The effectiveness of internet filtering

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The internet has changed the ways in which we search for and retrieve information and with the evolution of web 2.0, people are not only accessing material, but actively creating and sharing it. In terms of libraries, the explosion of varied avenues to information has brought up many philosophical and political questions that are under heavy debate. The protection of minors on the internet is an issue that extends itself globally and has reached deep into public policy concerning schools and libraries. In this paper I intend to focus on a narrow band of the issue surrounding internet filtering in American libraries and schools with a presentation of the literature on the overall effectiveness of filtering. I will attempt to answer the following questions: Does internet filtering meet its objectives? To what extent does internet filtering over block and under block material?

Filters in American libraries

The Communications Decency Act, the Child Online Protection Act and The Child Pornography and Prevention Act, all attempted to “shield children from internet smut” (Spurling & Garry, 2009, p. 90) by making it impossible for children to access material on the internet. These acts were all overturned in court and in 2000 Congress changed the shield on material to a filter mechanism in the Children’s Internet Protection Act (CIPA). The CIPA is aimed at public libraries and schools and strives to protect children from internet pornography by requiring that libraries receiving federal assistance for internet access use a software filtering system on any public computer terminal. The CIPA provides federal funding to libraries using E-rate software and states that libraries must certify that their filtering software prevents the “depiction of obscenity, child pornography or material that is harmful to minors” (Spurling & Garry, 2009, p. 91). In 2005, 100% of public schools in the United States had implemented the requirements of CIPA and although it is not formally documented, it is estimated that approximately half of public libraries have also implemented filtering software to comply with the requirements (Jaeger & Yan, 2009). The CIPA remains controversial for a variety of reasons, including issues surrounding intellectual freedom and invasion of privacy, further exacerbation of the digital divide, a false sense of security created by internet filters, under blocking and over blocking material, cost/benefits, etc (Houghton-Jan, 2010, pp. 27-30). For the purposes of this paper I will look specifically at the issues of over blocking and under blocking material on the internet.

Filtering and blocking software

Internet filtering and blocking software has rapidly developed since its inception and recent technology in the filter realm includes “artificial intelligence, image recognition and complex keyword analysis algorithms,” that work by filtering content based on a combination of the domain, IP address, key word and file type (Houghton-Jan, 2010, p. 26). This technology attempts to limit minors from sending out information that may be harmful to them and limits incoming information which may or may not be obscene. Internet filtering software has shown remarkable improvement over the past years and continues to evolve with added features and flexibility (Houghton-Jan, 2010, p. 26).

Under blocking and Exposure
A study conducted in 2005 by Finkelhor, Mitchell, Wolak and Ybarra (2009) aimed to ascertain the levels of unwanted exposure to sexual material using filtering, blocking or monitoring software on home computers. The study used a household survey method of interviewing children and caregivers and concluded that unwanted exposure to sexual material occurred in “25% of youth in homes with filtering, blocking or monitoring software on the home computer, compared to 43% of households without preventative software installed on the home computer” (Finkelhor, Mitchell and Wolak & Ybarra, 2009). In an article on internet filtering in Library Technology Reports (2010), Houghton-Jan stated that in a review of filter accuracy studies from 2001 to 2008 “the average accuracy success rating of all the tests combined” came to 78.347% (Houghton-Jan, 2010, p. 27). In comparison to studies in 2007 to 2008, the accuracy jumped to 83.316%, but the instances of being wrong occurred 17% of the time for text content and 54% of the time for image content (Houghton-Jan, 2010, p. 27).

Internet filters do prevent the access of obscene material to a considerable extent, but it is also important to recognize that they are only as effective as in their implementation. In libraries, minors also risk exposure to obscene material on computers, just as they could from paper materials in the adult section. One library director noted that many libraries provide wi-fi access and patrons can use their own laptops which may be visible or accessible to minors (Garry & Spurlin, 2009, p. 94). An incident in Kansas also created attention as a mother complained of seeing a patron viewing obscene material on a computer while walking with her child to the children’s area (Garry & Spurlin, 2009, p. 95). While there are methods to remove these happenings, such as moving computers to face outwards from children’s areas, minors can still gain access to such material if desired. The ability to bypass filters is also a consideration as one high school librarian stated that in talking privately with teens in the library about filtering, many of them admitted to being able to bypass filters in the school library and joked about “proxies being for amateurs” (Jansen, 2010, p. 49).

