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Fencing Out Knowledge

Impacts of the Children's Internet Protection Act 10 Years Later

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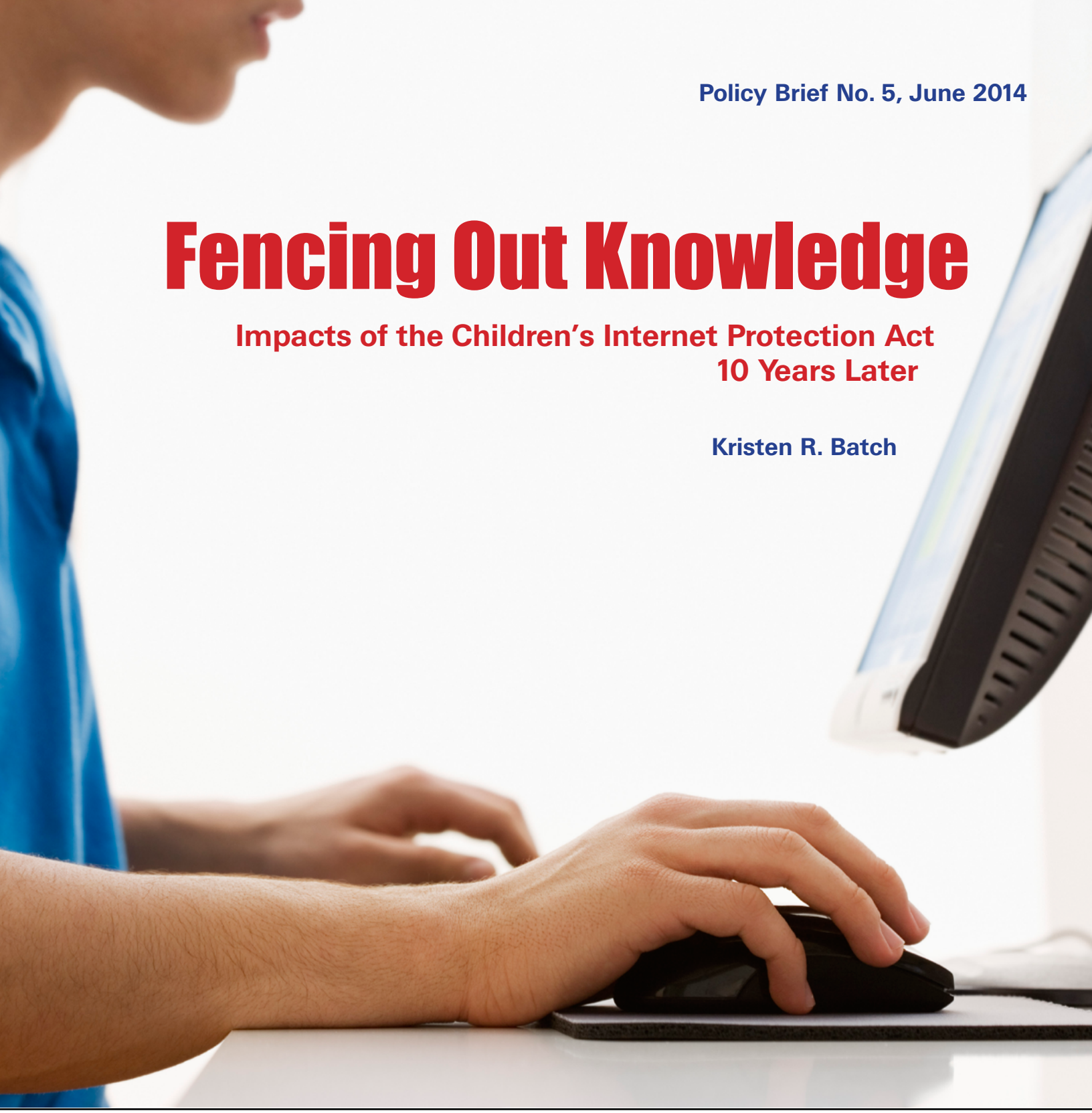

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Impacts of the Children's Internet Protection Act 10 Years Later

This study identified an overreach in the implementation of CIPA — far beyond the requirements and intent of the law — that affects access to information and learning opportunities for both children and adults, and disproportionally impacts those who can benefit most from public internet access — the 60 million Americans without either a home broadband connection or smartphone.

Executive Summary

What do Hotmail, YouTube, Google Docs, Facebook, and *National Geographic* have in common? They offer content and services that millions of Americans use every day to communicate, share content, and seek information. They also may be filtered under the Children's Internet Protection Act (CIPA) (47 U.S.C. 254), making them inaccessible to children and adults who rely on internet access provided by public libraries and schools.

Passed in 2000, CIPA was designed to block adults and minors from accessing online images deemed "obscene," "child pornography," or "harmful to minors" for minors less than 17 years old under the law by requiring public libraries and schools receiving certain federal funding to install software filters on their internet-accessible computers. Yet the use of the internet is vastly different today than when the U.S. Supreme Court upheld the constitutionality of this law in 2003. Indeed, decision makers could not have predicted the ways in which the internet and devices used to access online content would revolutionize learning opportunities in and out of school. But as the means used to access and create content online have evolved, filtering in public libraries and schools has simply increased instead of evolving in a parallel fashion. Filtered content today, particularly in schools, encompasses entire social media and social networking sites as well as interactive or collaborative websites, extending far beyond what the law requires.

Riding in a school bus or participating in organized sports both present risks that should be considered, yet few would deem the risks of these activities to outweigh their benefits. Likewise, the risks and benefits of educational strategies designed to ensure that children have an excellent learning environment—regardless of how good they sound—also must be weighed. The same applies to the use of collaborative tools and platforms and to instruction in evaluating and creating online content, particularly when carried out in supportive learning environments. Filters in 2000 appeared to be a simple way to ensure an age-appropriate learning environment. However, the over-filtering that occurs today affects not only what teachers can teach but also how they teach, and creates barriers to learning and acquiring digital literacy skills that are vital for college and career readiness, as well as for full participation in 21st-century society.

To assess the impact of CIPA implementation on libraries, schools, and their users, the American Library Association's (ALA) Office for Information Technology Policy (OITP) and Office for Intellectual Freedom (OIF), with support from Google Inc., investigated:

- the effects of internet filtering in public libraries and schools,
- the effectiveness of CIPA as a policy solution to protect youth from the proscribed content, and
- the broader impact of CIPA on achieving educational and social objectives for the 21st century.

Major Findings

Drawing on extensive research and on presentations and discussion during a national symposium and two online forums held in July 2013, this study identified an overreach in the implementation of CIPA—far beyond the requirements and intent of the law. This overreach stems from misinterpretations of the law, different perceptions of how to filter, and limitations of internet

filtering software. The net result is over-filtering that blocks access to legitimate, educational resources while often failing to block the images proscribed by the law. Over-filtering limits access to information and learning opportunities for both children and adults, and disproportionally impacts those who can benefit most from public library and school internet access—the 60 million Americans without access to either a home broadband connection or smartphone.

Filtering in Libraries Causes Patron Needs to Go Unmet

Studies and anecdotal evidence provide numerous examples of blocked online resources dealing with a wide range of topics, from war and genocide to safer sex and public health. The full extent of the problem is unknown. Given the sensitivity and privacy of health-related topics, for example, it is difficult to gauge how frequently adults are denied access to such information, as users may be loath to request that a website be unblocked or a filter turned off.

For libraries, filters are black boxes that lack transparency. As one participant in the symposium held for this study put it:

> CIPA places the decision of disfavored internet content in the hands of private actors—the third-party vendors who sell and provide internet filtering software to libraries and schools. As a result, it is the vendors not librarians who are making the decision of what content is filtered. Vendors' decisions of what content to let through and what content to censor—determined by algorithms that make up the filtering software and [are] treated as proprietary trade secrets—are not subject to transparency or public accountability.

Filtering in Schools Goes Far Beyond the Legal Mandate of CIPA

Many schools block broad swaths of information that all users are legally entitled to access. Beyond filtering entire social media and social networking sites, schools increasingly block access to any site that is interactive or collaborative. Another trend in schools is to rely (mistakenly) on filtering for dealing with issues of hacking, copyright infringement, and cyberbullying, denying access to websites and technology. The resulting restriction of exposure to complex and challenging websites and of the use of interactive tools and platforms represents a critical missed opportunity to prepare students to be responsible users, consumers, and producers of online content and resources. The full repercussions of such over-filtering practices have yet to be felt, but as students' digital footprints expand, the real-world impacts begin to become apparent. For example, many college admissions personnel and employers already make decisions based on social media profiles. Limits on access to the wide range of internet-based resources during students' formative years are closing doors to future opportunity.

Disproportionate Impact of CIPA

Over-implementation of filtering under CIPA restricts the acquisition of digital and media literacy skills. Today mastering these skills is vital for college, career, and overall life readiness. The impact of filtering on the acquisition of these skills and on learning in general is not felt equally among students. In fact, internet filtering creates two classes of students: an advantaged class with unfiltered access at home and a disadvantaged class with only filtered access at school.

Those who rely on public libraries for some or all of their internet access likewise are disproportionally affected by internet filtering policies. Libraries in low-income

In schools, CIPA creates two classes of students: an advantaged class with unfiltered internet access at home and a disadvantaged class with only filtered access at school.

Librarians are key to overcoming the challenges of digital literacy.

communities often serve as the primary means by which youth and adults can gain free access to digital tools and to training in using them effectively. Public libraries are recognized by other government agencies and programs as primary outlets for fulfilling a policy of "digital inclusion" that encompasses both digital access and digital literacy. Yet libraries that choose to preserve open and equal access to the internet must forego opportunities for federal funding.

Alternatives to Over-filtering: Digital Literacy and Digital Inclusion

In addition to the important role of public libraries in closing gaps in access and meeting the goals of digital inclusion, school librarians are key to overcoming the challenges of digital literacy and building the capacity of educators to integrate technology into learning tasks and curricula in the classroom. School libraries also have a critical role in integrating ethical and responsible use into school internet policies. Internet use policies aimed at preventing access to illegal content are distinct from those that support responsible use of internet content and resources; both must be reflected in the teaching of digital literacy skills.

Recommendations

The most urgent need is to communicate—through education and awareness-raising campaigns—just what CIPA requires and the negative consequences of over-filtering. Also important is to highlight the role libraries can play in addressing the challenges entailed in helping all users gain digital literacy skills and increasing digital inclusion. The following are some specific steps that can be taken to these ends:

- **Increase awareness of the spectrum of filtering choices.** ALA should build support for and accelerate implementation of the recommendations of its Digital Literacy Task Force to assist in-service and pre-service librarians in interpreting federal statutory filtering requirements and to extend the associated messaging to the broader school community and other stakeholders. ALA's Intellectual Freedom Committee should also continue to work on filtering policy and to advise librarians with related problems.
- **Develop a toolkit for school leaders.** Working with educational groups and associations, ALA should assemble a toolkit of resources for use by school leadership in refocusing filtering and access policies. These resources might include current research, best practices from various school districts, sample policies, and templates for use in public meetings to describe policy changes to the broader school community.
- **Establish a digital repository of internet filtering studies.** ALA should create a digital repository to house existing research, surveys, and case studies on internet filtering; collect experiences and best practices from librarians; and curate examples of responsible use policies, digital literacy lesson plans, and other resources to support awareness campaigns.
- **Conduct research to explore the educational uses of social media platforms and assess the impact of filtering in schools.** Useful research might include a study to assess the barriers and possible solutions to increasing the adoption of digital media tools and platforms to support educational and learning goals. This research would benefit from the participation of different stakeholders, including school administrators, educators, librarians, and industry leaders. Other valuable research might evaluate how different filtered environments impact student learning and achievement.

