FUTURE FOR FILTERING INTERNET CONTENT IN LIBRARIES

Caution is highly recommended for anyone attempting to predict the future of computer technology. IBM Chairman Thomas Watson surely wishes he had exercised a bit more discretion in 1943 before he uttered his now-famous prediction, "I think there is a world market for maybe 5 computers." And Ken Olson, president, chairman, and founder of Digital Equipment Co., most likely regrets his 1977 prognostication, "There is no reason anyone would want a computer in their home" (Telage, 1998).

If these two technology executives could get it so wrong, it takes a lot of chutzpah to venture my own uneducated guess about what will happen to technology. What follows is at best an attempt at predicting the future for alternatives to filters.

This much is certain: The problem of filters in libraries will not go away anytime soon. As Peter G. Neumann and Lauren Weinstein observed, "We haven't begun to understand the ramifications of what will certainly be some of the preeminent issues of the next century" (1999). Robert S. Peck said, "The wild and revolutionary nature of cyberspace raises anew the wide variety of First Amendment issues that have plagued all previous forms of communication. The many still-unanswered free-speech questions as well as many seemingly settled issues are likely to be reexamined by the courts in the context of the information superhighway" (Peck, 2000).

Despite these continuing legal challenges, people will continue to turn to technology to provide a way out of the morass they find themselves in now. Since technology created this mess in the first place, many believe it will provide the escape route out. Such a technological solution could take two forms: either through a much-improved, super-sophisticated filtering device or through a re-structuring of the Internet architecture. Both of these solutions are beyond the control of librarians, but the library community could have a strong voice in the development of either solution.

Improved Filters

If the public continues to look to mechanical filters as a solution to Internet content control in libraries, these devices need to be vastly improved. (See Problems with Filters for a summary of the deficits of existing products.) As suggested by Hunter (1999) and Schneider (1997), among others, an ideal library-filtering device of the future would need to have the following improvements:

Component of an Ideal Library Filter

The ability to discern good from bad sites; illegal from legal information, assuming this is possible with the use of any technological device. One respondent on a law library filtering survey asserted, "Filtering software is not as capable as the U.S. Supreme Court of determining what is obscene" (Trammell, R., personal e-mail communication, Dec. 21, 2000).

A reasonably fair and functional filter needs to include the following elements:

A **feedback mechanism** informing users when a site has been blocked.

The ability for adults to **override the block** easily at their discretion.

A **publicly available list** of blocked sites.

A **publicly available statement of criteria** used to block a site.

Automatic notification to a content producer that their site has been blocked.

An **appeals process** for content producers to contest their site blocking.

A **patron-authentication system tied into a circulation system**, that would let individual users and parents decide their own preferred level of access.

Different access levels, depending on age, personal preferences, parental choice, and so on, with the ability for adults and parents to change these choices easily.

The **ability to customize** blocked sites by parents, librarians, and users.

A **time-out feature** that first warned and then timed-out users at public access stations. The ability to detect peak and under-used times and adjust the user's time allotment accordingly.

A **function blocking capability** to block e-mail, chatroom access, game playing, and so on.

A **cache-cleaning device** that erases a user's search history when a user is done.

A **privacy mode accessory** (perhaps in the mouse) that toggles the screen from a private viewing mode to a public broadcasting mode. With such a device a user could push a button to get help from a librarian standing over their shoulder, then return the screen to a private setting for individual viewing.

A **"by location and by workstation" feature** to allow appropriate filters to be invoked in certain areas (the children's room or instruction lab) or at certain workstations, depending on need and use. This device should be activated as an on-off switch to individual or groups of computers, to allow flexibility as needs change.

A **"librarian notes" feature** within Web sites to let library professionals voluntarily add remarks when an exceptionally good, or bad content was located. Perhaps this field could be retrievable only by librarians, much like a MARC-format display, so the public wouldn't see it as a rating system.

Filtering product vendors may be open to changing their products to meet these capabilities if they could be informed of them in an organized fashion. Two forums for librarians to express these suggestions have been proposed. One of the COPA Commission's top recommendations was the establishment of an independent testing lab "that would provide consistent, reliable evaluation of technologies and provide an optimal service to the industry and consumers." As described in the Report, such an independent evaluation facility could provide "objective well-researched information on the features, effectiveness, prices, search criteria, transparency,

flexibility, and ease of use of various technologies" (COPA Commission, 2000). Improvements needed in existing library filtering devices, as listed above, could be included in such a facility's evaluation criteria.

Another venue for discussions on filter improvements needed by the library community could be provided by the National Research Council, which is beginning a two-year study on "Tools and Strategies for Protecting Kids from Pornography and Their Applicability to Other Inappropriate Internet Content" (Rogers, Michael and Oder, Norman, March 15, 2000). Librarians involved in the committees formed to conduct this investigation may be able to use forum to advocate for these improved filters.

Internet Architecture

Many of the problems libraries are experiencing with Internet content stem from the way Internet content is organized (or the lack thereof). One source has even dubbed the Internet "a self-organising, smoothly functioning anarchy" (Flower, Joe, "The Future of the Internet: An Overview, as quoted in Cozic, 1997). To bring order to this Internet chaos—and at the same time limit children's access to harmful material—several proposals to change the domain-naming system or create "domain zones" of the Internet have been proposed. Among the proposals for a new Internet organizational structure and architecture are the following:

Red light zones, could be created through the use of a voluntary set of IP (Internet Protocol) numbers, or through a "top-level domain" for content harmful to minors. Through the use of an identifiable address, such as .xxx or .adult, users would know that webpages or e-mail coming from a certain address would be harmful-to or inappropriate-for minors.

