

Application

Illinois State Library

**FY 2006 Library Services and Technology Act
Goal 2**

**Creative Use of Libraries (CUOL Grant!)
- Deliver Right Information to
Illinois Firefighters at Right Time**

Submitted by

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Outline for Application

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1. Preprinted Cover Sheet

2. PROJECT DESCRIPTION

As the statutory State Fire Academy, the central objective for the Illinois Fire Service Institute (IFSI), University of Illinois at Urbana-Champaign, is to prepare and help Illinois firefighters, and other emergency services providers, develop the core skills required to effectively meet the emergency fire service needs of their communities. Since the Institute was designated as the statutory State Fire Academy in 1981, it has been able to reach about 1/3 of the firefighters in the State annually. Under our new Vision 2010 for the Future, **IFSI's goal is to find the best ways to reach every Illinois firefighter with the training, education and information he/she requires each year.** Supported by the Institute, a survey for the IFSI Library's Outreach Program was initiated and conducted in 1998 by Lian Ruan, Director/Head Librarian, among all 1,293 Illinois fire departments with a 46% response rate. Among many key findings, the survey shows that 93% of respondents supported the Institute's plans to establish the IFSI Library's Outreach Program, which provides no cost library and information services and programs to every Illinois firefighter. Since 1999, among a series of grant funded projects, we have received and successfully completed seven (7) Library Services and Technology Act (LSTA) grants from the Illinois State Library, ranging from \$1,000 to \$75,000 during the period time from 1999 to 2002. These LSTA grants have especially helped transform the IFSI Library from an in-house technical library to an outreach library serving 42,675 firefighters statewide. It has become the only fire science dedicated library in Illinois and one of three top fire academy libraries in the nation (see Attachment 1).

Building upon the groundwork and arrangements made by IFSI, through previous LSTA and other funded grant projects, the proposed project, entitled "**Creative Use of Libraries (CUOL Grant!) – Deliver Right Information to Illinois Firefighters at Right Time,**" aims to employ innovative technology to create a new library service - "The Digital Illinois Fire Departments Training Network Database" (Network Database) to address firefighters' local training needs. The IFSI Library will train 25 or more selected fire departments to maintain a digitalized record of their training calendars and activities and will provide access to this digital information. With this systematic knowledge about today's firefighters' changing training needs, the IFSI Library will respond to them in a timely manner and provide pertinent information resources via our partners, their local public libraries. This new service will help improve the training of firefighters' by providing "at the right time" access and usage of fire emergency information resources. The project will strengthen partnerships the IFSI Library already has established between fire departments and local public libraries.

As of today, there is no Illinois fire department's training calendar and activities in digital form and no central searchable database for this information. No single training calendar and activities has ever been linked to any library services and relevant web-based resources. None of the selected fire departments has a local fire emergency library available to them. This project will remedy this situation in an innovative way by providing access to various types of information resources readily available from an augmented IFSI Library collection (i.e. videotape, transparency/overhead, slide, training outline, etc.). These resources would be sent when needed to firefighters in the field.

The central goal of this project is to shift the IFSI Library business model from passive to proactive information provider in meeting firefighters' dynamic training needs. To achieve this goal, the proposed project will:

- 1) Design, establish and develop “The Digital Illinois Fire Department Training Network Database” (see Figure 1), and mount it on a Project Web Page at the IFSI’s Web Site, with the linkage to the IFSI Library fire emergency information resources collection and other web resources in an innovative matching routine (i.e., automatic training topic and subject/media search of IFSI Library catalog and other resources), using Coldfusion as programming language and Microsoft SQL (MS-SQL) server;

Select Fire Department List:
 Carbondale Fire Department
 Champaign Fire Department
 Chicago Fire Department
 Galesburg Fire Department
 Gurnee Fire Department

<< PREV YEAR Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec NEXT YEAR >>
 < PREV **June 2005** NEXT >

| Sunday | Monday | Tuesday | Wednesday |
|--------------------------------------|----------------------------|--|---|
| | | | Inspections/Pl Plans/Hydr |
| 5 | Structural Collapse | 6 Structure | Library Material Video DVD Book Article E-Resc Author Year Ask a Libr Make Req InterLibra |
| 12 | Ariel Ladd | 7 Structural Colla Course Informa Location: Chica Instructor: Thor Time: 2-4pm IFSI Library M | |
| 19 | Fire Prevention week | | |
| 26 | HazMat | 27 HazMat | |
| < PR | | | |
| <<PREV YEAR Jan Feb Mar Apr | | | |

Make Request:
Enter material information please.

Material Information:
 New user should [Register](#) first.

***Name:(last name, first name M.I.)**
 Smith, Joe

***Borrower:**
 Public user Library Staff

Date needed by:
 6/15/2005

Article Request Select:
 PDF Local Library Fax US Mail

***Record Information:**

Author: Dunn, Vincent, 1935-
 Title: Building construction & facade collapse
 Subject: Building construction // Facade
 Collapses // Collapses // Rescue operations
 Publisher: Fire Department Video Training
 Date: c1994
 Record Type: Video
 Physical Description: 1 VHS videotape (19 min.)

Comments:
 I am teaching a training class on Structural Collapse on 6/20/2005.

Figure 1: Conceptual Network Database

- 2) Match local fire departments' training topics and the Library's *FireTalk*, *IFSI Thesaurus* (<http://library.fsi.uiuc.edu/newWeb/fireTalk.asp>) to analyze matches of relevant materials (see Attachment 2) for "automatic searches", then to send out reports to training instructors in a timely manner;
- 3) Update the IFSI Library's collection in fire emergency information by identifying, selecting, and purchasing new or additional copies of multi-media library materials in direct support of the selected 25 or more fire departments' training programs. These materials in the augmented collection will be available for participating firefighters and will include books, videotapes, DVDs, CD-Roms, and electronic resources;
- 4) Design, develop and conduct workshops for participating firefighters and public librarians on how to access the Network Database and locate information related to their training, work and emergency response. Over time, they could initiate their own information requests via the Network Database;
- 5) Provide adequate back up services of reference, reserve, and interlibrary loan (ILL), working with public libraries, and online support to participating firefighters;
- 6) Promote the new service in fire emergency and library communities;
- 7) Develop evaluation and dissemination plans;
- 8) Further strengthen interagency partnerships and collaborations among the IFSI Library, participating fire departments and their nearby public libraries.

The proposed project will rely on existing interagency partnerships. In the past seven (7) years, IFSI has opened twenty-five (25) regional training centers (RTC). For this proposed project, based on the IFSI Library's Four Regions (see Attachment 3) and 1,293 fire departments, we selected and recruited potential 25 or more fire departments and local public libraries in the following cities: in the West region, Beardstown, Galesburg, Macomb, Morton, Peoria; in the East region, Bloomington, Champaign, Decatur, Gardner, Kankakee, and Ottawa; in the North region, Aurora, Cherry Valley, Chicago, East Moline, Flossmoor, Gurnee, Lake Bluff, North Palos, Northlake, Rockford, Sycamore; in the South region, Carbondale, Effingham, Mt. Carmel, Mt. Vernon, and Salem (see Attachment 4). The 25 or more fire departments selected from 1,293 fire departments represent characteristics of the Illinois fire service from a small volunteer fire department with 20 volunteer firefighters to the second largest fire department in the nation (Chicago Fire Department) with 5,000 career firefighters. Fire department participants will provide us their local training calendars and activities (see samples in Attachment 5), act as project coordinators and local liaisons, and provide assistance and support to the project activities as needed. The local public libraries will provide reference, reserve and ILL services, and participate in the training workshops on how to help firefighters use the new service. During the development of the grant proposal, we received strong interest and enthusiastic support from the potential fire departments and public libraries. In a week, we received support letters from those organizations with asterisk in Attachment 4 (see sample of letters in Attachment 6 and 7).

The proposed project reflects our deep understanding of firefighters' information needs that can be met by the IFSI Library. It addresses one of the goals in the Illinois State Library's *Long Range Plan for the Use of LSTA Funds FY2003-FY2007*. The project meets the LSTA Goal 2, which is to "employ technology as a means for libraries to deliver information and services to benefit patrons."

An LSTA grant would provide the much-needed one-time, start-up money for additional human resources, library materials, and equipment to allow us to complete this project in a more timely and effective manner. The requested funds of \$81,626 in the proposed budget would support personnel of four graduate students (\$52,794) to help design, develop, implement and evaluate the new service; computer, and printer equipment (\$4,750); additional copies of multi-media library materials (\$20,000) needed for local fire departments' training programs; monthly regional telephone conference calls (\$2,066); Project Director's travel (\$1,246); and virtual training workshops via phone and Internet (\$770). IFSI will make significant local contribution of \$70,707 to the project, including staff's time contributions (\$38,718), 50% match up for equipment (\$4,750), public relations (\$750), supplies, postage and printing (\$500), phones and telecommunications (\$600), and indirect costs (\$25,389). Since the IFSI Library is a special library and no children use our library, CIPA does not apply to special libraries, as it only applies to public and school libraries.

