



Memorandum

TO: HONORABLE MAYOR
AND CITY COUNCIL

FROM: Jane Light

SUBJECT: SEE BELOW

DATE: April 15, 2009

Approved

Date

4/16/09

COUNCIL DISTRICT: City-Wide
SNI AREA: N/A

SUBJECT: SAN JOSE PUBLIC LIBRARY INTERNET ACCESS AND COMPUTER USE POLICY

In June, staff distributed and posted a report for the June 17, 2008 City Council meeting (Item 5.2), however, the item was dropped, to be re-noticed. That report analyzed several policy options and also included the results of research and community outreach carried out by staff as part of a work plan approved by the Rules and Open Government Committee on November 14, 2007.

Because information contained in the original report is relevant to Item 5.2: *San José Public Library Internet Access and Computer Use Policy* scheduled for the April 21, 2009 City Council meeting, the original memo is attached. This cover memo includes supplementary information relating to two of the specific recommendations proposed by Mayor Reed and Councilmember Constant in their memo dated April 10.

The April 10 memo recommends installing Internet filtering technology on all computers designated for use by minors at San José branch libraries. It recommends that, when funds are identified through the City's annual budget process, Internet filtering technology should be installed on all other computers at branch libraries used by the public for Internet access in such a way that computer users can enable or disable the filter for each session at time of login.

These recommendations are similar to options discussed in the attached staff report on pages 7 and 8. The information contained on those pages may help inform the City Council's discussion of this issue. One difference in the current proposal is that the recommendations would initially apply only to computers located in branch libraries, while staff is directed to work with San José State University to resolve any concerns it may have before proceeding with any changes at the Dr. Martin Luther King, Jr. Library. City IT staff has reviewed the estimated staff, hardware and software costs for implementing these two recommendations shown below.

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These estimated costs are:

For installing filters on all computers at branches designated for the use of teens and children:

- First year implementation and operating costs including hardware and software costs, cost of IT staff time and printing of collateral materials, \$80,550.
- Annual operating expenses, including hardware and software licenses and IT staff time. \$9900.

For installing filters on all other public access computers at a later date when funds are allocated through the City's annual budget process:

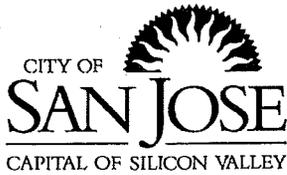
- First year implementation and operating costs including hardware and software costs, cost of IT staff time, cost of training Library staff to assist public and printing of collateral materials, \$128,750
- Annual operating expenses, including hardware and software licenses and IT staff time, \$32,220.

I also want make a clarification on the issue of federal E-rate funding, which provides for discounts on the cost of telecommunications and Internet access for schools and public libraries. The E-rate program is a very complex program with different requirements for each component. The use of Internet filters is not required for eligibility to receive discounts for communication lines between a library's sites. In order to receive the E-rate for Internet access, public libraries must use filtering technology that complies with very specific filtering requirements of the Children's Internet Protection Act (CIPA). Because the newly proposed applications of filtering technology do not meet the specific E-rate criteria, this proposal will neither increase nor decrease the discounts now received by the San José Public Library under the E-rate program.



JANE LIGHT
Director, Library Department

For questions please contact Jane Light, Library Director, at 408-808-2150.



Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Jane Light

SUBJECT: SEE BELOW

DATE: May 27, 2008

Approved

Date

6/3/08

COUNCIL DISTRICT: Citywide
SNI AREA: N/A

**SUBJECT: POLICY OPTIONS AND STAFF REPORT RELATING TO INTERNET
FILTERING PROPOSAL AND COMPUTER USE AT SAN JOSÉ PUBLIC LIBRARIES**

RECOMMENDATION

Staff recommends the following:

1. The City Council consider the proposal by Councilmember Pete Constant to change the current Library Internet Access and Computer Use Policy, which now provides open access to the Internet, to one that filters Internet access to reduce the viewing of pornography on library computers.
2. If the City Council decides to change the current policy, that the City Council provide specific direction to staff to develop and bring to Council for approval a new policy, based on the policy options or variations thereof as outlined in this report.

OUTCOME

City Council affirmation of current policy or adoption of new policy for Internet Access and Computer Use at the San José Public Library system. This memo includes analysis of several policy options regarding Internet access, as well as the results of work carried out by staff as part of the work plan approved by the Rules and Open Government Committee on November 14, 2007 and information related to questions asked at Rules Committee meetings on November 14, 2007 and January 23, 2008. At its meeting on May 15, 2008, the Rules Committee moved this issue forward for full Council consideration.

EXECUTIVE SUMMARY

On October 24, 2007, Councilmember Constant brought to the Rules and Open Government Committee a proposal to change the current Internet Access and Computer Use Policy adopted by City Council in 1997. The current policy allows free and open access to information via the Internet. Councilmember Constant specifically identified the exposure to sexually explicit photos and full-screen videos that can be viewed at San José libraries as a concern, particularly in

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relation to the number of children who visit the libraries and may be subjected to inadvertent viewing of sexually explicit material.

Staff proposed a work plan approved and amended by Rules in November 2007, which included researching best practices at other libraries, conducting outreach to specific groups and the community in general, testing several filter programs, and identifying and analyzing for Council consideration several policy options.

Staff conducted extensive research. Reports and studies were reviewed, and are listed in Attachment A. Surveys and interviews were conducted with numerous other local libraries and other large urban library systems. A number of community organizations were contacted as part of the outreach effort. The Youth Commission and Library Commission were asked for input, as well as the San José State University (SJSU) Library Board, and the SJSU Academic Senate. The President of San José State University, Don Kassing, wrote to Mayor Reed to express the SJSU position opposing installation of Internet filters at King Library and all branches. The San José Library Commission Chair, Caroline Martin, wrote to the Mayor and City Council to convey the Library Commission's vote of 8-1 recommending that the City maintain its current Library Internet Filter policy.

Outreach lists, written responses to the outreach effort, and a link to all the responses received online are included in Attachment B.

The information received from other entities, comments from groups and individuals via outreach, as well as comments and direction received from the Rules Committee, have assisted in the preparation of a set of possible policy options, should the Council decide to reconsider the current Internet Access Policy. The options are indicated below and described in more detail in the body of this report:

- (1) **Current policy maintained with administrative changes** – No change to current Internet Access policy to add filtering technology, but some changes, where possible, to the physical layout of computers in branches and King Library, and use of more privacy screens. Staff to continue to respond to customer complaints about inappropriate Internet and actively manage customer behavior.
- (2) **Filter children and teen area computers** - Install filter program only on computers located in children's and teens areas in libraries – parents may direct their children to use only those computers in the libraries.
- (3) **User choice except at children and teen area computers** - Install filter program on all computers but in adult/general areas, have a start-up selection by the customer of either filtered or unfiltered access.
- (4) **User choice for customers age 17 and over; filtered access for children under age 17 and at children's area computers; exemption from filter for SJSU cardholders** – Install filter program on all computers. SJSU students, faculty and staff cardholders would be exempt from filtered access, and adult cardholders (age 17 and over) would have the choice at start-up of filtered or unfiltered access. Other cardholders under age 17 would have filtered access, unless parent or guardian has requested permanent unfiltered access for the

child. Computers in children's areas would be filtered at all times, regardless of patron type or age of cardholder.

- (5) **Basic filter always on and additional filter level for users under age 17** - Install a basic level of filtering at all computers that is always in place, and an additional level of filtering for youth under age 17. Requests to unblock specific sites would be made to staff. For an urgent information need, staff would decide whether to unblock; other requests would be reviewed by the vendor within 48 hours.

This is a policy decision for the Council to weigh its concern for access to information with its concern to protect children from some Internet content. Concerns about technology costs should not be the primary point for decision-making; however, any decision to filter will have staffing implications, and technology costs resulting in increased costs to the City.

BACKGROUND

The San José Public Library is among the busiest in the United States. In fiscal year 2006-07, a total of 7,639,614 visitors checked out or renewed 14,060,019 items and logged into library-owned computers 2,109,135 times. Throughout library branches and King Library, there are slightly more than 1,200 public access computers available for customers. In the past two fiscal years, a limited number of complaints about pornography on computers were received by Library Administration.

The City of San Jose currently does not filter Internet access at public computers in its library system. The City Council's open access policy for the San Jose Public Library's materials and services was affirmed on September 23, 1997 by the Council to specifically include Internet access. The Dr. Martin Luther King, Jr. Library's Operating Agreement, by which the City and the University agree to operate the King Library jointly, addressed the possibility of a future change in City policy, requiring that any changes to the City's Internet access policy could not negatively impact the University's open access policy for its students, faculty, employees, and collections. Section 5.4.2 states:

"Change in Policy. In the event that City ordinances are passed or rules, policies or regulations are imposed by the City that restrict access for certain groups of users to Library Material within the City Library Collection or restrict use for certain groups of users of City sponsored services or programs, the City hereby agrees that it shall not restrict access to any Library Material within the University Library Collection or restrict use of any University services or programs. It is the intent of the City not to restrict University Users access to Library Collections. In addition, the University shall not be required to enforce, through its employees, any such ordinances, rules, regulations or policies imposed by the City."

The Council's 1997 decision is expressed as a departmental policy, and is reflected in the current Internet access and computer use policy for the King Library and the branch libraries, which states:

The SJSU King Library and the San José Public Library system provide access to the Internet in accordance with their mission of providing public access to information of all types in a wide range

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of formats. In doing so, the Library does not monitor and has no control over the information accessed through the Internet and assumes no responsibility for its content.

It is a violation of federal law to knowingly receive visual depictions of minors engaged in sexually explicit conduct. Anyone who does so is subject to federal criminal prosecution under the Protection of Children Against Sexual Exploitation Act of 1977(18 USC 2252).

Materials obtained or copied on Library computers may be subject to copyright laws, which govern the making of reproductions of copyrighted works. Users must comply with U.S. copyright law and other applicable laws.

The Internet is a global electronic network. It enables the Library to greatly expand its information services beyond the traditional collections and resources. However, not all information on the Internet is current, complete or accurate. The Internet may contain material of a controversial or mature nature. The Library neither restricts access to materials found on the Internet nor protects users from materials or information they may find offensive. The Library encourages all users to make appropriate use of the Internet.

Parents or legal guardians must assume responsibility for deciding what library resources are appropriate for their own children. It is both the right and the responsibility of parents and legal guardians to guide their own children's usage of library resources in accordance with individual family beliefs. The library has created Web pages for children (Kids Place) and young adults (Teen Web) which provide content and links to other Web sites that parents and legal guardians may find appropriate for their children. For more information on children and the Internet, see My Rules for Internet Safety.

On October 24, 2007, Councilmember Pete Constant asked the Rules Committee to consider a policy that would include installing Internet filters and software on all Library public access computers in order to reduce or eliminate the viewing of pornography in libraries which subjects children to inadvertent viewing of sexually explicit material. In his memo, Councilmember Constant forwarded a specific recommended policy. In subsequent discussions with Administration, he requested that the specific policy not be one of the policy options analyzed by staff.

