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RFID and Libraries

Radio Frequency Identification (RFID) has been in the news a great deal over the past year. This technology - which uses small electronic chips at the unit or item level to enable retailers and manufacturers to more easily keep track of inventory and sales - has aroused privacy concerns. Most of these concerns stem from the fear that RFID readers could be used to collect information on the purchasing habits of individuals without their consent; in the case of books, this could mean an inauspicious third party using an RFID reader to collect information on bookstore or library patrons' reading habits without their consent or knowledge.

While these privacy concerns may be valid, it is important to remember that many libraries are finding success in the use of RFID to simplify checkout, reshelving, and inventory. By breaking the link between the unique identifier associated with a chip on a particular book and the master list of book titles, libraries are able to protect patrons' privacy while still benefiting from the technology.

ALA's Office for Information Technology Policy strives to balance the privacy concerns associated with RFID with the technology's potential benefit to libraries and the technical reality of the chip. To this end, we have created an RFID working group with the Book Industry Study Group. This group has met several times over the last few months to examine RFID issues common to booksellers, manufacturers and libraries, and to draft privacy principles for the use of the technology.

The DRAFT privacy principles and overview document attached are a product of this RFID working group.

BISG POLICY #0002 *April 9, 2004*

(Radio Frequency Identification)

Draft v.14

BISG/RFID Privacy Principles Overview

We, the industries and organizations related to the creation, publishing, distribution, and retail sales of books and their use in libraries, strive to ensure confidentiality when we collect any personally identifiable information about our users. This ideal holds as we consider, adopt and/or implement any new technology, such as RFID (Radio Frequency Identification). The right to privacy is essential to the exercise of free speech, free thought, and free association. Lack of privacy and confidentiality chills users' choices, suppressing access to ideas. The possibility of surveillance, whether direct or through access to records of speech, research and exploration, undermines a democratic society.

While the potential of RFID for cost savings, reduction in workplace injuries, and new efficiencies are enormous, it is equally important to answer the privacy concerns that have already been raised by consumers, consumer groups and legislative bodies. We recognize that when technical capabilities are combined with competitive business pressures "to know and capture the customer," -- as well as national security concerns -- the capability to meet consumer, citizen and legislated privacy mandates becomes increasingly difficult. Thus, the potential for misuse and abuse of personal information and loss of trust become major public policy issues.

These guidelines represent the approach our industries and organizations will take to reduce the potential for misuse of personal information and to avoid the loss of trust of consumers and library users. Since some forms of RFID technology are already in use in some libraries, and may be explored by many others as well as in different areas of the publishing value chain (at such time as it makes economic and consumer sense), we believe that now is the time to publish these guidelines.

We would like to emphasize that the scope and purpose of these guidelines is not to restate the well-developed principles of privacy protection that have been defined over the past thirty years, both in the US and overseas. These guidelines are meant to address specifically the new aspects of privacy protection, and respect for personal information that are generated by the implementation of RFID technology, even as it changes and evolves over time.

In asserting our adherence to these RFID privacy principles we also affirm our respect for established privacy norms within and across the business, government, educational and non-profit spectrum. For example:

- Data transferred among trading partners related to customer and/or patron transactions shall be used solely for related business practices and no unauthorized transaction shall be permitted.
- Data related to customer and/or patron transactions shall not compromise standard confidentiality agreements among trading partners or information users.

These privacy norms are intended to include all current practices to ensure safe and secure data transfer such as in the use of electronic (EDI) transactions.

As with all policies created by the Book Industry Study Group, we encourage wide spread distribution and dissemination. Any edits or alterations to improve but not limit the policy are also encouraged and supported by the Book Industry Study Group. Any altered policy must still contain and sustain the spirit in which these principles were established.

BISG Privacy Principles

All businesses, organizations, libraries, educational institutions and non-profits that buy, sell, loan, or otherwise make available books and other content to the public utilizing RFID technologies shall:

1) Implement and enforce an up-to-date organizational privacy policy that gives notice and full disclosure as to the use, terms of use, and any change in the terms of use for data collected via new technologies and processes, including RFID.

2) Keep any and all personal information separate from the transactional data recorded on or with RFID tags.

3) Protect data by reasonable security safeguards against interpretation by any unauthorized third party.

4) Comply with relevant federal, state , and local laws as well as industry best practices and policies.

5) Ensure that the four principles outlined above must be verifiable by an independent audit.

**This policy has been developed and released by the Book Industry Study Group in cooperation with the American Library Association, Office of Information Technology and the Office for Intellectual Freedom, as well as the National Information Standards Organization.*

RFID Glossary/Terms

Radio Frequency Identification (RFID) technology, refers to a system that incorporates all physical, electronic or digital elements that enable RFID tags and readers to collect, use and store required data. Elements include tags, readers, computer hardware (such as servers), and RFID-specific software.

Radio Frequency Identification (RFID) Tag, is a small piece of material, typically composed and therefore defined by three components: an antenna, a silicon microchip unit containing memory storage and an encapsulating material. Generally speaking, a tag is unlike a barcode (which have been the scanning option of choice in libraries) because tags do not require a direct line of sight for reading and you can read more than 1 tag simultaneously. This ensures that multiple items can be left untouched and scanned at the same time through hard material such as a CD casing or book cover. A standard library frequency setting should be 13.56 mhz (an approved frequency of operation under U.S. FCC regulations).

Passive Radio Frequency Identification (RFID) Tag, has no power source and no on-tag transmitter built onto it. The read range of a passive tag is directly related to the size of the tag, and is typically less than 10-metres and are more sensitive to regulatory and environmental constraints. Passive tags are generally the lowest in cost making them suitable for use in large inventories of books and other library media.

Active Radio Frequency Identification (RFID) Tag, has both an on-tag power source and an active transmitter. They are connected to their own battery. They can be read at a much higher range- from several kilometers away. But they are larger and more expensive. Active RFID tags are not suitable for libraries (as will be discussed later on). They are usually used in manufacturing, such as tracking equipment and other high value assets, toll collection systems, or for logistics where the tag may be reused.

Radio Frequency Identification (RFID) Reader, varies in shape from being a portable handheld terminal to fixed devices positioned at strategic points such as at library entrance ways or loading bays in manufacturing or distribution centers. The reader is equipped with antennas for sending and receiving signals, a transceiver and a processor to decode data. With passive tags, the RFID reader transmits an energy field that activates the tag and powers its chip, enabling it to transmit or store data. Active tags may be programmed to transmit signals, so that data may be captured by multiple readers and distributed throughout a facility.

Read-Only Tag, refers to the form of RFID tags that have an identification code recorded at the time of manufacture or when allocated to an object. (not necessarily true). Once programmed, the data on the read only tag cannot be modified or appended, but can be read many times.

Read-Write Tag, refers to the form of RFID tags that can have their memory changed, or written to, many times. Because they enable their ID codes to be changed, they offer greater functions but at a greater cost.