Focusing on innovative technology (for database and network building), the proposed new service will be an important component of the IFSI Library's multi-facet Outreach Program. It will dramatically increase our user base and fundamentally change the way we conduct our fire library business. It will bring the IFSI Library one step closer to help further our organizational goal of reaching *every Illinois firefighter* with the training, education and *information* he/she requires each year. Furthermore, it would sustain the IFSI Library's excellent services and collections as one of the finest fire science libraries in the world.

3. TARGET AUDIENCE NEEDS, GOAL AND ANTICIPATED OUTCOMES

Our research studies and funded projects on the IFSI Library Outreach Program have laid solid foundation to identify target audience's needs, establish central goal, and assess desired outcomes.

Identification of Audience Needs

The terrorist attacks of September 11, 2001 demonstrate the crucial roles local firefighters play in rescuing citizens and saving their lives. They also demonstrate that today's firefighters are responsible for *a wide range of duties* in fire fighting, emergency medical care, hazardous materials, terrorism (e.g. biological, nuclear, incendiary, chemical, explosive terrorism) and other emergency responses for public safety and homeland security. Comprehensive training for firefighters becomes critically important and a must if they are to respond to emergency incidents effectively. It is clear that the

efficient management of information and providing pertinent information services in timely fashion is essential to help prepare firefighters during training programs and at emergency responses.

There are 6,000 to 8,000 entry-level firefighters that enter Illinois firefighting force each year in Illinois. Throughout Illinois, the fire service experiences an annual turnover rate of 20%. To maintain a well-trained firefighting force in Illinois for the 21st Century effectively response to any emergency incident, it is imperative and obligatory for the IFSI Library as the State Fire Academy Library to develop and implement a new library service, as proposed in this project, to reach those potential firefighters. The minimum training level is to assure that firefighters can safely response to a fire emergency at the scene. The IFSI’s training experience suggests this requires a minimum of 250 hours of instruction for training, in addition to other requirements. To complete the required cognitive and psychomotor objectives, Illinois firefighters have the following training programs available to them:

- a) Attend a 6-10 week residential academy;
- b) Attend a local community college that delivers the needed classes;
- c) Attend classes provided by the Illinois Fire Service Institute;
- d) ***Belong to a department that conducts the approved training (at which this proposed project targets).***

The sample training calendars from four (4) fire departments show that the local fire departments hold their departmental training events every week to keep their firefighters’ skills, knowledge, and competency in check and up-to-date (see Attachment 5). According to the 1998 Outreach Program survey findings and the IFSI Library’s multi-year circulation statistics, firefighters favor nonprint materials (e.g., videotapes, DVDs, transparencies, CD-ROMs) over other training formats as the best and most used format to meet their local training needs. Although nonprint materials are reported as the most widely used teaching aids for fire service instructors, they are extremely expensive to purchase and difficult to maintain, citing price and security reasons (see Attachment 2). Unfortunately, most of participating fire departments cannot afford to have nonprint materials for their firefighters to use.

Among 14,970 requests we answered (7/1999-5/2005), with 79,051 website hits (2/2000-5/2005), the following sampling of reference requests made by Illinois firefighters with subjects highlighted provides a good indication of why they used the IFSI Library for training and how valuable and relevant of the IFSI Library to their information needs (see Table 1). The *FireTalk*, *IFSI Thesaurus* matches with those subjects indicate how “automatic searches” could work if there were training topics.

| Reference Request | <i>FireTalk, IFSI Thesaurus Match</i> |
|---|---------------------------------------|
| 1) “ I need a videotape on <i>chemical weapons</i> for training.” | Chemical weapons |
| 2)“Next week there is going to be a rescue committee meeting, I would like to provide our staff the most recently | Confine spaces Structural collapse |

| | |
|---|---|
| published copy of the NFPA regulations on <i>Confined Space, Structural Collapse</i> and <i>Trench Rescue</i> ...I want to make sure our staff is prepared for any questions that may arise.” | Trench rescue |
| 3) “I am looking for a videotape to show school kids how to use <i>breathing apparatus</i> .” | Breathing apparatus |
| 4) “Do you have any information/plans/experience in converting and using <i>cargo containers</i> for <i>live fire training</i> ?” | Cargo containers Live fire training |
| 5) “I am looking for information, outlines, etc. for a <i>citizens fire academy</i> , conducted by a <i>volunteer fire department</i> .” | Citizens fire academies Volunteer fire departments |
| 6) “We are looking for response policies to bomb threats . At what point do you stop radio and cell phone transmissions?” | Bomb threats |
| 7) “I am looking for videotapes showing live fires .” | Live fire training |
| 8) “I need most current information on arson investigation for classes I am teaching.” | Arson investigations |
| 9) “Do you have information on how Emergency Medical Services providers should respond to terrorism ?” | Terrorism Emergency medical services |

Table 1. Sample Reference Requests and *FireTalk* Matches

Fire training information is a vital need in fire service training as it shows in Table 1. The IFSI Library can fill the void for those without a local fire library and provide reliable information via the Network Database to access IFSI Library Catalog and other web-based resources and sites.

Barriers to On Time Fire Emergency Information Access

According to our recent study findings and training workshop evaluations, firefighters do not have prompt enough access to information resources. We have identified eight (8) barriers, which impede users’ information access.

1) Largely volunteer force with a high turnover rate. Seventy percent (70%) of Illinois firefighters are volunteers with a high turnover rate per year (20%). The IFSI Library cannot reach them with current services soon enough.

2) Long distance to “invisible users.” Despite the success of the IFSI Library Outreach Program, the isolation of firefighters, especially in rural communities remains a problem. The IFSI Library is located in Champaign and fire departments are scattered all over the state. Some of them can be found more than 400 miles away. It is an on-going challenge for the IFSI Library to develop effective services for remote and “invisible users” in particular those from small fire departments in rural areas where the IFSI Library staff will rarely meet them in person.

3) Scant local holdings. In the 1998 library survey, we found that only 4.5% of all fire departments in Illinois have a library, only 3% have over 500 titles, 49% have fewer than 50. Similarly, among the 28 County Firefighters' Association libraries in the 2003 survey, no library has over 500 titles and 39% have fewer than 50. Among all fire departments libraries, none have a librarian and 90% have no personnel to manage the library. Local information resources are fragmented and unbalanced for use in training programs. The lack of professional support for collection development, organization, and access to fire emergency information resources means local remedy will not work.

4) Lack of library experience. The training workshop evaluations in 2001 for our LSTA grant revealed that many firefighters have little library experience. Among 524 attendees of firefighters, 15.6% indicate that they never used a local library and 38.9% seldom visited a library. In 2004, 99% respondents (N=202) from the IFSI Library's Public Outreach award project, funded by the National Library of Medicine, reported that they have access to a public library. However, 41% of them indicated that they have never used their library, and 64% have not used the IFSI Library. For them, there is also no history of library use or understanding of how it can help them. There is no effective local access to the most up-to-date information.

5) Little knowledge and understanding of what are available resources and how to use them effectively. In our SLA survey, funded by Special Libraries Association (see the full report, entitled "A Survey to Support 'Evidence-Based Practice' in Special Libraries Serving Fire Service Personnel and Researchers in Public and Homeland Security Areas" at <http://www.sla.org/content/learn/scholarship/goldspiel/goldspiel2003.cfm>), we found that 62% of the IFSI survey respondents (N=143) are unaware of the IFSI Library resources. The fact that firefighters do not use appropriate information resources indicates a need to provide such information proactively so that their productivity will increase.

6) Lack of time for locating information resources and attending library training workshops. In three separate statewide surveys, shortage of discretionary time was the number one reason firefighters are unable to receive firefighter certification training. For volunteer firefighters, full-time employment, family, and other major commitments are the primary reasons for their inability to attend offsite training courses and attempt to locate up-to-date information.

7) No direct linkage between the library information resources and local training calendars and activities. The IFSI Library has actively promoted the library outreach services since 1999, but most of our reference services are in passive response, waiting for users to approach the Library if and when they see fit.

8) No digitized and centralized Illinois fire departments' training calendars and activities available. The IFSI Library knows little about different fire departments' training programs and cannot anticipate local training information needs in timely fashion.

Considering these challenging factors, the best approach would appear to employ innovative technology which can overcome time and distance barriers in a proactive way. We therefore propose to launch a “Digital Illinois Fire Departments Training Network Database” to build a knowledge base about the local training needs, and link the Network Database to the IFSI Library and other web-based resources so users can find relevant information at their fingertips. An LSTA grant will provide funding resources much needed for this proposed service to help the IFSI Library continue its outreach efforts into deeper local roots and integration with firefighters’ daily work routine and training activities.

