Developing Innovative Services and Products to Meet Firefighters’ Unique Needs at the State Fire Academy Library

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Abstract

To support firefighters’ unique information needs, the Illinois Fire Service Institute (IFSI) Library at the statutory State Fire Academy has developed innovative services and library products in the following two main areas: 1) experience-based knowledge management services, including digital database products and services such as the Illinois Firefighter Line of Duty Deaths Digital Image Collection Database, Firefighter Memorial Hall, the Firefighter Medal of Honor and Medal of Valor Database, and the Reflections Oral History Project; and 2) embedded information services that directly support firefighter training, teaching, learning, and research, including user training workshops, library experience exposure initiatives, librarian classroom teaching, user-driven collection development, and reference services in partnership with local fire departments, public and community college libraries, and the International Network for Fire Information and Reference Exchange. This paper will report the development, maintenance, and operation of these digital knowledge management services and products, as well as the embedded, user-based information services through grant funding, in-house administrative support, and especially community partnership. It will discuss how the Library worked closely with its user community to develop a culture of trust and thus facilitate the exchange of knowledge and personal experience. It will also discuss how the Library’s innovation has become relevant to the mission of its parent organization, and contributed to teaching, training, and research efforts at the State Fire Academy and in the state’s fire service, and how the services and librarians have been respected and recognized in the fire service communities.
Introduction

The Illinois Fire Service Institute (IFSI) at the University of Illinois at Urbana-Champaign (UIUC) has been training Illinois firefighters since 1925 and operates what is now the oldest continuing annual fire college in the United States. In 1980, IFSI was officially designated as the statutory State Fire Academy. IFSI’s central objective is to prepare firefighters and other emergency responders by helping them to develop the core skills required to effectively meet the fire emergency service needs of their communities. Under the new Vision 2020 for the Future, IFSI’s mission is to help firefighters do their job, with a goal of reaching every Illinois firefighter through training, education, information, and research. IFSI provides training to 1,293 fire departments and 42,675 firefighters annually. Illinois fire departments have an average 20% annual turnover rate, and 70% of the firefighters are volunteers, highlighting the need for consistent and effective training. Additionally, there are between 6,000 and 8,000 entry-level firefighters that enter the fire service profession each year with unique training needs.

In 1990, the IFSI Library was established as an in-house library for IFSI full-time staff and part-time field instructors. The IFSI Library became a member of the Lincoln Trail Libraries System (LTLS) in November 1998, and made interlibrary loan services with public libraries part of its daily operations. Guided by the IFSI Vision 2010 and IFSI Library Advisory Committee, consisting of members from more than sixteen fire and industry organizations in Illinois, the IFSI Library launched its Outreach Program in 1999 to provide no-cost fire emergency library and information assistance and services to Illinois firefighters. To seek new ways to meet firefighters’ dynamic and ever-changing information needs, the IFSI Library has received a series of grant awards, including Library Services and Technology Act (LSTA) grant awards from the Illinois State Library, since 1999. The most notable grant project is The Illinois Firefighter Line of Duty Deaths Digital Image Collection Database (IFLODD), which documents the line of duty deaths of more than 850 firefighters since 1857 and supplies contemporary firefighters with valuable “lessons learned” from the incidents. These grant awards have helped transform the IFSI Library from a small, in-house library operated by a single librarian to a well-respected outreach library with a professional staff team of two librarians and one archivist. The IFSI Library holds the largest fire and emergency response collection in Illinois, consisting of over 60,000 titles, including multimedia items and a dedicated archive collection.

The IFSI Library’s mission is to provide fire and emergency library and information assistance and services to the Institute’s instructional staff and students, Illinois fire departments and firefighters, and other fire and emergency-related users in the successful and effective performance of their duty. The Library selects, acquires, organizes, maintains, utilizes, and disseminates fire and emergency literature and media resources internally and externally, with the objective of furnishing accurate, up-to-date, timely, complete, and relevant information assistance for the optimum usage of the facilities. The Library has emphasized a user-centered, value-added, and evidence-based decision-making management approach (Ruan and Smith 2007), going beyond the traditional library service model. The IFSI Library joined the International Network for Fire Information and Reference Exchange (inFIRE), a worldwide
consortium of libraries and information centers with significant fire collections, while also maintaining key partnerships with the Chicago Fire Academy, the US Fire Administration (National Emergency Training Center) Library, the University of Illinois Library, and the University of Illinois Graduate School of Library and Information Science (GSLIS). In 2011, IFSI dedicated its 9 million dollar Learning Resource and Research Center building, where the IFSI Library finally found a permanent home. The IFSI Library has helped further the Institute’s mission and has become an integral part of the organization which serves firefighters throughout the state. The IFSI Library has become the only library in Illinois dedicated to fire science and one of three top fire academy libraries in the nation.