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Introduction

Internet filtering has become a routine practice in public libraries and schools since the U.S. Supreme Court upheld the constitutionality of the Children's Internet Protection Act (CIPA)[1] on June 23, 2003.[2] CIPA requires public libraries and schools that accept certain federal funds or discounts for the provision of internet access to use software filters to block access to visual images deemed "obscene," "child pornography," or "harmful to minors." Ten years after CIPA was upheld by the Supreme Court, what have been the effects of internet filtering in public libraries and schools? How effective is CIPA as a policy solution to protect youth from the proscribed content? What is the broader impact of CIPA on efforts to achieve the educational and social benchmarks regarded as necessary for a globally competitive and democratic 21st-century society?

The American Library Association's (ALA) Office for Information Technology Policy (OITP) and Office for Intellectual Freedom (OIF), with support from Google Inc., conducted a study to assess the impact of CIPA on libraries, schools, and those they serve. The study team produced a background paper based on an extensive review of the published literature; conducted interviews with public and school librarians; and convened a national symposium in Washington, DC,[3] in which more than 30 experts and practitioners from diverse disciplines participated. Following the symposium, two online forums[4] were held to summarize the discussions and respond to questions from an online audience.[5]

Drawing on the above research, presentations, and discussions, this study identified an overreach in the implementation of CIPA—far beyond the requirements and intent of the law. This over-implementation of CIPA affects access to information and learning opportunities for both children and adults, and disproportionally impacts those who can benefit most from public internet access—the 60 million Americans without either a home broadband connection or smartphone.[6] While awareness and understanding of the differences between public libraries and schools in both their missions and

[1] Universal Service, 47 U.S.C. 254.

[2] United States v. American Library Association, 539 U.S. 194 (2003).

[3] See Appendix for the agenda of the symposium, held on July 29-30, 2013.

[4] American Library Association, "Introduction and Overview of CIPA 10 Years Later," Google Hangout, Part I, July 31, 2013, available at http://www.youtube.com/watch?v=gtxcxk3zJO0; and "Symposium Themes and Conclusions," Google Hangout, Part II, available at http://www.youtube.com/watch?v=MnJSz4EOlDw.

[5] Additional perspectives were gathered at a workshop convened by the OITP Advisory Committee during the ALA 2013 Midwinter Meeting in Seattle to examine internet filtering issues in the context of K-12 education and the role of school librarians.

[6] Edward Wyatt, "Most of U.S. Is Wired, but Millions Aren't Plugged In," *The New York Times,* August 18, 2013, available at http://www.nytimes.com/2013/08/19/technology/a-push-to-connect-millions-who-live-offline-to-the-internet.html.

responsibilities guided the study,[7] the recommendations offered in this paper focus on the complementary and vital roles of both institutions in providing education and access to information and communication technologies.

This paper begins with a brief overview of the legal requirements of CIPA and the expanding scope and growing social acceptance of filtering. The second section examines several factors that are contributing to over-filtering, including misinterpretations of the law, different perceptions of filtering, and limitations of internet filtering software. The next two sections explore the implementation of CIPA in public libraries and schools, respectively, and consider the implications of the current policy approach for broader educational and social outcomes. The fifth section addresses the unequal impact of filtering. The paper closes with conclusions and recommendations for future action.

CIPA and the Expanding Scope and Growing Social Acceptance of Filtering

In the wake of the dramatic growth of the internet as a popular form of communication in the mid-1990s, Congress attempted to address the issue of children's access to internet content considered obscene or harmful to minors. Both the Communications Decency Act of 1996[8] and the Child Online Protection Act of 1998[9] were aimed at directly regulating content on the internet; both were struck down by the courts on First Amendment grounds.[10] CIPA was proposed as a response to those court decisions; unlike the previous two acts, which required the federal government to

directly regulate internet content, CIPA shifted the responsibility for regulating content to public libraries and schools by requiring them to install filters as a condition for receiving certain federal funds or discounts for the provision of internet access.

Legal Requirements of CIPA

The requirements of CIPA apply only to public libraries and schools that accept certain types of federal funds or discounts for the provision of internet access. For these institutions, CIPA requires the adoption of an "internet safety policy" that entails the use of a technology protection measure—internet filtering software—to block access to visual images (not online text) deemed "obscene," "child pornography," or "harmful to minors" as defined by the law.[11] Neither the first nor second of these categories of content is protected by the First Amendment. The third, "harmful to minors," pertains to sexually explicit images that are constitutionally protected for viewing by adults but lack artistic, literary, political, or scientific value for minors aged 17 and under.[12]

7 These differences are discussed in Paul T. Jaeger and Zheng Yan, "One Law with Two Outcomes: Comparing the Implementation of the Children's Internet Protection Act in Public Libraries and Public Schools," *Information Technology and Libraries,* 28, 2009.

8 The Communications Decency Act of 1996, 47 U.S.C. 223.

9 The Child Online Protection Act of 1998, 47 U.S.C. 231.

10 See Reno v. ACLU, 521 U.S. 844, 885 (1997), which found the Communications Decency Act of 1996 to be unconstitutional, and American Civil Liberties Union v. Gonzales, 478 F. Supp. 2d 775, 809-10, 821 (E.D. Pa. 2007), which determined that the Child Online Protection Act of 1998 violated the First Amendment.

11 The Children's Internet Protection Act of 2000, 47 U.S.C. 254.

12 Ibid.

Under CIPA, internet access on all computers owned by a public library or school, including computers used by staff, must be filtered. Filters may be disabled or websites unblocked for adult users over the age of 17. Constitutionally protected content that is wrongfully filtered also may be unblocked by an authorized person for users of any age.

In addition to adopting an internet safety policy that entails use of a filter, schools must institute a program designed to educate minors about appropriate online behavior, including safe behavior on social networking sites and awareness about cyberbullying.[13]

The Expansion of Filtering

The categories of content that must be filtered under CIPA are relatively narrow, and limits have been placed on certain uses of filters by public libraries and schools as a result of "as-applied" lawsuits challenging institutions' filtering practices (see Box 1). Nonetheless, many libraries and public schools filter well beyond the statutory requirements of the law.[14] CIPA's implementation has served to accelerate the use of filtering and legitimize it as a means of resolving issues of access to disfavored content on the internet. Schools, in particular, do not limit filtering to visual images as the law mandates, and routinely block access to broad swaths of information that all users are entitled to view. In the name of CIPA's filtering mandate, schools increasingly block access to entire social media and social networking sites and to any site that is interactive or collaborative, such as blogs, wikis, or even Google Docs. The application of filters also is expanding as schools rely (mistakenly) on filtering to deal with issues of hacking, copyright infringement, and cyberbullying, denying access to certain websites and technologies.

Box 1. Legal Limits of Filtering

In 2001, the American Library Association (ALA), library users, and other library associations filed suit in federal court to challenge CIPA on behalf of public libraries. The lawsuit challenged the constitutionality of CIPA, arguing that "it induces public libraries to violate their patrons' First Amendment rights...[and] it requires libraries to relinquish their First Amendment rights as a condition on the receipt of federal funds."[a] The Eastern District of Pennsylvania ruled in ALA's favor with a unanimous decision that CIPA required librarians to violate library users' First Amendment rights.[b]

Upon appeal, a divided U.S. Supreme Court reversed the decision of the lower court in 2003 and issued a plurality decision upholding the law.[c] The Supreme Court ruled that Congress has authority to place conditions on the use of federal funds, such as the use of internet filters, because public libraries are not obligated to accept such funding. The court ruled further that requiring public libraries to employ filters does not violate the First Amendment rights of adult patrons as the law authorizes libraries to disable the filters or unblock websites for adult users.

The ability of adults to obtain access to filtered content was crucial to the finding of the law's constitutionality. Justice Kennedy specifically based his vote to uphold the law on the ability of adult users to ask librarians to disable filters, and noted that "If some libraries do not have the capacity to unblock specific Web sites or to disable the filter or if it is shown that an adult user's election to view constitutionally protected Internet material is burdened in some other substantial way, that would be the subject for an as-applied challenge, not the facial challenge made in this case."[d]

Following the Supreme Court ruling, three lawsuits were brought against two public libraries and one

[13] The Protecting Children in the 21st Century Act of 2008, 47 C.F.R. 54.520, amended CIPA and added new requirements that public schools had to implement by July 1, 2012. The Federal Communications Commission (FCC) added the statutory language from the 2008 act to its rules for implementing CIPA in 2011, available at http://fjallfoss.fcc.gov/edocs_public/attachmatch/FCC-11-125A1.pdf. The FCC issued further guidance in November 2012, available at http://fjallfoss.fcc.gov/edocs_public/attachmatch/DA-12-1836A1.pdf.

[14] Theresa Chmara, "Minors' First Amendment Rights: CIPA & School Libraries," *Knowledge Quest,* 39(1), 16-21, 2010.

Box 1. Legal Limits of Filtering (continued)

school district challenging the institutions' implementation of CIPA's filtering mandate.[e] These cases illustrate the limits of CIPA, such that public libraries and schools are prevented from engaging in viewpoint discrimination or the deliberate suppression of ideas.

In the first of these cases, *Hunter v. Salem Public Library Board of Trustees,* a public library in Missouri was sued for blocking access to websites about minority religions. The library agreed to a consent order prohibiting it from filtering religious content and alternative viewpoints under the categories "occult," "criminal skills," or "any filtering category...except as required and necessary to comply with federal and state laws."[f]

The second lawsuit was brought against a school district in Missouri for filtering access to websites under the category of "sexuality" that were supportive of lesbian, gay, bisexual, and transgender (LGBT) communities while permitting access to anti-LGBT websites. In ruling on the plaintiffs' claims in *Parents, Family, and Friends of Lesbian and Gays (PFLAG) v. Camdenton R-III School District,* the court ruled that the school district's filtering practices resulted in "unconstitutional viewpoint discrimination that violated the students' First Amendment rights."[g] Under the settlement, the district agreed to stop filtering LGBT websites, comply with monitoring for 18 months, and pay $125,000 in legal fees and costs.[h]

After 6 years of litigation, the ruling in the third case, *Bradburn et al. v. North Central Regional Library District,* upheld the public library's filtering policy, although the library had modified its internet filter and amended its filtering policy while the lawsuit was pending. Legal analysis of this case strongly suggests that this decision sets little precedent, as the decision was both unpublished and based on a set of facts particular to one library system. Theresa Chmara, general counsel of the Freedom to Read Foundation, cautions that "if libraries use filters that block constitutionally protected material deemed harmful to minors and do not allow adults to disable filters, or fail to provide an effective unblocking system, those libraries may open the door to years of litigation and significant legal expenses."[i]

[a] American Library Association, Inc., v. United States, 201 F. Supp.2d 401, 407 (E.D. Pa. 2002), 539 U.S. 194 (2003).

[b] As passed by Congress, CIPA provided for expedited appellate review. Any district court decision overturning the law was immediately appealable to the Supreme Court. Thus there was no review at the Third Circuit Court of Appeals.