The Administration reported back on November 14, 2007 with responses to specific Council questions from the October 24, 2007 Rules Committee meeting, as well as with a policy review plan and workload assessment to gather more information for City Council prior to Council making a final policy decision.

Additional questions were posed by members of the Rules Committee, and the Library Department began its research to complete the amended work plan. In early December, the City's Information Technology (IT) Department assigned management staff to work with the Library. IT staff have met with various Library staff and have been involved in the background research and testing of various filter programs, as well as addressing questions from the Rules Committee about the City's use of WebSense for City computers at City Hall. The City Attorney's Office will provide a separate analysis of the options presented in this memo.

On January 23, 2008, the Administration provided the Rules Committee with a status report of activities identified in the work plan, and received additional direction from the Rules Committee. Although still in process of completing the work plan, staff provided answers and

agreed to perform additional outreach and respond to further questions from the Rules Committee. Rules Committee members asked a number of questions related to, but not specifically answered in the work plan. Staff has prepared a Q/A listing, which is included in Attachment C.

The Rules Committee, at its May 15, 2008 meeting, voted to move this item forward to the full City Council for consideration at the evening meeting of June 17, 2008.

ANALYSIS

The policy issues can be summarized as:

Is the viewing of pornography on the Internet at libraries a problem that should be resolved by requiring the use of filtering technology on library computers and, if so, what specific policy should the Council set for how the technology is applied to library users and library computers?

Nationally, about fifty percent of libraries use filtering technology in some way. These local policies vary considerably. Some libraries filter computers in children's areas. Some filter every computer all the time with limited ability for adults to have sessions or search results unblocked. Attachment B includes the results of research into the practices and links to policies of other local libraries and selected other large library systems.

It is estimated that about half of parents in the U.S. choose to use filters on home computers. The "Focus on the Family" Issue Analysis for Pornography and Children refers to a study by Finkelhor, Mitchell, and Wolack titled *Online Victimization* which indicated that "the children who inadvertently saw these images [pornographic images] saw them while surfing the Internet (71%) and while opening e-mail or clicking on links in e-mail or Instant Messages (28%). 67% of these exposures occurred at home, but 15% happened at school and 3% in libraries."

Work Plan Elements

The elements of the work plan approved by Rules Committee on November 14, 2007 included: (1) Data Gathering and Analysis (identify and research options; review filtering policies and implementation elsewhere; test filter programs, and evaluate implementation issues re: King Library Operating Agreement), (2) Discussion and Community Outreach, and (3) Final Report to Council. It was reiterated that technology options would involve review and participation by IT staff, and outreach was expanded at the January 24, 2008 Rules Committee to include parents specifically.

1. Identify and Research Policy Options

Presented below are five options for consideration by Council. There are many options or combinations available, but staff selected these five options for analysis and presentation because they reflect a range of ways a Council Policy could address customer behaviors, Internet access,

and community standards. Other communities have similar policies in each case, and therefore staff was able to obtain information about procedures, costs and other implementation matters. The five options presented for consideration provide for a wide range, from strong staff interaction without filtering technology to manage customer behavior and access, to high reliance on filter technology to control customer access. Detailed information about each option follows the summary table below.

OPTIONS	SUMMARY	COSTS (approx)
Option 1: Current policy maintained with administrative changes	<ul style="list-style-type: none"> ▪ Reaffirm current open access policy. Direct staff to implement additional measures, such as privacy screens and movement of computers to other locations to minimize inadvertent viewing of other customers' Internet sessions. ▪ No King Library Operating Agreement impact. ▪ Staffing costs to install screens would be \$9,000, and the screens would cost approximately \$51,000. 	Start-up: up to \$60,000 Ongoing: TBD
Option 2: Filter children and teen area computers	<ul style="list-style-type: none"> ▪ Always-on filters in children's and teens areas; privacy screens on other computers. ▪ Staffing and training costs would be approximately \$44,000; hardware/software/operational costs would be approximately \$96,000 for the first year. 	Start-up: \$140,000 Ongoing: \$10,000
Option 3: User choice except at children and teen area computers	<ul style="list-style-type: none"> ▪ Always-on filters in children's and teens areas; user selected filter/no filter in other areas; privacy screens on computers. ▪ Staffing and training costs would be approximately \$65,000; hardware/software/operational costs would be approximately \$150,000 for the first year. 	Start-up: \$215,000 Ongoing: \$32,500
Option 4: User choice for customers age 17 and over; filtered access for children under age 17 and at children's area computers; exemption from filter for SJSU cardholders	<ul style="list-style-type: none"> ▪ Install filter program on all computers. SJSU students, faculty and staff cardholders would be exempt from filtered access, and adult cardholders (age 17 and over) would select at start-up choice of filtered or unfiltered access. ▪ Other cardholders under age 17 would have filtered access, unless parent or guardian has requested permanent unfiltered access for the child. ▪ Computers in children's areas would be filtered at all times, regardless of patron type or age of cardholder. ▪ Staffing and training costs would be approximately \$170,000; hardware/software/operational costs would be approximately \$150,000 for the first year 	Start-up: \$320,000 Ongoing: \$140,000

<p>Option 5: Basic filter always on and additional filter level for users under age 17</p>	<ul style="list-style-type: none"> ▪ Always-on filtering everywhere. Under age 17 has additional level of filtering. ▪ Sites unblocked only for urgent requests with Library staff review. ▪ Staffing and training costs would be approximately \$250,000; hardware/software/operational costs would be approximately \$150,000 for the first year. 	<p>Start-up: \$400,000 Ongoing: \$275,000</p>
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Option 1: No change to current Internet Access policy, but some changes away from major traffic flow to the physical layout of computers in branches and King Library, and use of more privacy screens; continued staff response to customer complaints about Internet use by others and staff management of customer behavior.

These measures would reduce incidents of inadvertent viewing of objectionable sites accessed by others. These measures may include additional purchase and installation of permanent privacy screens, more staff interaction with customers whose viewing choices are disturbing the enjoyment of the library by others, moving some computers, and additional staff training on dealing with difficult customers and managing customer behavior. This option would not impact the current King Library Operating Agreement, and would be the least costly, possibly up to \$60,000 for placement of some permanent privacy screens and some additional dollars annually to replace or add additional screens.

Option 2: Install filter program on computers located in children and teen areas in libraries – parents can direct their children to use only those computers in the libraries.

Filtering technology would be installed on all children and teen area computers. This is the current policy of the City of Mountain View Public Library and many other libraries. Mountain View expects parents and guardians to guide and control Internet use by their children in a manner consistent with their personal values. The Mountain View policy does not restrict children’s use of other Internet computers, leaving the responsibility to parents to tell their children which computers and library materials they may use.

This option would be quite effective at preventing children and teens using the computers in areas of the library dedicated for them from inadvertently or deliberately viewing pornography. Use of privacy screens and changing the location of some computers in other areas of the library would also reduce the possibility that children would inadvertently be exposed to sexually explicit material. It would continue to provide unfiltered access to the Internet on computers not located in the children or teen areas. This option would not impact the current King Library Operating Agreement.

Estimated start-up costs would be approximately \$140,000 comprising two new servers, network engineering time and computer set-up, collateral publicity costs to inform the public of the change in policy, cost to purchase filter licenses at children and teen computers only, and purchase of privacy screens (as included in Option 1 above). Annual on-going costs would be approximately \$10,000 primarily for hardware utility costs and filter license renewal.

Option 3: Install filter program on all children and teen area computers, and allow computer users in other areas of the library to select "filter on" or "filter off" at start-up of sessions.

Filtering technology would be installed on all children and teen area computers and could not be turned off on those computers. All other public access computers would offer a choice at log-in of filtered or unfiltered access. This is the current policy of Santa Clara County Library System, and has been in place there for a decade. This option allows users to self-select their choice of filtered or unfiltered sessions at computers except those located in children or teen areas. Parents could instruct their children about which computers they may use and whether they should select filtered or unfiltered access.

This option would be quite effective at preventing children and teens from inadvertently or deliberately viewing pornography while using the computers in areas of the library dedicated for them. Use of privacy screens and changing the location of some computers in other areas of the library would also reduce the possibility that children would inadvertently be exposed to sexually explicit material. It would provide library users the option to select filtered or unfiltered access to the Internet on computers not located in the children or teen areas. It would give parents the option of instructing their children to select filtered access on any and all library computers they use.

This option would not require customers to request that library staff unblock a site or disable the filter for a computer session, but instead customers would self-select filtered or unfiltered access, except at children and teen area computers. Some of the libraries that responded to the SJPL survey indicated that customers may not ask staff for an unfiltered computer use session or to unblock a specific site because of language or cultural barriers, embarrassment or personal concerns. This option would not require customers to request staff to disable the filter. This option would not impact the current King Library Operating Agreement.

Estimated start-up costs for this proposal would be approximately \$215,000, mostly for licenses for all public access computers, filter set-up staffing costs, purchase of two servers, and staff training. Annual ongoing costs would be approximately \$32,500 for annual filter program license and hardware utility costs. For purposes of cost estimates, the cost of placing privacy screens on computers (estimated to be \$60,000 for Option 1) is also included in this proposal's start-up costs.

Option 4: User choice for customers age 17 and over; filtered access for children under age 17 and at children's area computers; exemption from filter for SJSU cardholders. In addition, filters would run on all computers located in children's areas at all times, with no unblocking permitted.

This option would use cardholder age data as a basis for offering filtered or unfiltered access to computers. Cardholders coded as San José State University students, faculty and staff would be exempt from the filtered access, thus not impacting the current King Library Operating Agreement. Adults, over 17 years of age, would make a selection at start-up of either filtered or unfiltered access. If choosing filtered access and then encountering blocked websites, adults may re-log in with unfiltered access to self-manage Internet use. Unless parent or guardian has requested permanent unfiltered access for their child in person at the library, children and teens under age 17 would be required to use filter program to view Internet sites.

In some cases, blocked sites that are not illegal or inappropriate for youth would not be accessible, due to filter program protocol. Response to requests by teens to unblock legitimate sites inaccurately blocked by the filter program would require an additional policy decision to be determined. Similar to option 3, this option would be quite effective at preventing children and teens from inadvertently or deliberately viewing pornography while using the computers in the library, based on their cardholder log-in. Use of privacy screens would be encouraged for adults who select unfiltered access.

This option is similar to Denver Public Library, and differs from Multnomah (Portland, OR) in that Multnomah gives choice of filtered/unfiltered access to teens. It is anticipated that additional programming could be performed to ensure that this option would not impact the current King Library Operating Agreement.

Estimated start-up costs would be approximately \$320,000 and ongoing annual costs of \$140,000 to implement filtering based on cardholder age, including one FTE Librarian to develop and maintain a local set of lists for "always allowed" and "never allowed" websites. Extensive programming to make exemptions for SJSU cardholders, to check age of public library cardholders, and to create exemption codes based on parental direction would be required to make any available filter program work appropriately for San José. Other jurisdictions have said that this programming and interface start-up effort may take many weeks before the Internet filtering system can be fully implemented.