Ruan’s 2010 doctoral dissertation, *Information-Seeking and Sharing Behaviors among Fire Service Field Staff Instructors: A Qualitative Study*, thoroughly examined the information needs and information seeking and sharing behaviors of field staff instructors, and made recommendations to improve library and information services. Her interview research of 25 field staff instructors confirmed firefighters’ constant need for up-to-date information and characterized their unique attributes as information seekers. Firefighters are highly-motivated information seekers who continually integrate multiple kinds of information sources, including multi-media materials, communications with other firefighters, and personal experience-based knowledge. The dynamic nature and uncertainty of the fire service business, as well as the task complexity, are basic catalysts for their information-seeking and sharing behaviors, which motivate them as lifelong learners to keep seeking the best information to ensure firefighters’ safety. Naturalistic decision-making leads firefighters toward a heavy reliance on experience-based knowledge. Results from these research findings have led the Library to create new library programs and services to improve firefighters’ access to different information sources, including knowledge management initiatives and information services.

This paper focuses on the development, maintenance, and operation of innovative services, in addition to library products in the following two main areas: 1) experience-based knowledge management services, including the creation of digital database products and services such as The Illinois Firefighter Line of Duty Deaths Digital Image Collection Database and Firefighter Memorial Hall, the Firefighter Medal of Honor and Medal of Valor Database, and the Reflections Oral History Project; and 2) embedded information services that directly support firefighter training, teaching, learning, and research, including user training workshops, library experience exposure initiatives, librarian classroom teaching on digital databases, user-driven collection development, and reference services in partnership with local fire departments, public and community college libraries, and the International Network for Fire Information and Reference Exchange (inFIRE).

**Experienced-based Knowledge Management Services**

**IFLODD AND FIREFIGHTER MEMORIAL HALL**

In 2007, the IFSI Library received a $20,500 Library Services and Technology Act (LSTA) grant award from the Illinois State Library for the project “In Memory of Our Heroes: Developing a Digital Image Collection of Illinois Firefighter Line of Duty Deaths (IFLODD).”
The project’s goal is to collect, organize, digitize, and preserve materials of historical and cultural significance about the more than 800 Illinois firefighters who have died in the line of duty.

Line of duty deaths are an unfortunate reality in the fire service. In 2013, 106 firefighters died in the line of duty nationally, including two Illinois firefighters (U.S. Department of Homeland Security 2014). Information about these firefighter line of duty death statistics are readily available from numerous sources. Organizations such as the National Fire Protection Association (NFPA), the National Institute for Occupational Safety and Health (NIOSH), the United States Fire Administration’s National Fallen Firefighters Foundation (NFFF) Memorial Database, and the Illinois Office of the State Fire Marshal (OSFM) all collect statistics on Illinois firefighter line of duty deaths. However, the information provided in these databases can vary widely and each source has limitations. The Fire Fighter Fatality and Investigation Program database maintained by NIOSH provides in-depth information on the technical details of individual line of duty death incidents, but it only includes roughly 40 percent of all firefighter fatalities. Additionally, the database only goes back to 1998, and the names of the fire departments and firefighters are not used in their reports (CDC 2014). Conversely, the NFFF Memorial Database contains a more comprehensive list of fallen firefighters dating back to 1981, but focuses less on details of the incident in which the firefighter died and more on the lives of the firefighters and messages from their loved ones (National Fallen Firefighters Foundation 2015). Comparing the two, the NIOSH database serves a “lessons learned” function, while the National Fallen Firefighters Foundation database serves a memorial function. IFLODD was created to serve both as a memorial to honor fallen Illinois firefighters and as a “lessons learned” database, and thus it combines the strengths of the NIOSH and NFFF databases.