[c] The Supreme Court ruling to uphold CIPA was based on a very narrow plurality opinion. Five justices agreed with the lower court that filtering software blocks access to constitutionally protected speech. However, two of these justices joined in the plurality opinion; Justices Kennedy and Breyer based their decision on the provision in the law that filters can be disabled for adult users. As others have noted, their decision upheld the text of the law and not its application. For more on the narrow plurality decision upholding CIPA, see Theresa Chmara, "Summary of the CIPA Decision," June 23, 2003, available at http://www.ala.org/Template.cfm?Section=Related_Links6&Template=/ContentManagement/ContentDisplay.cfm&ContentID=36203.

[d] See American Library Association, *Libraries and Internet Toolkit: Tips and Guidance for Managing and Communicating about the Internet,* Intellectual Freedom Committee, 2012, available at http://www.ifmanual.org/litoolkit, and *United States v. American Library Association,* 2003, p. 37.

[e] Another lawsuit, Franks v. Metropolitan Board of Public Education, challenging two school districts in Tennessee for blocking access to gay educational websites, was settled out of court. Based on the agreement, both school districts granted access to these constitutionally protected sites, and the internet filtering company, used by more than 100 Tennessee school districts, adjusted the software to allow access to these sites. See American Civil Liberties Union, "Franks v. Metropolitan Board of Public Education—Case Profile," August 13, 2009, available at https://www.aclu.org/lgbt-rights_hiv-aids/franks-v-metropolitan-board-public-education-case-profile.

[f] Hunter v. Salem Public Library Board of Trustees, 4:12-cv-00004-ERW, United States District Court, Eastern District of Missouri Eastern Division, March 5, 2013.

[g] American Civil Liberties Union, "PFLAG v. Camdenton R-III School District," April 6, 2012, available at http://www.aclu.org/lgbt-rights/pflag-v-camdenton-r-iii-school-district.

[h] PFLAG v. Camdenton R-III School Dist. C.D. Mo. January 15, 2012.

[i] Theresa Chmara, "Why Recent Court Decisions Don't Change the Rules on Filtering: Blocking Access to Protected Speech Can Lead to Litigation and Legal Fees," *American Libraries,* July/August 2012, available at http://www.americanlibrariesmagazine.org/article/why-recent-court-decisions-don%E2%80%99t-change-rules-filtering.

In the decade since CIPA was upheld by the Supreme Court, users have become not only consumers but also producers of content through their use of social media, social networks, and other collaborative tools, and the analogies used to describe internet use have evolved from swimming in a pool to something more like kayaking in whitewater.

Limits of Filtering as a Policy Solution

The public has grown accustomed to the use of filters. In the face of this increased public acceptance, the efficacy of filtering as a solution to protecting children online is no longer being considered, and relevant expert findings from congressionally mandated studies are being ignored. Reports by the National Research Council (NRC)[15] and the Online Safety and Technology Working Group (OSTWG)[16] both recommend a multilayered approach blending technical, legal, and policy measures, as well as education to help children make wise choices online. Using the analogy of swimming pools, the NRC report notes: "Swimming pools can be dangerous for children. To protect them, one can install locks, put up fences, and deploy pool alarms. All of these measures are helpful, but by far the most important thing that one can do for one's children is teach them to swim."[17]

In the decade since CIPA was upheld by the Supreme Court, users have become not only consumers but also producers of content through their use of social media, social networks, and other collaborative tools, and the analogies used to describe internet use have evolved from swimming in a pool to something more like kayaking in whitewater. Highlighting the dynamic changes in online content creation and interaction, John Seely Brown, senior fellow at the University of Southern California's Annenberg Center for Communication, observed: "You have to be in the flow, pick things up on the moment, feel it with your body, be a part of the flow—in it, not just above it and learning about it. In this new world of flows, knowledge is an action sport."[18] Similarly, the 2010 OSTWG report compares the lack of education in the use of social media to an absence of organized sports in schools. It cautions that youth will continue to play on their own, but they will not learn "the rules, the ethics of fair play, or appropriate ways to interact with teammates and opponents." Without "coaching" they also will miss out on valuable life lessons, such as "avoid[ing] unsportsmanlike conduct" or "learn[ing] to slide home without skinning their knees."[19]

The recent amendment to CIPA requiring schools to educate students about their online interactions and conduct when using social networking websites and other interactive forums[20] is a step in the right direction. When the Federal Communications Commission (FCC) issued its rulemaking and further guidance for implementation of this requirement, it also recognized the potential positive impact of social networking on K-12 education. In reference to recent work by the U.S. Department of Education,[21] the FCC stated that "social networking websites have the potential to support student learning…" and offered further clarification for schools that "declaring such sites categorically harmful to minors

15 Dick Thornburgh and Herbert S. Lin, eds., *Youth, Pornography, and the Internet,* National Research Council, Washington, DC: The National Academies Press, 2002, p. 9.

16 Online Safety and Technology Working Group, *Youth Safety on a Living Internet,* June 2010, available at http://www.ntia.doc.gov/reports/2010/OSTWG_Final_Report_060410.pdf.

17 Dick Thornburgh and Herbert S. Lin, eds., *Youth, Pornography, and the Internet.*

18 See John Seely Brown, Opening Keynote, Digital Media & Learning Conference, "Beyond Educational Technology," 2012, available at http://dml2012.dmlhub.net.

19 Online Safety and Technology Working Group, *Youth Safety,* pp. 19-20.

20 Protecting Children in the 21st Century Act of 2008, 47 C.F.R. 54.520.

21 U.S. Department of Education, *Transforming American Education: Learning Powered by Technology. National Education Technology Plan,* 2010, available at http://www.edweek.org/media/netp2010.pdf. See also Tina Barseghian, "Straight from the DOE: Dispelling Myths about Blocked Sites," NPR affiliate KQED–Northern California, available at blogs.kqed.org/mindshift/2011/04/straight-from-the-doe-facts- about-blocking-sites-in-schools/.

would be inconsistent with the Protecting Children in the 21st Century Act's focus on 'educating minors about appropriate online behavior…'"[22] As long as schools continue to restrict access to these sites, students will not be able to learn with these tools, and without practice, their learning will not be reinforced.

Factors Contributing to Over-implementation of CIPA

Despite the expert findings noted above, patterns of over-filtering persist in public libraries and schools. Over-filtering often is attributed to one or more of the following factors: misinterpretations of the law, different perceptions of filtering, and limitations of internet filtering software.

Misinterpretations of the Law

Participants in the symposium held for this study observed that CIPA implementation frequently is subject to overreaction, myth, and fear. Perceptions abound that institutions will lose all their federal funding if they do not filter as much as possible, or that public library and school officials will face criminal charges for failing to filter internet content to the fullest possible extent. Understanding what CIPA in fact does and—equally important—does not mandate is essential for both public libraries and schools.

In "Filtering and the First Amendment," Deborah Caldwell-Stone, deputy director of ALA's Office for Intellectual Freedom, outlines these important distinctions and attributes the growing reports of censorship in news articles and court filings to frequent misinterpretations of CIPA requirements.[23] She underscores that CIPA does not mandate blocking access to controversial ideas, political viewpoints, or social media platforms such as Facebook. Nor does CIPA require any identifiable tracking of internet usage by

photo: ©momius / Photo Club

minors or adults—the law's call for "monitoring" refers only to supervision, not the use of technical measures. Regarding compliance, Caldwell-Stone states further:

> Enforcement of CIPA is the responsibility of the Federal Communications Commission (FCC) and is a civil, not criminal, matter. The sole penalty for failing to fully comply with CIPA is reimbursement of any government monies received by the school or library as an e-rate discount or Library Services and Technology Act (LSTA) grant during the period of noncompliance. It should be noted that the only obligation established by the FCC is the requirement that the school or library file a certification of compliance. The agency has refused to establish specific criteria for what constitutes effective filtering and has never found a school or library out of compliance since CIPA first went into effect in 2001.[24]

Different Perceptions of Filtering

Given that multiple stakeholders are involved in or affected by internet filtering decisions, perspectives on filtering will differ, often sharply. In addition to elected officials

[22] Federal Communications Commission, Report and Order 11-125, available at http://www.fcc.gov/document/protecting-children-21st-century-act-amendment.

[23] Deborah Caldwell-Stone, "Filtering and the First Amendment," *American Libraries,* March/April 2013, available at http://www.americanlibrariesmagazine.org/article/filtering-and-first-amendment.

[24] Ibid.

Perceptions of filtering by stakeholders, including the personal attitudes of key decision makers, have a significant impact on the level of filtering carried out by public libraries and schools, and may result in wide variations in the filtered environments.

at the national and state levels who pass internet filtering legislation, there are many more stakeholders at the local level, such as school board members, district administrators, principals, technology directors, librarians, library board members, teachers, parents, and students themselves.

Project Tomorrow's national surveys gather the perspectives of students, parents, and educators, among others, regarding learning and access to technology in schools.[25] Statistics reported in 2010 reveal that nearly half of teachers surveyed (45 percent) felt their access to the internet and websites was inhibited by internet filters and firewalls.[26] According to the latest survey data, the concern about filters limiting access to websites has decreased slightly among teachers (36 percent), but remains high among students in grades 9-12 (58 percent) and grades 6-8 (48 percent). In contrast, one in three parents believe internet filters are not effective enough.[27]

The National School Boards Association reports a different discrepancy between the perceptions of school district administrators and those of parents and students regarding negative online experiences.[28] Despite the low number of actual incidents reported by parents and students, administrators expressed the belief that negative experiences with social networking occurred more frequently than indicated by the reported numbers. Half of administrators (52 percent) reported that students' sharing of personal information online was "a significant problem" in their schools, whereas only 3 percent of students reported ever having given personal information to strangers. Additional discrepancies were found between "districts' beliefs and students' and parents' reported experiences with inappropriate material, cyberbullying, and other negative incidents online."[29]

Technology directors are stakeholders whose influence is seldom examined. As they oversee and procure internet filters, they assume much of the responsibility for implementing filtering policies, and their influence may be greater than has been assumed.[30] A study analyzing the impact of filtering on public education found that "individual attitudes of those in control of the filter affected the application of content filtering as much or more than the written policies." The author notes further that "the extremes that [technology] directors apply in filter management based upon their own personal preference coupled with the kind or capability of their existing filter are so evident that one school system may be very different in internet access from another."[31]

Librarians are another group of stakeholders whose potential contribution in this arena often is overlooked. Administrators, school board officials, and other decision makers may not recognize the role played by school librarians in student learning, teacher training, and digital

25 Project Tomorrow, an educational nonprofit organization, has collected more than 3 million survey responses since 2003 from K-12 students, parents, teachers, librarians, principals and district administrators, and technology leaders.

26 Project Tomorrow, "Speak Up National Findings," May 2010, available at http://www.tomorrow.org/speakup/pdfs/SU09UnleashingTheFuture.pdf.

27 Presentation at the national symposium convened by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

28 National School Boards Association, *Creating & Connecting: Research and Guidelines on Online Social—and Educational—Networking,* 2007, available at http://grunwald.com/pdfs/Grunwald_NSBA_Study_Kids_Social_Media.pdf.

29 Ibid., p. 6.

30 See also a published interview revealing perspectives of two technology professionals from a school district in Texas in Helen Adams, "Filtering Texas-Style: An Interview with Michael Gras and Scott Floyd," *Knowledge Quest,* 39, No. 1, September/October 2010, available at http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslissues/bwad/KNOW_39_1_FilteringTexas-Style_30-37.pdf.