Option 5: Install basic filtering at all computers for all users with no temporary unblocking except for urgent situations and after library staff has previewed the site. An additional level of filtering is set for everyone under the age of 17.

This policy option is based on that in place at Phoenix for several years. The Library would place basic filtering technology on all computers with Internet access.

Patrons 17 years of age or older would have a basic filter always on. The intent of the basic filter is to block websites that contain child pornography or material that is obscene. Those under 17 would be required to use an advanced level of filtering over and above the basic level. The intent of the advanced filter is to block websites that, in addition to the basic blocked items, contain material that is harmful for minors.

Phoenix requires an always-on filter with individual sites considered for permanent unblocking or blocking upon customer request, which is sent to the filter company for consideration. The library temporarily unblocks a site only if the patron requests emergency unblocking, and three library staff review and approve the request. Final decision about categorization resides with the software company, not the library, although the filter company often accepts the patron or library recommendation. The library maintains a local list of "always permitted" and "never permitted" sites.

Substantial research by Library staff and input from IT's staff has not identified a filter that was designed to specifically eliminate only child pornography and material that is obscene, or, further, to filter only websites that contain material harmful to minors. Instead, Phoenix Public Library and other libraries install filters developed for more general purposes and configure or adapt them to best meet the local governing board policy for the public library.

This option would most effectively prevent children from being exposed to sexually explicit images. Users under 17 would always have an advanced level of filtering and therefore be generally unable to access such sites or to inadvertently find them in search results. Some computer savvy or persistent youth would be able to "fool" the filter, but it would take effort and expertise. In addition, the basic level of filtering that would always be in effect for all users would reduce the possibility of children being inadvertently exposed to explicit sexual images being viewed by adults. Again, some users would be able to bypass the filter and view sexually explicit materials.

If a filtered search results in websites or web pages being blocked that the library customer thinks are incorrectly blocked, the customer may request either permanent or temporary unblocking as described above. In Phoenix, temporarily unblocking a site for a few hours is considered only in an emergency and must be approved by three library staff member who preview the blocked site. The process of asking a local staff member who passes the request to the identified staff, and waiting for some minutes for a decision may have a significantly chilling effect and result in few requests.

Youth, under the age of 17, who request temporary unblocking of a site must also have parental permission for that specific request to be considered. A teen seeking information about sexual identity, for example, who finds a website incorrectly blocked by the higher level of filtering would have to have a parent approve the specific request and ask library staff to preview and unblock the site as an urgent request. Many young people would be reluctant to do this, and would seek the information from somewhere other than their public library. This option may impact King Library access for University students, staff, and faculty, and would have to be discussed in some detail with SJSU prior to implementation. It may require additional programming to distinguish University users from public library users.

Estimated start-up costs would be about \$400,000, primarily for additional staff and policy/network training (\$250,000) and hardware/software acquisition and operating costs (\$150,000); annual ongoing costs would range from approximately \$275,000 to \$300,000, mostly for additional staff and annual filter license costs. Phoenix Library staff report that when the City Council set its policy it also added an additional 2.0 FTE Librarian and Library Assistant staff so that a staff member would be present at all times the library was open to handle requests as well as to develop and maintain lists of "always permitted" websites and "never permitted" websites that customize the filter program over time to better reflect the library's specific policy and needs. The cost estimate reflects similar additional staffing for San José. Because all computers would be filtered, the \$60,000 estimated in Option 1 for privacy screens would not be included in this option's cost estimates.

This option has the potential of making the library, or at least the branch libraries, eligible for federal e-rate discounts on Internet costs. When the library last received the discounts, before specific filtering requirements went into effect, it received a discount of approximately \$35,000 per year.

San José Public Library, for the purpose of this analysis of costs and impacts for this option, used costs for the Phoenix policy and the way it has been implemented. Phoenix staff spoke at length with San José's IT and Library staff to confirm its start-up and ongoing costs for implementing

filtering at their locations. San José costs would not be exactly comparable, due to the requirement to provide unfiltered access for San José State University faculty, staff, and students.

2. Review Filtering Policies and Implementation Elsewhere

A review of ten local library systems' Internet policies had previously been conducted to gauge community use of filtered access and see if there were any "best practices."

It did not include detailed questions about the filter products or costs. From the initial study of local jurisdictions, a "best practice" for systems using filter programs emerged: allow the customer to determine at the point of log-in whether or not to have filtered access. Another "best practice" for filtered systems is to place filters on children and teens area computers only, and to encourage parents and guardians to guide their children's use of whichever computers are most appropriate for their age, family principles, and/or homework assignments or information needs.

Staff undertook, as an element of the work plan, a survey of major urban libraries for the Rules Committee report. Several jurisdictions were included in both studies. The urban library systems selected and listed below were chosen for their urban settings in a similarly diverse community. All the researched library systems' Internet access policies are summarized with links to individual policies in Attachment D.

CALIFORNIA LIBRARIES

1. Alameda County
2. Los Angeles County
3. Sacramento
4. San Francisco
5. Santa Clara County

OTHER MAJOR LIBRARIES

1. Atlanta
2. Broward County (Fort Lauderdale)
3. Chicago
4. Dallas
5. Denver
6. Houston
7. Jacksonville (FL)
8. Kansas City
9. King County (Seattle, WA area)
10. Multnomah County (Portland, OR area)
11. Phoenix

A summary of filter use by library systems is indicated below.

No filters for children; no filters for adults

- Atlanta
- Broward County (Fort Lauderdale)
- Chicago
- Dallas
- Palo Alto
- Oakland
- San Francisco
- San Mateo County

Location-based filters on children's computers only and no filtering elsewhere

- Alameda County
- Mountain View
- Santa Clara City
- Sunnyvale

Location-based filters at all children's areas computers and offer choice at log-in on adult area computers

- Santa Clara County

Cardholder age-based - filter all children and offer adults to permanently select no filtering or basic filtering at log-in

- King County

Cardholder age-based - filter all children and offer teens and adults a choice at log-in

- Multnomah County

Cardholder age-based - filter all children/teens and offer adults a choice at log-in

- Denver

Cardholder age-based - filter all children/teens adults ask staff for unfiltered access at log-in

- Houston
- Jacksonville (FL)
- Los Angeles County
- Sacramento

Filters in place for children and adults

- Phoenix

State Law (Missouri) Requires Filtering with Certain Exceptions¹

- Kansas City Public Library

¹ Exception = Completely Separate Computer Locations: Kansas City Library has no separate area, so all computers are filtered; however, North Kansas City Library system physically separates children's computer locations, so adult access is unfiltered and children's areas are filtered.

3. Review Published Filtering Studies and Test Filter Programs

The library filter testing, and the review of the most recently published reports, was undertaken to determine if Internet filtering software applied in a public library setting, is presently able to block (and to what extent) child pornography, obscenity, and materials harmful to minors, and to block only those. A description of how the testing was conducted and the results are included as Attachment E.

All of this information about filtering technology is provided only as one point of information for the City Council as it considers policy options and weighs its concern to protect children from exposure to sexually explicit images with its desire to provide access to information at the library for its residents.

The conclusion staff reached from both the literature and its testing was that filtering technology for public libraries continues to be quite effective in blocking pornographic websites using

keyword searches with 85% or more accuracy, and less effective in blocking images that are contained in email attachments or sites that are not primarily pornographic in nature (sexually explicit images included in Craigslist.com, for example). It is possible for a determined computer user to view some sexually explicit sites on filtered computers, but it takes more effort and computer savvy than on an unfiltered computer.

A second conclusion reached from the published reports and staff's testing is that some over-blocking of content that is not of an adult sexual nature occurs with any filtering technology. The most likely subject areas to experience this over-blocking are, not surprisingly, related to sexuality, sexual health, and sexual identity. The most effective filters, according to the published research and staff testing, block approximately 15% of this information. In summary, the best filtering technology today blocks about 85% of sexually explicit images and about 15% of sexual health and information sites.

In addition to a literature review, staff identified filters that were recommended by libraries that currently filter, and were referenced in professional journals and reports which have already researched a variety of products available and used by public libraries.

Only a few recent published studies were found, so this research could provide up-to-date information. In addition, it provided library staff with the opportunity to learn how filters can be configured and used. If the Council decides to institute filtering, staff will be better able to develop technical and functional specifications in order to configure the technology to meet the specific change in policy directed by Council.

A total of four programs were evaluated by librarians from both SJPL and the University Library with the involvement of City ITD. They are indicated below.

- (1) **WebSense:** This program is used by the City of San Jose to implement Internet access controls for most City employees. Councilmember Constant suggested that it be one of the programs that staff evaluate. Other libraries surveyed indicated they use WebSense (Alameda County for children's area computers only, King County, and Phoenix).

The San José Public Library's Internet network is separate from the City's. It includes the King Library, serving the University Library users in the joint use library, as well as the branch library system.

- (2) **CyberPatrol:** Sacramento uses this product.
- (3) **FilterGate:** This option was recommended by other library users.
- (4) **Barracuda Networks:** This option was suggested by Councilmember Constant.

External Filter Study Results

Review of published reports and the results of staff testing showed that the percentage of over-blocking and under-blocking has stayed fairly constant over the past few years. Attachment E

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includes a summary of recent filter test results which shows the similar results over time – a sampling of those external filter test results are listed below for quick reference.

Recent Filtering Studies and Their Findings

(from Attachment E)
(partial listing only)

<u>Date</u>	<u>Title</u>	<u>Source</u>	<u>Summarized Conclusions</u>
2008	Expert Report	Dr. Paul Resnick (for North Central Regional Library District)	<ul style="list-style-type: none"> • 93.1% accuracy in blocking websites • 48% accuracy in blocking images
2007	Report on the Accuracy Rate of FortiGuard	Bennet Haselton (for the ACLU)	<ul style="list-style-type: none"> • 88.1% overall accuracy on .com sites • 76.4% overall accuracy on .org sites
2006	Expert Report	Philip B. Stark (for the DOJ)	<ul style="list-style-type: none"> • 87.2%-98.6% accuracy blocking “sexually explicit materials” • 67.2%-87.1% accuracy allowing “non-sexually explicit materials”
2006	Websense: Web Filtering Effectiveness Study	Veritest (for Websense)	<ul style="list-style-type: none"> • WebSense: 85% overall accuracy • SmartFilter: 68% overall accuracy • SurfControl: 74% overall accuracy

EVALUATION AND FOLLOW-UP

This report is submitted for the City Council’s consideration. If the Council gives direction to change the policy, staff will draft a policy that reflects the specific direction for Council to review and approve. At that point staff would be ready to begin implementation.

PUBLIC OUTREACH/INTEREST

As part of its workplan, staff contacted agencies in the San José community and provided links on the library website to the various Rules Committee memos, including the original proposal, departmental responses and updates provided by the Attorney’s Office and the Library Director, and subsequent reports and updates submitted to the City’s Library Commission. A summary of outreach activities and responses/communications can be found in Attachment B.

