

Online Privacy vs. Enhanced Virtual Reference: What do Patrons Really Want?

Amy VanScoy and Megan Oakleaf

Abstract

Librarians have a tradition of supporting patron confidentiality, historically putting systems in place to protect it. Some of today's library systems, like sophisticated digital reference tools, now collect detailed patron information. Collecting this information could make patron privacy more vulnerable, but it can also help librarians improve service. Librarians who create policies about storage of information and request assistance from vendors should be familiar with the current privacy environment and solicit input from patrons; however, most librarians know very little about the opinions and needs of their patrons in this area. Are library patrons concerned about keeping their personal information private? Or do they appreciate the customized service sharing it provides? Do virtual reference patrons expect complete confidentiality of their reference transactions? Or do they trust the library and want it to use all information necessary to help them find information quickly? This paper will respond to these questions based on patron survey

responses, other published research, news of the current environment, and informal conversations with patrons. This paper applies to librarians interested in ethics and values, as well as those working with virtual reference.

Introduction

In grocery stores, many consumers use frequent shopper cards to save money, fully aware that they are providing information about their families in exchange for discounts. Some shoppers may not consider the information gathered using the cards private. Others may be concerned about where the information will go and how it will be used, but they are willing to give up their personal information to save a few dollars per month on groceries.

In libraries, the same phenomenon occurs. Some patrons want their privacy protected at all costs. For example, they might refuse to use their social security number for circulation purposes. Others may not care about protecting their personal information from the

Amy VanScoy is Assistant Head, Research and Information Services, email: amy_vanscoy@ncsu.edu; Megan Oakleaf is Librarian for Instruction and Undergraduate Research, email: megan_oakleaf@ncsu.edu; North Carolina State University Libraries.

Online Privacy vs. Enhanced Virtual Reference: What do Patrons Really Want?

library at all. But most patrons probably fall somewhere in the middle. They are willing to give up some privacy in exchange for convenience, information, or services. The balance between privacy and service may change depending on how important the information or service is to the patron. At the same time, librarians have always valued patron privacy. With the greater threats to privacy emerging with the PATRIOT Act, librarians are even more concerned about this issue.

This paper does not attempt to determine where the trade-off is between privacy and service, but it provides preliminary information to lay the groundwork for future studies in this area. The authors have reviewed literature from library science, as well as e-commerce, where most of the online privacy research is being conducted. Also, the authors held informal discussions with college students to gain a better understanding of the perceptions the primary audience of virtual reference services for academic libraries. Taken together, these sources supply an initial indication of the academic library patron's needs and wants regarding privacy.

Literature Review

Since online privacy is of great interest to those involved in e-commerce, popular business and computing sources frequently include articles on this topic. Earp and Payton (2000) provide a good overview of online privacy issues and introduce the research in their article for *IT Professional*. In a more recent article, Brandt (2002) describes developments in the online privacy controversy spurred by the introduction of the PATRIOT Act. Librarians interested in the latest online privacy news can visit The Privacy Foundation at www.privacyfoundation.org. A useful collection of resources and research can also be found at www.theprivacyplace.org.

A few articles in the library literature address patron privacy and general reference service. Stover (1987) describes confidentiality ethics and policies for reference service and compares them to stronger statements made by other professions. Wilkes and Grant (1995) surveyed reference departments to determine whether or not policies and procedures for protecting confidentiality of online search records were in place, as well as whether or not the procedures were actually being followed. They also surveyed librarians' attitudes about the confidentiality of online trans-

actions. Del Vecchio (1992) begins to address the question of what patrons want in her description of privacy values of students and faculty based on observations of their behavior when asking reference questions. Del Vecchio also held informal discussions with students to ascertain their attitudes.

With the passage of the PATRIOT Act in 2001, librarians have taken a renewed interest in the issue of privacy. In the last year, numerous news articles, conference presentations, and workshops have addressed privacy issues. At a recent Virtual Reference Desk conference, no less than three presentations addressed the issue of patron privacy and how it relates to virtual reference (Neuhaus 2002; VanScoy and Oakleaf 2002; and Van Fleet and Wallace 2002). Unfortunately, most presentations seem to focus on describing the current legal and political environment rather than presenting research.