IFLODD functions as a memorial database by including digitized photos of the fallen firefighters, as well as oral history interviews with individuals who knew the fallen firefighters. This is complemented by IFLODD’s design to offer a wide variety of data about each firefighter and the circumstances surrounding their death. Every record contains searchable metadata fields for information such as the firefighter’s agency, age range, cause of death, type of duty at the time of death, incident location type, and many others. This allows users to search for a firefighter using specific criteria, such as all firefighters who were engaged in emergency vehicle operations at the time of death. This search functionality is useful not only for the general public, but for researchers and fire service instructors as well. IFSI Library staff use IFLODD each spring and fall, when they teach every Firefighter Academy class of 30 firefighters about line of duty deaths and how they might be avoided in the future. IFLODD is designed to collect very specific metadata about incidents so that trends and patterns can be studied. As many firefighters tend to be visual learners, IFLODD data can also easily be used to create interactive charts that can graphically show a wide range of information. For example, users can create a chart that shows the age ranges of firefighters who have died from stress/overexertion. No other database of firefighter line of duty deaths allows users this combination of detail and visual learning tools. The Illinois Library Association highlighted the IFLODD database as an exemplary grant award project in the ILA Reporter, and the database was also recognized by Scout Report and the Newberry Library Genealogy News.
IFLODD was also created to serve the needs of IFSI Library’s core users. Many national firefighter LODD databases have an official definition of “on-duty” that is used to determine whether a firefighter is included. Inclusion in the IFLODD database is based in large part on input from fire departments. If a fire department states that they have had a line of duty death and want to participate, the IFSI Library does not question their determination. Allowing fire departments to ultimately determine who is included in IFLODD allows the library to strengthen relationships with core users and include firefighters who might have been turned away from other line of duty death databases. Additionally, fire departments are given more control of how their fallen firefighters are remembered because they are allowed to author the incident summaries themselves.

Far from being a static database, the IFSI Library continually seeks additional information about fallen Illinois firefighters so that IFLODD is as comprehensive and valuable a tool as possible. Surveys were sent out via mail in 2007 and 2012 to all known Illinois fire departments who have had a line of duty death but have not yet provided information for IFLODD. Mail surveys were chosen for several reasons; many rural volunteer departments have limited information technology resources, which may affect their ability to monitor emails, and phone contact is not preferred because it is more invasive and has the potential to come across as too direct. A mail survey targets only those departments willing to participate, while respecting the privacy of those who are not. The continual expansion of IFLODD also relies heavily on direct referrals from firefighters. Direct referrals are especially important to IFLODD because of the personal nature of the database. Firefighters are more likely to participate when a colleague whom they trust introduces them to IFLODD.

The IFSI Library also travels to fire departments across Illinois to collect information for IFLODD. Information collected during this travel includes personal photos, newspaper articles, departmental records, and photos of memorials to the fallen firefighters. Departments may also take part in an oral history interview to share their knowledge of the fallen firefighter; in order to protect interviewees when discussing difficult topics, the IFSI Library adheres to the rigorous standards set by the University of Illinois Institutional Review Board for human subject research when conducting oral history interviews. Travel for IFLODD helps the IFSI Library to make personal connections with fire departments, who are often grateful to be able to speak about their fallen firefighters in surroundings that they are familiar with and where they had a connection to the deceased.

The visiting librarian offers to speak to any firefighters present about IFLODD and the services that the IFSI Library can provide to firefighters across the state. Visiting fire departments affords an opportunity to speak to firefighters directly about the services that the IFSI Library can provide, including no-cost interlibrary loan and reference assistance. These trips to local departments are essential in getting firefighters to contact or visit the library and become lifelong learners.

When firefighters choose to initiate contact with the IFSI Library about IFLODD, reference questions are handled by the IFSI Archivist. One point of contact ensures that departments and patrons receive consistent and timely responses to their IFLODD inquiries. The single point of contact also helps build trust with the fire departments and eliminates the
possibility that firefighters or LODD family members must restate their inquiries. The ability to provide consistent and personal attention to every person involved in IFLODD is a hallmark of this well-received, experience-based knowledge project.

As of April 2014, IFLODD has grown to be the most comprehensive database of Illinois firefighters who have died in the line of duty in existence. The database contains records on over 870 firefighters, including summaries of over 660 line of duty death incidents. IFLODD also contains nearly 450 digital images and 14 oral history interviews. IFLODD continues to be the most accessed portion of the IFSI Library webpages with nearly 65,000 unique visitors since its creation. Furthermore, the influence that IFLODD has had on the image of the IFSI Library cannot be overstated. One of the most pressing challenges facing libraries today is improving visibility to library non-users and infrequent users, necessitating the creation of services that promote engagement through meaningful interactions (Singh and Ovsak 2013). IFLODD continues to increase the visibility of the library through its widely accessed website, exhibits in Firefighter Memorial Hall, and most importantly, through direct interactions with firefighters at their local departments. IFLODD has become a library brand with substantial visibility within the IFSI Library user community.

