One Law with Two Outcomes: Comparing the Implementation of CIPA in Public Libraries and Schools

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Though the Children's Internet Protection Act (CIPA) established requirements for both public libraries and public schools to adopt filters on all of their computers when they receive certain federal funding, it has not attracted a great amount of research into the effects on libraries and schools and the users of these social institutions. This paper explores the implications of CIPA in terms of its effects on public libraries and public schools, individually and in tandem. Drawing from both library and education research, the paper examines the legal background and basis of CIPA, the current state of Internet access and levels of filtering in public libraries and public schools, the perceived value of CIPA, the perceived consequences of CIPA, the differences in levels of implementation of CIPA in public libraries and public schools, and the reasons for those dramatic differences. After an analysis of these issues within the greater policy context, the paper suggests research questions to help provide more data about the challenges and questions revealed in this analysis.

The Children's Internet Protection Act (CIPA) established requirements for both public libraries and public schools to—as a condition for receiving certain federal funds—adopt filters on all of their computers to protect children from online content that was deemed potentially harmful.[1] Passed in 2000, CIPA was initially implemented by public schools after its passage, but it was not widely implemented in public libraries until the 2003 Supreme Court decision (*United States v. American Library Association*) upholding the law's constitutionality.[2] Now that CIPA has been extensively implemented for five years in libraries and eight years in schools, it has had time to have significant effects on access to online information and services. While the goal of filtering requirements is to protect children from potentially inappropriate content, filtering also creates major educational and social implications because filters also limit access to other kinds of information and create different perceptions about schools and libraries as social institutions.

Curiously, CIPA and its requirements have not attracted a great amount of research into the effects on schools, libraries, and the users of these social institutions. Much of the literature about CIPA has focused on practical issues—either recommendations on implementing filters or stories of practical experiences with filtering. While those types of writing are valuable to practitioners who must deal with the consequences of filtering, there are major educational and societal issues raised by filtering that merit much greater exploration. While relatively small bodies of research have been generated about CIPA's effects in public libraries and public schools,[3] thus far these two strands of research have remained separate. But it is the contention of this paper that these two strands of research, when viewed together, have much more value for creating a broader understanding of the educational and societal implications. It would be impossible to see the real consequences of CIPA without the development of an integrative picture of its effects on both public schools and public libraries.

In this paper, the implications of CIPA will be explored in terms of effects on public libraries and public schools, individually and in tandem. Public libraries and public schools are generally considered separate but related public sphere entities because both serve core educational and information-provision functions in society. Furthermore, the fact that public schools also contain school library media centers highlights some very interesting points of intersection between public libraries and school libraries in terms of the consequences of CIPA: While CIPA requires filtering of computers throughout public libraries and public schools, the presence of school library media centers makes the connection between libraries and schools stronger, as do the teaching roles of public libraries (e.g., training classes, workshops, and evening classes).

The legal road to CIPA

History

Under CIPA, public libraries and public schools receiving certain kinds of federal funds are required to use filtering programs to protect children under the age of seventeen from harmful visual depictions on the Internet and to provide public notices and hearings to increase public awareness of Internet safety. Senator John McCain (R-AZ) sponsored CIPA, and it was signed into law by President Bill Clinton on December 21, 2000. CIPA requires that filters at public libraries and public schools block three specific types of content: (1) obscene material (that

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which appeals to prurient interests only and is "offensive to community standards"); (2) child pornography (depictions of sexual conduct and or lewd exhibitionism involving minors); and (3) material that is harmful to minors (depictions of nudity and sexual activity that lack artistic, literary, or scientific value). CIPA focused on "the *recipients* of Internet transmission," rather than the senders, in an attempt to avoid the constitutional issues that undermined the previous attempts to regulate Internet content.[4]