Goal

Firefighters at remote distance should have effective access to the IFSI Library information resources that will enhance their understanding about their training and preparedness. The IFSI Library should ensure the timely provision of, and access to, adequate information resources and services required to support the local fire department training programs. The IFSI Library should provide guaranteed access, relevant collections, and services for remote firefighters no matter where they are. In partnership with 25 or more selected fire departments and local public libraries, we can meet the changing training needs of firefighters. ***The central goal of this proposed project is to shift the IFSI Library business model from passive to proactive information provider in meeting firefighters’ dynamic training needs.*** We will take the following steps to meet the goal and make paradigm shift in our business practice:

- 1) Use innovative technology as a means to create the “Digital Illinois Fire Departments Training Network Database,” managing 25 or more selected fire departments’ training calendars and activities in connecting with the IFSI Library information resources and other relevant web-based resources;
- 2) Integrate information technology and information services with the local fire training programs;
- 3) Remove barriers to information access; increase awareness and improve effective access and usage of fire emergency information;
- 4) Provide tailored information access via the Network Database, customized collection, virtual training program, and reference, reserve and ILL services;
- 5) Enhance quality of the IFSI Library collection as the State’s largest fire science library and clearinghouse for fire emergency information resources;
- 6) Make firefighters competent Internet users, not only for a particular training class, but also for their lifelong learning and career development;
- 7) Promote interagency partnerships across the State; encourage local public libraries to continue sharing their expertise and resources with a target population of firefighters not normally reached; connect the participating fire departments, not being connected and

those that do not have opportunities to access information, to the IFSI Library and other relevant web-based resources, to other fire departments' training programs, and to other firefighters.

Desired Outcomes

By reaching our proposed goal with specific steps, we anticipate the following two major **desired outcomes** with measurements to show that technology is an effective tool in meeting local firefighters' needs.

1) FIRE SERVICE PERSONNEL WILL HAVE HIGH SATISFACTION WITH THE NEW SERVICE AND WITH THE IFSI LIBRARY.

Participating fire departments will see the positive role this proposed service could play in their local departmental training programs as much needed resources to help improve the training of firefighters and assist instructors in improving their teaching abilities. The great benefit of this service is to those who lack funding and resources, particularly small and/or volunteer fire departments in under-served urban and rural communities.

The following specific outcomes will further support the user's high satisfaction with the new service and the IFSI Library:

a) The quality and efficiency of local fire department training programs will be improved. Through the Network Database, firefighters will have better, quicker, higher quality and up-to-date training materials readily available from the IFSI Library and their local public libraries to directly support their training needs and activities. After the project's initial phase of IFSI Library staff intervention, the further provision of library services and materials will be accessible by the interested firefighters themselves, developing better understanding of how to navigate among the myriad resources of the IFSI Library and others, how to identify and locate needed material, and to begin the journey to independent evaluation of resources in their job-related activities. This will help enhance the educational value of firefighters' training experience. It will be the first time that systematic and digitalized training information for local training activities is searchable and available. The Network Database will help provide resource sharing, information exchange, and collaboration among participating fire departments because all in the Network can see what training topics and IFSI Library resources are similar to their needs.

b) Local training needs will be met in timely fashion and use of the IFSI Library by firefighters will be increased. Upon completion of the project, *every* fire chief, training officer and local librarian with *300 or more* firefighters will receive a one-hour long virtual training workshop on how to use the new service to meet their local training needs. We anticipate firefighters will use the IFSI library more frequently than previously. Firefighters will sharpen their skills to access and search for fire emergency information. We plan to use a pre-project survey to build the baseline and a post-project survey instrument to measure user satisfaction with the new service and the IFSI Library.

c) Partnerships with local public libraries will be strengthened to provide timely library services to Illinois firefighters. We will strengthen partnership with 25 or more local public libraries for their expertise and resources, and introduce firefighters in the selected locations to their local libraries, in particularly those who never use the library before. Such partnership will have a synergistic effect on collaboration, sharing and accessing of information and training materials. The number of interlibrary loan requests answered and local library visits will be another way to measure how effective this partnership is.

d) The new service will have community impact beyond the project year. Through evaluation and dissemination plans and activities, the proposed project's success can be used as a tangible example to help promote information services to those non-library users in the fire emergency service community. What we do can be replicated in other libraries across the nation for integrating training and information services directly.

2) FIREFIGHTERS MAKE INFORMED DECISIONS AS IFSI LIBRARY AND THEIR INFORMATION NEEDS ARE MET IN NEW AND INNOVATIVE WAYS.

According to the 2004 SLA survey findings, 74% of IFSI respondents (N=137) indicate that the information they received from the IFSI Library led to better-informed practical decisions. Building upon the SLA survey instrument, we will be able to design a questionnaire to analyze how firefighters made informed decisions while the IFSI Library met their information needs using this proposed new service. For example, we will ask questions on how the project has changed the way they conduct their training business (e.g., better job performance and improved response rate) pre- and post-project implementation.

4. IMPLEMENTATION PLAN

Detail Planning and Specific Action Steps

1. All participating fire departments and public libraries will be required to have their own local Internet access and an electronic mail account.
2. The Network Database will be developed and tested by IFSI Library project staff before being made available to local firefighters. Time tests of deliverable information resources will also be made.
3. When "all systems are go," the Network Database service will be viewed and visited by all fire departments because it will not be password protected. The Network Database will serve as a "portal" through which firefighter users can access information resources they want to use in fire department training programs.

We will plan the following critical areas in details with specific action steps to ensure the success of the project.

1) The Digital Illinois Fire Department Training Network Database. Working with IFSI Research Programmer, Nicholas Voss as our technical advisor (see Attachment 9), we will draw on innovative technology by using Microsoft SQL (MS-SQL) server and Coldfusion programming language to build the Network Database with digitalized records of the local fire departments' training calendars and events in an innovative matching routine (i.e., automatic training topic and subject/media search of IFSI Library catalog and other resources) to deliver pertinent information to participating firefighters in timely manner (see Figure 1). This new service will be accomplished with modification and addition to systems that are already in existence at IFSI as well as an additional database to store records and a Graphical User Interface (GUI) to maintain the database. We will collaborate with participating fire departments in creating, organizing, and mounting the Network Database to the Project Web site. Updating of the Network Database will be done on a continuous basis. We will provide adequate online support and tutorials. Firefighters with a three-shift working schedule, using a wide range of computer operating systems and browsers, can access this web-based information 24 hours a day, seven (7) days a week, i.e. anytime they desire.

2) The Project Web Page at the IFSI Web Site and Online Help. On an ongoing basis throughout and after the term of the project, the Project Web Page will feature instructions and online help for searching the Network Databases in the form of a graphic tutorial with explanatory captions and images from actual search screens. It will include links to the Network Database, IFSI Library, IFSI, participating fire departments and local public libraries, and websites related to the project. It will also contain Online Help, feature stories, web page updates, information on project progress, announcements, virtual training workshop schedule and training materials, online feedback, survey and evaluation forms, listservs, and web boards.

3) Collection Development. We will update and maintain the excellence of the IFSI Library's collection in fire emergency information by identifying, selecting, purchasing and processing library materials in direct support of the selected 25 or more fire departments' training programs. These materials are for participating firefighters in the project and include books, videotapes, DVDs, CD-Roms, and electronic resources. For firefighter users in 25 or more different locations, purchase or licensing of electronic resources, e.g. *Online National Fire Codes* with multi-user access, becomes necessary so that these resources can be accessed easily from remote locations. The proposed collection development will help us acquire systematic knowledge about the local firefighters' training needs for designing, developing and testing the multi-media and electronic collection tailoring at local needs. The new materials will be available to all firefighters and the general public for circulation or interlibrary loan after the project term. Statistics generated from various mechanisms will help measure how the local needs are being met and how effective the use of the IFSI Library is. In addition, we will connect local fire training programs to the worldwide fire collections because the IFSI Library is a member of inFIRE. InFIRE is a worldwide consortium of libraries with significant collections of fire literature, including National Fire Academy Library, etc. We will also connect the local training programs to the Fire and Building Educational

Resource Collection (FABERC) and bio-medical resources at the National Library of Medicine.

4) Virtual User Training Program. We propose to continue training initiative built in previous LSTA grant projects. We will design, develop and conduct workshops with specific learning objectives for participating firefighters and public librarians on how to access the Network Database and locate information related to their training, work and emergency response. Our emphasis will be placed on developing virtual training workshops, manual, and self-paced tutorials (following examples from the National Library of Medicine). Through the training, we anticipate 80% of 300 firefighters with 25 or more training officers and fire chiefs will demonstrate increased understanding of available resources, intention to use them and how the resources can help their training needs whenever they have training activities. More importantly, the training program is aimed at the development of lifelong information literacy habits in firefighters so they will be “able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.”

