).

12. *United States v. Am. Library Ass'n*, 539 U.S. 194 (2003). The Court reviewed CIPA under both First Amendment and spending power analyses. *Id.*

13. 47 U.S.C. § 254 (h)(6)(B). In order for a public library to receive federal telecommunications subsidization, the library must demonstrate that it enforces a policy of internet safety that includes the operation of filtering software. *Id.* The filters must be installed on all computers that have Internet access and must protect against access to visual depictions that are obscene, harmful to minors or are images of child pornography. *Id.*

14. *Am. Library Ass'n*, 539 U.S. at 214. Preliminary to the First Amendment question, the Court held that Congress does not violate its spending power when it attaches constitutional conditions to the receipt of federal monies. *Id.*

15. *Roth v. United States*, 354 U.S. 476 (1957) (holding that obscenity is an utterance not within the area of protected speech and press). The Court supplied evidence buttressing their assertion that, at the time of the First Amendment's drafting, obscene speech was contemplated as falling outside the area of protected speech. *Id.* at 483.

A. Protected and Unprotected Speech

The Court labored at the outset to formulate a practical and justified definition of obscenity. Anti-obscenity jurisprudence soon bifurcated the issue of constitutional speech restriction.¹⁶ While *obscene* speech could be prohibited, the government's interest in shielding children from other harmful speech allowed *indecent* speech to be restricted as well.¹⁷ Obscene speech was defined as that which an average person, applying contemporary community standards, would find appeals to the prurient interest, describes or depicts sexual conduct, and lacks literary, artistic, political or scientific value.¹⁸ Indecent speech, on the other hand, has been loosely defined as material that the local community deems harmful to minors.¹⁹

While courts recognize the government's compelling interest in protecting the well-being of children, the difficulty associated with differentiating between protected speech and unprotected speech has vexed legislative efforts to restrict speech that is harmful to minors.²⁰ The statutory language used to criminalize obscene or indecent speech must notify potential offenders of the particular speech outlawed and provide prospective juries with an adaptable yardstick for reckoning the severity of an alleged offense.²¹ The Court

16. Russell B. Weekes, *Cyber-Zoning a Mature Domain: The Solution to Preventing Inadvertent Access to Sexually Explicit Content on the Internet?*, 8 VA. J.L. & TECH. 4 (2003).

17. *Id.*; *New York v. Ferber*, 458 U.S. 747, 756-57 (1982) (recognizing the government's interest in protecting the psychological well-being of children as "compelling"). In recently reaffirming the government's compelling interest, the Court explained that it extends to the shielding of minors from "indecent messages that are not obscene by adult standards." *Reno v. ACLU*, 521 U.S. 844, 869 (1997).

18. *Miller v. California*, 413 U.S. 15, 24 (1973). The standard, referred to as the *Miller Test*, has come to connote the past 30 years of anti-obscenity jurisprudence. The *Miller Test* inquires: (a) whether the average person, applying contemporary community standards would find the work, taken as a whole, appeals to the prurient interest, (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value. *Id.*

19. *Ginsberg v. New York*, 390 U.S. 629 (1968); *See Prince v. Massachusetts*, 321 U.S. 158, 170 (1944) (explaining that First Amendment rights of children not as expansive as those of adults).

20. *See infra* notes 30, 31, 35, and 36 (examples of difficulties encountered in failed Congressional efforts to constitutionally block minors' access to harmful expression).

21. *Roth*, 354 U.S. at 491-92; *See Miller*, 413 U.S. at 30-34. The Court explained that requiring lay jurors, as factfinders, to divine a national definition of obscenity without proper statutory provisions and elements to guide their determination would be "an exercise in futility." *Id.* at 30.

explained that regulation of such speech must be performed with adequate procedural safeguards to ensure against the curbing of constitutionally protected expression.²² The line between speech unconditionally guaranteed and speech which may legitimately be regulated, suppressed, or punished is finely drawn.²³ Any differentiation between legitimate and illegitimate speech, the Court admonished, should be attempted only with "sensitive tools."²⁴

B. Congress Takes Aim at Unprotected Internet Speech

CIPA, enacted by Congress in 2001, is an effort to subsidize public library Internet access while curtailing the use of that access for viewing pornography.²⁵ A public library's receipt of federal Internet access subsidization funds is conditioned upon its implementation of Internet filters that significantly limit access to *images* that are "harmful to minors."²⁶ CIPA mandates that filters must be in operation even when adult patrons use the library terminals, but allows library staff to disable a filter upon request to facilitate "bona fide research."²⁷

1. Early Failures

Congress' war on Internet pornography did not begin, however, with CIPA's filtering policy. Beginning in 1995, as the Internet sprawled through American cyberspace and the nation's consciousness, Congress turned its attention to the alarming

22. *Bantam Books, Inc. v. Sullivan*, 372 U.S. 58, 66 (1963) (holding a state may not adopt whatever procedure it pleases to regulate unprotected speech without regard to possible consequences for protected speech).

23. *Speiser v. Randall*, 357 U.S. 513, 525 (1958).

24. *Id.*

25. *Am. Library Ass'n v. United States*, 201 F. Supp. 2d 401, 412 (E.D. Pa. 2002).

26. *Id.* at 413; 47 U.S.C. § 254 (h)(6)(B); Kiera Meehan, *Installation of Internet Filters in Public Libraries: Protection of Children and Staff vs. The First Amendment*, 12 B.U. PUB. INT. L.J. 483, 490-491 (2003) (delineating the debate over CIPA prior to the Supreme Court's decision). The federal subsidization of public library Internet access, established by the Telecommunications Act of 1996, comes in two forms. *Id.* First, many libraries receive "E-rate" discounts on their bills to local Internet providers. *Id.* An alternative form of financial support provides funds with which libraries may purchase computers and Internet access. *Id.* To qualify for either program, libraries must file a form certifying their compliance with CIPA. *Id.*

27. *Am. Library Ass'n*, 539 U.S. at 232 (Souter, J., dissenting) (noting Oral Argument where Solicitor General represented Government's policy to permit disabling of filter software for adult Internet use); *Am. Library Ass'n v. United States*, 201 F. Supp. 2d 401, 413 (E.D. Pa. 2002); 47 U.S.C. § 254 (h)(6)(D).

availability of pornographic content online.²⁸ The first federal attempt to regulate obscenity and indecency on the Internet treated the novel medium like traditional broadcast media.²⁹ Enacting the Communications Decency Act (CDA) in 1996, Congress made it illegal to post adult-oriented material online where children could access it.³⁰ Within a year, however, the overbroad, content-based speech restriction was struck down.³¹

In an attempt to remedy the CDA's overbreadth, Congress passed the Child Online Protection Act (COPA) in 1998.³² COPA provides civil as well as criminal penalties for knowingly posting material "harmful to minors" and accessible by minors in furtherance of either interstate or foreign World Wide Web commerce.³³ The statute's definition of material "harmful to minors" represents Congress's

28. Jason Krause, *Can Anyone Stop Internet Porn?: Courts Have Shot Down Laws Protecting Kids From Obscenity Online. Is Cyberspace Suited to a Virtual Privacy Wrapper?*, 88 A.B.A. J. 56 (2002).