Using congressional authority under the spending clause of Article I, section 8 of the U.S. Constitution, CIPA ties the direct or indirect receipt of certain types of federal funds to the installation of filters on library and school computers. Therefore each public library and school that receives the applicable types of federal funding must implement filters on all computers in the library and school buildings, including computers that are exclusively for staff use. Libraries and schools had to address these issues very quickly because the Federal Communications Commission (FCC) mandated certification of compliance with CIPA by funding year 2004, which began in Summer 2004.[5]

CIPA requires that filters on computers block three specific types of content, and each of the three categories of materials has a specific legal meaning. The first type—obscene materials—is statutorily defined as depicting sexual conduct that appeals only to prurient interests, is offensive to community standards, and lacks serious literary, artistic, political, or scientific value.[6] Historically, obscene speech has been viewed as being bereft of any meaningful ideas or educational, social, or professional value to society.[7] Statutes regulating speech as obscene have to do so very carefully and specifically, and speech can only be labeled obscene if the entire work is without merit.[8] If speech has any educational, social, or professional importance, even for embodying controversial or unorthodox ideas, it is supposed to receive First Amendment protection.[9] The second type of content—child pornography—is statutorily defined as depicting any form of sexual conduct or lewd exhibitionism involving minors.[10] Both of these types of speech have a long history of being regulated and being considered as having no constitutional protections in the United States.

The third type of content that must be filtered—material that is harmful to minors—encompasses a range of otherwise protected forms of speech. CIPA defines "harmful to minors" as including any depiction of nudity, sexual activity, or simulated sexual activity that has no serious literary, artistic, political, or scientific value to minors.[11] The material that falls into this third category is constitutionally protected speech that encompasses any depiction of nudity, sexual activity, or simulated sexual activity that has serious literary, artistic, political, or scientific value to adults. Along with possibly including a range of materials related to literature, art, science, and policy, this third category may involve materials on issues vital to personal well-being such as safe sexual practices, sexual identity issues, and even general health care issues such as breast cancer.

In addition to the filtering requirements, section 1731 also prescribes an Internet awareness strategy that public libraries and schools must adopt to address five major Internet safety issues related to minors. It requires libraries and schools to provide reasonable public notice and to hold at least one public hearing or meeting to address these Internet safety issues.

Requirements for schools and libraries

CIPA includes sections specifying two major strategies for protecting children online (mainly in sections 1711, 1712, 1721, and 1732) as well as sections describing various definitions and procedural issues for implementing the strategies (mainly in sections 1701, 1703, 1731, 1732, 1733, and 1741).

Section 1711 specifies the primary Internet protection strategy—filtering—in public schools. Specifically, it amends the Elementary and Secondary Education Act of 1965 by limiting funding availability for schools under section 254 of the Communication Act of 1934. Through a compliance certification process within a school under supervision by the local educational agency, it requires schools to include the operation of a technology protection measure that protects students against access to visual depictions that are obscene, are child pornography, or are harmful to minors under the age of seventeen.

Likewise, section 1712 specifies the same filtering strategy in public libraries. Specifically, it amends section 224 of the Museum and Library Service Act of 1996/2003 by limiting funding availability for libraries under section 254 of the Communication Act of 1934. Through a compliance certification process within a library under supervision by the Institute of Museum and Library Services (IMLS), it requires libraries to include the operation of a technology protection measure that protects students against access to visual depictions that are obscene, child pornography, or harmful to minors under the age of seventeen.

Section 1721 is a requirement for both libraries and schools to enforce the Internet safety policy with the Internet safety policy strategy and the filtering technology strategy as a condition of universal service discounts. Specifically, it amends section 254 of the Communication Act of 1934 and requests both schools and libraries to monitor the online activities of minors, operate a technical protection measure, provide reasonable public notice, and hold at least one public hearing or meeting to address the Internet safety policy. This is through the

certification process regulated by the FCC.