The IFSI Archives provide exhibit services at Firefighter Memorial Hall, and visitors to the IFSI Library pass through the hall on their way into the library. Firefighter Memorial Hall serves as a memorial to fallen Illinois firefighters and the firefighters who died in the September 11, 2001 terrorist attacks in New York City. Central to the hall is the IFSI Firefighter Line of Duty Deaths Honor Book, which lists every known Illinois firefighter line of duty death. Each day the page is turned to show the Illinois firefighters who died on that day in history. This book led to the Illinois Firefighter Medal of Honor and Medal of Valor Database described in detail later in this paper. The archive staff ensure that the book is updated as needed and turned to the correct page every day of the year. In addition to serving as a memorial to fallen firefighters, Firefighter Memorial Hall serves an educational purpose. Half of the hall is devoted to exhibits that educate visitors about fire service history, the history of the Illinois Fire Service Institute, and specific line of duty death events. Upon entering Firefighter Memorial Hall, visitors first encounter the Significant Fires and Emergencies in Illinois History exhibit that details fifteen events in Illinois fire service history, including the Great Chicago Fire, the Iroquois Theatre Fire, and the Our Lady of the Angels School Fire, among others. This exhibit was created by the IFSI Archives using archival documents. In order to reach a wider audience, this exhibit has been displayed at the University of Illinois at Urbana-Champaign Library, the State Farm Center, and a duplicate is on permanent exhibit in the Chicago Fire Department’s Robert J. Quinn Fire Academy, where new firefighters can reflect on the challenges faced by the firefighters who came before them and appreciate the lessons learned from each fire. Visitors of Firefighter Memorial Hall next encounter an exhibit detailing the history of the Illinois Fire Service Institute from its beginnings in 1925 until the present day. This exhibit features historical photos, books, and artifacts, including firefighting helmets worn by IFSI instructors that show the damage from years of intense training fires. Before visitors enter the library, they see a rotating exhibit curated by the archives that highlights specific Illinois line of duty death events in detail. This exhibit aims to educate firefighters about the tragic events of the past in an effort to prevent future deaths.
MEDALS OF HONOR AND VALOR DATABASE

Built upon the success of the Illinois Firefighter Line of Duty Deaths Digital Image Collection Database (IFLODD), the IFSI Library created a new digital database of the recipients of the Illinois Firefighter Medal of Honor and Medal of Valor. The Illinois Firefighter Medal of Honor and Medal of Valor are the highest awards given to Illinois firefighters and are given for acts of bravery or heroism. A ten-member Illinois Fire Fighting Medal of Honor Committee selects the recipients each year. The awards have been given to Illinois firefighters since 1994 in a ceremony that also honors fallen Illinois firefighters known as the Illinois Fallen Firefighter Memorial and Firefighter Medal of Honor Awards Ceremony.

The IFSI Library created the Illinois Firefighter Medal of Honor and Medal of Valor Database in part because of the success of IFLODD, but also because information about prior recipients of the awards was difficult to locate. Those searching online to find the names of prior recipients would have to look through multiple press releases and newspaper articles hoping to locate a complete list of those who have received the award. Finding information about recipients was even more difficult for early recipients of the awards. In many of these cases, there was little or no information available at all.

The IFSI Library decided that in order to more properly honor the heroic actions of these firefighters, an easily searchable online database needed to be created. In the fall of 2011, IFSI Library staff, student workers, and volunteers began to research prior recipients in an attempt to compile a complete list of every recipient of the Firefighter Medal of Honor and Medal of Valor. Through years of research online, in newspapers, and through various other sources, the library collected information about recipients from every year starting in 1994.

This online database for the Illinois Firefighter Medal of Honor and Medal of Valor Database is located on the IFSI Library website and is freely accessible. The database allows users to search for recipients by name, the agency for which the firefighters worked, rank, gender, year of the award, incident city, the type of duty in which the firefighter was involved, and other criteria. A goal of the database is to provide rich metadata about each recipient so that users can more easily locate firefighters with partial information, while researchers or fire service instructors can compile information based upon a very specific set of criteria. For example, a researcher has the ability to search for all recipients with the type of duty “Firefighter Rescue” in order to see how many firefighters received their award for actions they took in the rescue of a fellow firefighter.