29. Russell B. Weekes, *Cyber-Zoning a Mature Domain: The Solution to Preventing Inadvertent Access to Sexually Explicit Content on the Internet?*, 8 VA. J.L. & TECH. 4 (2003). The CDA's central legislative philosophy was to use the government's compelling interest in protecting children to ban transmission of harmful material that would likely be accessible by children. *Id.* For cable television that meant prohibiting pornographic programming from airing during the hours when children were likely to be awake. *Id.*

30. *Id.* At trial the District Court found that part of the problem with CDA was that it required performance of a standard that was not technologically feasible. *ACLU v. Reno*, 929 F. Supp. 824, 845 (findings 90-94) (E.D. Pa., 1996). The sender of indecent Internet content could have complied with CDA only if he could effectively verify that the receiver on the other end of the Internet connection was not a minor. *Id.* The court noted the absence of such technology, but wishfully prophesized the development of a more feasible technology: parent-controlled Internet filtering software. *Id.* at 842. The Supreme Court admitted that the "mere possibility" that a parent-controlled Internet filtering system would soon be on the market was "relevant" to their rejection of CDA. *United States v. Playboy Entm't Group, Inc.*, 529 U.S. 803, 814 (2000). The issue of technological feasibility had also been raised in relation to a statutory approach to prohibit minors from accessing "dial-a-porn." *Sable Communication of California, Inc. v. FCC*, 492 U.S. 115, 130-31 (1989). As the Court related, the technological inability to effectively prevent minors from accessing pornographic phone messages "required" that the statute be invalidated. *Id.*

31. *Reno v. ACLU*, 521 U.S. 844 (1997); *United States v. Playboy Entm't Group*, 529 U.S. 803 (2000). The CDA's provision banning pornographic programming from cable television during daytime hours was similarly struck down. *Id.* The Court ruled that, due to the cable subscriber's ability to have pornographic programming blocked, the CDA was not the least restrictive means for addressing the problem. *Id.*

32. Russell B. Weekes, *Cyber-Zoning a Mature Domain: The Solution to Preventing Inadvertent Access to Sexually Explicit Content on the Internet?*, 8 VA. J.L. & TECH. 4 (2003).

33. *ACLU v. Ashcroft*, 322 F.3d 240, 245 (3d Cir. 2003); 47 U.S.C. § 231(a)(1).

attempts to draft a constitutionally permissible restriction of indecent and obscene speech.³⁴ While more narrowly tailored than CDA, COPA is by no means clearly constitutional.

The day after President Clinton signed COPA into law, the American Civil Liberties Union and others brought an action challenging the statute on free speech grounds.³⁵ Six years later and after a trip to the Supreme Court, COPA's future remains uncertain. What is clear, however, is that at the nexus of Internet regulation and free speech, Internet filters have received significant endorsement as the potentially harmonizing mechanisms through which the competing interests relating to Internet regulation may be resolved.³⁶

2. A Compelling Interest

Despite its First Amendment complexities, the federal government's desire to protect children online is certainly a compelling interest in a growing societal problem. It is estimated that over 260 million Web pages are pornographic and as many as 28

34. Ashcroft, 322 F.3d. at 246. Congress adopted the *Miller Test* standard for determining obscenity, but applied it to minors: Whether (a) the average person applying contemporary community standards would find the work to (b) depict, describe or represent a perverted or lewd sexual act that (c) taken as a whole, lacks literary, artistic, political or scientific *value for minors*. *Id.* See H.R. Rep. No. 105-775, at 12-13 (1998).

35. Ashcroft, 322 F.3d at 246-47. The United States District Court for the Eastern District of Pennsylvania ruled that COPA, although addressing a compelling government interest, would most likely fail strict scrutiny because it is not sufficiently narrowly tailored. *Id.*

36. Ashcroft v. ACLU, 124 S. Ct. 2783, 2792 (2004). The district court's preliminary injunction against COPA having been affirmed at both the appellate and Supreme Court levels, the criminalization of certain Internet speech has been rejected for being more restrictive of speech than the use of filtering technology. *Id.* at 2788, 2792. In its June 29, 2004 ruling, the Court remanded the case and said that at trial the government would have to provide support for their contention that the voluntary use of filters to screen out pornographic and inappropriate Internet content would not work as well as criminal penalties. Linda Greenhouse, *Court Blocks Law Regulating Internet Access to Pornography*, N.Y. TIMES, June 30, 2004. As Justice Kennedy explained, the Court decided that filters are not only less restrictive than COPA, but may well be more effective at accomplishing the government's interest of protecting minors from exposure to pornography. *Ashcroft*, 124 S. Ct. at 2792. While COPA seeks to impose criminal liability on obscene Internet speech in the U.S., an effective Internet filter would block access to both domestic and foreign obscene speech. *Id.* Additionally, while COPA criminalizes only speech on the World Wide Web, a filter can block obscene speech from e-mail and other Internet communications as well. *Id.* While current filtering technologies are certainly deficient in some regards, in the instant case the government failed to convince the Court that the use of Internet filters is less effective at achieving the government's interest than enforcement of COPA. *Id.* at 2793.

million new pornographic pages are added each month.³⁷ According to some figures, Internet pornography accounts for the annual expenditure of \$57 billion worldwide, with \$12 billion spent in the United States alone.³⁸ Meanwhile, children and teenagers use the Internet more than any other age group in the United States, with significant numbers of children using school and public library computers to go online.³⁹ The government has legitimate cause for concern over the socially harmful combination of increasing obscenity and child activity on the Internet.

3. CIPA Passes Muster

At trial the court for the Eastern District of Pennsylvania ruled that CIPA, like its predecessors, violated the First Amendment.⁴⁰ Given the constitutional difficulties surrounding Congress's attempts to regulate Internet speech, the ruling with respect to CIPA's Internet filtering policy initially appeared to be in line with cyber-speech precedent. On appeal, however, the Supreme Court employed a different analysis that upheld the statute as facially valid.⁴¹ Combining Congress's power of the purse and local librarians' discretionary power in assembling library collections, the federal government crafted a constitutional restriction of Internet material

37. *Morality in the Media: Explosion of Pornographic Web Pages Underscores Need for Obscenitycrimes.org and for International Treaty*, U.S. NEWSWIRE, Sept. 23, 2003. There is substantial disagreement over the percentage of the web that is used for pornographic and obscene speech. While some analysts suggest it represents no more than 1% of the world's internet content, others believe it could be as high as 10%. FRED H. CATE, *THE INTERNET AND THE FIRST AMENDMENT: SCHOOLS AND SEXUALLY EXPLICIT EXPRESSION* 16 (Phi Delta Kappa Educational Foundation 1998).