31 Lamont Fuchs, *Impact of Filtered Internet Access on Student Learning in Public Schools,* Dissertation, Walden University, Educational Leadership and Administration, ProQuest, UMI Dissertation Publishing, 2012, p. 116.

Ten years after CIPA was upheld by the Supreme Court, filters still are not equipped to perform the tasks required by the law.

literacy instruction.[32] Yet school librarians are highly informed professionals on such matters, and bring to bear a different perspective than that of information technology (IT) specialists. While IT professionals are stewards of technology resources, librarians are facilitators of the use of those resources by students, teachers, and the broader public. Increasing the involvement of school librarians in the decision-making process is essential to enable them to guide how technical resources are used within the context of learning, teaching, and access to information.[33]

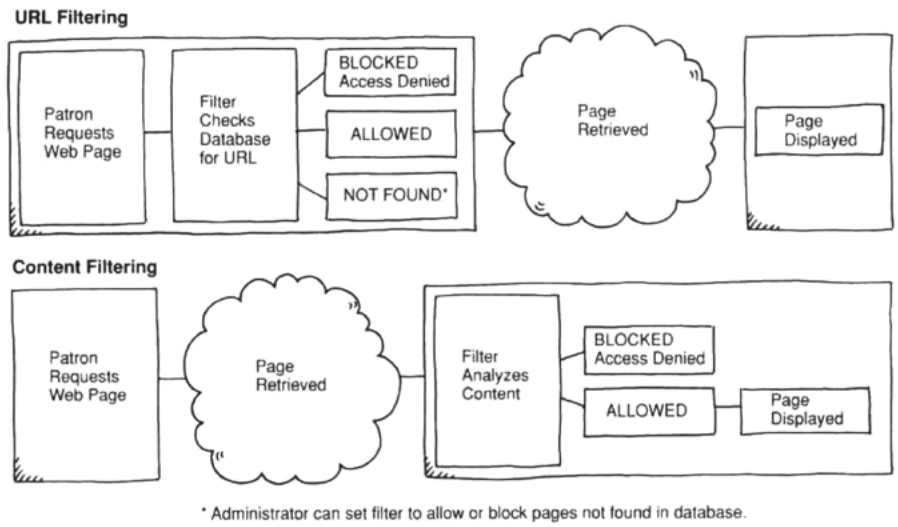
Limitations of Filtering Software

Compared with the early days of keyword-based filtering, today's filtering software is more sophisticated and offers an increasing level of granularity and control.[34] Yet despite these improvements, technical limitations of filters continue to preclude the accurate identification of obscene images on the internet, a limitation that has become even more challenging with the growth of online content, particularly that generated by users. Ten years after CIPA was upheld by the Supreme Court, filters still are not equipped to perform the tasks required by the law.

1. Technical Limitations

Filters in use today offer a combination of URL-based filtering (websites) and content-based filtering (keywords or phrases).[35] To determine whether a website should be accessible, the former type of filter uses a database of preselected websites against which all incoming website requests are compared. The latter type of filter

Figure 1. How URL and Content Filtering Works



Source: Lori Bowen Ayre, "History and Development of Filters," Chapter 2, in *Filtering and Filter Software, Library Technology Reports,* 40(2), March-April 2004, p. 16. Used with permission from the American Library Association.

[32] American Library Association, Office for Information Technology Policy, Digital Literacy Task Force, "Digital Literacy, Libraries, and Public Policy," January 2013, available at http://www.districtdispatch.org/wp-content/uploads/2013/01/2012_OITP_digilitreport_1_22_13.pdf.

[33] For an overview of research directed by Keith Curry Lance that correlates school library programs with student learning and achievement in 21 states, see Debra E. Kachel et al., *School Library Research Summarized: A Graduate Class Project,* Mansfield University, 2nd edition, 2013, available at http://sl-it.mansfield.edu/upload/MU-LibAdvoBklt2013.pdf.

[34] For an overview of filtering technology, see Lori Bowen Ayre, "Filtering and Filter Software," *Library Technology Reports,* 40(2), 2004. See also Sarah Houghton-Jan, "Internet Filtering," *Library Technology Reports,* 46(8), November-December 2010.

[35] Sarah Houghton-Jan, "Internet Filtering."

uses dynamic content analysis, relying on an algorithm that considers a variety of factors, such as keywords, ad placement, metadata, and link analysis,[36] to evaluate a website in real time and determine whether it should be blocked. Content-based filtering often is combined with URL-based filtering to categorize incoming website requests not found in the latter's database.[37] (See Figure 1 for an illustration of internet filtering methods.) In addition to these two methods, filters can use other means for selecting content to block, including bandwidth consumption, protocols, or file type (e.g., audio files such as .mp3, image files such as .jpg or .gif), often combined with security and firewall features to block malware and viruses. Filters also can be set up with different blocking criteria on different computers.

By learning how filters operate, moreover, content providers are able to work around them. For example, they keep the number of links on their websites under the threshold, provide minimal metadata about their website content, and modify images to bypass detection based on the image-filtering criteria (See Box 2).[38]

Additionally, while some filters can block just the images on a webpage,[39] most filters in use today continue to block the entire webpage or website.[40] According to a 2012 survey by the American Association of School Librarians (AASL), a division of ALA, filtering software most commonly implemented in schools is URL-based (70 percent) or content based (60 percent); also used are blacklists (47 percent), dynamic categorization (27 percent), whitelists (23 percent),[41] and other methods (11 percent).[42]

Box 2. Image Analysis in Filtering Software

Within the last 5 years, image analysis has become available in filtering software—the only type of filtering that is required by CIPA. While early tests indicated high rates of accuracy,[a] reviewers found that the average accuracy of filters in blocking images and video was less than 50 percent.[b] The techniques used to identify images entail examining skin-color pixels to determine whether an image is likely to be pornographic rather than health related or even an advertisement for underwear. However, the evaluation criteria often are biased, detecting primarily tan skin tones, avoiding skin images that are too light or too dark, and excluding tattoos or faces from detection algorithms.[c]

[a] Mohammed Hammami et al., "WebGuard: A Web Filtering Engine Combining Textual, Structural, and Visual Content-Based Analysis," *IEEE Transactions on Knowledge and Data Engineering,* 18(2), 2006.

[b] See Paul Resnick, *Expert Report: North Central Regional Library District,* Exhibit D, 2008, available at http://filteringfacts.files.wordpress.com/2008/02/bradburn_04_05_08_resnick_report.pdf.

[c] Reported by a participant in the national symposium convened for this study by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

2. Performance Limitations

Over the last 10 years, numerous studies have been conducted to examine the performance of filtering software. Early studies questioned whether filters should be used at all, given their substantial over-blocking of legitimate content, under-blocking of sexually explicit

[36] Link analysis refers to information gathered from links on a site, such as the types and number of linked websites; for more information, see Sarah Houghton-Jan, "Internet Filtering."

[37] David Burt, "Filters," available at http://davidburt.us/policy-research/filtering/.

[38] Reported by a participant in the national symposium convened for this study by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

[39] Rama Ramaswami, "Nothing to LOL About," *T H E Journal,* June/July, 37(6), 2010.

[40] A list of features of various filtering software, including whether only images, not text, can be blocked under a filter category, is available at libraryfiltering.org.

[41] To control which websites are blocked and which are accessible or to turn filter categories off or on, internet filters use customized lists, such as blacklists (e.g., a list of websites that are always blocked) or whitelists (e.g., a list of websites that are always permitted). As noted earlier, dynamic categorization, often used in combination with lists of websites, uses algorithms to categorize web content on the fly.

[42] American Association of School Librarians, *National Longitudinal Survey of School Library Programs: Filtering Report,* 2012, available at http://www.ala.org/aasl/sites/ala.org.aasl/files/content/researchandstatistics/slcsurvey/2012/AASL-SLC-filtering-2012-WEB.pdf.

images, and frequent miscategorization of online content. Later studies focused only on which filters performed the best.[43]

On average, software filters over-block legitimate content or under-block sexually explicit imagery approximately 15 to 20 percent of the time. Across the published studies conducted between 2001 and 2008, the average accuracy of software filters was 78 percent. The accuracy improved slightly to 83 percent in the later studies conducted between 2007 and 2008.[44] This accuracy rate, however, pertains only to the filtering of text content. In 2008, a large study conducted for the European Union evaluating 26 commonly used internet filters found that the software tested could not "keep up" with user-generated content, as these sites are continually changing. In summarizing the test results, the study found that "today's filters make less errors, but missing less 'bad' content is resulting in significant over-blocking."[45] Other studies likewise found that more restrictive filters (i.e., those that are more successful in blocking disfavored or illegal content) are less successful in letting constitutionally protected material through.[46] Few studies measuring the performance of internet filters have been conducted since 2008.

3. Other Limitations

In addition to the above technical and performance limitations, the library community recognized early on the challenges posed by content filtering categories. The categories are not based on principles of freedom of information or objectivity,[47] and they often do not match the legal definitions of CIPA. The categories also tend to be overly broad and may be biased, reflecting the target market or particular values of certain groups or even countries.[49]

The internet filtering systems themselves are black boxes that lack transparency. One exception is open-source filtering software, which provides lists of URLs filtered under each category and allows filter administrators to customize the lists of associated URLs. For the majority of filter products, however, lists of websites filtered under each category are not publically available or disclosed to the filter administrator. Internet filtering companies typically treat this information as proprietary since it represents a competitive advantage over other filtering products. Instead of disclosing the specific filtered URLs, companies describe the type of content filtered under each category. Without access to the list of websites used for blocking, a public library or school finds it difficult to customize the sites being blocked.

Implementation of CIPA in Public Libraries

The Library Mission and Growing Demand for Library Services

The mission of the public library today, as it was for most of the 20th century, is to support the educational and information needs of society, including political, social, and intellectual freedom.[50] The commitment to

[43] Marjorie Heins et al., *Internet Filters: A Public Policy Report,* 2nd ed., Brennan Center for Justice at NYU School of Law, 2006, available at http://www.fepproject.org/policyreports/filters2.pdf.

[44] For a summary of results from published internet filtering studies conducted through 2008, see Sarah Houghton-Jan, "Internet Filtering Software Tests: Barracuda, CyberPatrol, FilterGate and WebSense," San Jose Public Library, April 2008, available at http://www.sjpl.org/sites/all/files/userfiles/agen0208_report.pdf.

[45] Deloitte Enterprise Risk Services, *Safer Internet: Synthesis Report,* 14, 2008, available at http://www.cyberethics.info/cyethics1/images/stories/pdf/sip_benchmarkfilteringtools_synthesis_2008.pdf.

[46] See Philip Stark, "The Effectiveness of Internet Content Filters," *A Journal of Law and Policy for the Information Society,* 4, 411–429, 2008.

[47] Sarah Houghton-Jan, "Internet Filtering."

[48] See American Civil Liberties Union of Rhode Island, "Access Denied: How Internet Filtering in Schools Harms Public Education," February 2013, available at http://riaclu.org/images/uploads/Access_Denied-_How_Internet_Filtering_in_Schools_Harms_Public_Education.pdf.

[49] Lori Bowen Ayre, "Filtering and Filter Software."