The Illinois Firefighter Medal of Honor and Medal of Valor Database identifies over 235 recipients of these awards. In addition to identifying recipients, the database includes over 100 incident summaries detailing the decorated actions of the firefighters. The database is continually growing as the library adds the new recipients annually and additional information is located on the firefighters for whom little is known other than their name and award year. To ensure that the database is continually updated and to take advantage of the extensive personal knowledge of our users, every record contains a link with an opportunity to contact the library with additional information about the firefighter. In addition to ensuring that the heroic actions of firefighters are
recognized, the Illinois Firefighter Medal of Honor and Medal of Valor Database has yielded additional valuable information. By comparing all recipients to employee records at IFSI, the library discovered that more than 10 of the recipients are current or former instructors for IFSI and more than 89 percent of all recipients are current or former students of IFSI. This previously unknown information was very valuable to our parent organization, the Illinois Fire Service Institute, as it shows successes among its current and former students.

REFLECTIONS ORAL HISTORY PROJECT

The Reflections Oral History Project is another experience-based knowledge project at the IFSI Library that collects and preserves crucial fire service information.

As firefighters leave the profession, the knowledge that they have accumulated is being lost. Valuable stories, advice on how to deal with specific situations encountered in the fire service, and other crucial information is largely unavailable to many firefighters. IFSI has identified the need to preserve this information and make it accessible to a wider audience so that firefighters can learn from the experiences of their peers. Potential interviewees are identified by IFSI administrators, as well as by administrators from the Chicago Fire Department. Participants are generally chosen based upon their extensive experience in the fire service. Firefighters with varying subject matter expertise are chosen to ensure that a broad base of fire service knowledge is preserved. Each interview is designed to elicit the personal experiences of the seasoned firefighter involved. The interviews can take place at the IFSI Library or can be conducted at a location where the firefighters feel comfortable, such as their fire station. There are no time limits on the interviews and interviewees are encouraged to share as much information as they desire. The interview is structured around a set of questions that encourage the firefighter to share their experiences, what they have learned, and what they would like others in the fire service to learn.

Unlike many oral history interviews, the information collected in Reflections is also meant to be analyzed and key points extracted for teaching and curriculum development purposes. It has been suggested that properly conducted oral history interviews generate new ideas for further analysis and preserve compelling evidence (Richie 2003). Reflections fits this definition of a properly conducted oral history because multiple interviews can be reviewed by IFSI instructors and administrators for information on a specific aspect of firefighting, such as search and rescue operations. Once identified, this information can be utilized in the creation of the courses that IFSI teaches. Additionally, the interviewees can be brought back for topic specific panel discussions where each firefighter can discuss their area of expertise with other experts. These panel discussions can be video recorded and preserved, and later used to create curriculum. Through Reflections, the library is actively creating usable knowledge to support the mission of our parent organization and preserving historically significant information for future firefighters. As with IFLODD and the Illinois Firefighter Medal of Honor and Medal of Valor Databases, Reflections is the result of building trust between the IFSI Library and Illinois firefighters to preserve the stories of the past while contributing knowledge to newer generations of fire service professionals.
Embedded Information Services

OUTREACH AND USER TRAINING

The IFSI Library’s patron population includes first responders, fire department training officers, public officials with interests pertaining to public safety, university and community college students, and international visiting scholars studying in the field of fire science, as well as IFSI students, staff, administrators, and instructors. Within this group of patrons, the IFSI Library’s targeted group for the development of user-driven services and collection is IFSI instructors. In addition to on-site instructors, IFSI maintains a group of around 600 field staff instructors throughout Illinois. These instructors are typically working firefighters who teach IFSI classes in the Institute’s regional training centers throughout the state. The goal of the library is to reach out to these instructors to better understand their information and library service needs, to obtain new resources or develop new services to meet their needs, and to keep them informed about the library’s services and collection. Over the last five years, IFSI librarians have initiated over 900 outreach contacts, primarily to IFSI instructors and field staff instructors.

Outreach may be initiated through one-on-one library contacts with onsite patrons, or via personal or group emails to instructors. Face-to-face library contacts include in-library interactions, classroom visits, fire department visits, IFSI office visits, IFSI institutional meeting and activities attendance, and hallway conversations, all of which are activities recommended by LIS research as librarian outreach activities (Trott 2014). The outreach contact may provide an overview of the library, or details about a particular information service or resource. The contact may also solicit recommendations for additions to the collection or for the development of new services. A major concern with each outreach contact is to establish or strengthen a relationship with a patron or particular group of patrons in order to establish trust and to instill in patrons the assurance that IFSI librarians are concerned about and available to meet their information needs.