While the library literature contains little research in the area of patron privacy, scholars of e-commerce, market research firms, and large foundations like the Pew Institute have conducted surveys of attitudes toward privacy. For instance, Fox et al. (2000) conducted a study for The Pew Internet and American Life Project in which respondents' attitudes about online privacy, as well as their knowledge of privacy issues and their online behavior, were surveyed. Antón and other founders of The Privacy Place at www.privacyplace.org also conducted a survey in early 2002 on consumer concerns about use of Personally Identifiable Information. The results of this study have not yet been published, but they should contribute to the overall picture of consumer concern with privacy. Finally, both Earp and Meyer (2000) and Earp and Baumer (2001) studied factors affecting willingness to give information to a web site. Factors studied included information to be provided, brand name of the site, and existence of a privacy policy or web seal.

Millberg, Smith, and Burke (2000) compared privacy concerns across cultures to study the influence of concerns and culture on corporate and government management of information privacy. While much of this research has little bearing the library context, they did find that level of information privacy concerns varied by culture. Since universities have diverse student bodies, this is an important point to bear in mind.

Hann et al. (2000) studied the value consumers place on their online privacy and attempted to determine where the trade-off occurs between privacy of information and monetary reward or convenience of future interactions. What is of most interest to librarians is the trade-off between privacy and future convenience. Unfortunately, Hann et al. used frequency of visits to measure future convenience, a measure they admit may be problematic. Librarians might prefer something like customization as a better incentive for an exchange of information.

A number of privacy studies have focused on the university environment and are of interest to academic librarians wrestling with this issue. In 1996, Smith, Millberg, and Burke conducted a significant study that has spawned a large body of research about privacy concerns among university students and employees. They developed a short instrument that assesses concern in four areas: collection of personal information, errors in personal information, improper access to the information, and unauthorized secondary use of the information. Alexander, Jones, and Brown (1998) used this instrument to study privacy concerns of university students and faculty. They found that faculty were more concerned about privacy than students and that students and faculty in arts and sciences, nursing, and education were more concerned about privacy than students and faculty in business. Earp and Payton (2001) conducted a similar study for university employees and students. They hypothesized that university employees would be most concerned about collection of student information and errors—a hypothesis based on earlier research in the health care field. However, Earp and Payton found that university employees were most concerned about improper use of student information, a result that perhaps reflects different values in the academic environment. The results of the study of students have not yet been published. Cockcroft and Clutterbuck (2001) repeated the study in Australia and compared their results with earlier studies. Their results were similar, yet they reflect expected differences between American and Australian cultural concerns. Having so many studies of university students using the same instrument allows for comparisons that may shape a picture of the information privacy concerns of academic library patrons.

There are two studies that don't directly contribute to our understanding of patrons' preferences, but still yield insight into how librarians might deal with these preferences. We couldn't resist adding these fascinating studies to our review of the literature and allowing them to influence our recommendations. Culnan and Armstrong (1999) observed that the use of fair information practices help create trust in users of online services. They remark that consumers develop a relationship with in-person service providers by repeatedly seeing a familiar friendly face. With online services, relationships also need to be developed between consumers and service providers. Using fair information practices is one way to develop that relationship and provide good customer service. In another study, Shaw (2001) examined the factors that influence employees' moral judgment about privacy issues. He asked, when an employee is faced with a decision about collection or use of personal information, what factors influence this decision? The factors studied were "perceived organizational norms" (defined by Shaw as "a perception of an individual about the shared beliefs of a group"), "perceived organizational effect" (or what the consequences would be for the organization), and how much the individual identifies with the organization.

What Patrons Want

Although the literature does not provide a definitive answer to the question, "what do patrons really want?" it does reveal a few major trends in patron preferences concerning the privacy vs. service trade-off.

