

## Analysis

Testing nearly a million web pages, the researchers found the following:

- For every web page blocked as advertised, blocking software blocks one or more web pages inappropriately, either because the web pages are miscategorized or because the web pages, while correctly categorized, do not merit blocking. In the case of block codes N2H2 suggests for CIPA compliance, N2H2 Bess miscategorized 85% of the distributed sample; that is, 29 of 34 web pages coded as Adults Only, Pornography, or Sex. SurfControl miscategorized 78% of the distributed sample; that is, 87 of 93 web pages coded as Adult or Sexually Explicit.
- Schools that implement Internet blocking software even with the least restrictive settings will block at a minimum tens of thousands of web pages inappropriately, either because the web pages are miscategorized or because the web pages, while correctly categorized, do not merit blocking.
- Blocking software products miscategorized many of the web pages they block assigning the wrong block codes to between a third and a half of the web pages related to state-mandated curriculums blocked depending on the blocking software.
- Of all pages related to state-mandated curriculums blocked by blocking products, the products blocked only 1-3% of those web pages to CIPA's criteria for blocking visual depictions of illegally obscenity, child pornography, or harmful to minors content. That means that of the web pages related to state-mandated curriculums, blocking software products blocked 97-99% of the web pages blocked using non-standard, discretionary, and potentially illegal criteria beyond what is required by CIPA.
- Although curriculum topic categories more often blocked by N2H2's Bess product in an East Coast high school include such topics as the Klan (36% or web pages related to this curriculum topic blocked), firearms (50%), drunk driving, slavery, genocide, and perjury (33%), they also contain topics such as pogo-stick (46%), comedy (42%), personal care (32%), likes and dislikes (32%), blend sounds to make words (24%), and write or dictate short poems (32%).
- Schools that implement Internet blocking software with the least restrictive commonlyused settings will block between 1/2% and 5% of search results based on statemandated curriculum topics.
- Schools that implement Internet blocking software with the most restrictive settings block 70% or more of search results based on state-mandated curriculum topics.
- Internet blocking software was not able to detect and protect students from access to many of the relatively small quantity of apparently pornographic sites that appeared in search results related to state-mandated curriculums.

Internet blocking software companies cannot possibly complete human review of a substantial portion of the web pages on the Internet.

## Effects on Students

State school boards intend that students have easy access to the topics mandated by curriculum for each. Unfortunately, the restrictions that blocking software put in place limit such access, undoubtedly causing students unnecessary frustration and difficulty. Such frustration likely dampens student enthusiasm for educational assignments and definitely restricts important educational opportunities. [13]

The Internet has become the largest library in the world, collecting the work of millions of individuals and groups into an ever-increasing array of information. However, students cannot realize this promise of the Internet as a learning tool with Internet blocking software hindering its accessibility. Students find that limiting Internet access makes some pieces of necessary information entirely inaccessible, as schools' physical libraries cannot possibly stock entirely up-to-date material on all topics available easily on the Internet.

Biases and mistakes inherent in Internet blocking software reduce the student's access to materials directly related to state-mandated curriculum topics in school without adequately shielding the students from "objectionable content." Blocking software frequently "underblocks" illegally obscenity, child pornography, and harmful to minors materials, contradicting the claims of marketing campaigns, and rendering it ineffective in its primary goal. [8] [8]

## Effects on Teachers

Under current Internet blocking software mandates, teachers will struggle to make us e of the Internet as the wonderful library and complement to in-class teaching that it can be. They usually are not given the discretion to permit their students access to inaccurately blocked sites, at least not in a timely manner. Blocking software's tendency to "overblock," or prevent access to pedagogically appropriate websites proves to be another of the software's deficiencies.

Within the schools, teachers may find their own Internet researches blocked. The software limits teachers just as it limits students, further complicating and inhibiting the educational experience.

Internet blocking software takes the right to determine what content is harmful to children out of the hands of teachers, school boards, parents, and even the federal government, placing it instead in the hands of the blocking software companies, whose employees often have no background in law or education and may not even be aware of CIPA's legal standards.

## Impact on Legal Proceedings

This study provides more evidence to use in the ongoing legal battle against CIPA and similar legislation. It demonstrates that Internet blocking software prevents students from accessing resources related to state-mandated curriculum topics and fails to protect them from a significant portion of material that could be classified as harmful to minors. It serves as groundwork for a potential in-depth future study within the schools that will investigate how students use the Internet within the educational environment and how blocking software affects this use.