In response to Rules direction on January 23, 2008, the Library created a website feedback link to collect public comments and feedback. This link was sent to the regional PTA organization, the Schools City Collaborative, and the Library Department’s 300+ teensReach participants and, through them, their parents or guardians. The link received 134 comments in the nine-week period from early January through mid March, 2008. All 134 comments can be read at: http://sjlibrary.org/legal/internet_access/public-input-internet-filtering-from-online-form.pdf

HONORABLE MAYOR AND CITY COUNCIL

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Of the total, 13 comments did not relate to the issue at hand or expressed understanding of both perspectives with no specific recommendation. There were 33 comments in favor of filtering Internet access in public libraries generally (25% of the total 134 comments), 11 comments (8%) suggesting that children's access or children's area computers be filtered, and 77 comments opposed to any filtering of Internet access in public libraries (57%).

Criterion 1: Requires Council action on the use of public funds equal to \$1 million or greater. (Required: Website Posting)

Criterion 2: Adoption of a new or revised policy that may have implications for public health, safety, quality of life, or financial/economic vitality of the City. (Required: E-mail and Website Posting)

Criterion 3: Consideration of proposed changes to service delivery, programs, staffing that may have impacts to community services and have been identified by staff, Council or a Community group that requires special outreach. (Required: E-mail, Website Posting, Community Meetings, Notice in appropriate newspapers)

COORDINATION

This memo has been coordinated with the City Manager's Office, the City Attorney's Office, the Information Technology Department, and the San José State University Library Dean.



JANE E. LIGHT
Director, Library Department

For questions, please contact Jane Light, Library Director, at (408) 808-2150.

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OUTREACH SUMMARY

Youth Commission

On November 26, 2007, background information about Councilmember Constant's proposal and the current policies of San Jose Public Library were presented to the Youth Commission. The Commission took the opportunity to seek input from various Youth Advisory Councils. On January 28, 2008, the Youth Commission heard additional public comments, and voted unanimously to recommend that City Council oppose placing filters on San José Public Library computers.

Library Commission

Information was presented by SJPL staff at the December 12, 2007 Library Commission, and community comments were heard. The Library Commission heard additional comments from the public at its January, 2008 meeting. On February 13, 2008 after hearing additional community input, reviewing the Library Department's update to Rules Committee, and listening to the Library's Digital Futures Manager summarize the results of the January, 2008 test of three filter programs, the City's Library Commission voted 8-1 to recommend that City Council accept the current Internet Access policy with no change. Caroline Martin, Chair of the Library Commission, wrote a letter to the Mayor and City Council dated May 9, 2008 to confirm the Library Commission's vote of 8-1 to recommend that the City maintain the current Library Internet Filter Policy with the option of additional privacy screens in adult areas.

San José State University

Staff met with the SJSU Library Dean, Ruth Kifer, Larry Carr, SJSU Associate Vice President for Intergovernmental Relationships, and SJSU's Library Board to share information, due to King Library's unique situation. The San Jose State University Academic Senate passed Resolution SS-F07-5 on November 19, 2007 which affirmed San Jose State University's commitment to complete academic freedom in the use of library resources, and can be viewed at www.sjsu.edu/senate/SS-F07-5.htm

President Don Kassing sent a letter to Mayor Reed dated May 14, 2008 expressing San José State University's opposition to installing filters at King Library and all branches.

Community Outreach

Outreach by Library staff was made to community agencies to provide information about the Rules Committee's proposal under consideration, ask for input and information through letters or input at meetings or via the website feedback form, and to welcome any questions. See below for list of outreach groups.

Parent Outreach/Contacts

president@capta6.org for local PTA groups:

To the Regional Headquarters, thereby reaching the 10 councils that serve Santa Clara County: sent phone message and email message to send to PTAs and other interested parties, referring to website for information -- Sent on January 24, 2008 with a reminder sent February 22, 2008

Via Cynthia Bojorquez, PRNS Department:

To Schools City Collaborative to reach school superintendents to send to schools/PTAs: sent email which includes statement to send to schools to send to parents and other interested parties, referring to website for information and feedback link -- Sent on January 24, 2008 with a reminder sent February 22, 2008

SAN JOSE LIBRARY COMMISSION

Via Sandra Stewart, SJPL Youth Services Manager:

To teensReach librarians at all branches with teensReach programs: sent phone call and email message to send to more than 300 participants and their parents and other interested adults, referring to website for information and feedback link -- Sent on January 24, 2008 with a reminder sent February 22, 2008

Community Agencies/Contacts

San José State University

San Jose State University's Student Health and Counseling Center

Santa Clara County Public Health Department

Kaiser Permanente Health Education Services

YWCA – Silicon Valley

YWCA Rape Crisis Center

Billy DeFrank GLBT Community Center

San José State University Police Department

San Jose Police Department's Internet Crimes Against Children (ICAC) Unit

ACLU

Santa Clara County Supervisor Ken Yeager (former City Council liaison to Library Commission)

The website's feedback link collected comments and feedback. The link received 134 comments in the nine-week period from early January through mid March. Of the total, 13 comments did not relate to the issue at hand or expressed understanding of both perspectives with no specific recommendation. There were 33 comments in favor of filtering Internet access in public libraries generally (25% of the total 134 comments), 11 comments (8%) suggesting that children's access or children's area computers be filtered, and 77 comments opposed to any filtering of Internet access in public libraries (57%). All 134 comments can be read at:
http://sjlibrary.org/legal/internet_access/public-input-internet-filtering-from-online-form.pdf

Letters and communications received by the Library Department and the San José Library Commission are separately attached.

May 9, 2008

Dear Mayor Reed and City Council Members:

After careful consideration of community input and an in-depth review of data regarding pertinent incidences, filtering options and costs, the Library Commission voted 8-1 at their February 13th meeting to recommend the City maintain the current Library Internet Filter Policy with the option of additional privacy screens in adult areas.

Though technology has grown, filtering remains inefficient. Filter testing conducted by professional librarians from San José city libraries and SJSU library staff, aided by City IT staff, concluded that filters over-block and under-block keyword searches by 15-20%. That means that up to one in five searches can give unwanted results or can hide information vital to a patron. This is consistent with other professional filter testing documented in past years.

The cost of the initial set-up and maintenance of filtering is not fiscally sound when balanced against the number of complaints. There were 15,000,000 library users during the last two fiscal years and only 22 formal written complaints were filed pertaining to pornography on computers, and 13 police arrests for sex crimes at computers were made. That's less than .0002%. These incidents occurred at MLK library where filtering student users is not an option.

Filter options at the most intense level are estimated at \$424,000 initially, with ongoing annual costs of \$278,000. Even minimal filtering just in the children's area would require \$81,000 initially and \$10,000 each year thereafter to keep software updated. Where would these funds come from?

Because there have been concerns expressed about child safety we want to stress that our libraries are a safe place for kids. The default homepage in the children's area is "Kids Place" and monitors are placed so library staff can easily check what's being viewed. Staff scans for teens and adults who don't appear to belong in the area, moving purposefully to ensure that children are protected with a carefully worded, "Can I help you find something?"

Filtering remains a challenge as it can create embarrassing situations for those who search for answers to specific medical conditions or other personal information requests.

Legitimate history and art sites and photographs useful for research can also be blocked. Many library users won't ask for help now and would certainly find it impossible to ask for a site to be unblocked.

Filters are no substitute for parental supervision and a conscious awareness by both patrons and library staff of events that go on in the library. Current staff is trained to appropriately handle situations as they arise.

With so few incidences or complaints system-wide, library patrons should enjoy the freedom to gather information without City intervention.

A handwritten signature in cursive script that reads "Caroline Martin". The signature is written in black ink and is positioned above the typed name.

Caroline Martin, Chair
San Jose Library Commission



SanJoseState UNIVERSITY

May 14, 2008

The Honorable Chuck Reed Mayor
City of San Jose
200 East Santa Clara St. San Jose, CA 95113

Dear Mayor Reed:

I am writing you today regarding Rules and Open Government May 12, 2008, agenda item G.1. "Policy Options and Staff Report Relating to Internet Filtering Proposal and Computer Use at San Jose Public Libraries."

I have reviewed Councilmember Pete Constant's concerns, and I appreciate his efforts to examine Internet use at the Dr. Martin Luther King, Jr. Library and the branches. However, San Jose State University opposes installing Internet filters at King Library and all branches.

Internet filters will violate the spirit of our joint operating agreement by restricting intellectual freedom. Compromising this core value will seriously erode the spirit of cooperation and mutual understanding underlying the city-university partnership that built King Library.

The SJSU Academic Senate, which represents more than 2,000 faculty members, affirmed the vital role intellectual freedom plays in the management of King Library in a resolution passed in response to Councilmember Constant's proposal. The resolution states "San Jose State University shall continue its long-standing practice of making uncensored access to its materials available to faculty, staff, students, and all citizens of the State of California."

The concept of intellectual freedom is also deeply embedded in the operating agreement. Section 5.4, entitled "Intellectual Freedom", states "It is the intent of the University and the City to continue to honor the current policy of both the University and City to provide for unrestricted access to all Library Material within the Library Collections and services within the Joint Library for all Members of the General Public and the University Users."

SJSU believes information available on the Internet is Library Material within the Library Collections, given the city and university share the costs of Internet connectivity for King Library and all branches.

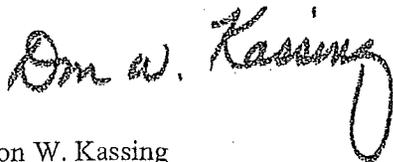
Make no mistake; public safety is SJSU's top priority. However, SJSU sees no compelling reason to compromise the intellectual freedom of millions of library users due to the excesses of a few. The University Police Department made 12 arrests for indecent exposure and viewing child pornography at library computers during fiscal year 2006-2007. These arrests represent approximately .002 percent of all computer sessions.

In closing, I would like to quote the end of the Academic Senate's resolution, which states "The University Library Board and the Academic Senate of San Jose State University believe that the King Library is a treasured civic space. This space provides the opportunity for positive interactions between the SJSU academic community and the public library community."

"The library's success is demonstrated, in part, by 2.5 million patron visits and 700,000 Internet sessions a year. The great success of the joint library is predicated upon a robust level of cooperation between the city and the university. We invite the city to join us in renewing our commitment to the shared understandings that make the joint library possible."

San Jose State University is looking forward to working with you on this matter. I have asked Associate Vice President for Public Affairs Larry Carr to help me address your questions or concerns. Please feel free to contact him at 408-924-1166 or larry.carr@sjsu.edu.

Sincerely ,



Don W. Kassing
President

cc:
Debra Figone,
San Jose City Manager

Jane Light,
San Jose Library Director

Q/A SUMMARY
Rules and Open Government Committee
Questions Relating to Internet Filtering Proposal

TECHNOLOGY

November 14, 2007 Question from Mayor Reed

Q1. Is it possible with whatever software we're looking at for San Jose State students to basically bypass it because whatever code they put in puts them in a different segment so they can be treated differently than the public at large?

A1. It appears that the filtering software could be configured to interface with the library computer system to determine the patron type and not apply the filter to university students, faculty, and staff. This may require some additional programming at additional cost.

November 14, 2007 Questions from Councilmember Constant:

Q2. How much does the city spend on filtering for City Hall computers?