[50] See Barbara H. Smith, "The First Amendment Right to Receive Online Information in Public Libraries," *Communication Law and Policy,* 18(1), 2013, and Rodney Smolla, "Freedom of Speech for Libraries and Librarians," *Law Library Journal,* 85(1), 1993.

photo: ©Dave and Les Jacobs / Getty Images

providing free and open access to information has only grown with the expansion of internet access in public libraries. Today access to the internet is offered in virtually all public libraries, more than 60 percent of which saw increased demand for access in 2011-12.[51] Additionally, 60 percent of libraries are the only providers of free public access to computers and the internet in their communities, and this proportion rises to more than 70 percent among rural libraries.[52]

In addition to access, most libraries provide training and assistance in use of the technology. In 2009, 52 million library patrons received assistance with using a computer, and 16 million took part in computer training classes.[53]

A survey in 2011 found that computer access, training, and support provided by libraries was important or very important to 83 percent of adult library users.[54] And the majority of libraries reported steady or increased use of technology training classes in 2012.[55]

Given increased demand and the mission to provide free and open access to information for all, libraries find that internet filtering poses fundamental challenges to intellectual freedom. Filtering also conflicts directly with core professional values of librarians as articulated in ALA's *Library Bill of Rights.*[56] As internet filters, by design, block access to content, not only are they incompatible with library values, but for many librarians they also constitute censorship.[57] Contrary to some court opinions, internet filters do not fulfill or inform libraries' selection of materials or collection development decisions.[58] For public libraries, selection via internet filters is comparable to outsourcing such decisions to a private entity—a practice libraries cannot ethically adopt or legally enforce.[59] Additionally, as most filter-based decisions are automated, computers and algorithms rather than human beings and professional standards determine the selection process.[60]

ALA and many librarians adhere to these principles to fulfill their professional commitments and to ensure that patrons can "enjoy the full benefit of freedom of expression under the First Amendment," according to ALA's *Intellectual Freedom Manual.*[61] Filters not only limit

51 American Library Association, *Libraries Connect Communities: Public Library Funding & Technology Access Study 2011-2012,* available at http://www.ala.org/research/sites/ala.org.research/files/content/initiatives/plftas/2011_2012/access%2Btechinfrastructure-ipac.pdf.

52 Ibid.

53 American Library Association, "Digital Literacy, Libraries, and Public Policy."

54 Harris Poll Quorum Report, January 26, 2011, available at http://www.ala.org/research/sites/ala.org.research/files/content/librarystats/2011harrispoll.pdf.

55 American Library Association, *Libraries Connect Communities.*

56 American Library Association, *Library Bill of Rights,* adopted June 19, 1939; amended October 14, 1944; June 18, 1948; February 2, 1961; June 27, 1967; and January 23, 1980. Available at http://www.ala.org/advocacy/intfreedom/librarybill.

57 Sarah Houghton-Jan, "Internet Filtering."

58 For a discussion of selection vs censorship issues, see Deborah Caldwell-Stone, "Filtering and the First Amendment."

59 American Library Association, "Guidelines and Considerations for Developing a Public Library Internet Use Policy," revised November 2000, available at http://www.ala.org/Template.cfm?Section=otherpolicies&Template=/ContentManagement/ContentDisplay.cfm&ContentID=13098.

60 Sarah Houghton-Jan, "Internet Filtering."

61 American Library Association, *Intellectual Freedom Manual,* 8th ed., 2010, available at http://www.ala.org/advocacy/intfreedom/iftoolkits/ifmanual/intellectual.

access to content but also create a false sense of security for library patrons, given that, as discussed above, they over-block legitimate content and under-block targeted content at equal rates. Furthermore, patrons may not understand how their information access is being curtailed, or may hesitate to access information if they perceive that their filtered internet access also may be monitored.[62]

Impact on Patrons' Information Needs

Given the breadth of information-seeking needs among the growing number of public library internet users, filtering in libraries causes some of those needs to go unmet. One study measuring the effectiveness of internet filters revealed that a range of online content frequently requested by patrons was blocked by the various filtering software used in the tests.[63] The blocking encompassed many valuable online resources on subjects "ranging from war and genocide to safer sex and public health."[64] Other anecdotal accounts detail the blocking of a website required for an online nursing exam.[65]

The full extent of the problem is unknown. Given the sensitivity and privacy of health-related topics, for example, it is difficult to gauge how frequently adults are denied access to such information, as users may be loath to request that a website be unblocked or a filter turned off. Therefore, studies that simply measure requests to unblock filters will reflect an undercounting bias.

Despite this inherent limitation, one study attempted to gauge the impact of filters on library patrons by counting complaints about blocked content made to library administration and requests to disable filters. This study concluded that filters did not limit patrons' information requests, most likely because of the undercounting bias noted above. Among the study's findings, however, was that half of all libraries with internet filters received requests from adult patrons to unblock the filters for legitimate purposes. Among the content at issue was web-based email, as well as websites needed to research prescription drugs and to complete school projects.[66]

In addition to curtailing legitimate information seeking, internet filters are expensive to operate and maintain. A variety of factors affect the overall cost of filters, including the size and scale of the network, the number of licenses, the duration of the contract, and even the performance of the filters themselves.[67] San Jose Public Library tested the performance of multiple filtering products and found that better-performing filters were more expensive than those that performed less well based on the testing criteria.[68]

Unfortunately, many decisions about internet filters and the content they block are not made by libraries directly. Local libraries often do not control the implementation of internet filters used by their patrons. As one researcher observed, "in many cases, the libraries themselves do not operate the filter, but a state library, library consortium, or local or state government system of which they are a part filters access from beyond the walls of the library."[69] Additionally, because of the proprietary design of most internet filtering software, libraries in general have marginal control over the content that is filtered. As one symposium participant noted:

> CIPA places decisions about access to disfavored internet content in the hands of private actors, third-party vendors, who sell and provide internet filtering software to libraries and

[62] Sarah Houghton-Jan, "Internet Filtering."

[63] Sarah Houghton-Jan, "Internet Filtering Software Tests."

[64] Ibid.

[65] Participant in the national symposium convened by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

[66] Candice Spurlin and Patrick M. Garry, "Does Filtering Stop the Flow of Valuable Information?: A Case Study of the Children's Internet Protection Act (CIPA) in South Dakota," Social Science Research Network Scholarly Paper, March 26, 2009, available at http://papers.ssrn.com/abstract=1368900.

[67] For a comparison of pricing across different filtering products, see chart at LibraryFiltering.org, available at http://www.libraryfiltering.org/product/compare/platform.

[68] For the breakdown of costs for the four filtering products tested, see memorandum available at http://sjpl.org/sites/all/files/userfiles/internet_filtering_proposal.pdf.

[69] Paul T. Jaeger and Zheng Yan, "One Law with Two Outcomes."

> schools. As a result, it is the vendors not librarians that are making the decision of what content is filtered. Vendors' decisions of what content to let through and what content to censor—determined by algorithms that make up the filtering software and [are] treated as proprietary trade secrets—are not subject to transparency or public accountability.

While internet filters pose a number of trade-offs for all public libraries, they have the greatest impact on libraries in poorer communities that cannot afford to turn down federal funding for the provision of internet access despite the restrictions imposed by filtering. Moreover, as librarians observe in practice, filters tend to limit access for adults more than for minors, who often know ways to circumvent the filters.[70] Thus the filters affect most directly those who lack digital literacy skills and rely on libraries not only for access to the internet, but also for technical assistance in using online resources effectively.

Implementation of CIPA in Schools

While public libraries delayed the implementation of CIPA for 3 years during the legal challenge discussed earlier, the majority of public schools began to implement its provisions soon after it was passed in 2000.[71] The widespread implementation of CIPA in schools was due, in part, to societal and parental pressure on schools to protect minors, legal restrictions that limit some of children's rights in school,[72] and schools' perceived responsibility to provide curriculum and content consistent with their educational mission.

Overreach of Filtering under CIPA

While filtering is a requirement of CIPA, the overreach of CIPA implementation is becoming the norm in many schools. Schools block a wide range of constitutionally protected content using overly broad filtering categories that go well beyond those defined by CIPA. One report details how schools throughout the state of Rhode Island block a total of 89 categories of content.[73] The blocked content ranges from political websites under the category "Terrorist/Militant/Extremist," such as those of Hezbollah and the Black Panther Party, to social websites under the "Social Opinion" category, such as those of the American Civil Liberties Union (ACLU), People for the Ethical Treatment of Animals (PETA), the National Organization for Marriage, and Planned Parenthood, as well as other content deemed "controversial, inappropriate, or time-wasting" by the school administration.[74] None of the filter categories match the specific legal definitions of the content proscribed by CIPA. For example, the category "obscene/tasteless" goes beyond the legal definition of obscenity to include "explicit graphical or text depictions of such things as mutilation, murder, bodily functions, horror, death, rude behavior, executions, violence, and obscenities."

Symposium participants shared other anecdotes of excessive filtering in schools around the country. In Nebraska, for example, some school districts block access to websites containing information about foreign countries, such as China and Iran, even though the sites are included in the Advanced Placement (AP) curriculum as required reading for comparing governments and political systems. In Illinois, some schools similarly block access to websites used for AP coursework in biology. In another example, filtering in a Nebraska school prevented a school counselor from accessing websites related to teen suicide to assist a student who had asked for help. Instead of unblocking the websites for the counselor, the school granted access only to the school librarian, who then printed out relevant information available from several websites for the counselor.

[70] Participant in the national symposium convened by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

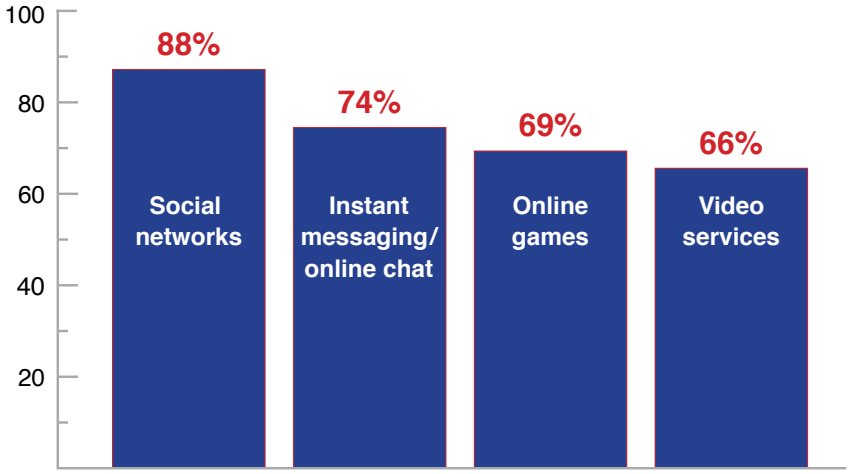
[71] Ibid.

[72] See Martha M. McCarthy, "Filtering the Internet: The Children's Internet Protection Act," *Education Horizons*. 82(2), Winter, 2004.

[73] American Civil Liberties Union of Rhode Island, "Access Denied."

[74] Ibid.

Figure 2. Content Filtered Online in Schools and School Libraries



Source: American Association of School Librarians, *National Longitudinal Survey of School Library Programs: Filtering Report,* 2012.