Overall, patrons are concerned about protecting their privacy. Fox et al report that 60 percent of their survey respondents registered as "very concerned" about privacy, and 84 percent of adult Americans reported that they are concerned that businesses and strangers will obtain information about them or their family. Smith, Millberg, and Burke organize these concerns into four dimensions. The first dimension of concern is collection. Some patrons are concerned that vast amounts of personally identifiable information may be collected and stored about them. Some patrons are also concerned about that their information will be shared with external parties for unauthorized secondary uses. The third dimension of concern is improper access. Patrons may fear that stored data is not secure and may be accessed by unauthorized individuals. Fi-

Online Privacy vs. Enhanced Virtual Reference: What do Patrons Really Want?

nally, some patrons may also fear that accidental or deliberate errors might be made in their personal information and that safeguards against errors are inadequate.

The level of patron concern about privacy varies depending on a number of factors. These factors include individual attributes such as age, "gender, cultural trait, degree of trust propensity, and experience with privacy technologies" (Hann et al. 2002). Due to the diversity of most college campuses, one of the most relevant factors is age. Research shows that older patrons seem more concerned with privacy issues than younger patrons. The Pew study reveals that 67 percent of respondents ages 50–64 identify themselves as "very concerned" in comparison to 46 percent of 18–29 year olds. This difference is also documented in library literature. Del Vecchio notes that traditionally, university student library behavior reflects little concern with privacy. She observes that students approach crowded reference desks in packs, listen to each other's questions, and share information with classmates. They treat exchanges with librarians as public transactions. In contrast, faculty pursue individual research questions and make appointments for consultations with librarians. Their research process is approached as a private communication.

A decade ago, Del Vecchio reported that some student patrons may believe that "privacy laws are for the paranoid". The authors recently met with a group of undergraduates enrolled in an information science course and heard some similar sentiments. In informal discussions of privacy issues, students remarked that it's "cool" when customer service is improved by companies accessing personal information. However, a few other students registered the same experience as "creepy". These students want the same improved service, but said that they'd rather not know that their privacy had been breached. One commented, "You can use my information, but I don't want to know about it!" Further probing revealed that college students tend to trust their universities with their personal information. To a great extent, they believe university entities (including libraries) already possess this information.

Indeed, some college students believe that nearly all of their personal information is accessible by anyone via the Internet. They seemed resigned to the idea that, with effort, anyone can get personal information about them. This does not, however, prevent students

from trying to protect against the inconveniences that the wide availability of personal information can cause. To avoid unwanted email, or spam, nearly all provide fake information (especially email addresses) to web sites in exchange for services. This behavior is also reported elsewhere. Fox et al. documents the emergence of "privacy warriors" who are willing to give false information in order to protect their privacy. Interestingly, college students use these tactics to avoid annoying messages rather than to protect their privacy.

The level of patron concern about privacy also depends on factors related to the site under consideration. Earp and Baumer submit that the two most significant factors in increasing patron confidence in the privacy of a site are the company name and the option to "opt-out" of providing personal information. Survey respondents have also shown support for "opt-in" formats, where patrons must actively choose to allow sites to collect personal information. Indeed, 86% of survey respondents preferred opt-in to opt-out choices (Fox et al.). The presence of a privacy policy is the third most important factor in increasing patron confidence in a web site (Earp and Baumer). However, while patrons feel reassured by the presence of a privacy policy, over half will not read it (Earp and Meyer). Still, privacy policies can be used to build trust, as patrons develop trust in a service where their information is used according to stated policies (Culnan and Armstrong). Finally, patrons rank the presence of a web seal and site design as factors that increase their confidence in a site. In fact, 42 percent of survey respondents reported that they felt increased confidence in sites with web seals (Earp and Meyer).

Generally, one may conclude that a trade-off exists between service and privacy. Research conducted by Hann et al research shows that there is a trade-off threshold. For example, students will give up their personal information if motivated by a financial reward. He also found that students will give up their information to view a site that they visit often more easily. By continuing to study patron service preferences and to monitor patron privacy issues, librarians can discover the details of this trade-off.