38. Phil Magers, *A New Weapon Against Child Porn*, UNITED PRESS INTERNATIONAL, Aug. 19, 2003.

39. A Nation Online: How Americans Are Expanding Their Use of the Internet, National Telecommunications and Information Administration, U.S. Department of Commerce (Mar. 2005), available at <http://www.ntia.doc.gov/ntiahome/dn/index.html>.

40. *Am. Library Ass'n v. United States*, 201 F. Supp. 2d 401 (E.D. Pa. 2002). Applying strict scrutiny to what the court believed was speech restriction in a "traditional public forum," it held that Internet filters are not narrowly tailored to further the government's compelling interests. *Id.* at 466-79.

41. *United States v. Am. Library Ass'n*, 539 S. Ct. 194 (2003). The Court rejected the lower court's "public forum" analysis and held that a public library's Internet access is more accurately described as a discretionary community service, simply another medium of information added to a library's collection. *Id.* at 202-06. The Court reasoned that if a library can determine which books it will make available to the community it may also determine which internet sites it will make available at its terminals. *Id.* at 202-10.

potentially harmful to children.⁴²

CIPA's statutory requirements combine government's interest in preventing the use of public Internet connections from being used to access unprotected and unlawful speech with its compelling interest in protecting minors from harmful material.⁴³ No funds allocated by the act may be disbursed to subsidize public library Internet access unless the library employs a policy of Internet safety that includes the use of a "technology protection measure."⁴⁴ That technology, currently in the form of filtering software, must protect against access to "visual depictions" that are (i) obscene, (ii) child pornography, or (iii) harmful to minors.⁴⁵ Access to obscenity and child pornography, respectively unprotected and unlawful speech, is restricted on all library computers.⁴⁶ The filter's capacity to block material deemed harmful to minors, however, need be in operation only when minors use the computer.⁴⁷

42. *Id.*; In addition to its First Amendment constitutionality, the Court legitimized the statute's exercise of Congress's spending powers. *Id.* at 214. Congress's "wide latitude" to attach conditions to its granting of subsidies was upheld insofar as the conditions were themselves constitutional. *Id.* at 203.

43. 20 USC § 9134 (f)(1)(A) & (B).

44. *Id.* The term "technology protection measure" has reportedly led to some difficulty interpreting the statute. Department of Commerce, Study of Technology Protection Measures in Section 1703, August 2003, National Telecommunications and Information Administration (NTIA), available at <http://www.ntia.doc.gov/ntiahome/dn/index.html>. According to the NTIA's report, the indistinct definition of the technology to be used by complying libraries leads many educational institutions to simply rely on Internet filters. *Id.* The report predicts that over-reliance on filters alone may stifle the development of future, more sophisticated technologies. *Id.* The NTIA recommends that Congress change the term "technology protection measure" to reflect an interest not only in filtering software, but also in future technologies as well. *Id.* The NTIA is an agency at the Department of Commerce that serves as the President's principle advisor on telecommunications issues. See <http://www.ntia.doc.gov/opadhome/history.html>. The NTIA also administers telecommunications grants that help non-profit and public organizations gain increased Internet access. *Id.* Congress delegated to the NTIA the job of evaluating current filtering technologies and recommending ways Congress can encourage the further development of such technological tools, for use by the nation's schools and libraries. See http://www.ntia.doc.gov/opadhome/opad_ic.html. The NTIA also oversees the newly created "kids.us" domain, a child-safe Internet space created by President Bush in 2002. *Id.*

45. 20 USC § 9134 (f)(1)(A) & (B). The statute defines "harmful to minors" as "any picture, image, graphic image file, or other visual depiction" that, with respect to minors, fails the *Miller* test. 20 USC § 9134 (f)(7). It defines "obscene" as a "visual depiction," which is limited to images and does not include "mere words." *Id.* & 18 USC § 1460 (b). See also *supra* note 4 (citing findings that no known Internet filter can discern between innocuous and harmful online images).

46. 20 USC § 9134 (f)(1)(B).

47. 20 USC § 9134 (f)(1)(A) & (B). Although a sound reflection of established free speech law, this complexity poses a threat to CIPA's constitutionality if it

CIPA's distinction between a filtering policy for adults and a policy for children allowed the Court to uphold the statute. As Justice Kennedy reasoned, the filtering policy does not burden constitutionally protected speech if an adult user can simply ask a librarian to disable the filter, and it will be disabled without delay.⁴⁸ Congress' compelling interest in protecting minors from inappropriate content validates the statute's policy of filtering children's Internet access.⁴⁹ The statute's practicality, however, depends on the technology used to comply with it.

III. THE STATE OF THE ART

A. What Filters Do

Current filtering software approaches the task of differentiating between desirable and undesirable sites by employing two synchronized schemes.⁵⁰ The first is a relatively low-tech, yet highly subjective, method of using people to review and categorize websites.⁵¹ Manufacturers of Internet filters compile and regularly

faces an as-applied challenge. The filter technology CIPA demands must distinguish between obscene content (to be unconditionally blocked) and content deemed harmful to minors (to be blocked only when minors use the computer). Thus, the technology envisioned by Congress when CIPA was crafted should filter Internet images with one level of precise discernment when an adult uses the computer and with a precisely more restrictive discernment when a minor uses it. *Id.* No such technology is known to exist.

48. 539 U.S. at 214 (Kennedy, J., concurring). At oral argument Theodore B. Olson, Solicitor General, offered his understanding of CIPA's disabling provision, which provides in pertinent part: "an administrator, supervisor or other authority may disable a technology protection measure...to enable access for bona fide research or other lawful purposes." 20 U.S.C. § 9134 (f)(3). The Solicitor General's explanation was that a library can disable a filter when requested by an adult, that the adult would not have to give a reason for the request, and that the task could be done quite easily. Tr. Of Oral Arg. 4-5, 11, [No. 02-361] Wed., March 5, 2003, 10:25 a.m. If it turns out that some libraries cannot promptly disable a filter or enable adult access to constitutionally protected speech, then that may be the subject for an as-applied challenge to the filtering policy. 539 U.S. at 215 (Kennedy, J., concurring).