5) Reference, Reserve and ILL Services. The proposed project will provide several reference services options to serve firefighters at a distance: synchronous (supporting communication by two individuals at the same time through chat technologies) and/or asynchronous (allowing individuals to communicate at times convenient for them). Electronic mail or Web-based forms will be used to submit reference questions or requests for assistance. We will provide a toll-free telephone number reducing the expense for individuals at a distance. We will also provide library fax number, postal service, electronic mail, and text chat. We intend to promote more about digital reference service both by e-mail and chat reference (MyLibrarian, i.e. Ask a Librarian Live). We will work with the local libraries to set up reserve services. We will explore online “playing” of videotapes and DVDs and a small “traveling” collection to be lent and reserved at local public libraries for participating fire departments.

6) Evaluation Plan and Online Tracking System. For evaluation instruments, methods and analysis, we will use both qualitative and quantitative methods of data collection and analysis. We will develop our evaluation framework on firefighters that focus the evaluation of the process and outcomes. To evaluate the process that firefighters undertake in learning online skills, we will ask questions, e.g., what obstacles do they face in integrating web-based communication in their work? To evaluate outcomes, we will ask questions, e.g., does the Network Database provide useful knowledge for firefighters’ fire emergency practice? We will also evaluate our own performance by assessing the Network Database, Project Web Page, and the team performance. Baseline data will be gathered to help determine whether the project had any impact at the beginning of the project and at the conclusion of the project.

7) Dissemination Plan. Our primary vehicle for disseminating results will be the publication of a project manual online describing the major components of the proposed project. As we have done with previous LSTA projects, we will prepare papers for peer-reviewed publications, and presentations at conferences, such as the Illinois Fire Chiefs

Association Conference, inFIRE Conference, SLA Conference, etc. We will also disseminate the results and findings on the Project Web Page, and newsletters.

8) Human Touch through Partnership. In partnership with local public libraries, we will be able to make sure the human personal touch is retained while providing the library service to the remote firefighter users. This personalization requires a commitment of library staff and resources to meet the special needs of firefighter users at a distance. Through the project's exposure to digital library services, we hope to improve information and resource sharing among local libraries devoted to serving fire service and public safety.

Individual and Participant Responsibilities

The development and the implementation of this proposed project represent an essential partnership and community involvement to find a credible solution to meet local fire departments' training needs. Throughout the planning process, we have sought understanding from potential participating fire departments and public libraries and solicit their input and support. They would continue their support and involvement to assist in the project's implementation and evaluation if it gets funded. The respective responsibilities of project staff, partners, and participants are listed as follows:

Project Director – Lian Ruan, IFSI Director/Head Librarian. 35% time contribution. The main duties are to: 1) Direct and oversee day-to-day project activities by working closely with participating fire departments, local public libraries, IFSI Research Programmer, and the project team; 2) Keep project participants, team and other stakeholders (e.g., key Illinois fire organizations) informed of all events and activities; 3) Coordinate monthly regional teleconference calls and make selected site visits to participating fire departments and public libraries; 4) Assemble, lead and supervise the project team; 5) Oversee and monitor project design, development, marketing, and implementation; 6) Design evaluation instruments, monitor evaluation process, analyze and report data, and disseminate results and findings.

Graduate Student A- to be hired from Department of Computer Science, University of Illinois at Urbana-Champaign (UIUC). 50% time (20 hours per week). The main responsibilities include, but are not limited to: 1) Handle technical aspects of the project and all web- and computer- related issues by working with IFSI Research Programmer, who will provide technical advice and support; 2) Design, develop, and implement the Network Database; 3) Develop, maintain and update the Project Web Page; 4) Set up Web discussion boards and listservs for participating fire departments and local libraries; 5) Link all participating fire departments and public libraries Web Sites to the Project Web site, and make other relevant Web links; 6) Provide technical support to the project team and online help to the participants; 7) Develop, update and maintain online tracking system, online reserve (password protection), online evaluations and dissemination activities; and 8) Perform other project related tasks as needed.

Graduate Student B - to be hired from GSLIS, UIUC. 50% time (20 hours per week). The main responsibilities include, but are not limited to: 1) Working with participating fire departments to identify, select, purchase and process multi-media materials focusing on the local training programs' subject areas; 2) working with IFSI Technical Service Librarian, catalog multi-media library materials into inMagic and OCLC databases for access, and update *FireTalk*, *IFSI Thesaurus*; 3) Contact the participating fire departments for training calendars and events, and data enter them into the Network Database; 4) Update training calendars and events in the Network Database; 5) Help coordinate regional telephone conference calls, take and circulate meeting minutes; 6) Set up reserve service; 7) Help develop survey instruments and evaluations forms; data entry and analysis; 8) Perform other project related tasks as needed.

Graduate Student C and D - to be hired from GSLIS, UIUC. 50% time (20 hours per week). The main responsibilities include, but are not limited to: 1) Working with the project team, IFSI Reference and User Training Librarian, and local public librarians to provide reference, reserve, and ILL services for potential 6,693 firefighter users (see Attachment 4); 2) Enhance and promote the IFSI Library's digital reference services; 3) Develop and conduct the virtual user training workshops for *every* participating fire chiefs, training officers, public librarians, and 300 or more firefighters to develop their information literacy skills to access pertinent information and apply the information to their work; 4) Train and build a local train-the-trainer liaison support group, consisting of local training officers and public librarians; 5) Help promote and market the new service through different avenues, such as brochures, newsletters, listservs, etc.; 6) Collect user feedback and evaluation data; 7) Help disseminate training materials, progress reports and results; 8) Perform other project related tasks as needed.

Partner. Technical Advisor – Nicholas Voss, IFSI Research Programmer. 20% time contribution. The main responsibilities include: 1) Working with the Project Director and her team, set up adequate IT environment and systems for the development of the Network Database; 2) Administer and manage the Microsoft SQL (MS-SQL) server; 3) Provide technical support, advice and consultation to project staff, in particular to Graduate Student A; 4) help integrate the new service to the existing IFSI Library and IFSI websites.

Participant and Partner. 25 or more Participating Fire Departments (see Attachment 4). Time contribution will depend on how many firefighters in the fire department for training workshops, and how often they use the Network Database, IFSI Library and local public libraries. The main responsibilities include: 1) Training officer or fire chief act as local liaison to the project; 2) Provide the department's training calendars and activities to the project team; 3) Help customize the Network Database for local training needs; 4) Coordinate, support and participate in the training workshops; 5) Support and utilize the new service, IFSI Library and local public libraries; 6) Help collect feedback and data from surveys and evaluations; 7) Participate in the Regional Telephone Conference calls; 8) Help promote the new service and IFSI Library; 9) Help disseminate training materials, project results and findings.

Participant and Partner. 25 or more Nearby Public Libraries (see Attachment 4). Time contribution will depend on how many firefighters use the IFSI Library and local public libraries for reference, reserve, and ILL services. The main responsibilities include: 1) Provide local library reference, reserve and ILL services as requested; 2) Participate in the IFSI Library’s virtual training workshops; 3) Help train firefighters as local trainer; 3) Participate in the Regional Telephone Conference calls; 4) Help promote the new service and IFSI Library; 5) Help disseminate training materials, project results and findings.

Timeline with Major Project Tasks and Milestones

Our major project tasks and milestones with a proposed implementation schedule within the contract time frame are listed as follows:

| Phase | Major Tasks and Milestones |
|---|---|
| <p style="text-align: center;">Phase I (Month 1-3) (October-December 2005)</p> <p>Preparation, Planning and Development</p> | <ol style="list-style-type: none"> 1) Confirm the participating fire departments and local public libraries; 2) Hire, assemble, and train the project team members; 3) Design, develop and test the Digital Illinois Fire Departments Network Database in connection with IFSI Library and other web resources; 4) Design and test various evaluation forms, survey instruments and gather baseline information; 5) Enter training calendars and activities data in the Network Database; 6) Identify and select major local training subject areas for collection development, and purchase and process the new materials in the Library inMagic database and OCLC; 7) Match training topics in <i>FireTalk</i>, <i>IFSI Thesaurus</i> and update the thesaurus; 8) Develop and test virtual training program and online manual; 9) Enhance digital and ILL references 10) Set up local library and online reserve services; 11) Coordinate and hold weekly team meetings and monthly Regional Telephone Conferences; 12) Attend the LSTA Grants Reporting Requirements Meeting. |
| | <ol style="list-style-type: none"> 1) Launch, market, and promote the new service; 2) Coordinate with participating fire departments and local public libraries for workshop schedule; |

| | |
|---|--|
| <p style="text-align: center;">Phase II (Month 4-7) (January-May 2006)</p> <p style="text-align: center;">Implementation and Evaluations</p> | <ol style="list-style-type: none"> 3) Conduct workshops via chat sessions, web board, Internet, and telephone; 4) Build the train-the-trainer support group; 5) Provide reference, reserve, and ILL services; 6) Collect data on satisfaction evaluations, surveys, and feedback; 7) Coordinate and hold weekly team meetings and monthly regional telephone conference calls; 8) Revise the contents of service and training materials based on feedback; 9) Appropriate documentation and records on the usage of IFSI and local libraries via the new service. |
| <p style="text-align: center;">Phase III (Month 7-8) (May-June 2006)</p> <p style="text-align: center;">Review and Evaluation both of the Service and Products. Reporting and Dissemination</p> | <ol style="list-style-type: none"> 1) Continue to improve the service; 2) Analyze evaluations and feedback; 3) Measure and assess desired outcomes and impact; 4) Write reports and publications; 5) Disseminate the publication(s) at regional, state and national library conferences; 6) Continue to fine-tune and improve the new service beyond the project year. |

Sustaining the project activities and reaching the goals is feasible since it will rely on the quality of the project teamwork, strong partnership from participating fire departments and libraries, and IFSI’s internal support. All involved parties will be committed to the new service development and implementation.

