

Considerations

The study raises the following considerations related to the curriculums, the search engine, Internet blocking software products, Internet content rating systems, and the law, as well as an attempted correspondence between blocking software and the law.

Curriculum Considerations

The following considerations are related to state-mandated curriculums:

- The curriculums contain a variety of typographical errors, adding a degree of ambiguity as to what the researchers should actually record in the curriculum database. For this study, researchers recorded the curriculum topics without correcting any errors.
- The curriculums may be in need of revision. States publish various portions of their curriculums at different times, and the interval between the newest and oldest portions of the curriculum can be as long as five years.

Search Engine Considerations

The following considerations are related to search engines:

- Google's search engine limits the number of words processed from each search phrase to no more than ten. Some topics contained more than ten crucial keywords. Results from searches like these may not accurately reflect the full extent of the curriculum topic in question.
- Because many of the search strings contained very specific references to curriculum material, some of the pages found by the search engine were themselves curriculum sites. Individual school system, educational organization, or teacher web pages often mirrored the state curriculums, resulting in a multitude of copies that appeared in the searches. Researchers excluded these copies of curriculum sites for some portions of the analysis to the extent possible for this study by pruning out data for web addresses that included "k12," sometimes with related state codes, such as "ca" for California. However, it is interesting to note that the Internet blocking software also blocked curriculum sites, presenting a possible difficulty to teachers.
- Search results do not always related directly to the search query because the search engine cannot always provide results based on the correct context of the query. However, the researchers believe that use of the Google search engine is the most objective way available at this time to obtain a list of web pages related to the curriculum topics under study.

- The search engine sometimes returned multiple occurrences of the same web page in search results and the researchers included all occurrences of a web page in search results in the study database.

Blocking Software Considerations

The following considerations are related to blocking software:

- Current technologies simply cannot produce a level of programming sophisticated enough to block all objectionable materials and only those materials. No group of humans can adequately survey the increasingly enormous wealth of information online, and no machine possesses the ability to determine which sites fall within the legal definition of “harmful to minors,” which likely varies from community to community. As explained by the court that ruled CIPA unconstitutional for libraries: “category definitions and categorization decisions are made without reference to local community standards.” [28]
- Constant redesign and manipulation of web pages makes the task of analyzing and reanalyzing the content for harmful to minors material even more difficult. Employees at blocking software companies often make mistakes about which pages to block using which blocking codes. Such human errors include “common sense” decisions about which block codes to use regardless of the specific block code definitions, as well as just plain human error. Automated mechanisms used to assign block codes for web pages often miscategorize those pages.
- The court ruling CIPA unconstitutional for libraries also mentions: “No category definition used by the blocking programs is identical to the legal definitions of obscenity, child pornography, or material harmful to minors, and, at all events, filtering programs fail to block access to a substantial amount of content on the Internet that falls into the categories defined by CIPA.” [28] For further discussion, see the “Attempted Correspondence” heading later in this section.
- As explained by the court that ruled CIPA unconstitutional for libraries: “there is no judicial involvement in the creation of filtering software companies’ category definitions and no judicial determination is made before these companies categorize a Web page or site.” [28]
- Internet blocking companies sometimes do not define block codes consistently in a logical manner. For example, N2H2 Bess’ block code definition for Chat blocks an entire website for having one or more page that offers an online chat facility or provides software for online chatting (although it is ambiguous about SMS or instant messaging), and the N2H2 Bess block code definition for Message/Bulletin Board covers online bulletin boards, forums, or message boards. SurfControl’s Chat block code covers web-based chat and SurfControl’s Web-based E-mail block code covers web-based email accounts and SMS or instant messaging, but neither code appears to cover online bulletin boards, forums, or message boards. For further discussion, see the “Attempted Correspondence” heading later in this section.