49. *Id.*

50. Russell B. Weekes *Cyber-Zoning a Mature Domain: The Solution to Preventing Inadvertent Access to Sexually Explicit Content on the Internet?*, 8 VA. J.L. & TECH. 4 (2003).

51. *Id.* Filtering products usually contain lists of between 200,000 and 600,000 URLs. David F. Norden, *Filtering Out Protection: The Law, the Library and Our Legacies*, 53 CASE W. RES. 767, 776 (2003). The "blacklists" are activated by the filter user to block specific categories of URLs when the user sets the filter to a certain degree of sensitivity. Software manufacturers, however, often treat their "blacklists" as trade secrets. The result is that the customer (and now the librarian)

update lists of Web sites deemed pornographic, violent or obscene.⁵² These “blacklists” can be selected by the filter user to categorically block access to Web sites that are on the list.⁵³

The second filtering mechanism functions by enabling the software to “read” the *text* of sites accessed by the computer’s user.⁵⁴ By rapidly conducting a sort of forensic analysis, the filter searches for keywords that the software manufacturer has programmed as signals to flag certain types of unwanted content.⁵⁵ When the user accesses a site containing the word “sex,” for example, a filter set to block sexual content will detect the word’s presence and may deny access to the selected web page.⁵⁶

Although filtering software can recognize keywords and phrases that are commonly associated with images that would be harmful to minors, the technology’s practicality is severely limited. Filters generally cannot construe the context of the supposed objectionable term or phrase.⁵⁷ A filter set to block access to sexually explicit content would likely use the keyword “breast” to identify potentially obscene Internet sites. In addition to blocking some targeted material, however, such filters often deny access to innocuous web pages containing information on women and cancer (“breast” cancer), neonatal health (“breast” feeding) and chicken recipes (chicken “breast”).⁵⁸ Additionally, a filter’s categorical blocking of a site because one page contains obscene content can deny access to every other page posted on that site.⁵⁹ This phenomena is known as

decides what sites to block by electing to block content by category, unaware of the specific sites to which access is then denied. *Id.*

52. *Id.*

53. *Id.* As Justice Souter points out in his dissent, such filtering mechanisms screen out content to an extent known only by the software manufacturers. 539 U.S. at 234 (Souter, J., dissenting).

54. Adam Goldstein, *Like A Sieve: The Child Internet Protection Act and Ineffective Filters in Libraries*, 12 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 1187, 1189 (2002).

55. *Id.*

56. *Id.*

57. MADELEINE SCHACHTER, LAW OF INTERNET SPEECH 182 (Carolina Press 2001).

58. Alexandra Robbins, *Libraries Face Up to Filters*, PC MAGAZINE, Oct. 28, 2003, 25. Given the propensity for erroneous site-blocking, selecting which words to target when adjusting a filter’s “settings” is no easy task. Librarians must decide upon these finer points of CIPA’s requirements, likely learning from trial and error which settings best accomplish their understanding of the statute’s goals. As Justice Souter commented at oral argument, the statute does not endorse a particular technology and the software on the market is not programmed in terms of CIPA’s provisions. Tr. Of Oral Arg. 6, 11, [No. 02-361] Wed., March 5, 2003, 10:25 a.m.

59. *Am. Library Ass’n v. United States*, 201 F. Supp. 2d 401, 447-450 (E.D. Pa.

“overblocking.”

“Underblocking” is also a problem. Filters may fail to detect obscene speech or, particularly, obscene images and thus permit the computer user to access the very content the filter was intended to block.⁶⁰ Accurate filter operation is also increasingly frustrated with clever tricks used by the Internet’s pornography promoters.⁶¹ Words that may be in a filter’s dictionary of target keywords can be written in code or simply altered to fool automated filtering.⁶² Web site publishers can also use image files to place words on the screen that a filter cannot “see.”⁶³ As a result, filtering products are unable to block a substantial portion of the objectionable content available on the Internet.⁶⁴

B. What Filters Cannot Do

Filters’ inability to analyze the content of an *image* is of particular importance to this Note.⁶⁵ Image recognition technology is currently

2002). As the court noted in its analysis of filter performance, an entire site like Salon.com can be blocked because it has a sex column. *Id.* at 449. Further overblocking may result when an Internet service provider’s (ISP) address is blocked due to the presence of some obscene content on some pages. The majority of the thousands of other web sites and pages hosted by the ISP are then erroneously blocked. *Id.* Also, the failure of a filter company to regularly review all the sites blocked by their current software means that some sites remain blocked after the objectionable content has been removed. *Id.* Stated plainly, the District Court found that many filters blocked pages that contained content that no rational person could conclude matched the filters’ categories of “pornography” or “sex.” *Id.*

60. *Id.* at 447-450.

61. Ross Rapoport, *Spammers Learning New Tricks, We Experts Say*, COX NEWS SERVICE, Aug. 13, 2003. Examples of such tricks include placing white text on a white background, making it invisible to the reader and some filters. *Id.* Pornographers also combine disguised emails and automatic “links” to obscene websites and image files to download pornographic content without the email user’s knowledge. *Id.*

62. *Id.* Such devious tactics are relatively simple alterations in the spelling of target words. Writing “V1agra” instead of “Viagra,” for example, prevents the filter from recognizing the keyword. *Id.*

63. 539 U.S. at 221 (Stevens, J. dissenting); *see infra* note 54. Justice Stevens notes that, as the district court found, a company like Playboy could evade the filter’s detection of its name by using a picture of its logo or name rather than writing it in regular text. *Id.*

64. *Id.*; *see also* 201 F. Supp. 2d at 448-450.

65. *See supra* note 47. Although the content considered “harmful to minors” and prone to inadvertent access is pictorial, determining the content of an image with a filter is impossible. Russell B. Weekes, *Cyber-Zoning a Mature Domain: The Solution to Preventing Inadvertent Access to Sexually Explicit Content on the Internet?*, 8 VA. J.L. & TECH. 4 (2003).

too crude to be used as an Internet filtering device.⁶⁶ Therefore, a website with sexually explicit images that contains no text or omits suggestive keywords will not be detected by an Internet filter.⁶⁷ Purveyors of online pornography and obscenity can bypass the most sophisticated filtering technology by simply creating web pages composed of image files.⁶⁸ By using images of text rather than filter-readable text, online pornographers can design sites with images that communicate exactly what the filter is supposed to block yet prevent the filter from detecting what the site contains.⁶⁹ There is currently no technology protection measure that can effectively protect against access to harmful visual depictions.