In addition to one-on-one and email outreach contacts, the IFSI Library reaches out to patrons and potential patrons via biannual organizational newsletter articles and the IFSI Library Facebook site. IFSI newsletter articles inform Illinois fire departments and firefighters about the library’s newest services and collection items and provide library contact information. The IFSI Facebook site provides updates on happenings at the library, including the development of new services and a list and description of new titles purchased during the current month.

Because each year one-fourth to one-third of library reference requests are initiated by IFSI administrators, staff, and instructors, the IFSI Library also plays a role as a special library for the administration and support staff of IFSI (Hurst 2003). The monthly IFSI all-staff meetings provide opportunities for librarians to give IFSI administrators, program directors and managers, in-house and field staff instructors, and IFSI office staff library updates that may include short tutorials on accessing collection additions or using new library services. The monthly staff meetings also allow these primary patrons, including field staff who may be onsite only during these meetings, to approach librarians with requests and immediate feedback in response to the library updates.
Another service the library offers in its role as special library to IFSI instructors, staff, and administrators, is the current awareness service. This service was developed by contacting the publishers of several emergency response periodicals to obtain permission to photocopy the tables of contents from their journals. These tables of contents are distributed via staff mailboxes, thus alerting these primary patrons about articles of possible interest in the latest issues of periodicals in the library’s collection.

Two annual IFSI events, Fire College and Winter Fire School, provide the library with occasions to reach out to a large number of IFSI students and field staff instructors. During Fire College the library conducts a used book sale for the primary purpose of drawing instructors and students into the library. With the same purpose, the library hosts vendors throughout the weekend of Winter Fire School. As students and instructors walk through the library to access the vendors, librarians are available greet them, hand out library information flyers, encourage them to use the library for their information needs, and answer questions. For many of the IFSI firefighting students, these annual outreaches may be their initial introduction to the IFSI Library.

An excellent source for library outreach, feedback, and development, the IFSI Library’s Advisory Committee consists of Illinois fire officers and firefighters who have accepted an invitation from the library to serve on the committee. The committee meets annually to receive a library update presentation from IFSI librarians and to offer feedback and suggestions concerning library services, collection, and outreach to Illinois firefighters and departments. As a result of input from the Advisory Committee, the library has added such resources as IFSI Library information curriculum inserts and tutorials on locating online journals and articles, has initiated partnerships with IFSI regional representatives to market the library to fire departments in their regions, and has contacted nearly 80 Southern Illinois field staff instructors to inform them about library resources and to encourage them to reach out to fire departments and firefighters in their areas.

As a result of applying for the Institute of Museum and Library Services (IMLS) National Medal and becoming a finalist for the medal, the IFSI Library was able to reach out to patrons via email and Facebook to inform them of the recognition it had received as a finalist and to solicit comments about their experiences with the library. Thus, the IMLS national marketing campaign process allowed the IFSI Library to further publicize its resources and services to its primary patron base and beyond. The library was able to use the recognition of achievement and quality by the IMLS to give its patrons a new perception of the library’s value in meeting their information needs (Singh and Ovsak 2013).

In the last five years, IFSI librarians have reached out to IFSI classes and firefighting students by providing nearly 300 library training workshops to over 70 classes, reaching almost 3,000 students. Librarians email IFSI class instructors at the beginning of each month to schedule library workshops for the next five weeks’ classes. The IFSI director has mandated that all onsite IFSI classes must receive a library training workshop. This mandate has served to ensure that even faculty who may be resistant to or uninterested in acquiring knowledge of library use will necessarily receive library instruction during the course of their IFSI teaching career (Stamps 1984). In addition, IFSI librarians have provided videotaped tutorials for the Institute’s online
Staff Professional Development Program, serving as another outreach effort to IFSI’s administrators, staff, and over 600 field staff instructors. These tutorials are available to these patrons on a staff intranet.

Library training programs may include instruction on familiarity with the library’s physical space and website, searching the online catalog, the availability and process of interlibrary loan through patrons’ local libraries, an overview of the collection, the accessibility of librarians for circulation, reference and research assistance, opportunities for requesting or recommending additions to the collection, and an introduction to the IFSI Illinois Firefighter Line of Duty Deaths Digital Image Collection Database (IFLODD).

