Section 1 Abstract

The issue of the effectiveness and societal implications of Internet blocking or filtering software in schools deserves the attention of students, parents, teachers, administrators, school board members, and legislators to help ensure the best possible educational opportunities for students in U.S schools.

As the Internet grows, determining which web pages contain content for which the government may legitimately require schools to block becomes more complex and difficult. The immense size and variability of the Internet raises concerns as to whether it is possible to limit Internet blocking only to web pages containing legally "blockable" content.

For instance, the Children's Internet Protection Act (CIPA) targets three types of visual depictions: obscenity, child pornography, or in the case of minors, content that is "harmful to minors." Under CIPA, every school that receives certain federal funds or discounts must install a technology protection measure such as Internet blocking software to block student access to these types of images. The definitions of these categories are very specific and limited, guided by court precedent. However, many parents would like schools to block—and many schools do block—web pages completely unrelated to these CIPA categories.

The Electronic Frontier Foundation (EFF) and the Online Policy Group (OPG) have cooperated to study and analyze the accessibility on the web of information related to state-mandated curriculum topics within public schools that operate Internet blocking software. This study measures the extent to which blocking software impedes the educational process by restricting access to web pages relevant to the required curriculum.

The study used a straightforward methodology for determining the accessibility of information on school computers operating with Internet blocking software and has produced auditable results. The research examined the effects of N2H2's Bess and SurfControl's SurfControl, two of the most commonly used Internet blocking software products, on Internet searches of text taken directly from the state-mandated curriculums of California, Massachusetts, and North Carolina.

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 related to or suggested by the manufacturer for CIPA compliance, the blocking software miscategorized 78% – 85% of the distributed sample.

- 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 illegal 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%), and write or dictate short poems (32%).

- Schools that implement Internet blocking software with the least restrictive commonly-used settings will block between 0.5% and 5% of search results based on state-mandated 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 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.

Based on the results obtained from this study, we draw the following conclusions:

- The use of Internet blocking software in schools cannot help schools comply with the law because schools do not and cannot set the software to block only the categories required by the law, and because the software is incapable of blocking only the visual depictions required by CIPA. Blocking software overblocks and underblocks, that is, the software blocks access to many web pages protected by the First Amendment and does not block many of the web pages that CIPA would likely prohibit.

- Blocking software does not protect children from exposure to a large volume of material that is harmful to minors within the legal definitions. Blocking software cannot adapt adequately to local community standards. Most schools already have in place alternatives to Internet blocking software, such as adoption and enforcement of Internet use policies, media literacy education, directed use, and supervised use.

- Blocking software in schools damages educational opportunities for students, both by blocking access to web pages that are directly related to state-mandated curriculums and by restricting broader inquiries of both students and teachers. Teachers and students 17 years or older (most high school juniors and seniors) should be exempt, yet suffer the consequences of CIPA implementation.