Section 1732, titled the Neighborhood Children's Internet Protection Act (NCIPA), amends section 254 of the Communication Act of 1934 and requires schools and libraries to adopt and implement an Internet safety policy. It specifies five types of Internet safety issues: (1) access by minors to inappropriate matter on the Internet; (2) safety and security of minors when using e-mail, chat rooms, and other online communications; (3) unauthorized access; (4) unauthorized disclosure, use, and dissemination of personal information; and (5) measures to restrict access to harmful online materials.

From the above summary, it is clear that (1) the two protection strategies of CIPA (the Internet filtering strategy and safety policy strategy) were equally enforced in both public schools and public libraries because they are two of the most important social institutions for children's Internet safety; (2) the nature of the implementation mechanism is exactly the same, using the same federal funding mechanisms as the sole financial incentive (limiting funding availability for schools and libraries under section 254 of the Communication Act of 1934) through a compliance certification process to enforce the implementation of CIPA; and (3) the actual implementation procedure differs in libraries and schools, with schools to be certified under the supervision of local educational agencies (such as school districts and state departments of education) and with libraries to be certified within a library under the supervision of the IMLS.

Economics of CIPA

The Universal Service program (commonly known as E–Rate) was established by the Telecommunications Act of 1996 to provide discounts, ranging from 20 to 90 percent, to libraries and schools for telecommunications services, Internet services, internal systems, and equipment.[12] The program has been very successful, providing approximately $2.25 billion dollars a year to public schools, public libraries, and public hospitals. The vast majority of E-Rate funding—about 90 percent—goes to public schools each year, with roughly 4 percent being awarded to public libraries and the remainder going to hospitals.[13] The emphasis on funding schools results from the large number of public schools and the sizeable computing needs of all of these schools. But even 4 percent of the E-Rate funding is quite substantial, with public libraries receiving more than $250 million between 2000 and 2003.[14] Schools received about $12 billion in the same time period.[15] Along with E-Rate funds, the Library Services and Technology Act (LSTA) program administered by the IMLS provides money to each state library agency to use on library programs and services in that state, though the amount of these funds is considerably lower than E-Rate funds.

The American Library Association (ALA) has noted that the E-Rate program has been particularly significant in its role of expanding online access to students and to library patrons in both rural and underserved communities.[16] In addition to the effect on libraries, E-Rate and LSTA funds have significantly affected the lives of individuals and communities. These programs have contributed to the increase in the availability of free public Internet access in schools and libraries. By 2001, more than 99 percent of public school libraries provided students with Internet access.[17] By 2007, 99.7 percent of public library branches were connected to the Internet, and 99.1 percent of public library branches offered public Internet access.[18] However, only a small portion of libraries and schools used filters prior to CIPA.[19] Since the advent of computers in libraries, librarians typically had used informal monitoring practices for computer users to ensure that nothing age inappropriate or morally offensive was publicly visible.[20] Some individual school and library systems, such as in Kansas and Indiana, even developed formal or informal statewide Internet safety strategies and approaches.[21]

Why were only libraries and schools chosen to protect children's online safety?

While there are many social institutions that could have been the focus of CIPA, the law places the requirements specifically on public libraries and public schools. If Congress was so interested in protecting children from access to harmful Internet content, it seems that the law would be more expansive and focused on the content itself rather than filtering access to the content. However, earlier laws that attempted to regulate access to Internet content failed legal challenges specifically because they tried to regulate content.

Prior to the enactment of CIPA, there were a number of other proposed laws aimed at preventing minors from accessing inappropriate Internet content. The Communications Decency Act (CDA) of 1996 prohibited the sending or posting of obscene material through the Internet to individuals under the age of eighteen.[22] However, the Supreme Court found the CDA to be unconstitutional, stating that the law violated free speech under the First Amendment.

In 1998, Congress passed the Child Online Protection Act (COPA), which prohibited commercial websites from displaying material deemed harmful to minors and imposed criminal penalties on Internet violators.[23] A three-panel judge for the District Court for the Eastern District of Pennsylvania ruled that COPA's focus on "contemporary community standards" violated the First Amendment, and the panel subsequently imposed an

injunction on COPA's enforcement.