IV. RULES STATUTES VS. GOAL STATUTES

Legislatures create law and shape policy by fashioning two types of statutes. Many statutes, called “rules statutes,” define permissible versus impermissible conduct.⁷⁰ “Goal Statutes,” on the other hand, announce goals and empower delegates to exercise control over conduct in furtherance of those goals.⁷¹ Distinguishing rules statutes from goal statutes turns on an understanding of the meaning of “rules.”⁷² A “rule” delineates permissible and impermissible conduct in terms extrinsic to the legislature.⁷³ The extrinsic definition of

66. 539 U.S. at 221 (Stevens, J., dissenting). None of the filter software manufacturers deposed in the CIPA case uses image recognition technology to identify or categorize URLs. *Id.* Filter developers have tried to design image-recognition technology that would identify what might be human skin in an image, but the technology is very imprecise. Weekes, *supra* note 65. It is reasonable, however, to expect the technology to continue to develop given the consumer demand for increasingly sophisticated filtering products. In late 2003 the software design firm, Clearswift Ltd. of Reading, UK, marketed an e-mail filter that reportedly recognizes and blocks flesh-colored pictures from entering or exiting the user’s e-mail account. *Internet Misuse Plagues British Firms: Survey*, CHANNEL NEWSASIA, Nov. 10, 2003.

67. 539 U.S. at 221-22 (Stevens, J., dissenting). Thus, as Justice Stevens acknowledged, a substantial amount of obscene Internet material will never be blocked. *Id.*

68. *Id.*

69. *Id.* Automated review of text that is part of an image file is currently impossible. *Id.* Written in computer languages, websites have two general methods of presenting text to the viewer. The text can be included in the programming language used to create the site, which a filter can “read,” or the text can be created as an image file that the programming language simply connects to, which a filter cannot “read.”

70. David Schoenbrod, *Goals Statutes or Rules Statutes: The Case of the Clean Air Act*, 30 UCLA L. REV. 740, 786 (1983).

71. *Id.* at 751.

72. *Id.*

73. *Id.*

permissible conduct, combined with intent to apply it to cases for an indefinite period of time, makes the rules statute less amenable to loose interpretation.⁷⁴ In contrast, goal statutes are built around the legislature's political judgments.⁷⁵ Goal statutes delegate control to lower-visibility entities that must make decisions about controls on conduct.⁷⁶ Speaking in abstractions, goal statutes earn political praise for Congress and pass the ambiguities and unresolved complexities on to someone else.⁷⁷

While both kinds of statutes can offer seemingly comprehensive solutions, the two approaches to law and policymaking reflect varying legislative circumstances. One particularly well-known goal statute, the Clean Air Act,⁷⁸ provides an instructive example of the legislative circumstances behind a goal statute.⁷⁹ Responding to significant public pressure, the federal government acted in 1970 to codify their political judgment that air pollution had become a national problem.⁸⁰ Lacking the technical expertise to incorporate precision in "rules," and not wanting to address the cost of compliance, Congress instead passed a goal statute expressing an aspiration to regulate and reduce air pollution.⁸¹ Congress delegated to the Environmental Protection Agency (EPA) the difficult if not impossible task of dealing with the economic and technological feasibility of the CAA under the weight of a statutory mandate to enforce compliance and get results.⁸²

A. *The Clean Air Act*

The CAA illustrates the central features of a goal statute.

74. *Id.* at 783-87.

75. *Id.* at 751, 793-94.

76. *Id.*

77. *Id.* at 751-54. Goal statutes can facilitate wishful thinking, both on the part of the public and the legislature. *Id.* By speaking in abstractions, such statutes can "generate contention among experts and mask the disparate expectations of lay persons." *Id.* A goal statute delegates the controversial choices to a politically less-visible entity so the legislature can take credit for the deceptively straightforward policy and pass the dirty details to an administrator off-stage. *Id.*

78. The Clean Air Act, enacted in 1963 and extensively amended in 1970, was designed to enhance and protect the nation's air quality and balance public health with the country's productive capacity. Rachel Glickman, Rose Standifer, Lory Stone and Jeremiah Sullivan, *Environmental Crimes*, 40 AM. CRIM. L. REV. 413, 456 (2003).

79. Schoenbrod, *supra* note 70, at 755; The Clean Air Act Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676. The Act, with subsequent amendments, is codified at 42 U.S.C. § 7401.

80. Schoenbrod, *supra* note 70, at 744-46.

81. *Id.* at 744-48, 753-54.

82. *Id.* at 753.

Perceived weaknesses in the CAA, for example, have been linked to a statutory structure that facilitates wishful thinking.⁸³ Rather than making decisions about the present, the CAA expresses goals designed to assuage current public opinion and present a policy based on the expectation of future technological advances.⁸⁴ As a goal statute, the CAA seeks to force technology to develop, eventually making the ultimate goals technologically feasible.⁸⁵ New car emission standards, for example, are timed to take effect after the elapse of sufficient time to permit the development of the requisite technology.⁸⁶ Finally, having announced and outlined the goal, Congress delegates the rest of the work to someone else, such as the EPA.⁸⁷

1. Technological Feasibility Consideration

In determining when and how particular air quality requirements should be complied with, the EPA is allowed to consider technological feasibility.⁸⁸ If the EPA decides that a standard of

83. *Id.* at 754.

84. *Id.* at 753-60.

85. *Id.* at 759-60. As administrative law, Congress' goal statutes can take technological feasibility into account. Having consulted with other regulatory agencies, and taking the cost of compliance into account, the administrator promulgates the timed emissions standards through regulation. 42 U.S.C. § 7521 (a)(6). The CAA's use of implementation schedules to gradually "phase-in" increased goal-oriented performance is also illustrative of the legislature's recognition of technological feasibility issues. *Id.* A CAA requirement that industrial smokestacks be fitted with emission-filtering mechanisms is typical of such legislation. Another provision in the CAA specifies what percentage of harmful emissions must be captured by a particular filtering technology. *Id.*

86. Schoenbrod, *supra* note 70, at 759. This legislative approach to complex technological goals for which there exists no technology for compliance at the time of the goal statute's passing is known as "technology forcing." Congress' belief in the adage, "where there's a will, there's a way," is evident in this type of lawmaking. By forcing industries to eventually comply with a standard of performance that is not currently technologically feasible, Congress supplies the wealthy and innovative industries with the needed "will" and the industries manage to find the "way." The 1970 amending of the CAA was the watershed event that introduced this legislative genre. *Id.* at 755. Air quality standards were established under the philosophy that public health outweighs technological and economic feasibility. Lincoln L. Davies, *Lessons for an Endangered Movement: What a Historical Juxtaposition of the Legal Response to Civil Rights and Environmentalism Has to Teach Environmentalists Today*, 31 ENVTL. L. 229, 297 (2001). Whether or not the technology existed to enable compliance was immaterial. Compliance meant inventing a way to meet Congress' goal. *Id.*

87. Schoenbrod, *supra* note 70, at 751-53.

88. 42 U.S.C. § 7411 (h). As the United States Court of Appeals for the District of Columbia has explained, technological feasibility can only be considered in regard to the CAA where Congress expressly so provided. *Lead Industries Ass'n v.*

performance is not feasible, the statute provides that the best possible standard of performance permitted by present technology may be appropriate.⁸⁹ The CAA authorizes the EPA to make the opposite determination as well. If the EPA finds that, due to technological advance, a particular air quality standard of performance is no longer the best standard, the agency should revise their requirements accordingly.⁹⁰ While “rules” require legislative action to achieve such flexibility, the CAA’s “goals” allow the statute to breathe in harmony with the development of complying technology.