**USER-DRIVEN COLLECTION DEVELOPMENT**

The library collection contains roughly 9,000 books, 500 periodicals, 500 compact discs, 700 DVDs, and 550 e-resources, in addition to films, slides, e-books, and e-readers. The IFSI Library collection has been developed largely in response to requests and recommendations by IFSI instructors, the IFSI Curriculum Department, the Illinois Firefighters Life Safety Research Center, Illinois fire departments, and Illinois first responders. The library provides firefighting manuals, study guides for firefighter promotional exam preparation, access to codes and standards related to the fire service, Executive Fire Officer Papers, and books about fire service history and famous historical fires, among others. In response to patron interest, texts on leadership and management are also collected. As the fire service was initially based on a military model, there is also strong patron interest in military history, military organization and strategy, and military biographies, which the library also collects.

IFSI librarians contact the library’s primary patron groups via group email and during all-staff meetings to solicit requests and recommendations. Input is also acquired during one-on-one contact with patrons in the library. In addition to recommendations during these one-on-one contacts, librarians ask patrons who are returning materials for their evaluation of the items in order to ascertain if the loaned materials met the perceived need of the patron, if the patron would recommend it to another patron, and what strengths or weaknesses the patron would identify in the resource. Patrons who frequently use the library’s audiobook collection are sometimes asked to evaluate the quality of the narration of a potential addition to the collection from an online listening sample before the library makes a purchasing decision.

Although concerns have been expressed among academic librarians that patron-driven acquisition (PDA) may lead to unbalanced collections, librarians at IFSI have found that cooperating with primary patrons who request or recommend materials that they personally have or will use has helped to develop a relevant collection that circulates frequently (Tyler 2014).

An example of the impact which patron outreach has had on the library’s collection is the development of the audiobook collection. The result of a suggestion by a field staff instructor, the audiobooks have become one of the more popular sections of the collection. Field staff instructors are required to travel long distances throughout Illinois, both to regional training centers to provide instruction and to the IFSI academy to attend meetings. Firefighters in general,
and instructors especially, are lifelong learners who appreciate the opportunity which long drives provide to learn as a result of the availability of the library’s audiobook collection. Most audiobook titles in the collection are the result of either an unsolicited recommendation by a patron or library staff contacting patrons to establish interest in a particular title. Interaction with numerous patrons also provided the insight that IFSI field staff only listen to audiobooks while driving and, therefore, have no interest in listening to audiobooks that require headphones.

Pursuant to providing materials for smaller, rural Illinois fire departments with access to fewer training and information resources, the library also maintains a collection of titles addressing large animal rescue, ethanol awareness, agriculture rescue techniques, grain bin rescue, and anhydrous ammonia emergencies, among others. To facilitate information access for rural Illinois firefighters, IFSI librarians have created an online subject guide titled Agricultural Emergencies.

Because 66.8% of Illinois firefighters are volunteers with few information resources available at the local level, the IFSI Library used funds received from the Illinois State Library Back to Books grant to add an extensive list of firefighter training DVDs to the collection. DVDs are popular but expensive training tools for fire departments. The library used funds received from the Illinois State Library Another Opportunity for Back to Books grant to purchase fire safety public education DVDs for use by Illinois fire departments and emergency responders. Public education in fire safety is an important service provided by Illinois fire departments to their communities.

REFERENCE SERVICES IN PARTNERSHIP

The IFSI Library averages around 4,000 reference requests per year. Librarians assist firefighters and other library users with requests ranging from finding specific titles, to providing research assistance for graduate-level thesis papers. The IFSI Library is also able to draw on national and international fire-related reference assistance as a member of inFIRE, the International Network for Fire Information and Reference Exchange.

Further, IFSI librarians do research in cooperation with IFSI instructors to support Institute classes. Librarians locate books, journal articles, statistics, and research papers related to IFSI class subjects and circulate or post them as e-reserve resources for both instructors and individual students. Research to support instruction can also address specific class questions, such as, “What is the difference in temperature at floor level and at two feet above floor level during a residential fire?” or “Which kinds of fireworks appear to cause the most injuries?”

A group of resources that the IFSI Library has created as a result of instructor outreach efforts is its online subject guides, or LibGuides. These are created in cooperation with the University of Illinois at Urbana-Champaign (UIUC), which hosts the guides on its library website. The IFSI Library creates specific LibGuides to meet the needs of IFSI training programs or in response to recurring reference requests related to a specific topic (Trott 2014). LibGuides created by the IFSI Library include Agricultural Emergencies, Ethanol and the Fire Service,

In response to IFSI instructor requests, IFSI librarians have also created pathfinders for locating information resources necessary for IFSI student research projects. These pathfinders include topics such as dormitory fires, home oxygen fires, non-English speaking victims/witnesses, residential sprinklers, and fireworks safety. Other pathfinders, such as the line-of-duty death (LODD) pathfinder, the ASTM Standards pathfinder, the NFPA codes pathfinder, and the Executive Fire Officers (EFO) papers pathfinder, have been created to assist library patrons in locating commonly used resources.