A2. The City pays \$80,500 annually for a license to cover 5,100 users.

Q3. What is the impact of the City arrangement with SJSU, and how could filtering be split so that university customers could be exempt from the filtered access?

A3. See A1 above.

Q4. Does the City license for WebSense have the ability to be increased to the number of computers that would need to be covered in the libraries?

A4. It is possible, but will add additional complexity to the City contract. The City currently pays per user, and the Library system would require a license for computer locations, not users. City IT would have to review this option in depth. The City's procurement process would be followed to identify the lowest cost methodology.

January 23, 2008 Questions from Mayor Reed

Q5a. Is it possible to do something with the branches only, and carve out the main library?

A5a. Yes. It would entail significant reconfiguration of the networks, and so would add to the initial library implementation costs. (See also answers Q1 and Q3.)

Q5b. Would it be possible to run a pilot program at one or more branches or something like that?

A5b. Yes, a pilot program could be developed, but it would be cost intensive to set up, because it would basically take the same effort as changing the whole system to a filtered environment. Therefore, it would be recommended that a pilot be used only to test implementation after a policy decision is made.

Q6. Regarding the surveyed systems that do or don't have filters, what technology are they using or how are they doing it (instituting filters)?

A6. Information about how local jurisdictions implement filtering programs (if applicable) is included in the individual policy statements for each of the library systems, all of which have links included in Attachment D.

January 23, 2008 Question from Councilmember Nguyen

Q7. For the [surveyed] cities that have filters for the adult general filter, have there been any complaints from users not being able to access legitimate sites?

A7. Where the adult general filter can be turned off by the customer, Denver reports that less than 25% of adults choose filtered access, 10% of Multnomah County customers select filtered access, and no data provided by Alameda County. According to Los Angeles County, "some parents have expressed appreciation but most adults dislike filtering." In Sacramento, the library questionnaires have returned a 40% critical-60% positive response from customers.

Q8. Have the [surveyed] cities that use filters faced any legal action?

A8. None of the library systems offered any information about this, and none are currently involved in any legal action to the best of our knowledge.

LIBRARY OPERATIONS

November 14, 2007 Question from Councilmember Chirco

Q9. Getting an "overall answer" from the City Attorney on the policy question, Mayor Reed expanded by suggesting that Council doesn't really know how the policy works currently. The library interim report did not address that question. What is the current status in libraries, and how does the policy work currently?

A9. Staff responded to this question in the January 23, 2008 status report to Rules and Open Government Committee.

CRIME DATA FOR KING LIBRARY

Q10. Councilmember Constant expressed concern that his staff data on university police arrests was much higher than that reported out by Library staff. Also, he identified a report of a rape occurring at the King Library. Because of the apparent discrepancies, Library management and staff have worked with University Police Department (UPD) Chief Andre Barnes and his staff to clarify the records which had been released to both the Library and to Councilmember Constant in the past.

A10. UPD acknowledged that incorrect information was given to the Library and that one rape did occur at King Library. However, it was not reported to UPD directly, but to the San José Police Department two months after it occurred. Therefore, it did not appear on the reports released to the Library.

Additionally, UPD identified that the Councilmember's office received the same information formatted in three different ways, which may lead to counting the same incident multiple times. The reports, "Cases by Location Type," "Incidents by Site Summary," and "Police Department Crime Summary-One Site: MAIN CAMPUS" all contain same incident information at King Library. The most reliable report of the three, according to UPD, is "Cases by Location Type."

Library and UPD staff have reviewed and agreed that the following data is an accurate reflection of the King Library statistics. With one exception, this data is the same as submitted previously in staff reports to the Rules and Open Government Committee.

FISCAL YEAR	POLICE ARRESTS RE: SEX CRIMES	POLICE ARRESTS RE: SEX CRIMES @ COMPUTERS
2005-2006	13	1
2006-2007	17*	12
July 2007 – December 2007	5	1

*The 2006-2007 number for "Police Arrests re: Sex Crimes" differs from the number identified in the January 9, 2008 staff report to the Rules Committee due to an unintended omission of a rape occurring in November 2006. This sexual assault was reported directly to the San Jose Police Department and transferred to UPD two months later. Due to the matter in which this report was received, it was not included in the original UPD statistics that were forwarded to SJPL staff. It should be noted that this assault was not related to computer use.

Q. COUNCILMEMBER CONSTANT'S CONCERN ABOUT "SIX VERY SPECIFIC DIRECTIONS [TO THE LIBRARY DEPARTMENT]" AT RULES ON 01/24/08

1. Library staff to coordinate with City ITD

A. On December 6, 2007, the two departments initiated contact and began ongoing collaboration to evaluate technology issues relating to King Library and branch configurations, filter test protocol and results, and estimated costs of implementation.

2. Outreach to Youth Commission and Library Commission

A. Staff attended the November 26, 2007 and January 28, 2008 Youth Commission meetings to provide information and answer questions. Staff provided information to the Library Commission at meetings of December 12, 2007 and January 9, 2008, and provided at staff report at the February 13, 2008 Library Commission meeting.

3. Outreach to the two police departments

A. Staff continues to work with SJSU University Police Department regarding data at King Library. Staff contacted SJPd, and did receive information from the Internet Crimes Against Children unit. Other statistics about branch library criminal activity was coordinated with the Library's in-house security office, who works closely with SJPd when any incidents at branches result in arrests.

4. Per Councilmember Constant, this was very broad: to outreach to all parties that may be interested in the Internet filtering discussion

A. Given the timeline, specific organizations were noted by Councilmembers and the Mayor at the November 14, 2007 Rules and Open Government Committee meeting. Outreach by staff included those specified (YWCA, SJSU, SJPd and SJSU-UPD) as well as additional community agencies and groups. Because Councilmember Constant was still concerned about outreach at the January 23, 2008 Rules Committee, additional outreach to parent and education groups commenced, along with creation of a websites feedback page which received 134 comments through mid-March, 2008.

5. Give options for bifurcations of the process (branch libraries versus the main library)

A. It is possible to apply filtering technology at the branch libraries but not at King Library. This would require reconfiguration of the library network.

6. Library Director and City Attorney to work together on a proactive aggressive plan to get the Council up to speed on issues

A. The Mayor and several Councilmembers spoke about getting more information on how the library system works, where computers are placed, how the public accesses the Internet at the library, and questions about legal issues. It was acknowledged that the Library Director gives tours to individual Councilmembers as schedules permit, and that Councilmembers may wish to do research individually. The City Attorney's Office has worked with the Library to review the final staff report and options, and has separately researched extensively on the subject at hand.

INTERNET USE POLICIES

No filters for children; no filters for adults

Chicago

http://www.chipublic.org/aboutcpl/cplpolicies/policies/computer_use.php

Palo Alto

<http://www.city.palo-alto.ca.us/civica/filebank/blobload.asp?BlobID=6863>

Oakland

http://www.oaklandlibrary.org/about/internet_policy.html

San Francisco

<http://sfpl.lib.ca.us/sfplonline/internet.htm>

San Mateo County

<http://www.smcl.org/about/organization/policies/internet.html>

Dallas Public Library

<http://dallaslibrary.org/policy.htm#acceptable>

Atlanta Public Library

http://www.angelfire.com/tx3/atlantapubliclibrary/internet_policy.htm

Broward County (FL) Library System (Fort Lauderdale)

<http://www.broward.org/library/pdfs/justforparents.pdf>

Location-based filters on children's computers only and no filtering elsewhere

Alameda County

<http://www.aclibrary.org/default.asp?topic=Library&cat=InternetUsepolicy>

Mountain View

<http://www.ci.mtnview.ca.us/civica/filebank/blobload.asp?BlobID=3285>

Santa Clara City

<http://www.library.ci.santa-clara.ca.us/about-the-library/policies.html>

Sunnyvale

<http://sunnyvale.ca.gov/Departments/Library/Library+Policies.htm#internet>

Location-based filters at all children's areas computers and offer choice at log-in on adult area computers

Santa Clara County

<http://www.santaclaracountylib.org/findit/internetpolicy.html>

Cardholder age-based - filter all children and offer adults to permanently select no filtering or basic filtering at log-in

King County

http://www.kcls.org/usingthelibrary/computers_internet/filtered.cfm

Cardholder age-based - filter all children and offer teens and adults a choice at log-in

Multnomah County

<http://www.multcolib.org/about/pol-internet.html>

Cardholder age-based - filter all children/teens and offer adults a choice at log-in

Denver

<http://denverlibrary.org/about/internet.html>

Cardholder age-based - filter all children/teens, and adults ask staff for unfiltered access at log-in

Los Angeles County

<http://www.colapublib.org/about/policies/aupdear.pdf>

Sacramento

http://www.saclibrary.org/about_lib/internet_use.html

Houston Public Library – filter

<http://www.houstonlibrary.org/about/internetpolicy.html>

Jacksonville (FL) Public Library

<http://jpl.coj.net/lib/interpol.html>

Filters in place for children and adults

Phoenix

<http://www.phoenixpubliclibrary.org/libcomp.jsp?lwbid=6996>

State Law (Missouri) Requires Filtering with Certain Exceptions¹

Kansas City Public Library

http://kclibrary.org/acceptable_use_policy.cfm

¹ Exception = Completely Separate Computer Locations; Kansas City Library has no separate area, so all computers are filtered; however, North Kansas City Library system physically separates children's computer locations, so adult access is unfiltered and children's areas are filtered.



Internet Filtering Software Tests:

Barracuda, CyberPatrol, FilterGate, & WebSense

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Executive Summary and Background Information

The San José Public Library was asked by the City Council to test various Internet filtering service options for implementation in the Library's public use computers, with a focus on filtering "web sites that contain child pornography or material that is obscene." Councilmember Pete Constant proposed, in his memorandum to the City council Rules Committee dated October 18, 2007, *Attachment G "Proposed City Internet Access Policy,"* that all computers with Internet access use filtering technology. Specifically, the proposed policy states:

"The Library uses filtering technology on all computers with Internet access. Patrons 17 years of age or older are given a choice of an Internet session with a basic filter or one that has additional filtering. The intent of the basic filter is to block web sites that contain child pornography or material that is obscene. The intent of the additional filtering is to block web sites that contain material that is harmful for minors."¹

San Jose Public Library staff explored the Internet filtering market by reading the extensive research and white papers on the topic conducted in the last decade, as well as speaking with nearly three dozen different companies that offer an Internet filtering product, in order to gain an understanding of their product's strengths from their sales and technical staff. We attempted to find a service that only blocks images, specifically, as defined in the proposed policy, images that are obscene and harmful to minors. We were able to identify products that would allow us to choose to functionally block all images of all types on all web sites. We were also able to identify products that allowed for general filtering by keyword and web site address (URL) in many categories, including categories with varying references to adult content, sexual content, etc. We were not able, however, to find any product on the market that successfully allows filtering only of images that are classified as obscene and harmful to minors. Filtering expert Lori Ayre's research holds up our findings of what the Internet filtering market currently offers:

"No filter, however, actually limits its categories to obscene material and child pornography because the current definition of obscenity doesn't work on the Internet." (Ayre, "Filtering and Filter Software," p. 52)

Our research of the market showed that the offerings of today's filtering market is not much different than in 2004, the year of Ayre's report. There are no existent filters that will filter out only obscene and harmful images. Given that we could not fulfill that aspect of the original proposal because the technology simply doesn't exist to do so, we originally tested three filters, and subsequently one additional filter upon Councilmember Constant's request, with various features, granularity, and functionality in an attempt to determine whether, as has been asserted, content filtering technology has improved over the last decade to the extent that over-blocking is minimal and has little effect on patron research. A second goal of the library research was to learn about the current state of content filtering software's ability to block materials that are harmful to minors.

