Privacy, copyright, and access—it’s all connected

Political reactions in the aftermath of September 11, including the USA PATRIOT Act and the creation of the Department of Homeland Security, have raised deep concerns within the library community about its ability to ensure library users’ privacy—particularly when they use the Internet. In responding to these current threats to privacy, we need to remember that even these new, extreme measures are just tactical maneuvers in a growing war over anonymity, privacy, and confidentiality in the face of new information technologies.

In the early days of the Internet, anonymity was king. Over the last decade, the Internet has become global, widely accessible, and economically significant, changing the control points and the political influences on users. New technologies are being developed to “civilize” cyberspace—to tame its excesses and to exploit its economic potential more fully.

For those concerned about privacy, freedom of expression, and public access to information, these trends are alarming.

Social pressures

Law enforcement demands for access to library records are evolving in kind and scope. In the past, law enforcement claims for information have generally been based on finding and catching wrongdoers. Now, the post-September 11 political mandate is to identify and nab terrorists before they act, leading to surveillance of a much broader population and a wide range of behaviors.

Internet security concerns lead to calls for tightening government controls on the Internet. In the decentralized Internet environment, one person’s behavior may affect the security of someone else. Hackers regularly mount their attacks from third party machines over which they have taken control. Thus, an insecure machine on the Internet can become a threat to other systems—basic national infrastructures and services, such as telecommunications, transportation, and government are dependent on the Internet and therefore vulnerable.

The growth of e-commerce and e-government has generated both political concern and calls for control. The argument is simply that the public cannot depend on reliable and safe access to the market and to government without secure Internet access.

Both social and technological pressures are affecting policy calling for regulating and even reengineering the Internet to protect intellectual property in the digital realm. Digital Rights Management (DRM) systems are being proposed that can potentially be used to monitor and control a wide range of information access on the Internet and in other digital formats. These existing systems, as well as those proposed, offer a variety of technological methods that are intended to enforce proprietary rights over digital works when they are in the hands of users. Any system with the ultimate purpose of controlling access to information has significant privacy implications.

Technological pressures

Partly in response to these pressures, technology is also moving forward to provide more tools for monitoring and control. In most cases, these tools are being developed to serve very specific functions, yet are potentially powerful technologies that could impact privacy and access.

More sophisticated digital identification technologies are being developed to authenticate the identities of remote users participating in electronic transactions. In large part, the pressures underlying the development of these systems come from the need to support commerce and e-government activities on the Internet. Again, these technologies have potential implications for privacy and confidentiality, however benign their original purpose.

In this column I have only been able to briefly identify and characterize a few of the major pressures of the Internet that will be affecting the privacy of library users. You can be sure these and similar trends will involve ALA and ACRL in privacy and security policy for many years, resulting in educational programs and opportunities for advocacy within the ACRL community.
For half a century, the needs of aerospace and defense have sparked many of the most important advances in computing, information, and communication — from communications satellites to the Internet to the Global Positioning System. Think about it:

The Boeing 777 has four million lines of software, and uses 1,280 embedded processors.

Spacecraft have led the way in embedded computing for 40 years.

Air traffic control relies on networks of state-of-the-art computers.

Cyberspace is now the fourth theater of war, offering strategic advantages in every other facet of military operations.

Moore's Law says that the number of transistors on a microchip doubles every 18 months. Integrated solutions — joining network-centric information with integrated military air, land, sea, and space-based platforms — is the direction in which modern aerospace systems are moving. The platforms that are being developed today will be more and more integrated in the future.

AIAA is launching a new professional journal, the Journal of Aerospace Computing, Information, and Communication, to help you keep pace with this remarkable rate of change. And it's available in an Internet-based format as timely and interactive as the developments it addresses.

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