5. MANAGEMENT PLAN

Capacity of the IFSI Library

As the largest fire emergency information resource center in Illinois, the IFSI Library has strong capacity and infrastructure to serve as the project home. With strong in-house support from IFSI (see Attachment 8), the IFSI Library has ability to subsidize this reimbursable grant as it has demonstrated in previous library reimbursable grants, including LSTA grants, in the past years. The financial capacity of IFSI will be able to support the fronting the grant activities.

Qualification of Key Project Personnel and Description of Their Roles

As founding librarian, Lian Ruan has worked at IFSI as Director/Head Librarian since 1990 while serving as Library Consultant at Champaign Fire Department at the same time (see Attachment 10). Ruan has been an active leader in promoting fire information

services in library profession, fire service and library communities at local, university, state, national and international levels. She has actively served on numerous library committees, such as the Illinois Library Association's Cultural and Racial Diversity Committee (2004-) and the Illinois State Library's ILLINET Network Advisory Council (INAC) (2003-2005). She also served as Downstate Board of Director Special Libraries Association Illinois Chapter (2002-2004), on the inFIRE Committee (1996-2001) and is the inFIRE Treasurer since 2001. Under her leadership, the IFSI Library has made impressive progress toward its goal as one of the best fire emergency libraries in the world. Ruan served as Project Director for all grant awards received from the Illinois State Library. She has led her project teams to complete project goals successfully and on time. Through a variety of projects, she acquired rich grant management experience and demonstrated her abilities to administer project activities and staff. Because of her accomplishments, she has won both the University Chancellor's Academic Professional Excellence (CAPE) Award and Special Libraries Association's Diversity Leadership Development Award in 2003. She was selected to participate in the Synergy: The Illinois Library Leadership Initiative in 2004.

Built upon previous LSTA grants experience and accomplishments, Ruan and her team in this proposed project will continue delivering the best performance ever. As Project Director, Ruan will contribute 35% of her time to manage its day-to-day operation and oversee the whole project. She is confident that she will be able to hire a talented and high quality team of four graduate students from the University of Illinois at Urbana-Champaign to assist her with the project and work for the entire period of the grant. They will take main responsibilities in the areas of web development of the new service, collection development, reference, reserve, and ILL services, virtual training program, promotion and marketing, evaluation and dissemination.

Anticipated Challenges

The potential challenge we may face with the training workshops is local firefighters' busy schedule. Besides using innovative technologies to reach them and hold virtual training workshops, we will find creative ways to reach them and get them trained. One of strategies is to incorporate some of their on-site studies at IFSI into an on-site IFSI Library workshop training. Another strategy is to conduct training-the-trainer classes for training officers and local public librarians to establish a local train-the-trainer liaison support group so trainers can help complete training workshops for 300 or more firefighters. Another potential challenge we may face is remote distance and isolation of participating fire departments, in particular in south region. With regional teleconference calls and Project Director's site visits, we hope to make the distance connectivity more effective, and build closer network and meaningful partnership.

6. PROJECT SUSTAINABILITY

This proposed project will allow the IFSI Library to develop new and ongoing services, activities and programming utilizing technology to benefit Illinois firefighters. It will

prove that employing technology is an effective means for libraries, like IFSI Library in this proposed project, to deliver information and services to benefit patrons.

As the statutory State Fire Academy Library, the IFSI Library plays an important role and has great responsibilities for the success of the local fire departments' training programs and activities. As the proposed new service demonstrates, through the Network Database, the IFSI Library services (including library training workshops) and resources will become an integrated component of the local fire departments' training programs. The IFSI Library will fundamentally make paradigm shift in its business practice and increase its capacities and user base significantly in responding proactively to the changing training needs, both with pertinent information and in timely fashion. It will help fulfill IFSI's mission tremendously by being able to reach every firefighter with information he/she requires. The IFSI Library will also benefit from this project by filling current gaps in service and collection closely relevant to local fire departments training needs. Most importantly, the IFSI Library will develop the expertise, systematic knowledge, and innovative programs needed to sustain and extend these improvements in the future. The IFSI Library will benefit from the improvement of its interface and retrieval mechanisms. This will surely improve the IFSI Library system ability to support information seeking and sharing across fire departments, and ultimately, its value as an important information resource center for fire emergency service and public safety. This proposed project will strengthen partnerships between IFSI Library, participating fire departments and local public libraries, deepen interagency cooperation, and improve public safety for Illinois citizens.

The impact of this proposed service will be far-reaching to fire emergency service community, fire library information services, and library profession. The new library service will receive strong in-house support following expenditure of grant funds as IFSI Director Jaehne indicates in his support letter (see Attachment 8) as IFSI and the Library are committed to developing the Outreach Program and maintaining the digital information management service. We will sustain the new service after the project ends and fit it into other library services we offer. Components of our plan to sustain the project are:

- 1) As we incorporate changes, upgrades into the ongoing process, we expect the participating fire departments of this project continue using the new service after the project ends because the project will prove that the Network Database truly facilitates resource-sharing and coordinates training information across multiple fire departments in a more problem-centered and service-oriented manner. We will contact all participating fire departments in the last 3 months of the project to describe their intentions to sustain the activity. The probability of sustainability is high. We will report the progression of the project to them by e-mail and listservs.
- 2) More importantly, the proposed project participants will help us promote the new service to other fire departments so we can expand similar services to the remaining fire departments' training programs. New firefighters at a distance are likely to add with the potential of thousands of firefighters annually. The success of the project will help make

the new service become an established, self-sustaining part of their training curriculum. The virtual library training workshops and online tutorials will be a part of local training programs. The virtual training manual to be prepared for the project will be used by the IFSI Library staff as a part of the User Training Program after the project term.

3) As IFSI Director Jaehne indicates that IFSI will provide sustaining funds (as it did to previous LSTA projects) to keep the project's momentum going. The Project Web Page will remain at IFSI Web Site and serves as a major resource for the new service to provide information, progress reports, evaluation and dissemination activities. IFSI will also support the enhancement of the collection to meet more local firefighters' training needs.

4) In particular, we hope to expand the scope of the project by seeking funding among the array of funding resources, such as the Department of Commerce's Technology Opportunities Program (<http://www.ntia.doc.gov/top/>) to recruit and train those fire department participants in rural areas and expand the infrastructure that provides volunteer firefighters access to the Internet. We would like to focus more on greatly increasing the number of volunteer firefighters who use the IFSI Library because they could benefit the most from access to information concerning basic firefighting, career advancement (e.g. career move from volunteer to a paid firefighter, or to become Fire Chief for a volunteer or paid fire department), and training opportunities.

5) Since involvement of Illinois fire departments (as 70% of 1,293 fire departments are volunteers) will be significant, completion of this project will lay the groundwork. The ultimate goal will be to extend the new service to all fire departments in Illinois.

6) The Project Director will continue dissemination activities at conferences and meetings, and submit publications to peer-reviewed library journals as she did with previous LSTA grant projects results and findings.

7. COMMUNICATION/PROMOTION PLAN

Planning and development of this proposed library service will have little impact unless it is effectively communicated regularly project activities and outcomes with the target audience, other stakeholders, other agencies, legislators, and the Illinois library community. Our marketing and promoting the new proposed services will be built on the foundation already developed through the previous LSTA grants accomplishments and IFSI Library continual outreach efforts. The Library project staff will use the following media outlets and steps to communicate with the target audience, IFSI, and fire emergency and library communities, and others to promote the new service.