- Determining which content is objectionable is subjective. What is harmful content to a seven-year-old child and a seventeen-year-old child may be entirely different. Material about contraceptives inappropriate for an elementary school student may be entirely necessary for a high school student. [21] Material by the Ku Klux Klan may be hate speech in one context or primary source material in the context of a research report about the history of the American south. Internet blocking companies or schools configuring the Internet blocking software may block “controversial” web pages due to political, social, or cultural biases, regardless of whether they fall within federally mandated guidelines for material that educators must block their students from accessing. [19] [21]
- Blocking software blocks access to sites that do not directly contain content that is harmful to minors but could act as a gateway to such materials. “Anonymizers” and “translators” remain inaccessible while operating Internet blocking software because students could potentially use these sites to circumvent the software’s control of content. The helpful, non-infringing aspects of these websites are lost to students even though they serve legitimate pedagogical purposes. [5]
- Schools may choose Internet blocking software code settings according to recommendations from an Internet blocking software company or may opt for custom settings of the product, affecting the quantity and types of websites blocked, as well as the amount of overblocking and underblocking.
- Blocking software companies often choose to block all of the pages on site when any one page on the site contains some content that fits into one of the block codes. Some blocking software blocks entire Internet sub-network addresses or Internet domains based on content found within one small part of the sub-network or domain. For this study, the researchers judged each page of each site on its own merit, noting that an entire website, sub-network, or domain should not be restricted simply because some small portion of the site contains materials that fit one or more of the block code definitions.
- Some Internet blocking companies have created certain Internet software blocking codes to explicitly permit access to pages assigned these “allow” or “exception” codes, rather than blocking pages assigned those codes.
- One blocking software company sold student web browsing data through a reseller to the Department of Defense and potentially commercial customers, raising concerns about the commercialization of the educational environment. [31]

Rating System Considerations

Many of the same considerations that apply to Internet blocking software also apply to Internet content rating systems, although some considerations are completely different. This study focuses on the ICRA’s rating system. [11]

- Rating system category definitions and categorization decisions are made without reference to local community standards.

- The ICRA is probably the most widely used Internet content rating system, yet there are other content rating systems.
- The ICRA rating system relies on website owners rating their own web page content. There is no law requiring website owners to rate their content, so the vast majority do not. Those website owners who do rate their content may use another rating system besides the ICRA rating system.
- Constant redesign and manipulation of web pages makes the task of analyzing and reanalyzing the content for harmful to minors material even more difficult.
- Website owners who do rate their content using the ICRA rating system may rate pages inconsistently by misapplying the category definitions provided by the rating system, whether intentionally or not.
- No category used by the ICRA rating system is identical to the legal definitions of obscenity, child pornography, or material harmful to minors. For further discussion, see the “Attempted Correspondence” heading later in this section.
- There is no judicial involvement in the creation of rating system category definitions and no judicial determination is made before website owners categorize a web page or site.
- Internet content rating organizations sometimes do not define block codes consistently in a logical manner. For example, the ICRA rating system’s Chat code covers both moderated and unmoderated chat services, but not online message boards, forums, or bulletin boards, SMS or instant messaging, unlike similar codes used by the Internet blocking products. For further discussion, see the “Attempted Correspondence” heading later in this section.
- Determining which content is objectionable is subjective.
- Schools may choose Internet rating system settings according to recommendations from outside sources or may opt for custom settings of the product, affecting the quantity and types of websites blocked, as well as the amount of overblocking and underblocking.
- Schools using a rating system approach may decide to block all unrated web pages.

Legal Considerations

The Preface to this document goes into considerable detail about the provisions of CIPA, legal challenges to CIPA, and other related litigation and legal definitions. The researchers have relied on the legal definitions of illegal obscenity, child pornography, and harmful to minors content in making determinations about what types of blocking are appropriate or inappropriate in this study.

CIPA focuses specifically on “visual depictions” of illegal obscenity, child pornography, and harmful to minors content. Therefore, CIPA does not address specifically any non-visual

depictions, such as written materials without images that a court might rule are illegally obscene.