CIPA's force comes from Congress's power under the spending clause; that is, Congress can legally attach requirements to funds that it gives out. Since CIPA is based on economic persuasion—the potential loss of funds for technology—the law can only have an effect on recipients of those funds. While regulating Internet access in other venues like coffee shops, Internet cafés, bookstores, and even individual homes would provide a more comprehensive shield to limit children's access to certain online content, these institutions could not be reached under the spending clause. As a result, the burdens of CIPA fall squarely on public libraries and public schools.

The current state of filtering

When did CIPA actually come into effect in libraries and schools?

After overcoming a series of legal challenges that were ultimately decided by the Supreme Court, CIPA came into effect in full force in 2003, though 96 percent of public schools were already in compliance with CIPA in 2001. When the Court upheld the constitutionality of CIPA, the legal challenge by public libraries centered on the way the statute was written.[24] The Court's decision states that the wording of the law does not place unconstitutional limitations on free speech in public libraries. To continue receiving federal dollars directly or indirectly through certain federal programs, public libraries and schools were required to install filtering technologies on all computers. While the case decided by the Supreme Court focused on public libraries, the decision virtually precludes public schools from making the same or related challenges.[25] Before that case was decided, however, most schools had already adopted filters to comply with CIPA.

As a result of CIPA, a public library or public school must install technology protection measures, better known as filters, on all of its computers if it receives

- E-Rate discounts for Internet access costs,
- E–Rate discounts for internal connections costs,
- LSTA funding for direct Internet costs,[26] or
- LSTA funding for purchasing technology to access the Internet.

The requirements of CIPA extend to public libraries, public schools, and any library institution that receives LSTA and E–Rate funds as part of a system, including state library agencies and library consortia. As a result of the financial incentives to comply, almost 100 percent of public schools in the United States have implemented the requirements of CIPA,[27] and approximately half of public libraries have done so.[28]

How many public schools have implemented CIPA?

According to the latest report by the Department of Education (see table 1), by 2005, 100 percent of public schools had implemented both the Internet filtering strategy and safety policy strategy. In fact, in 2001 (the first year CIPA was in effect), 96 percent of schools had implemented CIPA, with 99 percent filtering by 2002. When compared to the percentage of all public schools with Internet access from 1994 to 2005, Internet access became nearly universal in schools between 1999 and 2000 (95 to 98 percent), and one can see that the Internet access percentage in 2001 was almost the same as the CIPA implementation percentage.

According to the Department of Education, the above estimations are based on a survey of 1,205 elementary and secondary schools selected from 63,000 elementary schools and 21,000 secondary and combined schools.[29] After reviewing the design and administration of the survey, it can be concluded that these estimations should be considered valid and reliable and that CIPA was immediately and consistently implemented in the majority of the public schools since 2001.[30]

How many public libraries have implemented CIPA?

In 2002, 43.4 percent of public libraries were receiving E-Rate discounts, and 18.9 percent said they would not apply for E-Rate discounts if CIPA was upheld.[31] Since the Supreme Court decision upholding CIPA, the number of libraries complying with CIPA has increased, as

Table 1. Implementation of CIPA in public schools

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2005
Access (%)	35	50	65	78	89	95	98	99	99	100	100
Filtering (%)								96	99	97	100

have the number of libraries not applying for E-Rate funds to avoid complying with CIPA. However, unlike schools, there is no exact count of how many libraries have filtered Internet access. In many cases, the libraries themselves do not 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. In some of these cases, the library staff may not even be aware that such filtering is occurring. A number of state and local governments have also passed their own laws to encourage or require all libraries in the state to filter Internet access regardless of E-Rate or LSTA funds.[32]