**Over blocking and underexposure**

On the flipside of filters deflecting potential access to harmful material, there is the potential for the refusal of acceptable and often times, educational material. The Kaiser Family Foundation (2002) conducted a comprehensive study in response to the CIPA and found that internet filters are effective in blocking obscene material, but only with high restrictive settings that also block acceptable material relating to health. The study conducted a simulation of adolescent online searching using a variety of internet filtering software and search engines that searched for health topics unrelated to sex (substance abuse), health topics related to sex (STDs), health topics involving sexual body parts, but not sex related(breast cancer) and controversial health topics(rape), (Kaiser Family Foundation, 2002, p. 4). The Kaiser study concluded that using the least restrictive setting in internet filters, software blocked 1.4% of acceptable health information sites and 87% of pornography sites. On the moderate setting, software blocked 5% of acceptable health information sites and 90% of pornography sites. Under the most restrictive settings, acceptable health information sites were blocked 24% of the time, but the increase of pornography blocking only rose by 1%, to 91% of the time (Kaiser Family Foundation, 2002, p. 12). The study also noted that some non-pornographic content was more likely than others to be blocked even under the least restrictive settings. These topics were
removed from searches 1 out of 10 times and contained terms such as, “safe sex,” “condoms” and “gay” (Kaiser Family Foundation, 2002, p. 4).

Jaeger and Yan (2009) stated that “in a study of over one million pages, in every webpage that was 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” (Jaeger & Yan, 2009).

From the perspective of educators and web 2.0, Bell (2008), noted in the results of a survey of 600 teachers about internet filtering in schools that “59% of teachers answered that their students were not allowed to view or participate in blogs, 50% were denied access to social bookmarking such as delicious.com and 68% were blocked from some search engines” (as cited in Jansen, 2010, p. 48).

**Adult access to information**

What are the implications of adult use concerning internet filters and the implementation of CIPA? A study conducted in 2008 by the University of South Dakota Law School sought to determine if adult library patrons perceived that their right to free speech was violated by the CIPA’s internet filtering mandates and concluded that 50% of library directors in South Dakota stated that they had received requests to unblock the filters for legitimate purposes, including e-mail access and drug research sites and that the other fifty percent of directors said that they had no recollection of ever being asked to unblock the filters (Garry & Spurlin, 2009, p. 94). No library director reported any patrons asking for the removal of the filters (Garry & Spurlin, 2009, p. 94). Although the South Dakota study is limited by its research methodology, it appears that adults in public libraries do not feel that their rights are violated by filtering software, but further research into this realm is recommended as there is a possibility that adults don’t care enough to complain or are too embarrassed to ask for the filters to be turned off.

**Conclusion**

The results of the studies on the effectiveness of internet filtering do show that there is significant accuracy in the blocking of pornographic material, but it comes attached with a price as the level of security increases, so does the blocking of acceptable material. Technology in the field of internet filtering has progressed significantly over the years and with it is a continued need for further research as no studies were conducted on filter accuracy in 2009-2010 (Houghton-Jan, 2010, p. 27).

Although it is outside of the scope of this paper, Houghton-Jan (2010) also presents a major concern regarding how information is filtered by proprietary software and notes that patrons are given little information about which sites are blocked and why. She states “how do we know that the morals and values of the company CEO aren’t making their way into the software’s lists, in violation of the library’s core principles of equal and open access to all ideas and points of view?” (Houghton-Jan, 2010, p. 29). The truth is that we don’t really know. I conclude that while filtering software does meet the basic objective of preventing minors from accessing or being
exposed to a considerable amount of obscene material (and it is a far better method than a complete shield), it does limit access to valuable information and cannot limit the exposure to ALL harmful material. In public libraries, adults may not complain over this barrier, but it is still a limitation on access to materials and specific use policies should be thoughtfully planned. In my opinion, the use of internet filtering in libraries have forced librarians to consider funding options at the cost of the control of information under shield and filter, when they should be focused on providing 21st century learners, both adults and minors, with the necessary tools to decide.

References