The researchers sought to measure the extent of both visual and non-visual depictions of illegal obscenity, child pornography, and harmful to minors content and have reported results specific to the visual depictions requirement of CIPA as well as to non-visual depictions.

It goes without saying that only a court can make the final determination as to illegal obscenity, child pornography, and harmful to minors content, yet the researchers found that relatively few web pages examined as part of this study would be at all relevant to those categories. In fact, the researchers found no examples of child pornography whatsoever. Of those web pages that could be considered illegal obscenity or harmful to minors content, the researchers determined that in almost every case a court would have little trouble in making the determination that the web pages were in fact illegal obscenity or harmful to minors under the definitions provided by CIPA and related law.

However, there were a few borderline web pages where the researchers had to make a subjective determination about the legality of content as applies to CIPA and related law. In those few cases, the researchers erred on the side of caution and marked the pages as illegal obscenity or harmful to minors content, absent a court opinion. As an example, consider a web page with a picture of what appeared to be a man grabbing the genitals of another man, although one could not distinctly see the hand or the genitals in question.



The researchers marked this page entitled "ManQuest: Nude Male Images, Drawings and Paintings" at <http://161.58.50.69/gayscape/madp.html> as harmful to minors content using the "actual or simulated sexual act or sexual contact" portion of the definition.

Attempted Correspondence

This table represents an attempt to set up a correspondence between the legal categories for blocking as defined by CIPA and the blocking codes provided by the Internet blocking software products researched in this study:

CIPA Definitions	N2H2 Bess Candidate Codes	SurfControl Candidate Codes	ICRA Candidate Codes
Obscenity	Pornography: includes "stories" which are not visual depictions, marked as CIPA compliant code by N2H2.	Adult/Sexually Explicit: includes "Erotic stories and textual descriptions of sexual acts" which are not visual depictions and excludes "sexual health, breast cancer, or sexually transmitted diseases (except in graphic examples)."	Nudity and Sexual Material includes non-visual depictions such as "written descriptions, oral recitation, and or audio sounds" with exceptions for artistic, educational, and medical contexts.
	Sex: "Sites that contain descriptions or depictions of sexual acts, specifically those without the intent to arouse" marked as CIPA compliant code and "optional for workstations used only by adults" by N2H2.	Sex Education: focus on contraceptives, disease, pregnancy, and boundaries, no mention of prurient interest, excludes "commercial sites that sell sexual paraphernalia."	Language: includes "explicit sexual" language but no visual depictions.
Child Pornography	Illegal: mentions "sites that promote illegal activities... activities include making or distributing child pornography," not restricted just to child pornography or just to visual depictions, not marked as CIPA compliant code by N2H2.	No correspondence to N2H2 code, except Hacking code which is not related to child pornography.	No correspondence to ICRA code, except perhaps "Material that might be perceived as setting a bad example for young children" which gave no mention of child pornography and is not restricted to visual depictions.
	Pornography: mentions child pornography but does not restrict to child pornography or visual depictions, marked as CIPA compliant code by N2H2.	Adult/Sexually Explicit: includes "Erotic stories and textual descriptions of sexual acts" which are not visual depictions and excludes "sexual health, breast cancer, or sexually transmitted diseases (except in graphic examples)."	Nudity and Sexual Material includes non-visual depictions such as "written descriptions, oral recitation, and or audio sounds" with exceptions for artistic, educational, and medical contexts.
	Sex: no specific mention of child pornography, marked as CIPA compliant code and "optional for workstations used only by adults" by N2H2.	Sex Education: focus on contraceptives, disease, pregnancy, and boundaries, no mention of child pornography, excludes "commercial sites that sell sexual paraphernalia."	Nudity and Sexual Material includes non-visual depictions such as "written descriptions, oral recitation, and or audio sounds" with exceptions for artistic, educational, and medical contexts.
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CIPA Definitions (cont.)	N2H2 Bess Candidate Codes (cont.)	SurfControl Candidate Codes (cont.)	
Harmful to Minors	Nudity: specifically says “not intended to be sexually arousing or erotic,” not marked as CIPA compliant code by N2H2.	Does not match Adult/Sexually Explicit because that code is intended to include sexually arousing or erotic materials.	Nudity and Sexual Material includes non-visual depictions such as “written descriptions, oral recitation, and or audio sounds” with exceptions for artistic, educational, and medical contexts.
	Pornography: includes “stories” which are not visual depictions, marked as CIPA compliant code by N2H2.	Adult/Sexually Explicit includes “Erotic stories and textual descriptions of sexual acts” which are not visual depictions and excludes “sexual health, breast cancer, or sexually transmitted diseases (except in graphic examples).”	Nudity and Sexual Material includes non-visual depictions such as “written descriptions, oral recitation, and or audio sounds” with exceptions for artistic, educational, and medical contexts.
	Sex: “Sites that contain descriptions or depictions of sexual acts, specifically those without the intent to arouse” marked as CIPA compliant code and “optional for workstations used only by adults” by N2H2.	Sex Education: focus on contraceptives, disease, pregnancy, and boundaries, no mention of prurient interest, excludes “commercial sites that sell sexual paraphernalia.”	Nudity and Sexual Material includes non-visual depictions such as “written descriptions, oral recitation, and or audio sounds” with exceptions for artistic, educational, and medical contexts.
	Tasteless/Gross: mentions “excretory functions (vomiting, urinating, or defecating),” but doesn’t restrict to visual depictions, not marked as CIPA compliant code by N2H2.	No correspondence to N2H2 code.	No correspondence to ICRA code, except perhaps “Material that might be perceived as setting a bad example for young children” which mentioned “urinating in public” and is not restricted to visual depictions.