¹ According to California Penal Code Section 311, "obscene matter" is "matter, taken as a whole, that to the average person, applying contemporary statewide standards, appeals to the prurient interest, that, taken as a whole, depicts or describes sexual conduct in a patently offensive way, and that, taken as a whole, lacks serious literary, artistic, political, or scientific value." California Penal Code Section 313 defines "harmful matter" as "matter, taken as a whole, which to the average person, applying contemporary statewide standards, appeals to the prurient interest, and is matter which, taken as a whole, depicts or describes in a patently offensive way sexual conduct and which, taken as a whole, lacks serious literary, artistic, political, or scientific value for minors."

How Filters Work

Content filters today are powerful and full of features. Filters today have artificial content recognition that help to evaluate content on a more granular level – a single image, a single search result, a single web page. However, filters still lack the ability to successfully evaluate and determine the actual content and context of web pages, including text, still images, video, and more. As a result, filter performance is highly dependent on the programs' artificial content recognition, administrative human intervention, chosen settings, and features.

Network-Based and Stand-Alone Options

There are two major categories of filtering products: network-based and stand-alone. Network-based filters are installed on one central server and individual computers' settings are controlled by the settings on the server. Stand-alone filters are installed on each computer individually and the settings only control that computer. Both categories of products have individual filters that are more or less powerful or complex than others and both have their merits, which is why we tested two network-based filters (WebSense and Barracuda) and two stand-alone products (CyberPatrol and FilterGate).

Filtering by URL or Keyword

Most software now on the market works by filtering based on URLs (web site address) and/or filtering based on content (trigger words, phrases, etc).

- Products that filter based on URLs typically use a search engine (Google in most cases) and run searches for trigger words, like "live sex chat rooms." The list of results from that search is then pared down by removing educational and government sites (done only by removing sites with .edu and .gov suffixes, missing many educational and government sites that choose to be a .net or .org, for example). The remaining sites, generally the top 100 - 500, are then blacklisted on the "trigger URL" list. Some companies stop the process there, while others will have a staff member spot-check for errors, a process whose quality varies greatly from company to company. When the filtering program is in use on a computer, each Internet search result or direct entry of a web address is scanned against the list before results are displayed.
- Products that filter based on content analyze web pages as they are requested by the user, looking for trigger keywords and sometimes phrases as well as other factors such as banner ads, number of links and images, etc. An artificial intelligence software program then looks for a substantive formula of the various criteria and classifies the web page as allowed or blocked.

Blocking (What the User Sees)

Using one or both of these methods, companies build up lists of trigger URLs and/or keywords that they deem should be filtered. When content is blocked, users see a "blocked" message that states, in varying degrees of detail depending on the flexibility of the product, what was blocked, why, and how/if it can be unblocked. Some filters allow for a "warning and bypass" message on the screen, either requiring a simple click-through or a password to get to the content that was blocked.

When access to a filtered page or resource is attempted, some systems will filter out only the triggering content (e.g. only blocking those images on the results page that are triggers) but still allowing the non-triggering content on the page, while other systems will filter out/block the entire page, hiding everything on that page from view, not just the triggering content. Other systems allow you to see references to trigger content on search results pages, but will not let you click on the result to get to the actual page/resource.

Blocking by File Type

A small number of filters allow one to block specific file types – such as video file types (.avi), audio (.mp3), or still images (.jpg). Unfortunately, as previously noted, these programs do not allow you to successfully designate the blocking of those file only for images that are classified as obscene and harmful to minors. It is also impossible to create an exhaustive catalog of all file extensions for a particular file type and expect to block that file type successfully. For example, adult web sites frequently embed their images in another file type (like Flash or even PDF), getting around the blocking of the filters. As a result, if the library wanted to try to block **only** images that are obscene and harmful, it would have to block **all** images due to the limitations of the existing technology.

Some filtering systems block only that one URL (specific web page) when trigger content is found, while others are more broad in their blocking and will block an entire domain (the entire web site: for example, Craigslist or eBay) based on one user or one page with trigger content. Still others are even broader and block anything hosted on that Internet Protocol (IP) address (numerous domain names share a single IP address; for servers that host multiple sites, blocking by IP can result in gross over-blocking).

Classification of URLs and Keywords

One of the challenges to successful filtering in libraries is how web pages are classified in the filtering system – that content is evaluated for the user by automated systems and sometimes IT or clerical subcontractors, not by trained information professionals like librarians. Lori Bowen Ayre sums it up accurately when she writes:

“Ironically, librarians - professionals trained to catalog and evaluate content - subcontract their cataloging job to Internet filter companies when they install a filter. Unlike librarians, the subcontractors are not information professionals, they typically use automated methods to classify the 3 billion web pages on the Internet.” (Ayre, *Internet Filtering Options Analysis: An Interim Report*)

Automated methods result in faster classification, thereby raising the number of “cataloged” sites and the product’s perceived value for the company, but also results in less accurate classification, specifically in more resources being falsely blocked.

Filtering software companies do not tell their customers, in detail, the types of things or what specific sites they block in each category. No examples are given and no information beyond a one or two sentence description is offered. Because companies ferociously protect their list of categorized sites and their process for categorizing, there is no way of obtaining a list of sites that are blocked in certain categories, as that is considered a trade secret and vital to their continued business interests. The subscribers are asked to make global decisions that will affect users’ ability to access content based on these brief descriptions. There is no way to know exactly what sites, or types of sites, are included in the “Illegal or Questionable” or “Tasteless” categories, for example.

All studies of Internet filters show over-blocking and under-blocking. No product is perfect. Lori Bowen Ayre writes:

“All filters overblock. All filters underblock. No filter is 100% accurate because no one agrees on what being 100% accurate is.” (Ayre, “Filtering and Filter Software,” p. 36)

Ayre writes of the desire on libraries' parts for filters to create more specific "child pornography" categories, something not offered by filtering companies now:

"[F]iltering companies are free to devise filters based on language that works for their target audience – parents, employers and schools. Therefore, you'll never see a category of web sites defined as "harmful matters" or "child pornography." Some take the plunge and define web sites as "obscene" but how closely those web sites match the legal definition is anyone's guess. And since none of the companies release the list of web sites on their radar and the category into which they've been placed, the end user has no way of knowing whether the "obscene" sites include some Constitutionally protected sites or not." (Ayre, *Internet Filtering Options Analysis: An Interim Report*)

Most filters allow for the library or the vendor to apply additional whitelists (sites to always allow) and blacklists (sites to always block) in addition to the vendor's database of URLs and/or keywords. Some vendors require that any addition to either list be approved by them, while others will allow the local library to apply the change directly. Over time, with the addition of whitelists and blacklists as the library staff and users come across sites that have been categorized incorrectly or not categorized at all, the library is able to build a more effective filter for local needs. This site-by-site method, however, is time consuming and can never cover the ever-growing number of sites on the web.

Until more advanced classification and categorization methods are developed, either through Artificial Intelligence (AI) or human intervention, filters will find difficulty in maintaining accurate categorization without over- or under-blocking, and the market will continue to yearn for effective and accurate "harmful matters" or "child pornography" categories.

Test Description

In our original test, four workstations of various configurations were set up by the library, with the involvement of the City Information Technology Department. As part of our planning for the test, library staff met with Vijay Sammeta (Deputy Director of San José Information Technology Department) on January 14th to review our testing process and set-up. One workstation was set up without any filtering installed and three different filtering programs were also tested: CyberPatrol, FilterGate, and WebSense. Upon the subsequent request two months later by Councilmember Constant, the library, once again with the involvement of Vijay Sammeta, set up a duplicate network and workstations to mimic our original tests and tested one additional filtering program: Barracuda.

Each program offers different options for content filtering, without a one-to-one correlation of settings between programs. However, every effort was made to set up consistent filtering levels on each machine to filter only content of an adult sexual nature. Professional best practices, per the two paramount filtering reports by the Kaiser Family Foundation and Lori Bowen Ayre, recommend that the filters be set to their lowest setting; in other words, being very specific about the categories one wishes to filter and not choosing every category by default and/or choosing lower levels of intensity within the filtering software.

CyberPatrol was set up to filter *Adult/Sexually Explicit* and *Glamour & Intimate Apparel* content, as well as *Remote Proxies* (well-documented sources for adult content sites). FilterGate's *AdultFilter* option was enabled. WebSense was set up to filter *Adult Material* (including *Adult Content*, *Lingerie & Swimsuits*, *Nudity*, and *Sex*), *Illegal or Questionable sites* (redirect sources for adult content sites),

Information Technology (including *Proxy Avoidance* and *URL Translation Sites*, also sources for adult content sites). Barracuda was set up to filter the *Sexual* category (including *Adult, Intimate Apparel & Swimsuit*, and *Porn*) as well as one category of the *Communication & Technology* category (*Proxies*).

While the programs tested do offer the option of whitelists and blacklists, that was not an option we were able to employ during our tests as the content of those lists is built up over time by the local staff to meet the local needs and requirements of the community. Libraries who have had filters installed for a long time can sometimes have substantial whitelists and blacklists that are an overlay on the filter's own database of blocked and/or allowed sites. If the library were to implement filtering, we would anticipate the build-up of these types of list over time.

A set of 135 test questions and scenarios were written based on the existing literature about filtering and staff suggestions of real information requests they have received from their users. The questions/scenarios were broken into the following categories:

- general keyword searches (for both "content of an adult sexual nature" and "content *not* of an adult sexual nature") in three different web search engines
- direct URL access to a variety of types of sites and content
- image searches ("content of an adult sexual nature" and "content *not* of an adult sexual nature") in three different image search engines
- email text and photo attachments through several different webmail providers
- RSS feed content access
- searches in the online library catalog, and searches in our proprietary subscription databases

The test questions/scenarios do not represent a scientific random sampling of all information requests or searches. A conscious effort was made to include searches and scenarios that the filters should be able to handle fairly easily as well as attempts to find information that might be incorrectly blocked or attempts to find and view materials that are harmful to minors. No attempt was made to find or view materials, such as child pornography, that are illegal.

For the original tests, four teams of two senior librarians each, with representation from San José Public Library and the San José State University Library, were designated to test the 135 questions and scenarios on each of the three original filters, with an unfiltered computer as a control. For the subsequent Barracuda test, the Digital Futures Senior Librarian conducted the testing with City Information Technology representative, Vijay Sammeta, present for some of the testing. Data was recorded and submitted to the Digital Futures Senior Librarian for central review and processing.