In 2008, 38.2 percent of public libraries were filtering access within the library as a result of directly receiving E-Rate funding.[33] Furthermore, 13.1 percent of libraries were receiving E-Rate funding as a part of another organization, meaning that these libraries also would need to comply with CIPA's requirements.[34] As such, the number of public libraries filtering access is now at least 51.3 percent, but the number will likely be higher as a result of state and local laws requiring libraries to filter as well as other reasons libraries have implemented filters. In contrast, among libraries not receiving E-Rate funds, the number of libraries now not applying for E-Rate intentionally to avoid the CIPA requirements is 31.6 percent.[35] While it is not possible to identify an exact number of public libraries that filter access, it is clear that libraries overall have far lower levels of filtering than the 100 percent of public schools that filter access.

E-Rate and other program issues

The administration of the E-Rate program has not occurred without controversy. Throughout the course of the program, many applicants for and recipients of the funding have found the program structure to be obtuse, the application process to be complicated and time consuming, and the administration of the decision-making process to be slow.[36] As a result, many schools and libraries find it difficult to plan ahead for budgeting purposes, not knowing how much funding they will receive or when they will receive it.[37] There also have been larger difficulties for the program.

Following revelations about the uses of some E-Rate awards, the FCC suspended the program from August to December 2004 to impose new accounting and spending rules for the funds, delaying the distribution of over $1 billion in funding to libraries and schools.[38] News investigations had discovered that certain school systems were using E-Rate funds to purchase more technology than they needed or could afford to maintain, and some school systems failed to ever use technology they had acquired.[39] While the administration of the E-Rate program has been comparatively smooth since, the temporary suspension of the program caused serious short-term problems for, and left a sense of distrust of, the program among many recipients.[40]

Filtering issues

During the 1990s, many types of software filtering products became available to consumers, including server-side filtering products (using a list of server-selected blocked URLs that may or may not be disclosed to the user), client-side filtering (controlling the blocking of specific content with a user password), text-based content-analysis filtering (removing illicit content of a website using real-time analysis), monitoring and time-limiting technologies (tracking a child's online activities and limiting the amount of time he or she spends online), and age-verification systems (allowing access to webpages by passwords issued by a third party to an adult).[41] But because filtering software companies make the decisions about how the products work, content and collection decisions for electronic resources in schools and public libraries have been taken out of the hands of librarians, teachers, and local communities and placed in the trust of proprietary software products.[42] Some filtering programs also have specific political agendas, which many organizations that purchase them are not aware of.[43] In a study of over one million pages, for every webpage blocked by a filter as advertised by the software vendor, one or more pages were blocked inappropriately, while many of the criteria used by the filtering products go beyond the criteria enumerated in CIPA.[44]

Filters have significant rates of inappropriately blocking materials, meaning that filters misidentify harmless materials as suspect and prevent access to harmless items (e.g., one filter blocked access to the Declaration of Independence and the Constitution).[45] Furthermore, when libraries install filters to comply with CIPA, in many instances the filters will frequently be blocking text as well as images, and (depending on the type of filtering product employed) filters may be blocking access to entire websites or even all the sites from certain Internet service providers. As such, the current state of filtering technology will create the practical effect of CIPA restricting access to far more than just certain types of images in many schools and libraries.[46]

Differences in the perceived value of CIPA and filtering

Based on the available data, there clearly is a sizeable contrast in the levels of implementation of CIPA between

schools and libraries. This difference raises a number of questions: For what reasons has CIPA been much more widely implemented in schools? Is this issue mainly value driven, dollar driven, both, or neither in these two public institutions? Why are these two institutions so different regarding CIPA implementation while they share many social and educational similarities?

Reasons for nationwide full implementation in schools

There are various reasons—from financial, population, social, and management issues to computer and Internet availability—that have driven the rapid and comprehensive implementation of filters in public schools. First, public schools have to implement CIPA because of societal pressures and the lobbying of parents to ensure students' Internet safety. Almost all users of computers in schools are minors, the most vulnerable groups for Internet crimes and child pornography. Public schools in America have been the focus of public attention and scrutiny for years, and the political and social responsibility of public schools for children's Internet safety is huge. As a result, society has decided these students should be most strongly protected, and CIPA was implemented immediately and most widely at schools.