In no case do the block codes defined by the Internet blocking software companies restrict themselves specifically to visual depictions of obscenity, child pornography, and in the case of minors, harmful to minors materials. Even if the blocking companies coded every web page correctly, it would not be possible to use these blocking product codes to restrict Internet blocking specifically to the categories required by CIPA.

Perhaps in an attempt to remedy the situation, N2H2 Bess offers the following exception codes suggested for CIPA compliance:

■ Education

“allows access to sites that contain material that may belong to another category, such as Sex, Nudity, or Violence, but that relates to an educational topic such as classic literature, history, art, or sex education.”

■ History

“allows access to sites that contain material that may be in another category, such as Sex or Violence, but that is non-fictional and historically significant.”

- Medical

“allows access to sites that contain material that may belong to another category, such as Nudity or Tasteless/Gross, but that relates to the study or practice of medicine.”

- Text/Spoken Only

“allows sites that contain material that may belong to another category, such as Pornography, but that is strictly in text or spoken word format. For example, the Text/Spoken Only category distinguishes written erotica from graphic pornography sites.”

SurfControl offers the following codes which could be used as exception codes, although the company refused to make any recommendations about whether or not to do so:

- Education

Almost any page related to education.

- Health & Medicine

Almost any page related to health and/or medicine.

- Lifestyle & Culture

“Homelife and family-related topics, including parenting tips, gay/lesbian/bisexual (non-pornographic sites), weddings, births, and funerals. Foreign cultures, socio-cultural information“

- Sex Education

Focus on contraceptives, disease, pregnancy, and boundaries, with no mention of prurient interest, and excluding “commercial sites that sell sexual paraphernalia.”

Even taking the actual or potential exception codes into consideration, SurfControl provides no mechanism for restricting blocking to visual depictions, instead of also textual depictions of obscenity, child pornography, and in the case of minors, harmful to minors materials.

N2H2 Bess offers the “Text/Spoken Only” code, but since that code did not appear even once in the sample of nearly a million web pages related to state-mandated curriculums tested at an actual high school, the researchers were not able to confirm its operation.