Clearly, more research needs to be conducted to gain a more detailed understanding of patron preferences regarding privacy. In addition, some "big picture" questions may need to be asked. For example,

several studies mention that students may not be old enough or have enough experience to have developed a more cautious attitude toward their personal information (Del Vecchio; Hann et al.). Also, the whole question of what patrons want may need to be tempered with what we think is good for them. In addition, Richard M. Smith of The Privacy Foundation questions the power of customization to attract customers. He asks, if customization of web sites isn't going to attract customers, why take the risk with their personal information? Overall, greater research, reflection, and attention to privacy issues is merited. In the meantime, the research suggests many strategies librarians can take.

Recommendations

Based on a preliminary knowledge of patron preferences regarding privacy issues, librarians can both help protect patron privacy and offer enhanced virtual reference by taking action in several areas. These areas include marketing, web page content, training, management, and communication with virtual reference vendors.

When marketing virtual reference service, librarians should capitalize on the relationship that already exists between patrons and the library. Librarians should create and display a recognizable brand name to ensure that patrons associate the service with the library. Libraries may also want to publicize areas of privacy vulnerability to target groups such as faculty. If the library can't ensure confidentiality of sensitive information, such as faculty research and patent questions, librarians may want to discourage faculty from using virtual reference service and suggest face-to-face assistance instead.

Next, the web page from which patrons access virtual reference services is an important communication tool. This web page provides an opportunity for librarians to educate their patrons by linking to a privacy policy, offering opt-out or opt-in choices, and explaining what additional services patrons may receive if they choose to provide personal information to librarians.

Research also suggests that librarians have a responsibility to include privacy ethics in staff training. While most librarians learn about privacy and confidentiality in graduate school, the privacy environment is a changing one. What's more, many employees that

provide reference service do not have degrees in library science and therefore may not be knowledgeable about traditional library confidentiality ethics. Even those who have been trained need refresher information. Wilkes and Grant's research suggests that despite knowledge of library privacy procedures, staff may still not choose to follow them. Staff should be told how improper access and unauthorized secondary use of personal information will be handled should they occur.

According to the literature, library management plays a key role in determining the ways in which librarians protect patron privacy and/or use patron information to improve service. Library managers should strive to create the "culture of privacy" recommended by Culnan and Armstrong. To help create this culture, management should take the lead in developing a library-wide privacy policy and identify a privacy "champion" who ensures that the library conducts periodical audits and requires justification for use of the information the library collects.

Finally, librarians must communicate with the third parties involved in virtual reference transactions—the vendors that supply and maintain the software. Virtual reference adds a new dimension of complication to the patron privacy issue since for most virtual reference software, the transactions are handled and archived by a third party. Librarians should cultivate a privacy partnership with their vendors. Among the questions that librarians should ask vendors are:

- How will you help use ensure patron privacy?
- What patron and transaction information is "archived"?
- Can patron information be "purged"?
- Who has administrative access and when do they use it?

By taking action in the areas of vendor communications, management, training, web page content, and marketing, librarians can help protect patron privacy while still collecting and using information to improve their virtual reference services.

Conclusion

As innovative librarians continue to improve virtual reference services, they will need to collect personal information about the patrons who use and don't use these services. Future directions for virtual reference

Online Privacy vs. Enhanced Virtual Reference: What do Patrons Really Want?

might include customizing the virtual reference experience, hopefully creating a “cool” rather than “creepy” experience. Librarians find themselves now in a delicate balancing act. On one hand, they struggle to create new services that patrons will find exciting and useful. On the other hand, they champion privacy rights that many patrons don’t value. With the current political climate, online privacy is likely to become a more volatile topic. As patrons become more aware of the issues, they may begin to make their concerns and preferences known. Even with this valuable input from patrons, more research will be needed to determine where the acceptable trade-off is between online privacy and enhanced virtual reference.