In addition to filtering broad categories of online content, schools filter entire online platforms and services. Social networking and social media sites already are a major part of teens' lives,[75] and the FCC recognizes the potential positive impact of social networking sites in schools.[76] However, these sites remain the most heavily filtered in schools. According to AASL's 2012 national longitudinal survey, School Libraries Count!, based on 4,385 respondents, 88 percent of schools filter social networks, followed by instant messaging/online chat (74 percent), online games (69 percent), and video services such as YouTube (66 percent).[77] (See Figure 2 for a chart of the survey results). Moreover, schools block any websites that are interactive, including user-generated sites; blogs and wikis such as Wikipedia, WordPress, and Wordclouds; and even collaborative word processing tools, such as Google Docs. They do so because a student may paste an image into the document and share access to the file with a classmate.[78]

Schools filter content beyond the requirements of CIPA for many reasons. Among those identified by a technology director in a North Carolina school district, who posed the question to technology directors, administrators, and teachers, were "classroom management, network resource management (bandwidth consumption), network security, bureaucratic stewardship of the public trust, student safety, and blocking of undesired content rationalized as unsuitable or information incompatible with the educational goals of the institution."[79] The findings from this study exemplify the expansion of filtering that is taking place under a broad interpretation of CIPA.

Educational Consequences for Students

Over-blocking content as a means of managing the classroom, limiting exposure to complex and challenging websites, or curtailing the use of interactive platforms has numerous unintended consequences for students.

[75] Mary Madden et al., "Teens, Social Media, and Privacy," Pew Research Center, Internet & The American Life Project, May 21, 2013, available at http://www.pewinternet.org/Reports/2013/Teens-Social-Media-And-Privacy/Main-Report/Part-1.aspx.

[76] U.S. Department of Education, *Transforming American Education.* See also Tina Barseghian, "Straight from the DOE."

[77] American Association of School Librarians, "National Longitudinal Survey."

[78] Participant in the national symposium convened by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

[79] Lamont Fuchs, "Impact of Filtered Internet Access," p. 138.

Schools that over-filter content are effectively limiting the acquisition of digital literacy, which increasingly is recognized as a fundamental requirement for all citizens to participate fully in a globally competitive and democratic 21st-century society.[80] (For a definition and overview of digital literacy, see Box 3).

Box 3. Digital Literacy

According to a recent report by ALA's Digital Literacy Task Force, digital literacy is "the ability to use information and communication technologies to find, understand, evaluate, create and communicate digital information."[a] It builds on foundational skills of reading and writing, but also requires both cognitive and technical as well as social and ethical skills.[b]

In assessing the new information opportunities offered by evolving technology, the Knight Commission report *Informing Communities: Sustaining Democracy in the Digital Age* recognizes these skills as fundamental for digital citizenship.[c]

Digital literacy skills increasingly are being recognized as vital for global competitiveness, and the need to integrate digital literacy in education is receiving growing emphasis. The U.S. Department of Education's 2010 technology plan, *Transforming American Education: Learning Powered by Technology,* emphasizes that 21st-century competencies such as "critical thinking, complex problem solving, collaboration, and multimedia communication should be woven into all content areas." It also underscores the need for all learners "to adapt to our rapidly changing world over the course of our lives, and that involves developing deep understanding within specific content areas and making the connections between them."[d]

Renee Hobbs, a digital media literacy scholar and author of *Digital and Media Literacy: A Plan of Action,* emphasizes two leading challenges educators and decision makers must overcome when implementing a digital literacy program: (1) not conflating access to technology with the skills needed to use it effectively, and (2) addressing the associated risks along with the benefits of digital technology when educating students about its use.[e]

While students can develop technical skills on their own through their internet use, Hobbs notes that "generally, neither children nor adults acquire critical thinking skills about mass media, popular culture or digital media just by using technology tools themselves." Furthermore, digital literacy requires transferring these skills beyond the student's current set of online practices and affinity groups to other contexts, along with routine practice to be successful in doing so. Additionally, digital literacy education must encompass both empowerment and protection. Hobbs underscores that these two emphases "are not in opposition—they are two sides of the same coin," and both "are needed to address the transformative social potential of the internet in the context of child and adolescent development."[f]

[a] American Library Association, "Digital Literacy, Libraries, and Public Policy," p. 2.

[b] Carrie James et al., *Young People, Ethics, and the New Digital Media: A Synthesis from the Good Play Project*, The MIT Press, 2009, available at http://mitpress.mit.edu/sites/default/files/titles/free_download/9780262513630_Young_People_Ethics_and_New_Digital_Media.pdf.

[c] Knight Commission on the Information Needs of Communities in a Democracy, *Informing Communities: Sustaining Democracy in the Digital Age,* Washington, D.C.: The Aspen Institute, October 2009, http://www.knightcomm.org/wp-content/uploads/2010/02/Informing_Communities_Sustaining_Democracy_in_the_Digital_Age.pdf.

[d] U.S. Department of Education, *Transforming American Education: Learning Powered by Technology,* Office of Educational Technology, 2010, available at http://www.ed.gov/technology/netp-2010.

[e] Renee Hobbs, "Digital and Media Literacy."

[f] Ibid., p. 30.

[80] Renee Hobbs, The Aspen Institute Communications and Society Program, "Digital and Media Literacy: A Plan of Action," Washington, DC: The Aspen Institute, November 2010, available at http://www.knightcomm.org/wp-content/uploads/2010/12/Digital_and_Media_Literacy_A_Plan_of_Action.pdf.

Many schools fail to adequately address the challenge of providing students with the necessary digital literacy skills and competencies. By blocking social media, schools give teachers an instructional exemption from preparing students[81] to use these tools for educational or professional pursuits. As a result, students are at a disadvantage when employers and colleges examine their online profiles, which is becoming routine. A survey conducted by Reppler, a social media monitoring service, found that more than 90 percent of companies use social networking sites to screen potential candidates and close to 70 percent of companies made decisions based on social media profiles.[82] Other survey results showed that colleges and universities frequently use social media to recruit prospective students,[83] and 30 percent of admissions officers saw information on social media that negatively affected admissions.[84]

Blocking access to interactive websites and platforms impacts not only what teachers can teach but also how they teach by impeding the interactive process of social learning. Some schools block these sites entirely, while others create a simulated environment; only a few provide full access to social media and social networking websites, guided by curriculum standards designed to help students use these sites productively as well as socially (see Box 4). While simulated social media environments may help teach students through social learning and allow them to gain social networking skills, access to the actual sites and platforms is necessary, at least for high school students. Through such access, upper-level students will gain additional benefits from other users of the sites and information available only on the sites. For instance, LinkedIn has created "University Pages," a new feature, and lowered the site's age limit to

Box 4. Social Media Instruction Supported by School Libraries

The New Canaan High School in Connecticut illustrates the seamless integration of new technologies into the curriculum to support learning and students' academic and professional development. The library's Participatory Platforms for Learning program encourages students to use and experiment with digital tools to complete assignments. Students use Google applications to develop content, Twitter to conduct research, and Facebook groups to share results and provide feedback to classmates. With the incorporation of real-world social media and collaborative tools into classroom instruction, students are expanding their use of these tools beyond entertainment and social uses, learning to view and shape their digital footprint from multiple vantage points, and developing digital portfolios and skill sets that are increasingly in demand in the workforce and as support for academic and professional development. New Canaan understands the importance of students' experimentation with these tools in an environment supported and guided by teachers and librarians, as well as the influence of teen users themselves. Graduating seniors record a video message that members of the incoming freshman class receive on their first day at New Canaan. The message states, "We trust you." It also advises the incoming class that the tools are "awesome" and "powerful," and should not be squandered with improper or disrespectful use.[a]

[a] American Library Association, "Digital Literacy, Libraries, and Public Policy."

[81] National School Boards Association, *Creating & Connecting*.

[82] Mashable, "How Recruiters Use Social Networks to Screen Candidates," infographic, available at http://mashable.com/2011/10/23/how-recruiters-use-social-networks-to-screen-candidates-infographic/.

[83] Press Release, "Kaplan Test Prep Survey Finds That College Admissions Officers' Discovery of Online Material Damaging to Applicants Nearly Triples in a Year," 2012, available at http://press.kaptest.com/press-releases/kaplan-test-prep-survey-finds-that-college-admissions-officers-discovery-of-online-material-damaging-to-applicants-nearly-triples-in-a-year.

[84] Press Release, "Kaplan Test Prep Survey: More College Admissions Officers Checking Applicants' Digital Trails, But Most Students Unconcerned," 2013, available at http://press.kaptest.com/press-releases/kaplan-test-prep-survey-more-college-admissions-officers-checking-applicants-digital-trails-but-most-students-unconcerned.

14 so that students can explore universities worldwide, learn about notable alumni, and engage with others through Facebook-like status updates.[85]

In sum, filtering beyond CIPA's requirements results in critical missed opportunities to prepare students to be responsible users, consumers, and producers of online content and resources. Blocking access to social media and networking sites leaves youth on their own to use these sites outside of the classroom instead of engaging them in the use of these tools in a supportive school environment. Over-blocking in schools limits students' perspectives on shaping their online presence and understanding the extent and permanence of their digital footprint. According to input gathered by a Congressional commission, blocking access to social media sites in schools may have a "negative effect" on students by preventing them from learning about the benefits as well as risks of social media sites in context.[86]

Recognizing these challenges, among others, representatives from 20 state and national organizations, including AASL, developed recommendations to assist educational leaders and policy makers in considering necessary changes to internet access policies to enhance student learning through the use of social media and other tools.[87] Four recommendations were offered as a starting point:

- Banning is not the answer.
- Educate students on responsible use.
- Emphasize professional development on safe and effective use.
- Rethink and revise acceptable use polices.[88]

[85] Christina Allen, "Introducing LinkedIn University Pages," available at http://blog.linkedin.com/2013/08/19/ introducing-linkedin-university-pages/.

[86] Online Safety and Technology Working Group, *Youth Safety,* pp. 24-25.

[87] The Consortium for School Networking, "Making Progress: Rethinking State and School District Policies Concerning Mobile Technologies and Social Media," Washington, DC, March 2013, available at http://www.cosn.org/sites/default/files/pdf/MakingProgress_Web%20-Final.pdf.

[88] As Jim Bosco and Keith Krueger explain, an acceptable use policy requires little action or commitment from users and their families beyond "accepting" a set of rules by signing an agreement. A responsible use policy, in contrast, "emphasizes education and treats the student as a person responsible for ethical and healthy use of the internet and mobile devices." See The Consortium for School Networking, "Making Progress," p. 6.

Restricting access creates both an educational and a social problem, as educators cannot help students navigate ethical choices about online interactions, and represents a critical missed opportunity to prepare students to be responsible users, consumers, and producers of online content and resources.

Social Consequences for Students

Over-filtering has not only educational but also social consequences for students as it often results in a lack of moral or ethical instruction to guide online behavior. Furthermore, CIPA implementation practices generate disrespect for some legal norms; as noted earlier, for example, youth tend to be well versed in using proxies and other tools to defeat the filters. As a result, some believe these policy choices are creating a generation of internet scofflaws who lack respect for the rules governing internet access in schools.[89]

In exploring the broader social and ethical implications of online behavior, one study by the National School Boards Association found that about one in three teens (31 percent) are "nonconformists": they do not adhere to online safety and behavior rules,[90] but are also "on the cutting edge of social networking, with online behaviors and skills that indicate leadership among their peers."[91] A larger research effort led by Howard Gardner at Harvard University sought to examine the ethical dimensions of the online behavior of youth, with the aim of beginning to shape ethical thinking and conduct with respect to online actions. The research identified key areas in which ethical thinking is most critical and several approaches to help students navigate ethical choices: taking perspectives of stakeholders online, such as peers, parents, teachers, and even content creators; reflecting on one's roles and responsibilities; and developing a deeper understanding of the benefits as well as harms that may arise in online communities.[92]

School Librarians: An Underused Resource

In addition to the important role of public libraries in addressing digital inclusion goals, school librarians are key to overcoming the challenges of digital literacy and building the capacity of teachers to integrate technology into learning tasks and curriculum in the classroom. Librarians are guided by the professional standards of AASL that require them "to adapt and design relevant learning experiences to engage students in authentic learning though the use of digital tools and resources."[93] The requirements for librarians build on Standards for the 21st Century Learner, developed in 2007, which AASL has aligned with the Common Core Standards, adopted by 45 states and the District of Columbia.[94] Close to half of school librarians (46 percent) train teachers to identify and evaluate high-quality online resources and aggregate resources for teachers to use.[95] A recent report by ALA's Digital Literacy Task Force emphasizes that school librarians are "well positioned to teach the ethical and responsible use of information and communication technologies, helping students create positive digital footprints for a world that is increasingly virtual."[96]

89 Participant in the national symposium convened by ALA and Google, Inc., Washington, DC, July 29-30, 2013.

90 Examples include rules regarding using inappropriate language, posting inappropriate pictures, sharing personal information with strangers, or pretending to be someone they are not.