Green zones, the flip side of this proposal, would create voluntary IP numbers for content not harmful to minors. With a new domain such as .kids or a new set of voluntary IP numbers, content producers could identify themselves as appropriate for children, much like a G-rating for movies.

Labeling or rating systems such as PICS (Platform for Internet Content System) continue to dominate discussions about the Internet's future architecture. Neither the Commission report nor ALA have endorsed the use of labels or rating systems. If labels are ultimately adopted in a new Internet structure, however, librarians could take a more active role in their assignment. A nationally recognized standard such as Library of Congress Subject Headings could be applied to sites, and the rating could be done by librarians, rather than by commercial third-parties.

After investigating several of these proposed schemes, the COPA Commission recommended that librarians engage in "a broad, national, private sector conversation on the development of next-generation systems for labeling, rating and identifying content" (COPA Commission, 2000). The Report cautioned that "[t]his dialogue must consider the significant impacts on free speech and consumer privacy." Librarians must insert themselves into these conversations to make sure First Amendment concerns and library applications are taken into consideration.

Final Word

One final word to librarians is offered concerning the future of the filtering issue in libraries: don't panic, this too shall pass. Though it may be difficult to realize with protests mounting and lawsuits flying, but I predict the problem will go away—literally—by getting smaller and smaller, until it disappears from sight. Our ultimate savior will come in the form of miniaturization and embedded systems, "tiny crash-proof computers that are embedded or hardwired within everyday products" (Kline, David, Internet Technology Will Be Embedded in Everyday Products" as quoted in Cozic, 1997). Improving filters and restructuring the Internet will provide temporary relief, but embedded systems are expected to replace computers by providing faster, cheaper, and more reliable performing devices than the "cumbersome multipurpose or "fat" software used in personal computers" (Cozic, 1997).

Palm-held computers are already performing more functions than the banks of computers offered in Reference Rooms. Consider what will happen when access machines are replaced by "an all-engulfing atmosphere of information" as predicted by information experts. "With computers, cameras and microphones embedded in the walls of rooms and cars," predicts George Johnson in the New York Times (Johnson, 2000), "you may not need to bother carrying a computer or even a pocket-sized personal digital assistant"—or coming to the library to access a computer.

In this next stage of the Internet "common artifacts of daily life—a car, a TV, a CD player, a phone, a piece of office equipment, a natural gas meter…" will all be connected via an "embedded Internet" (Cozic, 1997). Ultimately the Internet will be everywhere, but at the same time visible nowhere. ISI President and CEO David St. Charles says the Internet will ultimately be "unseen, unnoticed and undiscussed" (as quoted in Cozic, 1997).

Exactly what will happen to libraries, and library service in this future "with computation as pervasive as the air" (Johnson, 2000) is unknown. What is known, however, is that talk of a library smart card reader device or privacy screen or a tap on the shoulder will seem quaint within such a system. Until that happens, however, librarians need to weather the current storm of controversy surrounding the issue. In the meantime, perhaps they can make use of one of the alternatives to filters found in this report.

Case Study—The Chicago Public Library

With all the controversy surrounding Internet filters and the constant barrage of news stories about lawsuits, citizen protests and court cases, librarians may feel like throwing up their hands and surrendering. Some may be tempted to exercise the last alternative noted in this report—not offering Internet access at all. But before pulling the plug on Internet connectivity altogether, librarians can take heart in the fact that positive stories abound about the effective use of alternatives to Internet content filters.

The Chicago Public Library has been cited as one library that did things right in addressing the Internet content issue. Below is a summary of the

For more information on any of these solutions, contact the Chicago Public Library at 312-747-4250 or www.chipublib.org.

various alternatives and creative solutions they devised, as provided by Christine Rodrick, Assistant Director of Communications. (Rodrick, C., personal communication, Dec. 21, 2000).

Privacy Screens

The Chicago Public Library equips all adult public access computers with privacy screens. These computers also contain automatic cache cleaning so patrons do not see the previous users' searches.

Furniture Positioning

All children's public access computers are strategically positioned and do not have privacy screens. They are within viewing distance of librarians who can easily see what they are searching.

Time Limits

Adults and children must register for 30-minute slots to use the computers. Rodrick believes this sign-in requirement deters some children from inappropriate access.

Content Managers

Computers in the children's room default to the Kid's Page with whitelists of good sites for kids. One of the opening icons on this page is an interactive game about Internet safety.

Positive Assistance and Enforcement

Through a grant from AT&T, the library employs college students to serve as cyber navigators in the library. According to Rodrick, their presence helps deter what she calls "seedy behavior" among young people. The college students are also available to help out and steer computer users to appropriate and useful sites.

Assistance is also provided through a "Teachers in Libraries"—putting a teacher in the library to help children navigate the Internet effectively. Like the college students, the presence of a teacher helps deter certain behaviors among children.

Librarians also are always on hand to steer children to positive sites. With their vast knowledge of good sites and helpful attitude, they adeptly move children from inappropriate material to sites that better serve their information needs.