Working with IFSI Marketing Consultant, Mary Auth, we will:

- Prepare, distribute, revised and post library brochure (originally created by the LSTA 2000 Marketing grant project) on the Project Web Page describing the proposed project, including the Network Database;

- Request announcements of the project and report of the project progress through newsletter items in newsletter, individual fire department and library, consortia, IFSI, IFSI Library, fire organization, library professional association newsletters;
- Present short descriptions of the project, distribute brochures, and demonstrate the Network Database at fire meetings such as the Annual IFSI Library Advisory Committee meeting in spring, and IFSI on-site courses;
- Make selected site visits as needed to participating fire departments and public libraries;
- Promote the services through the Library listserv (fsilib_1@listserv.uiuc.edu), IFSI's listservs on GroupWise, and individual contacts;
- Embed the marketing and promotion into daily reference and ILL services; make it part of the IFSI User Training Program;
- Regularly broadcast and report our project progress on the Project Web site, IFSI Web site, Websites of participating fire departments and public libraries, in particular, at the regional teleconference meetings with participating fire departments and local public libraries;
- Set up project listservs to facilitate communication with participants;
- Disseminate the project findings on websites, at local, regional or national meetings, through professional refereed journals, local newspapers, reporting project results and strategies for collaboration among fire organizations, librarians, and fire educators.
- Fire department participants will be encouraged to provide their testimonial statements before state legislators if appropriate and as needed. These efforts would be designed to encourage the state and federal governments to provide support (financial or otherwise) to the expansion of the use of technology in the training of fire service professionals.

All avenues will be used and explored as the project goes to make firefighter participants aware of the new service and resources available to support their training, teaching, and learning connected with their local training calendars and activities.

8. LSTA BUDGET CHART

The Library has very limited resources tailored to specific local training programs and no systematic services in this area in place yet. Although there is a high level of commitment, additional staff and other needed support for this proposed project are not possible from IFSI now due to other budget obligations and constraints. An LSTA grant

would provide the much-needed one-time, start-up money for additional human resources, library materials, and equipment to allow us to complete this project in a more timely and effective manner. The proposed budget below carefully addresses all aspects of costs involved in the major project activities.

| BUDGET CATEGORY | EXPLANATION | AMOUNT <i>(in whole dollars only)</i> |
|---|---|--|
| Library Materials | Books, non-print, software | \$20,000 |
| Capital Outlay | Equipment valued over \$500 | \$ 4,750 (with IFSI 50% match up) |
| Professional Contracts | Hiring an individual on contract | |
| Contractual Services | Hiring an agency on contract | |
| Personnel | Salaries and benefits for additional staff | \$52,794 (including Fringe Benefits) |
| Travel and CE for Staff | Agency staff travel and meeting registrations | \$ 1,246 (including one required grant meeting and ten site visits) |
| CE and Meetings for Others | Travel, registrations and honorariums for others | \$ 2,066 (teleconference calls) |
| Public Relations | Advertising done by outside firm | |
| Supplies, Postage and Printing | Supplies and equipment valued under \$500 | |
| Phones and Telecommunications | Phone charges and rental | \$ 770 (virtual training workshops) |
| Equipment Rental, Repair, and Maintenance | Rental, Repair, Insurance and Maintenance of Equipment | |
| | TOTAL LSTA AMOUNT REQUESTED <i>(in whole dollars only)</i> | \$81,626 |

9. LSTA BUDGET EXPLANATIONS

Library Materials: \$20,000

Due to limited budget, historically, the IFSI Library builds its collection primarily focusing on the IFSI training programs, including firefighting, hazardous materials, homeland security, fire investigation, fire prevention, rescue, fire officer, management and general training. We have a limited copy of AV materials on popular subjects due to high cost. Based on our phone survey among the 25 or more selected fire departments for this proposed project, there are scarce library materials available locally to their training programs. For some topics, such as firefighter fitness (and nutrition), we will have to build the collection from scratch. As we discuss in the earlier section, audio-

visual materials have been identified as the most popular training materials used by firefighters for training, but they are the most expensive (see Attachment 2). To support 25 or more fire departments for this proposed project, we propose \$20,000 for collection development averaging \$800 per fire department. We will carefully assess each participating fire department's needs and training program topics to determine the appropriate allocation of the fund to individual fire department.

Capital Outlay: \$4,750

Since the IFSI Library staff and users will occupy all library computers, there are no computers and printer available for the project team, mainly consisting of four graduate students working at total of 80 hours per week. To prepare, plan, implement and evaluate the proposed new service, these four graduate students must have a computer of their own at individual workstation, sharing a printer. We propose to purchase computers at \$2,000 per computer, and printer at \$1,500 per printer with a 50% match from IFSI: \$2,000/per computer x 4 (graduate students) = \$8,000; \$1500 printer; total: \$9,500; 50% match up: \$4,750. The equipment specification is as follows:

| | |
|--|--|
| For the computer: | For the printing: |
| Pentium 4 (3ghz - 800Fsb) 512mb - 1Gig of Ram DVD/CDRW combo drive Video card with 128MB 80GB Hard Drive 17 " or 19" Flat Panel Monitor | Print quality up to 1200 x 1200 dpi 2 trays for input, with 500 minimum sheet input total 45ppm USB2.0, parallel, and jet direct or similar ethernet embedded print server capability standard |

Since the IFSI Library is a special library and no children use our library, CIPA does not apply to special libraries and it only applies to public and school libraries. All computers and printer will be put inside the IFSI Library.

Personnel: \$52,794

Because of complexity and multi-facet project activities, statewide outreach efforts, and 6,693 firefighters in 25 or more selected fire departments and 25 or more local public libraries (see Attachment 4), we must to have adequate personnel support to help carry out the project activities and ensure its success in the key areas, such as development for the Network Database; collection development; training; reference, reserve, and ILL services; promotion and marketing; evaluation and dissemination. According to Jan Rusk, Secretary from the IFSI Business Office, graduate student's hourly rate for the Department of Computer Science, University of Illinois at Urbana-Champaign is approximately \$18.25 per hour, \$16.25 for the Graduate School of Library and Information Science (GSLIS) (and the rate is subject to change in new academic year). The University's fringe benefit is 9.44%. We will hire one graduate student from the Department of Computer Science, who will takes charge of technical development of the Network Database and online support for this proposed project as detail responsibilities

shown on page 16-17. We propose \$14,381 for his/her salary payment as calculated below:

$\$18.25 \times 80 \text{ hours/month} \times 9 \text{ month} = \$13,140$ (in whole dollars)
 $\$13,140 \times 9.44\% = \$1,241$ Fringe Benefit (in whole dollars)
Total salary: \$14,381 (in whole dollars)

To take care of over 6,693 firefighter users in the selected 25 or more fire departments, three (3) graduate students from GSLIS will be needed to take care of the new service's planning, development, implementation, evaluation and dissemination in the areas of collection development, reference, reserve, and ILL services, marketing and promotion, training, evaluation data collection and analysis, and dissemination of the project results (see detail main duties shown on page 17). We propose \$38,413 for their salary payment as calculated below:

$\$16.25/\text{hr} \times 80 \text{ hours/month} \times 9 \text{ month} = \$11,700$ (in whole dollars)
 $\$11,700 \times 9.44\% = \$1,104$ Fringe Benefit (in whole dollars)
Total salary for one (1) student: \$12,804 (in whole dollars)
Total salary for three (3) students: \$38,413 (in whole dollars)

Travel for Staff: \$1,246

Since our grant request is over \$5,000, Project Director is required to attend an LSTA Grants Reporting Requirements Meeting in Springfield in October 2005. The total cost for staff travel is **\$162**:

170 miles (85 miles one trip) roundtrip \times \$0.375/per mile = \$64
Hotel: \$70/one night
Per Diem: \$28 per day (based upon State of Illinois Travel Regulations)

Majority of participating firefighters is in remote distance. To ensure the project's smooth progress and completion on time, Project Director plans to make ten (10) site visits to participating fire departments and local public libraries in four different regions to promote the project, interview participants, observe the local training program and activities, train participants, build local network, and discuss any issues and challenges they may face. The site visit cost of **\$1,084** is calculated as follows:

Total roundtrip mileage for 27 participating sites: 6,900 miles (see Attachment 4)
Average roundtrip mileage for one site: 276 miles

276 miles \times \$0.375/per mile = \$104
Hotel: \$70/one night \times 10 sites = \$700
Per Diem: \$28 \times 10 = \$280

Meetings for Others: \$2,066

To manage the project and coordinate project activities with participating fire departments and local public libraries, we plan to have an one-and-half-hour long Regional Telephone Conference Call monthly with participating fire chiefs (or training officers) and public librarians in different four regions to introduce the project team and launch the project, inform the project progress, promote and market the new services, discuss issues and problems that participants and project team encounter and how to solve them, etc. According to the University’s Chief Operator, for the 15-people conference calling, it costs \$34 for one hour (\$20 for first 30 minutes, \$7 for each additional 15 minutes), plus long distance charges: \$0.10 cents per person, per minute for in-state calling. The total cost of \$2,066 as calculated below:

9 months project x 4 regions x 1 conference calls per month: 36 conference calls
36 conference calls x \$54 (1.5 hour: \$34 for one hour, \$20 for first 30 minutes) = \$1,944
Long distance charges: \$0.10 x 20 meeting attendees (including fire chiefs, public librarians, project team) x 36 calls = \$72
\$50 for additional minutes needed in case the meetings last longer.