2. *Alternative Means Consideration*

The EPA is authorized to also consider alternative methods of performance that operate as effectively as those promulgated and prescribed by the EPA.⁹¹ For example, if an industry establishes that a more cost-effective device limits the emission of pollutants as well as the EPA’s prescribed device, the EPA may allow use of the alternative device for purposes of complying with the CAA.⁹² By allowing the regulated industry to inform the regulator of alternative methods of compliance, the CAA’s “goals,” not its “rules,” run the regulatory mechanism.

An intriguing comparison between Congress’ approach to regulating the cleanliness of our air and their most successful approach to regulating the cleanliness of the Internet emerges quite naturally from this discussion. Although Congress may not have intended to treat the two “environments” so similarly, the current regulatory dilemmas associated with the Internet may actually benefit from an analogy to the CAA.⁹³

EPA, 647 F.2d 1130, 1148-49 (D.C. Cir., 1980). The EPA may consider technological feasibility in establishing standards of performance, for example, but cannot consider such feasibility in setting the actual air quality standards themselves. *Id.* Congress deliberately subordinated technological concerns to consideration of health goals. March Sadowitz, *Tailoring Cost-Benefit Analysis to Environmental Policy Goal: Technology- and Health-Based Environmental Standards in the Age of Cost-Benefit Analysis*, 2 B.U. J. SCI. & TECH. L. 11 ¶ 35 (1996).

89. 42 U.S.C. § 7411 (h)(1). See also Todd B. Adams, *New Source Review Under the Clean Air Act: Time for More Market-Based Incentives?*, 8 BUFF. ENV’T L.J. 1, 6-10 (2000) (discussing the Clean Air Act’s technology-forcing “best available control technology” standard).

90. 42 U.S.C. § 7411 (g)(4).

91. 42 U.S.C. § 7411 (h)(3).

92. *Id.*

93. *Supra* notes 10, 44 and 47.

B. CIPA Fails as a Rules Statute

Interpreting CIPA as a rules statute ignores the reality of Internet filtering, mangles First Amendment principles, and threatens the law with impotence. Taken at face value, CIPA's requirement that a filter operate at distinct degrees of sensitivity depending on the age of the computer's user is an absurd proposition.⁹⁴ As a rules statute, CIPA fails to define realistic permissible conduct.⁹⁵ Read as a rule, CIPA would not recognize the significant duties and powers integral to installing a filter's settings that devolve to local librarians.⁹⁶ If universal settings were used, the established principle that local authorities decide a community's decency standards would be violated.⁹⁷ It is indeed difficult to imagine how current filtering technology, established as the rule, could be passed off as "sensitive tools" for discerning between protected and unprotected speech.⁹⁸ Regarding CIPA as a rules statute condemns it to a short life full of First Amendment headaches and technology-based complaints.

C. Interpreting CIPA as a Goal Statute

CIPA should be interpreted as a goal statute. Unlike a rules statute that principally defines permissible and impermissible conduct, CIPA addresses a general goal to prevent minors from accessing indecent and obscene Internet content via federally subsidized public library computers.⁹⁹ The required use of Internet filters is not simply a rule, but rather the implementation of Congress' political judgment that the Internet is unsafe for minors.¹⁰⁰ Librarians are not only required to implement Internet filters, but are burdened with the problematical task of working with filter software packages and manufacturers to arrive at acceptable filter settings.¹⁰¹ Furthermore, CIPA speaks only

94. *Supra* note 46.

95. *Supra* note 72.

96. *Supra* note 57.

97. *Supra* note 17. *Miller* stands for the principle that, when distinguishing between protected and unprotected speech, the community's own contemporary standards should be taken into account. Local librarians, for example, make such determinations. A national standard for obscenity has not been found to be constitutionally appropriate.

98. *Supra* note 22. Internet filters that block innocuous content, fail to recognize harmful content and are incapable of distinguishing appropriate from inappropriate images are not "sensitive tools." While facially constitutional, CIPA's terms result in the use of Internet filters that cannot effectively perform the very function for which their installation was contemplated.

99. *Supra* notes 66 and 22.

100. *Supra* notes 71 and 41.

101. *Supra* notes 72 and 58.

abstractly about how the “technology protection measure” should operate.¹⁰²

1. *Wishful Thinking*

Although CIPA has been scrutinized chiefly on First Amendment grounds, the “statutory blunderbuss” has not escaped judicial criticism for its wishful thinking.¹⁰³ As Justice Stevens said in his dissent, the technological limitations of the required filter mechanisms mean that the law provides a false sense of security.¹⁰⁴ Parents in particular may be led to believe that current Internet filters solve the problem that prompted the statute’s enactment.¹⁰⁵ The truth is that when Congress wrote that subsidized libraries must use a “technology protection measure” to block access to obscene “visual depictions,” they were talking about technology that did not yet exist.¹⁰⁶ Congress dreamed their way further into the future by requiring the non-existent technology to treat users differently according to their age.¹⁰⁷

2. *Abstraction*

Like a goal statute, CIPA defines a technically complex and controversial policy in abstract terms.¹⁰⁸ In fact, in a report to Congress shortly after CIPA’s Supreme Court victory, the National Telecommunications and Information Administration (NTIA) cited growing concern surrounding the statute’s use of the indefinite term “technology protection measure.”¹⁰⁹ Many educational institutions have interpreted the term to mean current filtering technology, but the NTIA recommends clarifying the term to encompass future technological tools as well.¹¹⁰ CIPA’s abstract definition of the required censoring mechanism exposes the crude strokes with which Congress styled an actually intricate underlying policy.

Although the statute aims to protect against access to harmful

102. *Supra* notes 73, 41 and 43.

103. 539 U.S. at 222 (Stevens, J., dissenting).

104. *Id.*; *Supra* note 77. CIPA is perfect example of a statute that engages in wishful thinking that over-simplifies the issue and the law for the public. *Id.* It takes advantage of the public’s ignorance of how a filter works and abuses the public’s trust in the wonders of computers, technology and the Internet. *Id.*

105. 539 U.S. at 222.