91 National School Boards Association, *Creating & Connecting*.

92 Howard Gardner et al., "Our Space: Being a Responsible Citizen of the Digital World," The GoodPlay Project and Project New Media Literacies, June 2011, available at http://dmlcentral.net/sites/dmlcentral/files/resource_files/Our_Space_full_casebook_compressed.pdf.

93 2010 ALA/AASL Standards for Initial Preparation of School Librarians, Standard 3.3: "Information Technology," available at http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aasleducation/schoollibrary/2010_standards_with_rubrics_and_statements_1-31-11.pdf.

94 Common Core State Standards Initiative, "Standards in Your State," available at http://www.corestandards.org/in-the-states.

95 American Library Association, "Digital Literacy, Libraries, and Public Policy."

96 Ibid., p. 8.

Other library association resources designed to guide responsible and ethical use of communication and information technologies include *Digital Citizen*, an online tutorial developed by the California School Library Association.[97]

Integrating ethical and responsible use into school internet policies is critically important.[98] The example of a school librarian from Petaluma High School in California[99] illustrates another level of engagement for librarians in shaping the use of digital resources and related learning in schools. Working with school administrators, this librarian helped the school move from an acceptable use to a responsible use policy.[100] As learning to be a responsible user requires instruction and practice, the librarian co-developed a curriculum that helps students actively learn about appropriate uses of online resources. Using blogging as a tool, students write about subjects they are researching. They also learn to make choices about how to present the information online and to understand how much information is appropriate to post on a public blog.[101]

Unequal Impact of CIPA

Just as the mission and responsibilities of public libraries and schools differ, so, too, do the effects of CIPA implementation on the two institutions. Nonetheless, both have key roles in providing education and access to information and communication technologies, and thus for both, the broader impact of filtering is unequal and uneven.

While a detailed picture of the filtering environment in public libraries and schools is not available, trends revealed by a 2013 survey indicate that the school environment may create an obstacle to effective use of the internet and other digital tools in the classroom.[102] Internet filtering was the most frequently cited obstacle.[103] However, the impact of filtering on learning is not felt equally among students. The survey showed that teachers in urban areas and those teaching the lowest-income students experienced the most negative impact from filtering: close to half of these teachers (48 percent) reported a major impact, compared with 24 percent of teachers of middle- or upper-class students. And fewer than one in five of these teachers (18 percent) said all or almost all of their students had sufficient access at home to digital tools needed to complete school assignments effectively. The findings from this survey confirm an early concern that internet filtering would create two classes of students: an advantaged class with unfiltered internet access at home and a disadvantaged class with only filtered access at school.[104]

Other obstacles identified in the aforementioned survey extend to the growing relevance and use of mobile technology in the classroom.[105] Mobile devices have

97 California School Library Association, "Digital Citizen," available at http://ecitizenship.csla.net/.

98 For more on balancing student learning with online safety in internet use policies, see Barbara A. Jansen, "Internet Filtering 2.0: Checking Intellectual Freedom and Participative Practices at the Schoolhouse Door," Knowledge Quest (39) 1, September/October 2010, available at http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslpubsandjournals/knowledgequest/docs/KQ_39_1_SeptOct10.pdf.

99 Connie Williams is a national board-certified teacher librarian and also serves as chair of the AASL Legislative Committee.

100 For more about this distinction, see The Consortium for School Networking, "Making Progress."

101 See the curriculum at http://teenlearning.csla.net.

102 The survey, conducted by the Pew Research Center, the National Writing Project, and the College Board, elicited responses from 2,462 AP and National Writing Project teachers.

103 Kristen Purcell et al., "How Teachers Are Using Technology at Home and in Their Classrooms." Pew Research Center, Internet and American Life Project, 2013, available at http://www.pewinternet.org/~/media//Files/Reports/2013/PIP_TeachersandTechnologywithmethodology_PDF.pdf.

104 Martha M. McCarthy, "Filtering the Internet: The Children's Internet Protection Act," *Education Horizons,* 82(2), Winter, 2004.

105 See American Association of School Librarians, "National Longitudinal Survey," and MMS Education, "A Survey of K-12 Educators on Social Networking, Online Communities, and Web 2.0 Tools," sponsored by edWeb.net and MCH Strategic Data, December 2012, available at http://home.edweb.net/survey-of-k-%C2%AD12-educators-on-social-networking-online-communities-web-2-0-tools/, both of which report an increase in the number of students who are allowed to bring their own device to schools.

become central to the learning process, with 73 percent of AP and National Writing Project teachers reporting that they and/or their students use mobile phones in the classroom or to complete assignments.[106] However, the survey found the rules governing the use of mobile devices in schools were more restrictive for teachers of the lowest-income students than for teachers of affluent students. Twice as many teachers of lower-income students reported that their school's policy on students' use of mobile devices has had a major impact on their teaching, restricting their use of mobile tools in the classroom, compared with those who teach students from the highest-income households.[107]

The impact of filtering policies also is unequal and uneven in public libraries. The impact is greatest on students and others who lack internet access at home, for whom libraries are the primary means of gaining free access to the internet and receiving support in the use of the technology.[108] Public libraries increasingly are being asked to play an important role for these individuals by implementing a broad policy of "digital inclusion" addressing issues of both digital access and digital literacy (see Box 5). Internet filtering compromises public libraries' ability to carry out this role.

At the same time, it is precisely those libraries in low-income communities that can benefit the most from internet subsidies. The burden of CIPA's filtering mandate falls most heavily on these libraries, which must rely on E-rate and LSTA grants to provide the fullest possible internet access.

Despite the increasing demands on public libraries to provide internet access and assistance, about one-third of public libraries, including more than 40 percent of urban public libraries, decline E-rate discounts to avoid the CIPA filtering requirements.[109] Many librarians believe those requirements violate the basic principles of librarianship as well as the First Amendment right to receive information, and recognize that they disproportionally affect patrons without other options for accessing an unfiltered internet. Because libraries that choose to preserve free and open access to the internet for all users lose opportunities for federal funding, discrepancies persist in the levels of internet access available to patrons of public libraries.[110]

Conclusions

Ten years after CIPA was upheld by the Supreme Court, the trend of over-implementation is evident. Public libraries and schools need to reexamine the law's requirements and the scope of their enforcement. Perceptions of filtering by stakeholders, including the personal attitudes of key decision makers, have a significant impact on the level of filtering carried out by public libraries and schools, and may result in wide variations in the filtered environments.

While public libraries and schools have been granted the flexibility to develop filtering policies appropriate to their communities, they must do so within the statutory limits defined by the law. In many instances, however, the current implementation of CIPA goes far beyond what the law requires. In schools, over-blocking content to manage classrooms, limit exposure to complex and challenging websites, or curtail the use of interactive platforms has numerous unintended consequences for students. Restricting access creates both an educational

106 Kristen Purcell et al., "How Teachers Are Using Technology."

107 Ibid.

108 Samantha Becker et al., *Opportunity for All: How the American Public Benefits from Internet Access at U.S. Libraries,* Institute of Museum and Library Services, 2010, available at https://docs.gatesfoundation.org/Documents/OpportunityForAll.pdf. See also L. Johnson et al., The NMC Horizon Report: 2011 K-12 Edition, The New Media Consortium, 2011.

109 John C. Bertot et al., "2011-2012 Public Library Funding and Technology Access Survey: Survey Findings and Results," Information Policy & Access Center, June 19, 2012, available at http://ipac.umd.edu/sites/default/files/publications/2012_plftas.pdf.

110 Paul T. Jaeger and Zheng Yan, "One Law with Two Outcomes."

Box 5. Digital Inclusion

The emerging "digital inclusion" concept addresses issues of both digital access and digital literacy. It builds on an understanding of the digital divide—a gap based on socioeconomic status, education, geography, age, and other factors—between those with and without high-speed internet access.[a] While internet access via smartphones is closing this gap for many unserved and underserved populations, limitations on access persist. For instance, some content may not be accessible in a mobile-compatible format, and some tasks, such as preparing and submitting taxes, cannot be completed on smartphones. Additionally, mobile pricing plans based on data consumption may limit the amount of content that is accessible on a hand-held device.[b] And according to the Pew Research Center's 2013 home broadband report,[c] about 20 percent of Americans lack high-speed internet access either at home or on a smartphone.

Beyond issues of the availability and affordability of broadband, a lack of digital literacy—the technical and higher-level cognitive skills required to use the technology effectively—is a leading barrier to home broadband adoption.[d] Among the reasons for not using the internet, seniors over the age of 65 believe it is not relevant to them, and others point to the difficulty of using it or to concerns about privacy and security online. Most nonusers, however, feel disadvantaged by not using the internet and believe they are "not getting the access to all the things that [they] need."[e] The level of home broadband access is lowest among Latinos at 53 percent, largely unchanged since 2012 (51 percent). The level of home access has risen to 64 percent among African Americans, an increase since 2012 (49 percent), but is still lower than the national average.[f]

Jaeger suggests that the emphasis on digital inclusion reflects the "growing realization that technology has become an irreducible component of modern life, and its presence and use has significant impact on an individuals' ability to fully engage in society generally and more specifically in areas such as education, employment, government, civic participation, and socialization." He notes that a variety of government programs intended to address digital inclusion objectives—including those of the Federal Communications Commission, the Institute of Museum and Library Services, and the multi-agency DigitalLiteracy.gov initiative—all rely on the capacity of public libraries to provide access to the internet and digital technology training programs.[g] To address the opportunities and challenges related to digital inclusion, ALA's Office for Information Technology Policy launched the Digital Literacy Task Force and issued recommendations designed "to advance and sustain library engagement in digital literacy initiatives nationwide."[h]

[a] Paul T. Jaeger, "The Intersection of Public Policy and Public Access: Digital Divides, Digital Literacy, Digital Inclusion, and Public Libraries," *Public Library Quarterly,* 31(1), 2012.

[b] Ibid.

[c] Kathryn Zickuhr and Aaron Smith, *Home Broadband 2013,* Pew Research Center, August 26, 2013, available at http://pewinternet.org/Reports/2013/Broadband.aspx.

[d] John B. Horrigan, "Broadband Adoption and Use in America," *OBI Working Paper Series,* No. 1., February 2012, available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf.

[e] Kathryn Zickuhr, "Who's Not Online and Why?," Pew Research Center, September 25, 2013, available at http://pewinternet.org/Reports/2013/Non-internet-users.aspx.