IFSI librarians also perform comprehensive literature reviews in support of primary research done by IFSI’s Illinois Firefighters Life Safety Research Center, which conducts primary research into health risks faced by emergency responders. The library disseminates the Life Safety Research Center’s findings through IDEALS, the institutional repository for the University of Illinois at Urbana-Champaign.

As a training institution, the Illinois Fire Service Institute creates its own curricula for use in its classes. The IFSI Library supports the Institute’s Curriculum Department by purchasing and circulating library materials for curriculum developers to review and possibly recommend for IFSI classes. The IFSI Library Archives also collect and store IFSI curricula.

IFSI Library materials, such as the DVDs purchased through Illinois State Library grants and including most of the IFSI Library’s collection, are made available via interlibrary loan to Illinois firefighters through their local libraries. The IFSI Library provides an average of nearly 800 interlibrary loans per year to firefighters and other emergency response-related patrons in Illinois. IFSI librarians work with public and academic librarians throughout the state to facilitate the loan of the IFSI Library’s unique collection to the state’s first responders.

The IFSI Library is a member of the Illinois Heartland Library System (IHLS) which partners with the Reaching Across Illinois Library System (RAILS) and the Chicago Public Library System (CPLS) to transport IFSI Library materials to Illinois firefighters via the Illinois Statewide Library Delivery Service (ILDS).

The IFSI Library also partners with the Illinois State Library and the Illinois RAILS library systems to provide patron access to e-books through the eRead Illinois program, using the Axis 360 software platform. In addition, the library loans e-readers containing preloaded e-books recommended or requested by library patrons.

Conclusion

The development, maintenance, and operation of the IFSI Library’s innovative services and products have met firefighter’s unique needs in a timely fashion. The Library has worked closely with its user community to develop a culture of trust, and has thus facilitated the exchange and sharing of knowledge, particularly personal experience. The Library’s innovation
has become relevant to the mission of its parent organization, and has contributed to teaching, training, and research efforts at the State Fire Academy, and in the state’s fire service. The services and the librarians have been respected and recognized in the fire service and library communities.

The impact of the Library’s programs and services on the user community of firefighters in Illinois is multi-faceted. In the user community of firefighters, the Library has trained experience-based, knowledge-focused firefighters to become library and information technology users, while equipping them with information literacy skills for career- and life-long learning. Information provided by the library has helped enhance firefighter performance in training, learning, teaching, research, and emergency response decision-making. By disseminating IFSI studies executed by the Firefighter Life Safety Research Center, the Library serves as an important bridge between the scientific research produced by IFSI and firefighters in the field who utilize the research findings to enhance firefighting and emergency response capabilities so both the public and firefighters will be kept safe. The Library provides extensive support for the Firefighter Life Safety Research Center at IFSI, which “provides state-of-the-art facilities for developing practical solutions to the problems and perils faced by emergency responders.” The Firefigh
ter Life Safety Research Center is an interdisciplinary unit which works with many other areas of study at the University of Illinois, including the Kinesiology and Community Health Department, the Applied Health Sciences Department, the Mechanical Science and Engineering Department, the Department of Animal Sciences, and many others. With collection development and reference services specifically tailored to IFSI researchers and collaborators, the library supports efforts to directly impact firefighter work, health, and safety. With added-values, the Library has become an IFSI strategic focus and an integral part of the organization and the fire service.

In the Library and Information Science (LIS) community, the Library’s user-centered, value-added, and proactive management practices and innovative services have been taught as an elective graduate course at UIUC GSLIS, and serves as a model for other fire- and emergency-related organization libraries. IFSI librarians’ research, publications, and presentations at state, national, and international conferences have contributed to LIS literature to fill in the gap of understanding the information behavior of firefighters. The Library also contributes to the LIS field by hiring, training, and mentoring five students from the University of Illinois at Urbana-Champaign Graduate School of Library and Information Science each year. The IFSI Library Director has been invited to serve as Chair on the Illinois State Library Advisory Committee, representing the special library community, the Emergency Preparedness and Recovery Advisory Council of the Special Libraries Association (SLA), and the inFIRE Executive Committee.
Reference List