Phones and Telecommunications: \$770

For virtual user training program, we will use telephone and Web to conduct workshops with participating firefighters and public librarians. In order to build the local train-the-trainer support group, we plan to train every fire chief (25), training officer (at least 30 because the Chicago Fire Department has more than one training instructors with 101 fire houses scattering the city) and public librarians (at least 30 because the Chicago Public Library has more than 80 branches). We also plan to reach 300 firefighter participants in various ways, combining direct virtual training workshops with site visits and local trainer’s training. According to Teresa Kreps from IFSI Business Office, it costs \$0.10 per minute for long distance phone call. Based on our previous workshop scheduling experience, it takes minimum one hour to schedule and confirm a workshop. The cost of \$770 is calculated as follows:

25 fire chiefs + 30 training officers + 30 public librarians + 300 firefighters = 385
385 workshop attendees x 2 (one-hour-long virtual training workshop, one hour scheduling) x \$0.10 per minutes = \$770

10. LOCAL CONTRIBUTION BUDGET CHART

As it indicates in the Budget Chart below and in Director Jaehne’s support letter, IFSI will provide strong in-house support as it did with previous LSTA funded grant projects.

| BUDGET CATEGORY | EXPLANATION | AMOUNT <i>(in whole dollars only)</i> |
|------------------------|----------------------------|---|
| Library Materials | Books, non-print, software | |
| Capital Outlay | Equipment valued over | \$ 4,750 (50% match up) |

| | | |
|---|--|---|
| | \$500 | |
| Professional Contracts | Hiring an individual on contract | |
| Contractual Services | Hiring an agency on contract | |
| Personnel | Salaries and benefits for additional staff | \$38,718 (including Fringe Benefits) |
| Travel and CE for Staff | Agency staff travel and meeting registrations | |
| CE and Meetings for Others | Travel, registrations and honorariums for others | |
| Public Relations | Advertising done by outside firm | \$ 750 |
| Supplies, Postage and Printing | Supplies and equipment valued under \$500 | \$ 500 |
| Phones and Telecommunications | Phone charges and rental | \$ 600 |
| Equipment Rental, Repair, and Maintenance | Rental, Repair, Insurance and Maintenance of Equipment | |
| Indirect Costs | | \$25,389 |
| | TOTAL LSTA AMOUNT REQUESTED (in whole dollars only) | \$70,707 |

11. LOCAL CONTRIBUTION BUDGET EXPLANATIONS

Capital Outlay: \$4,750

IFSI will make 50% matching for four computers and one printer purchase (\$9,500).

Personnel: \$38,718

Public Relations: \$750

IFSI will contribute 10 hours of Marketing Consultant Contractor, Mary Auth (hourly rate at \$75; \$750) to help promote and market the project and its new service to fire emergency community and other stakeholders.

Supplies, Postage and Printing: \$500

Based on the previous grant project experience, for the project team of five (consisting of Project Director and four graduate students) serving 25 participating fire departments with over 6,000 firefighters, IFSI will provide \$500 contribution for printing, photocopying (for training manuals, brochures, various forms, article requests from

reference services, etc.), office supplies and postage needed for the project's planning, implementation, evaluation, and dissemination activities.

Phones and Telecommunications: \$600

IFSI will contribute \$600 to cover telecommunication activities associated with this project, including Project Director's cell phone (\$40 per month) and daily phone calls (\$0.10 per minute) made to the participating fire departments and public libraries. IFSI will also allow participants to access the 800 number for information requests.

Indirect Costs: \$25,389

Since the Illinois State Library does not pay indirect costs and/or overhead on competitive grants, we are allowed to have these costs considered as a local contribution. According to IFSI Business Office and the University's Grants & Contracts Office, the indirect costs for this grant is \$25,389.

In addition, IFSI will provide photocopying and scanning equipment, Coldfusion software, Microsoft SQL (MS-SQL) server, supplies, and facilities to support the project and ensure its success. We will follow the LSTA grant guidelines to report our local contributions to the Institute of Museum and Library Services on the online reporting forms.

12. Assurance & Certification Guarantee

13. SUPPORTING DOCUMENTATION

Attached is additional documentation that communicates commitments the IFSI Library and potential participants made to the success of the project.

Attachment 1: The IFSI Library

Attachment 2: A Sample List of Local Fire Departments' Firefighting Training Topics Matching *FireTalk*, *IFSI Thesaurus* with Nonprint Materials

Attachment 3: State of Illinois in Four Regions

Attachment 4: Potential Fire Department and Public Library Participants and Partners

Attachment 5: Sample Fire Department Training Calendars:

- Effingham Fire Department
- Flossmoor Fire Department
- Galesburg Fire Department
- Sycamore Fire Department

Attachment 6: Sample Support Letters from Potential Participating Fire Departments

- Aurora Fire Department
- Chicago Fire Department
- Decatur Fire Department
- East Moline Public Library
- Effingham Fire Department
- Flossmoor Volunteer Fire Department
- Galesburg Fire Department
- Gardner Volunteer Fire Department
- Ottawa Fire Department
- Sycamore Fire Department

Attachment 7: Sample Support Letters from Potential Participating Public Libraries:

- Cherry Valley Public Library District
- East Moline Public Library
- Galesburg Public Library
- Lake Bluff Public Library
- Mt. Carmel Public Library
- Peoria Public Library

Attachment 8: IFSI Director Richard L. Jaehne's Support Letter

Attachment 9: IFSI Research Programmer Nicholas Voss's Resume

Attachment 10: IFSI Director/Head Librarian Lian Ruan's Resume

Attachment 1: The IFSI Library

The IFSI Library's mission is to provide fire emergency library and information assistance and services to IFSI's instructional staff, students, Illinois fire departments, and firefighters, and other fire/emergency-related users in the successful and effective performance of their jobs. Making appropriate library resources and services available for local firefighters is one of the most important components for the IFSI Library Outreach Program since the Library's resources and services are an essential part of local training programs. To better serve its constituencies, a multi-million-dollar new library building is approved by the University's Chancellor's Capital Review Committee and is under preparation. The new library will significantly increase the library space from 700 sq. ft. to 10,000 sq. ft.



University of Illinois Fire Service Institute . Fire and Emergency Services Library



Attachment 2: A Sample List of Local Fire Departments' Firefighting Training Topics Matching *FireTalk*, *IFSI Thesaurus* with Nonprint Materials

| FD Training Topics | FireTalk Match | Nonprint Title | Format | Cost |
|---------------------------|------------------------------------|---|----------------|-------------|
| Apparatus | Fire apparatus | Apparatus Inspection and Maintenance | Video | \$135 |
| Bloodborne Pathogens | Bloodborne pathogens | Bloodborne Pathogens | Video | \$125 |
| Confined Space Entry | Confined space entry | Confined Space Entry | Video | \$295 |
| Apparatus | Emergency medical services | Driving Principles of Emergency Service Apparatus | Video | \$135 |
| Fire Fighting | Firefighting Operations | Essentials of Fire Fighting Video Clips Series CD-ROM Set | CD-ROM | \$1,500 |
| Firefighting | Firefighting operations | Essentials of Firefighting Curriculum Package with Color Transparencies | Transparencies | \$820 |
| Initial Company Response | Initial company responses | Fire Attack - Strategy & Tactics of Initial Company Response (series of 6 videos) | Video | \$495 |
| Firefighting | Fire behaviors | Fire Power | Video | \$229 |
| Foam | Foams | Foam | Video | \$425 |
| Forcible Entry | Forcible entry | Forcible Entry Video Series (5 videos) | Video | \$395 |
| Inspection | Fire Prevention and Inspections | Inspection: Part 1 | Video | \$115 |
| Aerial Apparatus | Aerial ladders | Ladders & Aerial Apparatus | Video | \$145 |
| Master Stream | Master streams | Master Stream Safety | Video | \$150 |
| Pre-fire planning | Pre-fire planning | Pre-fire Planning | Video | \$145 |
| Rope | Ropes | Ropes and Knots | | \$135 |
| SCBA | Self-contained Breathing Apparatus | SCBA 1 - Introduction | Video | \$135 |
| Search and Rescue | Search and rescue operations | Search and Rescue in Private Dwellings | Video | \$80 |
| Sprinklers | Sprinklers | Sprinklers | Video | \$115 |
| Vertical Ventilation | Vertical ventilation | Vertical Ventilation | Video | \$135 |

(Note: FireTalk is a search aid which displays the terms we use to describe all the Fire Science subjects in IFSI Library catalog and related databases, such as National Fire Academy Library.)