[f] Kathryn Zickuhr and Aaron Smith, *Home Broadband 2013.*

[g] Paul T. Jaeger, "The Intersection of Public Policy and Public Access."

[h] American Library Association, Office for Information Technology Policy, Digital Literacy Task Force, "Conclusions & Recommendations for Digital Literacy Program and Libraries," June 2013, available at http://www.districtdispatch.org/wp-content/uploads/2013/06/2013_dltf_recommendations.pdf.

Internet filtering and access policies need to be realigned with the dynamic, interactive, and social uses of the internet if students and the public are to benefit fully from the technological opportunities available today and into the future. Public and school libraries have important roles to play in realizing these necessary changes.

and a social problem, as educators cannot help students navigate ethical choices about online interactions. Instead of protecting children, over-filtering creates barriers to learning and education and limits the acquisition of digital literacy skills, which are vital not only for college and career readiness but also for full participation in today's society.

Increasingly, the lack of digital literacy is recognized as a leading obstacle to home broadband adoption. The emerging policy focus on digital inclusion emphasizes helping users gain the necessary technical and cognitive skills to use the internet effectively. Underlying this policy shift is a recognition that digital literacy is essential for full economic and democratic participation in the 21st century. Over-implementation of CIPA impedes attainment of these policy goals, and disproportionately impacts those who could benefit most from public access and digital inclusion.

The effect of CIPA is greatest on those who rely on public libraries for both internet access and training, including children and adults who lack broadband connections at home. In schools, CIPA creates two classes of students: an advantaged class with unfiltered internet access at home and a disadvantaged class with only filtered access at school, including lower-income students, those in urban and rural areas, and especially those who rely on public library and school internet access. Moreover, while some students benefit from responsible use policies with guided instruction and experimentation with digital content and platforms, others are denied those educational opportunities.

This is a critical time to recognize the unequal and uneven impact of CIPA. Internet users are not only consumers but also creators of content. Internet filtering and access policies need to be realigned with the dynamic, interactive, and social uses of the internet if students

and the public are to benefit fully from the technological opportunities available today and into the future. This realignment will require less blocking of online content and platforms and more digital literacy instruction to empower and protect users both on- and offline.

Public and school libraries have important roles to play in realizing these necessary changes. Public libraries and librarians have an essential role in promoting and protecting First Amendment freedoms and in closing gaps in access and addressing digital inclusion goals. School libraries and librarians are key to overcoming challenges to digital literacy and increasing the capacity of educators to integrate technology into learning tasks and curriculum in the classroom. Integrating ethical and responsible use into school internet policies also is critically important. Learning to be a responsible user requires instruction and practice. School librarians are well positioned to shape curriculum to accompany changes in internet access policy that will help students acquire digital literacy skills—a fundamental requirement for all to participate fully in a globally competitive and democratic 21st-century society.

Recommendations

Recommendation 1: Increase awareness of the spectrum of filtering choices.

The overarching recommendation and the most urgent need is to communicate—through education and awareness-raising campaigns—exactly what CIPA requires, as well as the negative consequences of over-filtering. Beginning with the public library and school library communities, ALA should continue to build support for and accelerate implementation of the recommendations of its Digital Literacy Task Force. ALA should assist librarians in interpreting federal statutory filtering requirements affecting schools and K-12 education and the ability to provide students with effective 21st-century digital literacy programs. This assistance should extend to pre-service librarians as well through additions to library school curricula, so librarians are prepared when they enter the workforce to proactively address these issues with teachers and school administrators. ALA also should provide tools that can help communicate an accurate interpretation of the filtering requirements such that governing boards, administrations, and the public will clearly understand the requirements and the potential negative impacts of over-filtering on schools and the broader community.

In addition, ALA should raise awareness of the role libraries can play in addressing the negative consequences of over-filtering and promoting the acquisition of digital literacy skills. Following a second recommendation from its Digital Literacy Task Force, ALA should develop clear messaging to promote the role of librarians in supporting digital literacy among school administrations, library boards, information technology (IT) departments, policy makers, and funders. Such messaging should be available to librarians and other interested stakeholders.

ALA should extend these education and awareness-raising campaigns to the school community and other stakeholders. To build and launch effective campaigns, ALA should:

- Identify organizations with which it can work to reach the broad range of stakeholders involved in or affected by filtering policies, such as chambers of commerce and corporations, which are interested in having a digitally literate workforce.
- Use message testing to communicate with the various stakeholder audiences and to gauge their levels of knowledge and concern about filtering.
- Deploy new tools to raise awareness of and gather information about the filtered environments in public libraries and schools. Crowd-sourcing tools could be used to collect or verify the websites that are blocked in public libraries and schools so as to gain a better understanding of the content being filtered.
- Promote the direct involvement of librarians as well as teens in their schools' internet use policy process. While librarians are knowledgeable about issues of digital literacy and the incorporation of technology, digital resources, and content into curricula, teens often are technologically savvy, and can bring to bear contemporary perspectives on technology that may help shape and build support for responsible use policies.
- Develop supporting information materials, such as articles, press releases, summaries, speeches, and posters, as well as plans for dissemination to reach stakeholders, including teens.

Recommendation 2: Develop a toolkit for school leaders.

Working with educational groups and associations, such as the Consortium for School Networking, the Council of School Attorneys, the American Association of School Administrators, and the National Association of Secondary School Principals, among others, ALA should assemble a toolkit that provides:

- current research and data related to how increased internet access and the skills needed to use, evaluate, and create digital content effectively help prepare students for college, career, and life;
- best practices from districts around the country that have evolved from acceptable use to responsible use policies and are using social media and other digital tools productively without over-filtering;
- sample internet use policies with language that school boards could adopt to increase access within the schools' broader mission; and
- templates for meetings required under CIPA that would help outline the law's requirements and their interaction with the Common Core standards, as well as college, career, and life readiness, among other relevant topics.

Recommendation 3: Establish a digital repository of internet filtering studies.

To support education and awareness campaigns, ALA should establish a digital repository to house existing research, surveys, and case studies on internet filtering; collect experiences and best practices from librarians; and curate examples of responsible use policies, digital literacy lesson plans, and other resources. Information in this digital repository also could be mined to produce additional information resources related to CIPA and filtering, as well as to inform directions for future research.

Recommendation 4: Conduct research to explore the educational uses of social media platforms and assess the impact of filtering in schools.

To understand how social media and social networking platforms can be used in schools, research could explore the current use of these platforms through case studies and collection of best practices. Research also could investigate curricula and pedagogical approaches that expand the use of these platforms for conducting research, collecting information, monitoring topics, and collaborating with other groups. This research would benefit from the varying perspectives and perceptions of school administrators, educators, librarians, and industry leaders regarding the utility of these platforms; ways of developing the skills needed to navigate, manage, and produce content for different purposes; and desirable features that could be added to platforms to help educators and students make better use of these tools. The research also could identify what barriers remain to increasing the adoption of these tools and possible solutions for addressing these challenges in schools.

photo: ©Phil Boorman / Getty Images

To assess the effects and broader impact of internet filtering, research should examine how different filtered environments impact student learning and achievement. Initial, short-term studies could assess the effects of filtering by correlating schools that filter within and beyond the CIPA requirements with students' test scores and other data, such as entrance into colleges, including first choices, or students' publically available online profiles. Longer-term research could examine whether schools are graduating two different types of students—those with and without digital literacy skills—as well as the differences over time in CIPA implementation among ethnic, racial, and socioeconomic groups. Research also should focus directly on students' opinions and strategies regarding filters and filtered content. Other efforts could focus on collecting anecdotal evidence about what happens in CIPA-compliant libraries when adults ask that filters be turned off or adjusted.

Appendix

Revisiting the Children's Internet Protection Act (CIPA) Ten Years Later

SYMPOSIUM AGENDA
Google Washington
1101 New York Ave., NW
July 29-30, 2013

Purpose

The purpose of the symposium is to discuss and understand the impacts of the Children's Internet Protection Act (CIPA) on access to information in the digital age through school and public libraries. During the symposium we will explore issues and themes identified through preliminary research conducted by the American Library Association (ALA) on the implementation of filtering requirements.

Goals

This symposium is a significant opportunity to review the previous 10 years of CIPA implementation and review the efficacy of the law as a solution to protecting young people from harmful content on the internet. We will begin an exploration into the different nature of information access today and real or perceived consequences of filtering content.

Discussions will be facilitated, and each participant will contribute to the discussion through the lens of her or his area of expertise. We encourage thoughtful engagement and frank exchanges of opinion. At the conclusion of the symposium, participants will contribute to a synthesis of the full event. The symposium is one component of a larger project coordinated by ALA's Office for Information Technology Policy and Office for Intellectual Freedom and will inform a white paper that will be published in the fall. Specifically, we hope the symposium will:

- Identify and explore current issues surrounding CIPA implementation.
- Identify research questions that will further the library profession's (and other stakeholders') understanding of how filtering content for young people is having an impact on their long-term capacity to develop critical thinking skills, to become productive and engaged adults, and to ultimately contribute to a globally competitive 21st-century society.

AGENDA
Monday, July 29

8:30-9:00 Breakfast and Welcome

Outline and Expectations for the Day
Barbara Jones, Marijke Visser

Meeting Process and Logistics
Kathryn Deiss, Content Strategist, Association of College & Research Libraries, symposium facilitator

9:00-9:30 Introductions

Symposium Guidelines for Effective Dialogue

1. Share air time
2. Test assumptions
3. Share relevant information
4. Differ constructively
5. Observe confidentiality

Appendix (continued)

AGENDA
Monday, July 29 (continued)

9:45-11:00 Ten years of CIPA: Law and Policy
Session leaders: Deborah Caldwell-Stone, Michael Zimmer. Experts will provide background information on CIPA and court responses, and comment on privacy and First Amendment implications.

11:00-11:15 Break

11:15-12:15 Filtering on the Frontlines
Session leaders: Mary Wegner, John Gillispie, Lucia Gonzales. Panelists will discuss how they have dealt with filters locally.

12:15-1:00 Lunch

1:00-2:00 Filtering in Practice
Session leaders: Keith Krueger, Bob Bocher, Debby Herbenick
How do filters work? Why are filters not effective?

2:00-3:30 Dialogue on the Digital Divide
John Horrigan, Eva Poole

3:30-3:45 Break

The Long-Term Impact of Filtering (small groups)

3:45-4:30 Synthesis: Observations, Conclusions, and Recommendations

4:30-5:00 Final Thoughts, Evening Logistics, Google Hangout Options

AGENDA
Tuesday, July 30
Hangouts

8:30-9:30 Breakfast and Review of Day 1

9:30-10:30 Organize Panel and Practice Session

10:30-10:45 Break

10:45-11:00 Set-up

11:00-12:00 Hangout Part 1: "Introduction and Overview of CIPA 10 Years Later"

12:00-12:15 Break

12:15-1:15 Hangout Part 2: "Symposium Themes and Conclusions"

1:15-2:00 Lunch and Final Thoughts

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The Office for Information Technology Policy advocates for public policy that supports and encourages the efforts of libraries to ensure access to electronic information resources as a means of upholding the public's right to a free and open information society.

American Library Association
Office for Intellectual Freedom

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Established December 1, 1967, the Office for Intellectual Freedom is charged with implementing ALA policies concerning the concept of intellectual freedom as embodied in the *Library Bill of Rights,* the Association's basic policy on free access to libraries and library materials.