106. *Supra* notes 42 and 43. *See also supra* notes 61, 62.

107. *Supra* note 46.

108. *Supra* notes 73 and 46.

109. *Supra* notes 42 and 44.

110. *Id.*

images, CIPA only obliquely confronts the considerable controversy attending any attempt to discern between harmful and harmless images. “Visual depictions” that are harmful to minors is by no means a concrete characterization of the images that must be blocked.¹¹¹ CIPA does define “harmful to minors,” but only by adopting the definition of obscenity *as to adults* and modifying it to include images that lack serious value *as to minors*.¹¹² Providing so little guidance to the task of screening potentially millions of Internet images is indeed abstract treatment of a complex goal.

3. Delegation

Just as the CAA requires the broad delegation of power to the EPA in order to be functional, CIPA imposes responsibilities on non-legislative entities in order to be practical.¹¹³ To an extent, what the EPA does to further the CAA, the NTIA does for CIPA.¹¹⁴ Congress’ goal to promote progressively more precise Internet-cleansing technology for public libraries relies in large measure on the work delegated to the NTIA.¹¹⁵ An agency at the Department of Commerce, the NTIA operates at the nexus of technology and policy to further the government’s telecommunications goals.¹¹⁶ Through COPA and CIPA, Congress delegated to the NTIA the responsibility of evaluating current filtering technologies and recommending how Congress can foster the development of future Internet-censoring tools.¹¹⁷

Congress’ omission of technical specifics from CIPA’s text compels an even broader delegation of power and responsibility to librarians and the manufacturers of Internet filtering software. It is up to librarians to decide what filter software to purchase and what methods of filtering to employ.¹¹⁸ Librarians must also figure out how to “set” a filter so that it will satisfactorily block content that most likely contains obscene images, child pornography and other images harmful to minors.¹¹⁹ Despite the government’s assertion that librarians can disable a computer’s filter when an adult user so requests, CIPA provides only ambiguous guidance about how and

111. *Supra* notes 44 and 45.

112. *Supra* note 32, and *see* 20 U.S.C. § 9134 (f)(7).

113. *Supra* notes 73 and 84.

114. *Supra* note 43.

115. *Id.*

116. *Id.*

117. *Id.*

118. *Supra* note 57.

119. *Supra* note 55.

when the disabling might occur.¹²⁰ Libraries across the country will doubtless develop varying policies regarding the disabling, some of which may perhaps contravene adults' First Amendment rights.¹²¹

For the manufacturers of filter software, Congress has indirectly delegated the responsibility of developing increasingly advanced Internet censoring tools. Not only has Congress expressed interest in encouraging filter manufacturers to overcome CIPA's technological infeasibility, but their ultimate goal expresses an ideal that relies on sophisticated technological enhancement.¹²² The technology needed to not only identify inappropriate images but also differentiate between those which are constitutionally protected and those which are not will require considerable industry innovation.¹²³

Additionally, the ambiguity of the term "technology protection measure" permits librarians to use "blacklist" filtering devices.¹²⁴ The extent to which sites are blocked by those devices, however, is known only to the filter manufacturer.¹²⁵ Congress has thus delegated to software makers the responsibility to review and block sites—a review process that is not necessarily sensitive to the constitutional complexities CIPA strives to negotiate.¹²⁶ Given the statute's wishful aspirations, its degree of abstraction and the breadth of its delegation of decision-making, CIPA should be interpreted as a goal statute.

4. *Technological Feasibility Consideration*

Although a literal interpretation of CIPA's directive to use a device to block access to *images* would render the statute ineffectual in the absence of accommodating technology, construing the statute as a goal statute would provide a measure of flexibility. As with the CAA, CIPA should be recognized as establishing standards that allow for the consideration of technological feasibility.¹²⁷ Thus, while current filters cannot "read" images, compliance with CIPA could be understood to include the use of the best available filtering technology.¹²⁸ Furthermore, as more sophisticated and effective technological tools are developed, CIPA could be understood to

120. *Supra* note 47.

121. *Id.*

122. *Supra* notes 43 and 65.

123. *Supra* notes 46 and 65.

124. *Supra* notes 43 and 50.

125. *Supra* note 52.

126. *Supra* notes 46 and 57.

127. *Supra* note 87.

128. *Supra* note 88.

require libraries to upgrade their “technology protection measures” accordingly.¹²⁹ The NTIA’s position as policy advisor regarding such technological development indicates that it might naturally serve as administrator of CIPA’s feasibility concerns.¹³⁰

This would not be the first time that Internet regulation and free speech issues have encountered technological feasibility concerns. The technological infeasibility of online age verification systems, for example, has received significant attention in the judicial review of CDA and COPA.¹³¹ While courts have recognized that contemporary technological limitations stymie a sender’s effort to control who receives their Internet communication, the courts have also tried to allay parents’ concern by predicting the advent of feasible filtering technology.¹³² Yet when the Court scrutinized CIPA’s Internet filtering policy there was almost no discussion of the technology’s infeasibility.¹³³ Interpreting CIPA as a goal statute, though, can reintroduce the issue of technological feasibility to the development and operation of Internet regulatory regimes.

5. *Alternative Means Consideration*

Reading CIPA as a goal statute can also permit libraries to consider alternative methods of performance that operate as effectively as contemporary filters. For example, if a library can establish that a more appropriate Internet policy prevents minors from accessing proscribed material, an administrative agency like the NTIA could decide to allow the alternative policy for purposes of complying with CIPA.¹³⁴ Along those lines, the NTIA has already recommended that CIPA be clarified to encompass more than just filter technology.¹³⁵ Additionally, the fact that individual libraries may set filters at various content restriction levels means that librarians enjoy a degree of de facto independence in considering alternative means.¹³⁶ Interpreting CIPA as allowing for alternative means consideration is the most effective way for the statute to encourage software manufacturers to develop more cutting-edge

129. *Supra* note 89.

130. *Supra* note 43.

131. *Supra* note 30; *Reno v. ACLU*, 521 U.S. 844, 876-77 (1997); *ACLU v. Ashcroft*, 322 F.3d 240, 246 (3d Cir. 2003).

132. *Reno*, 521 U.S. at 876-877.

133. *United States v. Am. Library Ass’n*, 539 U.S. 194 (2003).

134. *Supra* note 91.

135. *Supra* note 43.

136. *Supra* notes 50 and 57.

content control technologies.