Bibliography

- Alexander, Paulette S., T. Morris Jones, and Sarah R. Brown. “Attitudes Toward Information Privacy: Differences Among and Between Faculty and Students.” *Fourth Americas Conference on Information Systems* (14–16 August 1998) <<http://www.isworld.org/ais.ac.98/proceedings/track02/alexander.pdf>>.
- Brandt, Andrew. “A Year Later, Online Privacy and Security Still Weak.” *PCWorld.com* (11 September 2002) <<http://www.pcworld.com/news/article/0,aid,104846,00.asp>>.
- Cockcroft, Sophie, and Peter Clutterbuck. “Attitudes Towards Information Privacy.” *Proceedings of the Twelfth Australasian Conference on Information Systems* (4–7 December 2001) <<http://infotech.scu.edu.au/ACIS2001/Proceedings/PDFS/25.pdf>>.
- Culnan, Mary J., and Pamela K. Armstrong. “Information Privacy Concerns, Procedural Fairness, and Impersonal Trust: An Empirical Investigation.” *Organization Science* 10.1 (1999): 104–15.
- Del Vecchio, Rosemary A. “Privacy and Accountability at the Reference Desk.” *Reference Librarian* 38 (1992): 133–40.
- Earp, Julia B., and David Baumer. “Innovative Web Use to Learn about Consumer Behavior and Online Privacy.” Study completed 27 August 2001; to appear in *Communications of the ACM*.
- Earp, Julia B., and Fay C. Payton. “Data Protection in the University Setting: Employee Perceptions of Student Privacy.” *Proceedings of the 34th Annual IEEE Hawaiian International Conference on Systems Sciences* (January 2001): 3107–12.
- Earp, Julia Brande, and Fay Cobb Payton. “Dirty Laundry: Privacy Issues for IT Professionals.” *IT Professional* (March/April 2000): 51–54.
- Earp, Julia Brande, and Gale Meyer. “Internet Consumer Behavior Privacy and its Impact on Internet Policy.” *Proceedings of the TPRC 28th Research Conference on Communication, Information and Internet Policy* (23–25 September 2000) <<http://theprivacyplace.org/papers/cacm2002.pdf>>.
- Fox, Susannah, et al. *Trust and Privacy Online: Why Americans Want to Rewrite the Rules*. (20 August 2000) <<http://www.pewinternet.org/>>.
- Hann, Il-Horn, et al. “Online Information Privacy: Measuring the Cost-Benefit Trade-Off.” *Twenty-Third International Conference on Information Systems* (15–18 December 2002) <http://www.comp.nus.edu.sg/~ipng/research/privacy_icis.pdf>.
- Milberg, Sandra J., H. Jeff Smith, and Sandra J. Burke. “Information Privacy: Corporate Management and National Regulation.” *Organization Science* 11.1 (January–February 2000): 35–57.
- Neuhaus, Paul. “Privacy & Confidentiality in a Digital Reference Age.” *Virtual Reference Desk Conference* (11–13 October 2002).
- Smith, H. Jeff, Sandra J. Millberg, and Sandra J. Burke. “Information Privacy: Measuring Individuals’ Concerns About Organizational Practices.” *MIS Quarterly* 20.2 (June 1996): 167–96.
- Smith, Richard M. “The Bottom Line of Personalization vs. Privacy.” (20 September 2000) <<http://ecommerce.ncsu.edu/seminar/smith.html>>.
- Stover, Mark. “Confidentiality and Privacy in Reference Service.” *RQ* 27.2 (winter 1987): 240–44.
- Van Fleet, Connie, and Danny Wallace. “Virtual Libraries—Real Threats.” *Virtual Reference Desk Conference 2002* (11–13 October 2002).
- VanScoy, Amy, and Megan Oakleaf. “Virtual Reference and Patron Privacy: What Do Patrons Really Want?” *Virtual Reference Desk Conference* (11–13 October 2002).
- Wilkes, Adeline W., and Susan Marie Grant. “Confidentiality Policies and Procedures of the Reference Departments in Texas Academic Libraries.” *RQ* 34.4 (summer 1995): 473–85.