Second, in contrast to public libraries (which average slightly less than eleven computers per library outlet), the typical number of computers in public schools ranges from one hundred to five hundred, which are needed to meet the needs of students and teachers for daily learning and teaching. Since the number of computers is quite large, the financial incentives of E-Rate funding are substantial and critical to the operation of the schools. This situation provides administrators in schools and school districts with the incentive to make decisions to implement CIPA as quickly and extensively as possible. Furthermore, the amount of money that E-Rate provides for schools in terms of technology is astounding. As was noted earlier, schools received over $12 billion from 2000 to 2003 alone. Schools likely would not be able to provide the necessary computers for students and teachers without the E-Rate funds.

Third, the actual implementation procedure differs in schools and libraries: Schools are certified under the supervision of the local educational agencies such as school districts and state departments of education; libraries are certified within a library organization under the supervision of the IMLS. In other words, the certification process at schools is directly and effectively controlled by school districts and state departments of education, following the same fundamental values of protecting children.

The resistance to CIPA in schools has been very small in comparison to libraries. The primary concern raised has been the issue of educational equality. Concerns have been raised that filters in schools may create two classes of students—ones with only filtered access at school and ones who also can get unfiltered access at home.[47]

Reasons for more limited implementation in libraries

In public libraries, the reasons for implementing CIPA are similar to those of public schools in many ways. Public libraries provide an average of 10.7 computers in each of the approximately seven thousand public libraries in the United States, which is a lot of technology that needs to be supported. The E-Rate and LSTA funds are vital to many libraries in the provision of computers and the Internet. Furthermore, with limited alternative sources of funding, the E-Rate and LSTA funds are hard to replace if they are not available. Given that the public libraries have become the guarantor of public access to computing and the Internet, libraries have to find ways to ensure that patrons can access the Internet.[48]

Libraries also have to be concerned about protecting and providing a safe environment for younger patrons. While libraries serve patrons of all ages, one of the key social expectations of libraries is the provision of educational materials for children and young adults. Children's sections of libraries almost always have computers in them. Much of the content blocked by filters is of little or no education value. As such, "defending unfiltered Internet access was quite different from defending *Catcher in the Rye*."[49]

Nevertheless, many libraries have fought against the filtering requirements of CIPA because they believe that it violates the principles of librarianship or for a number of other reasons. In 2008, 31.6 percent of public libraries refused to apply for E-Rate or LSTA funds specifically to avoid CIPA requirements, a substantial increase from the 15.3 percent of libraries that did not apply for E-Rate because of CIPA in 2006.[50] As a result of defending patron's rights to free access, the libraries that are not applying for E-Rate funds because of the requirements of CIPA are being forced to turn down the chance for funding to help pay for Internet access in order to preserve community access to the Internet. Because many libraries feel that they cannot apply for E-Rate funds, local and regional discrepancies are occurring in the levels of Internet access that are available to patrons of public libraries in different parts of the country.[51]

For adult patrons who wish to access material on computers with filters, CIPA states that the library has the option of disabling the filters for "bona fide research or other lawful purposes" when adult patrons request such disabling. The law does not require libraries to

disable the filters for adult patrons, and the criteria for disabling of filters do not have a set definition in the law. The potential problems in the process of having the filters disabled are many and significant, including librarians not allowing the filters to be turned off, librarians not knowing how to turn the filters off, the filtering software being too complicated to turn off without injuring the performance of the workstation in other applications, or the filtering software being unable to be turned off in a reasonable amount of time.[52]

It has been estimated that approximately 11 million low-income individuals rely on public libraries to access online information because they lack Internet access at home or work.[53] The E-Rate and LSTA programs have helped to make public libraries a trusted community source of Internet access, with the public library being the only source of free public Internet access available to all community residents in nearly 75 percent of communities in the United States.[54] Therefore usage of computers and the Internet in public libraries has continued to grow at a very fast pace over the past ten years.[55] Thus public libraries are torn between the values of providing safe access for younger patrons and broad access for adult patrons who may have no other means of accessing the Internet.