V. ENVIRONMENTAL FILTERS AND INTERNET FILTERS

A. Benefits of the Environmental Law Analogy

Viewing CIPA as similar to environmental policy reflects the law's characteristics more accurately than a librarian-as-censor analogy.¹³⁷ The notion that CIPA simply requires librarians to perform online what they have traditionally done with print materials, namely: exercise broad discretion in deciding what to include in the library's collection, received the Supreme Court's close attention.¹³⁸ While the librarian-as-censor analogy was cited in support of CIPA's constitutionality, Justice Souter pointed out that the analogy breaks down when the motivation behind the librarians' selective discretion is revealed.¹³⁹ Public libraries are selective in what books they acquire not because they seek to censor the collection's content, but because they are constrained by more mundane concerns.¹⁴⁰ Scarcity of space and money necessitate that libraries use selective discretion when acquiring materials.¹⁴¹ A library's decision to provide public Internet access, in contrast, does not present the space or money restrictions that the acquisition of print materials does.¹⁴² Once the money is spent to connect to the Internet, the ever-increasing quantity of information incorporated into the library's "collection" is unhindered by space or money concerns.¹⁴³

Instead of treating public Internet access like a limited book collection, the metaphor of Internet as cyber-environment better accomplishes a legally effective analogy. Just as smokestacks are fitted with filters to clean our air, filtered Internet access is motivated by a desire to "clean up" children's exposure to online materials.¹⁴⁴

137. 539 U.S. at 202-04. The librarian-as-censor analogy likens a librarian's relatively unfettered authority to make content-based decisions about print materials to a librarian's new responsibility to censor minors' Internet access. The analogy, drawn broadly, suggests that the librarian's role in filtering Internet content is simply an extension of the librarian's traditional role as gatekeeper. If a library decides to allow the Internet into its "collection," then the librarian may also decide what parts of the Internet to include and which parts to exclude from the "collection."

138. *Id.*

139. *See id.* at 235-37 (Souter, J., dissenting).

140. *Id.*

141. *Id.*

142. *Id.*

143. *Id.*

144. *Supra* note 17.

Therefore, CIPA's requirement that subsidized public school libraries filter Internet access is not an extension of librarians' traditional discretion but is an innovation of an environmental-like policy aimed at protecting children. CIPA is less like a library purchasing one book while rejecting another and more like Congress enacting the Asbestos Hazard Emergency Response Act to control and remove asbestos from school buildings.¹⁴⁵

The principal benefit derived from the environmental law analogy is the legislatively fabricated incentive to develop and use increasingly effective filters. Just as environmental law establishes that a byproduct of industrial production must be filtered to maximize society's physical health, CIPA rests on the principle that a harmful byproduct of information distribution must be filtered to protect minors' wellbeing.¹⁴⁶ A natural extension of the analogy suggests that if the CAA acknowledges technological infeasibility by timing the reduction of unhealthy gases with implementation schedules, CIPA should similarly allow for the gradual implementation of its idealistic goals.¹⁴⁷ Whereas the CAA considers technological feasibility when requiring certain percentages of harmful emissions to be captured by air filters, CIPA should take technological feasibility into account by requiring certain percentages of objectionable content to be blocked by Internet filters used in applicable libraries.¹⁴⁸

Although CIPA is constitutional, the technological infeasibility of its requirement to use filters to prevent child access to restricted *images* threatens the statute with frustrating impracticality. Analogizing CIPA to environmental regulation like the CAA, however, allows the Internet filter law to be interpreted as essentially requiring the relevant libraries to use the "best available technology." The effect will be to induce software manufacturers and libraries to respectively develop and adopt increasingly sophisticated Internet filtering technology.

B. Potential Drawbacks of the Environmental Law Analogy

While conceptually appealing and perhaps legally significant, the environmental law analogy for Internet regulation is not trouble-free. The syllogistic reasoning that translates environmental regulatory advantages to Internet law must also shift environmental law's pitfalls and difficulties to Internet law. For example, in determining

145. Codified at 15 U.S.C. §§ 2641-2654.

146. *Supra* note 85.

147. *Supra* note 86.

148. *See id.*

environmental standards of performance, EPA must decide whether to use health- or technology-based standards.¹⁴⁹ A technology-based standard that defines compliance as the employment of the “best available technology” can impose a standard that appears to arbitrarily exceed that which is necessary to achieve a health-based one.¹⁵⁰ In the case of CIPA’s Internet filtering policy, the question of whether to use free speech- or technology-based standards to define compliance is unresolved.¹⁵¹ The prevalent argument that filters are too restrictive and block access to protected speech is essentially an assertion that the “best available technology” standard arbitrarily exceeds the content-based free speech standard.¹⁵²

Another drawback associated with the environmental law analogy is the obvious potential for increased litigation. Read as a rules statute, CIPA defines compliance as simply using a filter.¹⁵³ As a goal statute, though, compliance with CIPA could become a more complicated fact question: whether a regulated library’s filter (and its settings) represents the “best available technology.” Courts could conceivably become burdened with a complex set of analyses aimed at establishing which technology a particular library should use for its computers.

VI. CONCLUSION

Congress’ victory in CIPA’s constitutionality is the codification of a national outcry against Internet “pollution” ahead of the technology required to appropriately “clean” it. Although facially constitutional,

149. March Sadowitz, *Tailoring Cost-Benefit Analysis to Environmental Policy Goal: Technology- and Health-Based Environmental Standards in the Age of Cost-Benefit Analysis*, 2 B.U. J. SCI. & TECH. L. 11 ¶ 7-9 (1996).

150. *Hazardous Waste Treatment Council v. United States EPA*, 886 F.2d 355 (D.C. Cir. 1989) (finding EPA’s decision unjustified when it defined hazardous waste treatment standard as use of “best demonstrated available technology” because it inexplicably exceeded the risk-based human health standard).

151. 539 U.S. at 207-09. Sidestepping the issue of the filters’ imperfections, the Court did not address whether CIPA requires libraries to use the best available filter or just a filter that blocks only unprotected speech. *Id.*

152. *Supra* note 18. The content-based free speech standard is the *Miller* standard that defines obscenity and distinguishes protected from unprotected speech. *Id.* The current “best available technology,” however, does not demonstrate delicate sensitivity in discerning between protected and unprotected speech. *See supra* note 47. The result is that, for children, no speech is presently protected. *See supra* note 48. By adopting the “best available technology” standard with an understanding that the technology is supposed to progress towards a goal, children’s First Amendment rights still exist, but await the technological tools needed to administer them through federally subsidized public library Internet access.

153. *Supra* note 13.

CIPA's technologically infeasible goal of blocking harmful "visual depictions" through the use of Internet filtering devices raises questions about the definition of compliance. Interpreting CIPA as a goal statute analogous to environmental regulation allows compliance to be understood as the use of the "best available technology." The result is an Internet regulatory regime that forces the development of increasingly sensitive tools aimed at imposing user-based control on the sprawling Internet environment.