General Findings

Below is the average accuracy percentage in each content category for all four filters combined to show a general sense of how effective these filters were in the various categories. The accuracy rate represents the success of the filter in blocking the content it should block and/or letting through the content it should let through. The perfect score for each category would be 100%.

The success in filtering out content is higher, particularly in keyword searches, than the ability to correctly allow content through that should not be filtered. In other words, the trend is toward over-blocking. The accuracy rates for correctly filtering the non-text and non-standard-text content (images, email attachment images, and RSS feeds) is lower. The accuracy rates for the library's proprietary catalog and databases are on par with the accuracy rates for keyword searching and direct URL access.

Average Filter Accuracy (margin of error +/- 5%)

Type of Content Tested	Accuracy Percentage
Content of an Adult Sexual Nature – direct URL access	87%
Content of an Adult Sexual Nature – keyword searches	81%
Content not of an Adult Sexual Nature – direct URL access	86%
Content not of an Adult Sexual Nature – keyword searches	69%
Image Searches	44%
Email Attachments	25%
RSS Feeds	48%
Library Catalog Searches	75%
Library Database Searches	88%

Reading through the results of all of the major published Internet filtering studies conducted from 2001-2008 (listed at the end of this report), which predominantly tested traditional text-based content such as direct URL access and keyword searching, one will note that our findings are extremely similar to the other studies' findings. In fact, the average accuracy rating of all of the various studies cited is 78.56%. The comparable sections of our informal study (keyword searching, direct URL access, RSS feeds, catalog and database searches) yielded very similar results: an average accuracy of 76.29%, a difference of only 2.27%.

We did, however, experience a much lower success rates for non-traditional and rapidly growing web content in various formats, including images. Only one published study directly addresses the success of image searching, the *Expert Report* by Dr. Paul Resnick for North Central Regional Library District. He found a 48% rate of accuracy in blocking trigger images (images the filter is meant to catch). We tested both images that the filter should catch as well as images that the filter should let through, in both image search engine keyword searching and image email attachments. Our results for image search engine keyword searching, which is the section most comparable to Dr. Resnick's study, yielded an average accuracy of 44%—nearly identical to Dr. Resnick's findings. If you include image email attachments (something Dr. Resnick did not test), our study's findings go down to an average accuracy rating of 34.5%, still not that far off from Dr. Resnick's findings.

In all four filters tested, image filtering had a low rate of accuracy. Many images of an adult sexual nature were displayed on web pages accessed by the testers, and additionally the image search results pages and most of those images' full-size versions and/or parent sites could be accessed as well. Because of the ability of image search engines (like Google Images and Yahoo Image Search) to display thumbnails which often aren't treated as "real" images by the filtering programs, image filtering is a problem for the filtering software's AI. Images of an adult sexual nature from image search engines, pages with images of an adult sexual nature but "fake" innocent text, or images of an adult sexual nature posted to social sites like Craigslist were consistently displayed in all four filter tests. Additionally, clicking on the search engine results pages' links to "cached" versions of webpages allowed access to those webpages and their images, even though their main entries on the results page were blocked. There were many work-arounds discovered by our testers that allowed access to the very material that the filtering systems were attempting to block. At the same time, many sites without images of an adult sexual nature, or even entire search results pages, were blocked, such as the medical site WebMD or search results pages for a search for "Parents and Friends of Lesbians and Gays."

For two of the four filters tested, over-blocking of text content was a serious problem. Based on our test results, it is apparent that the artificial content recognition in all four filters is heavily reliant

on URL and single-word black lists, and not so much on phrases or overall contextual content of a site. As a result, much over-blocking occurs. Numerous searches for content that is not of an adult sexual nature were blocked (e.g. the search results pages were entirely blocked, or various credible results blocked). Direct URL access to sites without content of an adult sexual nature were blocked incorrectly as well, such as VictimsOfPornography.org (a support group for victims of pornography) and Lesbian.org (a lesbian support site).

The same was found, though to a lesser extent, in a small study conducted by the Kaiser Family Foundation: "See No Evil: How Internet Filters Affect the Search for Online Health Information."

"At the least restrictive or intermediate configurations, the filters tested do not block a substantial proportion of general health information sites (1.4%); however, at the most restrictive configuration, one in four health sites are blocked... Even at their least restrictive settings, filters could have a modest impact on those seeking information on sexual health issues; on average, filters incorrectly blocked about one in ten sites on safe sex, condoms, or health issues pertaining to gays." (Kaiser Family Foundation, *See No Evil*)

Blocking of terms of an adult sexual nature across filters and search engines was highly inconsistent. Only one out of the fifteen terms of an adult sexual nature that the testers searched on was blocked in all three search engines in all four filters. The keyword searches that are blocked vary from search engine to search engine, showing inconsistency in the methods by which content is blocked. The more popular sites/engines filtered more out, demonstrating that certain tools may have received more attention from the filtering software developers. In other words, depending on which search tool you happen to use, you will get more or less access to content that the filter is trying to block.

Workarounds to "fool" the filter were also easily successful in every test filter. For example, you could get around the filter's parameters by searching for "pron" instead of "porn," using plural word forms, searching for acronyms instead of the actual institution's name, or getting out to an adult site through a seemingly innocent "portal" site (like Linkbase.org) to get around the filters, clicking on the thumbnail images or "cached" versions of webpages, or using a site like Peacefire.org whose sole purpose is to provide users with a one-click workaround for filtering systems.

The filtering programs' artificial content recognition does not handle non-English language words well, completely allowing Spanish-language terms, including slang, searches and their results, while blocking the English translation of the same term. This is a problem for two chief reasons. First, in our multicultural community many languages are spoken and searches are conducted in numerous languages. Second, with dominantly-English language search engines indexing more and more non-English content, results with Spanish language trigger words would not be caught, thereby allowing more sites with content of an adult sexual nature to be incorrectly displayed.

None of the four filtering programs successfully filtered out emails with content of an adult sexual nature. RSS feeds, however, were blocked appropriately in only one of the four filters.

Filter-Specific Findings

CyberPatrol

CyberPatrol allows for a rather granular level of filtering, but the restrictiveness and lack of description for the settings would make precise and effective configuration difficult. Through all of the various searches and scenarios CyberPatrol allowed fewer images of an adult sexual nature, but also over-blocked quite a bit (compare the first row of accuracy statistics below - the accuracy for "content not of an adult sexual nature" is lower in both categories).

In all image search engines, image filtering was unsuccessful. Many images of an adult sexual nature got past the filters and many images that did not include adult sexual content, and even entire searches, were blocked. Additionally, for most image thumbnails (even those that were deemed "adult" and blocked by the filtering software), if you clicked on the originating site or the blank thumbnail image you could still get through to see the full size image on its original web page. Questionable sites, like a Craigslist posting with innocuous text but a graphic adult photograph, are allowed. Keyword searching results in general inconsistencies in what is and isn't blocked (e.g. "women's asses" is allowed but "Shakespeare and sex" isn't).

Keyword searching within the library's proprietary resources also met with some challenges; for example:

- a search for "orgasm" in the Health and Wellness Resource Center database was blocked
- a search for "vagina" in the World Book Encyclopedia online was blocked

Numerous sites that do not contain content of an adult sexual nature are being blocked as well, both through keyword searching and direct URL access, including:

- WebMD
- the American Urological Association site
- VictimsOfPornography.org
- Univision.com
- DirtyPicturesBand.com (a rock band site with no adult content)
- Amazon and Google Book Search item pages (including the Amazon item page for an album by the band The Cure entitled "Pornography")

Entire domains also appear to be blocked if even one post on one sub-domain contains something of an adult sexual nature (e.g. the entire site, SlideShare, which is a PowerPoint slideshow sharing site, was blocked because of one slideshow discussing sexual positions).

CyberPatrol Accuracy (margin of error +/- 5%)

Type of Content Tested	Accuracy Percentage
Content of an Adult Sexual Nature - direct URL access	87%
Content of an Adult Sexual Nature - keyword searches	96%
Content not of an Adult Sexual Nature - direct URL access	73%
Content not of an Adult Sexual Nature - keyword searches	65%
Image Searches	44%
Email Attachments	25%
RSS Feeds	25%
Library Catalog Searches	75%
Library Database Searches	50%

FilterGate

Because FilterGate allows only for general blocking with their AdultFilter, and does not allow for specific subject-based filtering, many sites without any content of an adult sexual nature are blocked. This rough approach to filtering would not offer us the functionality requested. Most image searches were allowed, and the thumbnails of images, both content of an adult sexual nature and not, were displayed fully and not filtered appropriately.

If a “filtered-out” image of an adult sexual nature appears as a result on a page, the entire results page is blocked, blocking access to content without material of an adult sexual nature. Keyword searching results in general inconsistencies in what is and isn’t blocked (e.g. “big penises” is allowed but “Parents and Friends of Lesbians and Gays” isn’t). Blocking is inconsistent as well: “parents and lesbians” is blocked while “parents and gays” is allowed, “Parents and Friends of Lesbians and Gays” is blocked while “PFLAG” is allowed. Keyword searching within our proprietary resources also met with some challenges; for example, the following searches were *not* allowed in the library’s online catalog:

- lesbianism
- how to build a pipe bomb
- sexual positions

Numerous sites without any content of an adult sexual nature are being blocked as well, including:

- TheSmokingGun.com
- Lesbian.org (a gay/lesbian support site)
- the Wikipedia entry for *Hustler Magazine*
- a World War II history web site
- a UK breast cancer information site
- entire blogs are blocked because one of the many posts discussed something “adult”

FilterGate Accuracy (margin of error +/- 5%)

Type of Content Tested	Accuracy Percentage
Content of an Adult Sexual Nature – direct URL access	93%
Content of an Adult Sexual Nature – keyword searches	74%
Content not of an Adult Sexual Nature – direct URL access	82%
Content not of an Adult Sexual Nature – keyword searches	41%
Image Searches	36%
Email Attachments	25%
RSS Feeds	100%
Library Catalog Searches	25%
Library Database Searches	100%

WebSense

There is more under-blocking than over-blocking in WebSense. This is vastly different from Filtergate and CyberPatrol, which over-blocked, perhaps because of the more granular nature of the filtering categories in WebSense and the increasing dependence on keyword filtering instead of just URL filtering. All image searches were allowed in all search engines, with individual images being erased/blocked on the results page instead. Over-blocking occurred, as in the case of National Geographic images of beavers being blocked. Consistently, however, images of an adult sexual nature still got through the filters and were displayed for nearly every search in their thumbnail format and it was often possible to click on the thumbnail image, even if it was erased, and still get access to the originating web site and larger version of the image. Below are examples of some of the image searches that resulted in numerous instances of graphic content being displayed on the search results page directly and/or allowing click-through access to the original web site and image:

- anal sex pictures
- huge breasts
- rape photos
- Spanish term “cojones”
- Spanish term “putas”

All keyword searches were allowed, but individual results for some searches were blocked, sometimes inappropriately, such as some of the results for searches for:

- how to be a good lover
- gay sex
- *Hustler*
- vibrators

Keyword searching for text results in general inconsistencies in what is and isn't blocked. For example:

- Yahoo's directory of adult sex chat sites is not blocked
- some very graphic search results were viewable through a search for “violent sex site”
- some very graphic search results were viewable through a search for “porn videos”
- Some very graphic search results were viewable through a search for “animal sex photos”

Library catalog and database searches, in this case, were completely successful.