CIPA, public policy, and further research

While the diverse implementations, effects, and levels of acceptance of CIPA across schools and libraries demonstrate the wide range of potential ramifications of the law, surprisingly little consideration is given to major assumptions in the law, including the appropriateness of the requirements to different age groups and the nature of information on the Internet. CIPA treats all users as if they are the same level of maturity and need the same level of protection as a small child, as evidenced by the requirement that all computers in a library or school have filters regardless of whether children use a particular computer.

In reality, children and adults interact in different social, physical, and cognitive ways with computers because of different developmental processes.[56] CIPA fails to recognize that children as individual users are active processors of information and that children of different ages are going to be affected in divergent ways by filtering programs.[57] Younger children benefit from more restrictive filters while older children benefit from less restrictive filters. Moreover, filtering can be complimented by encouragement of frequent positive Internet usage and informal instruction to encourage positive use. Finally, children of all ages need a better understanding of the structure of the Internet to encourage appropriate caution in terms of online safety. The Internet represents a new social and cultural environment in which users simultaneously are affected by the social environment and also construct that environment with other users.[58]

CIPA also is based on fundamental misconceptions about information on the Internet. The Supreme Court's decision upholding CIPA represents several of these misconceptions, adopting an attitude that 'we know what is best for you' in terms of the information that citizens should be allowed to access.[59] It assumes that schools and libraries select printed materials out of a desire to protect and censor rather than recognizing the basic reality that only a small number of print materials can be afforded by any school or library. The Internet frees schools and libraries from many of these costs. Furthermore, the Court assumes that libraries should censor the Internet as well, ultimately upholding the same level of access to information for adult patrons and librarians in public libraries as students in public schools.

These two major unexamined assumptions in the law certainly have played a part in the difficulty of implementing CIPA and in the resistance to the law. And this does not even address the problems of assuming that public libraries and public schools can be treated interchangeably in crafting legislation. These problematic assumptions point to a significantly larger issue: In trying to deal with the new situations created by the Internet and related technology, the federal government has significantly increased the attention paid to information policy.[60] Over the past few years, government laws and standards related to information have begun to more clearly relate to social aspects of information technologies such as the filtering requirements of CIPA.[61] But the social, economic, and political ramifications for decisions about information policy are often woefully underexamined in the development of legislation.[62]

This paper has documented that many of the reasons for and statistics about CIPA implementation are available by bringing together information from different social institutions. The biggest questions about CIPA are about the societal effects of the policy decisions:

- Has CIPA changed the education and information-provision roles of libraries and schools?
- Has CIPA changed the social expectations for libraries and schools?
- Have adult patron information behaviors changed in libraries?
- Have minor patron information behaviors changed in libraries?
- Have student information behaviors changed in school?
- How has CIPA changed the management of libraries and schools?
- Will Congress view CIPA as successful enough to merit using libraries and schools as the means of enforcing other legislation?

But these social and administrative concerns are not the only major research questions raised by the implementation of CIPA.

Future research about CIPA not only needs to focus on the individual, institutional, and social effects of the law. It must explore the lessons that CIPA can provide to the process of creating and implementing information policies with significant societal implications. The most significant research issues related to CIPA may be the ones that help illuminate how to improve the legislative process to better account for the potential consequences of regulating information while the legislation is still being developed. Such cross-disciplinary analyses would be of great value as information becomes the center of an increasing amount of legislation, and the effects of this legislation have continually wider consequences for the flow of information through society. It could also be of great benefit to public schools and libraries, which, if CIPA is any indication, may play a large role in future legislation about public Internet access.

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