Attachment 3: State of Illinois in Four Regions



(Note: For outreach planning purposes, the IFSI Library uses Highway 80, 70 and 39/51 to roughly and arbitrarily divide the whole state into four regions.)

**Attachment 4: Potential Fire Department and Public Library
Participants and Partners**

| Fire Department | Firefighter Population | Public Library | Four Regions | Roundtrip Mileage |
|---|-------------------------------|--|---------------------|--------------------------|
| 1 Beardstown Fire Department (RTC) | 29 | Beardstown Houston Memorial Public Library | West | 263 |
| *2 Galesburg Fire Department (RTC) | 49 | *Galesburg Public Library | West | 280 |
| 3 Macomb Fire Department | 20 | Macomb Public Library | West | 300 |
| 4 Morton Fire Department | 30 | Morton Public Library | West | 169 |
| 5 Peoria Fire Department (RTC) | 180 | *Peoria Public Library | West | 185 |
| Total | 308 | | | 1,197 |
| 6 Bloomington Fire Department | 94 | Bloomington Public Library | East | 106 |
| 7 Champaign Fire Department (RTC) | 87 | Champaign Public Library | East | 10 |
| *8 Decatur Fire Department | 114 | Decatur Public Library | East | 101 |
| *9 Gardner Fire Department | 20 | Coal City Public Library (12 miles away) | East | 245 |
| 10 Kankakee Fire Department | 32 | Kankakee Public Library | East | 160 |
| *11 Ottawa Fire Department | 29 | Reddick Library | East | 264 |
| Total | 376 | | | 886 |
| *12 Aurora Fire Department | 200 | Aurora Public Library | North | 326 |
| 13 Cherry Valley Fire Protection District | 70 | *Cherry Valley Public Library | North | 260 |
| *14 Chicago Fire Department (RTC) | 5,000 | Chicago Public Library | North | 274 |
| *15 East Moline Fire Department | 33 | *East Moline Public Library | North | 366 |
| *16 Flossmoor Fire Department | 54 | Flossmoor Public Library | North | 224 |

| Fire Department | Firefighter Population | Public Library | Four Regions | Roundtrip Mileage |
|---|-------------------------------|--|---------------------|--------------------------|
| 17 Gurnee Fire Department | 47 | Warren-Newport Public Library | North | 358 |
| 18 Lake Bluff Fire Department | 45 | *Lake Bluff Public Library | North | 344 |
| 19 North Palos Fire Protection District | 55 | Green Hills Public Library District | North | 260 |
| 20 Northlake Fire Protection District | 23 | Northlake Public Library | North | 291 |
| 21 Rockford Fire Department | 267 | Rockford Public Library | North | 373 |
| *22 Sycamore Fire Department | 38 | Sycamore Public Library | North | 380 |
| Total | 5,832 | | | 3,364 |
| 23 Carbondale Fire Department | 32 | Carbondale Public Library | South | 389 |
| *24 Effingham Fire Department | 51 | Helen Matthes Library | South | 150 |
| 25 Mt. Carmel Fire Department | 23 | *Mt. Carmel Public Library | South | 300 |
| 26 Mt. Vernon Fire Department (RTC) | 27 | C E Brehm Memorial Public Library District | South | 284 |
| 27 Salem Fire Protection District | 44 | Bryan-Bennett Library | South | 238 |
| Total | 177 | | | 1361 |
| Summary Total | 6,693 | | | 6,900 |

(Note: * indicates support letters were received.)

Attachment 10: Lian Ruan's Resume

Director/Head librarian, Illinois Fire Service Institute, University of Illinois at Urbana-Champaign

Professional Experience

- Director/Head Librarian, Illinois Fire Service Institute, University of Illinois at Urbana-Champaign, 1999-
- Adjunct Faculty at the Graduate School of Library and Information Science (GSLIS), University of Illinois at Urbana-Champaign (UIUC), 2002-
- Adjunct Faculty at the Department of Information Management, Peking University, P.R. China, 2004-
- Library Consultant, Champaign Fire Department Library, 1990-
- Research Information Specialist, Illinois Fire Service Institute, 1990-1999

Selected Grant Awards

- National Library of Medicine, Outreach Project Award, "Putting Professional Development into Practice," 2004-2005
- Special Libraries Association (SLA), Steven I. Goldspiel Memorial Research Grant Award, "A Survey to Support 'Evidence-Based Practice' in Special Libraries Serving Fire Service Personnel and Researchers in Public Safety and Homeland Security Areas," Co-Research Director, Linda C. Smith, 2003-2004
- Campus Research Board Awards, University of Illinois at Urbana-Champaign, Supplemental Support to the SLA Project and *FireTalk*, *IFSI Thesaurus*, 2002-2004
- Illinois State Library, Library Services and Technology Act (LSTA) Grant Award, "Grow with a Pro!" 2002
- Illinois State Library, LSTA Grant Award, "Libraries in the 21st Century – Developing the Distance Learning Library Services for Illinois Firefighters: An Integrated Information Service with Online Firefighter II Certification Program," 2001
- Illinois State Library, LSTA Grant Award, "Internet Outreach to and Training of Illinois Fire Service Personnel, Public and Community College Librarians for Electronic Access to Fire Safety Information," 2000
- Illinois State Library, LSTA Grant Award, "Bring in An Expert Mini-grant Program," 1999

Highlighted Professional Activities

- Advisory Committee, Special Librarians Endowment Fund, GSLIS, UIUC, 2005-
- Scholarship Committee, Chinese American Librarians Association (CALA), 2005-
- Treasurer, inFIRE, 2001-
- Illinois Library Association Cultural and Racial Diversity Committee, 2004-2005
- ILLINET Network Advisory Council (INAC), 2003-2005
- Synergy: The Illinois Library Leadership Initiative, 2004
- Teach-Model-Coach Program Coaching 21st Century Learners for Advancement in the Library Profession, Chicago Library System, 2003-2004

- Downstate Board of Director, SLA Illinois Chapter, 2002-2004
- inFIRE (Advisory) Committee, 1997-2001

Representative Publications

- “A Survey to Support ‘Evidence-Based Practice’ in Special Libraries Serving Fire Service Personnel and Researchers in Public Safety and Homeland Security Areas,” a Full Report, Co-Research Director Linda C. Smith, SLA, 2005, <http://www.sla.org/content/learn/scholarship/goldspiel/goldspiel2003.cfm>
- “Designing and Developing Internet Reference Services to Support Firefighter Distance Learners in Illinois.” *Internet Reference Services Quarterly*, Volume 9, No. ½, p.147-172, 2004
- “Fire Protection” Chapter in *Magazines for Libraries*, 12th edition, New York: R.R. Bowker, edited by Cheryl LaGuardia, 2004
- “Meeting Changing Information Needs of Illinois Firefighters: Analysis Queries Received from Reference Outreach Service,” Co-authored with Jan Sung, *The Reference Librarian*, No. 82, P.69-105, 2003
- “Virtual User Instruction at the University of Illinois Fire Service Institute Library: Producing a Web-based Training Video for Illinois Firefighters,” Co-authored with John Paul, Jeff Cunningham and Sarah Windau, *Illinois Libraries*, Spring 2002, Volume 84, No. 2, p.48-62
- “Providing Better Subject Access to Nonprint Fire Emergency Materials for Illinois Firefighters,” *Cataloging & Classification Quarterly*, Volume 31, No.3/4, p.213-235, 2001
- “The LSTA (Library Services and Technology Act) 2000 Full Year Grant, Internet Outreach to and Training of Illinois Fire Service Personnel, Public and Community College Librarians for Electronic Access to Fire Safety Information, Final Narrative Report,” *Illinois Libraries*, Winter 2001, Volume 83, No.1, p.18-33
- “The LSTA (Library Services and Technology Act) 2001 Grant, Libraries in the 21st Century – Developing the Distance Learning Library Services for Illinois Firefighters: an Integrated Information Service with Online Firefighter II Certification Program, Final Narrative Report,” *Illinois Libraries*, Fall 2001, Volume 83, No. 4, p.19-63

Honors and Awards

- Profiled in the 2005 edition of *Who's Who in the World*, also in the 58th edition of *Who's Who in America*, published by Marquis Who's Who in 2004
- 2003 Chancellor's Academic Professional Excellence (CAPE) Award
- 2003 Special Libraries Association Diversity Leadership Development Award

Education

- MLS Library and Information Science, University of Illinois, Graduate School of Library and Information Science, 1990
- MA African History, University of California at Los Angeles, 1988
- BA World History, Peking University, P.R. China, 1984