WebSense Accuracy (margin of error +/- 5%)

Type of Content Tested	Accuracy Percentage
Content of an Adult Sexual Nature – direct URL access	87%
Content of an Adult Sexual Nature – keyword searches	78%
Content not of an Adult Sexual Nature – direct URL access	100%
Content not of an Adult Sexual Nature – keyword searches	82%
Image Searches	33%
Email Attachments	25%
RSS Feeds	33%
Library Catalog Searches	100%
Library Database Searches	100%

Barracuda

There is more under-blocking than over-blocking in Barracuda, as in WebSense. All image searches were allowed in all search engines, with no individual images being erased or blocked. All images were displayed, period. The same occurred with image email attachments – everything was displayed. Over-blocking occurred, as in the case of PFLAG.org being blocked. As with the image searching in all other filters, clicking on the thumbnail format of images, or clicking on cached versions of web pages, allowed full access to content of an adult sexual nature.

Below are examples of some of the image searches that resulted in numerous instances of graphic content being displayed on the search results page directly and sometimes also allowing click-through access to the original web site and image(s):

- anal sex pictures
- rape photos
- normal erection
- Spanish term “cojones”
- Spanish term “putas”

All keyword searches were allowed, but individual results for some searches were blocked, sometimes inappropriately, such as some of the results for searches for:

- Breast enlargement surgery
- Parents and Friends of Lesbians and Gays
- *Hustler*
- vibrators

Keyword searching for text results in general inconsistencies in what is and isn't blocked. For example:

- Hustler.com was blocked but HustlerLingerie.com was allowed
- PFLAG.org, the national organization's webpage, was blocked but all of the state and international chapters' websites are accessible
- a page about building a potato gun on hubpages.com and a page about building a flying saucer on beyondweird.com were both blocked incorrectly
- Examples of sites that are allowed incorrectly: AnimalSex.es, PornXTube.net, WildWebCamGirls.com, XXXChatters.com, Adultcyberdating.org, Cruel-Rape.com, and BestExtremeVideos.com/Forced-Fuckers.html and FuckingDickHead.com
- some very graphic search results were viewable through a search for “sex chat rooms”
- some very graphic search results were viewable through a search for “huge breasts”

Numerous sites that do not contain content of an adult sexual nature are being blocked as well, both through keyword searching and direct URL access, including:

- ImplantInfo.com (a site with a wealth of medical information about breast implants)
- PFLAG.org
- A Gay.com article on queer sexuality and another on "Our Trans Children"
- A Nazi history article
- *Hustler's* homepage
- Lesbian.org (a gay/lesbian support site)
- SexHelp.com

Entire domains also appear to be blocked if even one page on one sub-domain contains something of an adult sexual nature (e.g. the entire site, Squidoo, which is a site that allows users to create "lenses" which result in topical webpage with links to various resources, was completely blocked but it is unclear why.

Library catalog and database searches, in this case, were completely successful.

Barracuda Accuracy (margin of error +/- 5%)

Type of Content Tested	Accuracy Percentage
Content of an Adult Sexual Nature – direct URL access	78%
Content of an Adult Sexual Nature – keyword searches	74%
Content not of an Adult Sexual Nature – direct URL access	90%
Content not of an Adult Sexual Nature – keyword searches	87%
Image Searches	64%
Email Attachments	25%
RSS Feeds	33%
Library Catalog Searches	100%
Library Database Searches	100%

Conclusion

Despite the fact that our test was geared toward filtering out only content of an adult sexual nature, other text and image content that was not of an adult sexual nature was filtered out as a consequence. The filters we tested falsely blocked many valuable web pages and other online resources, on subjects ranging from war and genocide to safer sex and public health. No filter was reliably able to distinguish text or image content including obscenity, child pornography, or "harmful to minors" material from other, legal content. As a result, each filter blocked a wide range of constitutionally protected content in its attempt to block other content. Other, published studies cited in the References section have consistently shown that the more successful the filter is at blocking the content it wishes to block, the more unsuccessful it is at letting constitutionally protected (i.e., neither illegal nor harmful to minors) content through. This was the case in our test as well.

Because the filtering programs are looking for particular trigger words and URLs, the filtering of images is highly problematic. The only existent way to filter images is based on the words surrounding them – either in the text around an image on the web page, image file names, or alternative text tags (text that is read out loud when a screen readers is used to access the web site, usually in the case of a blind user). There is no artificial content recognition that can evaluate the actual content and context of an image and determine whether or not it falls into a specific category, or contains a particular type of image.

As such, in order to even attempt to block adult images of an adult sexual nature, the library would have to choose to block whole categories of content (e.g. “Adult-Sexual”) including both text and images, and/or block all images on all websites entirely. The result would be that both images and text, not to mention access to entire web sites or web pages, would be blocked— not just images of an adult sexual nature. As our tests show, filtering technology is ill-equipped to deal with newer and non-text and non-standard-text content, such as image results on image search engine pages, image email attachments, RSS feeds, and non-English content.

Our results show that the effectiveness of content filtering either in blocking materials harmful to minors or in allowing access to information including images that is not harmful to minors has not changed significantly in recent years.

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Filtering Studies and Their Findings

Date	Title	Source	Summarized Conclusions
2008	<u>Deep Throat Fight Club Open Testing of Porn Filters</u>	Untangle	<ul style="list-style-type: none"> • Fortinet 97.7% accuracy blocking trigger websites • Watchguard 97.3% accuracy blocking trigger websites • Websense 97.0% accuracy blocking trigger websites • SonicWall 96.1% accuracy blocking trigger websites • Barracuda 94.0% accuracy blocking trigger websites • Average of 99% accuracy allowing non-trigger sites
2008	<u>Expert Report</u>	Dr. Paul Resnick (for North Central Regional Library District)	<ul style="list-style-type: none"> • 93.1% accuracy blocking trigger websites • 48% accuracy blocking trigger images
2007	<u>Report on the Accuracy Rate of FortiGuard</u>	Bennet Haselton (for the ACLU)	<ul style="list-style-type: none"> • 88.1% overall accuracy on .com sites • 76.4% overall accuracy on .org sites
2006	<u>Expert Report</u>	Philip B. Stark (for the DOJ)	<ul style="list-style-type: none"> • 87.2%-98.6% accuracy blocking "sexually explicit materials" • 67.2%-87.1% accuracy allowing "non-sexually explicit materials"
2006	<u>Websense: Web Filtering Effectiveness Study</u>	Veritest (for Websense)	<ul style="list-style-type: none"> • WebSense: 85% overall accuracy • SmartFilter: 68% overall accuracy • SurfControl: 74% overall accuracy

2004	<u>Report on the evaluation of the final version of the NetProtect Product</u>	Net-Protect.org	<ul style="list-style-type: none"> • Surf-mate: 85% accuracy blocking trigger content and 89% accuracy allowing non-trigger content • CyberPatrol: 44% accuracy blocking trigger content and 95% accuracy allowing non-trigger content • Net Nanny: 18% accuracy blocking trigger content and 97% accuracy allowing non-trigger content • CYBERsitter: 24% accuracy blocking trigger content and 97% accuracy allowing non-trigger content • Cyber Snoop: 3% accuracy blocking trigger content and 99% accuracy allowing non-trigger content • NetProtect 2: 96% accuracy blocking trigger content and 83% accuracy allowing non-trigger content
2003	<u>Internet Blocking in Public Schools</u>	Online Policy Group	<ul style="list-style-type: none"> • School curriculum materials accessed with filters set to least restrictive settings: 95-99.5% accuracy • School curriculum materials accessed with filters set to most restrictive settings: 30% accuracy
2002	<u>Corporate Content Filtering Performance and Effectiveness Testing Websense Enterprise v4.3</u>	eTesting Labs (for Websense)	<ul style="list-style-type: none"> • SuperScout: 90% accuracy blocking "adult" materials • SmartFilter: 90% accuracy blocking "adult" materials • WebSense: 95% correct accuracy blocking "adult" materials
2002	<u>No Evil: How Internet Filters Affect the Search for Health Information</u>	Kaiser Family Foundation	<ul style="list-style-type: none"> • 98.6% accuracy in accessing health information on least restrictive settings • 95% accuracy in accessing health information on intermediate restrictive settings • 76% accuracy in accessing health information on most restrictive settings
2001	<u>Expert report of Dr. Joseph Janes</u>	Dr. Joseph Janes (for the ACLU)	<ul style="list-style-type: none"> • 34.3% accuracy in allowing non-trigger content

2001	<u>Internet Filtering Accuracy Review</u>	Cory Finnell for the Certus Consulting Group (for the DOJ)	<ul style="list-style-type: none"> • CyberPatrol: 92.01%-95.31% overall accuracy • Websense: 89.97%-94.75% overall accuracy • Bess: 93.08%-91.64% overall accuracy
2001	<u>Updated Web Content Software Filtering Comparison Study</u>	eTesting Labs (for the DOJ)	<ul style="list-style-type: none"> • 92% average accuracy of four filters in blocking "objectionable" content • 96% average accuracy of four filters in allowing non-trigger content
2001	<u>Digital Chaperones for Kids</u>	Consumer Reports	<ul style="list-style-type: none"> • Cybersitter 2000: 78% accuracy blocking "objectionable" content • Internet Guard Dog: 70% accuracy blocking "objectionable" content • AOL's Young Teen Control: 63% accuracy blocking "objectionable" content • CyberPatrol: 77% accuracy blocking "objectionable" content • NetNanny: 48% accuracy blocking "objectionable" content • NIS Family Edition: 80% accuracy blocking "objectionable" content
2001	<u>Effectiveness of Internet Filtering Software Products</u>	Paul Greenfield, Peter Rickwood, and Huu Cuong Tran (for the Australian Broadcasting Authority)	<ul style="list-style-type: none"> • N2H2 (now Bess), set to "maximum filtering," was reported as the most effective filter tested in this study • 95% accuracy blocking the "pornography/erotica" category • 75% accuracy blocking the "bomb-making/terrorism" category • 65% accuracy blocking the "racist/supremacist/Nazi/hate" category • 40% accuracy allowing non-trigger content in the "art/photography" category • 60% accuracy allowing non-trigger content in the "sex education" category • 70% accuracy allowing non-trigger content in the "atheism/anti-church" category • 80% accuracy allowing non-trigger content in the "gay rights/politics" category • 85% accuracy allowing non-trigger content in the "drug education" category

2001	<u>Report for the European Commission: Review of Currently Available COTS Filtering Tools</u>	Sylvie Brunessaux et al.	<ul style="list-style-type: none">• Average of the 10 filters tested• 67% accuracy blocking trigger sites in English• 52% accuracy blocking trigger sites in five languages• 91% accuracy allowing non-trigger content
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