



# Library Practices and Management in the Digital Age of Fire Information: Development of the Illinois Fire Service Institute Library

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**May 10**

**inFIRE Annual Conference 2011**





# Abstract

**In 1990, the Illinois Fire Service Institute Library was established as an in-house library for IFSI full-time staff and part-time field instructors. Over the subsequent twenty years, the IFSI Library has experienced transformational growth in multiple areas and now answers 4,000 annual reference requests. This presentation will examine how the IFSI Library has embraced proactive library practices and management techniques in an effort to provide no-cost fire emergency library and information assistance and services to Illinois fire service personnel and citizens. User-centric outreach activities will be described, including the pursuit of grant awards, the development of intensive patron training programs, and the creation of an advisory committee, and this presentation will also discuss how the library evolved to include repositories for both historical archival materials and modern electronic records and files. Finally, this presentation will describe the efforts of the IFSI Library staff to take full advantage of the library's new home in the state-of-the-art IFSI Learning Resource and Research Center, and to further develop innovative collections and programs as part of IFSI's VISION 2020 strategic plan.**





# ILLINOIS FIRE SERVICE REALITIES

**1,293**

**Fire Departments**

**42,675**

**Firefighters**

- 8,600 Officers
- 13,300 Paid

**70%**

of all Departments  
are **VOLUNTEER /  
PAID ON CALL**

**20%**

**Turnover Rate**

# Illinois Fire Service Institute



- Statutory State Fire Academy

- Central goal of Vision 2010, Vision 2015: “helping firefighters do their work through training, education, research and information”  
<http://www.fsi.illinois.edu/>

- Library’s 3-year strategic plans (1999-)  
- Proactive and value-added approaches

**Illinois Fire Service Institute**  
ILLINOIS FIRE SERVICE INSTITUTE

**WELCOME TO  
THE ILLINOIS FIRE SERVICE INSTITUTE**

Welcome to the new Consolidated Website and Virtual Campus of the Illinois Fire Service Institute, which is your State Fire Academy. In an effort to find new and improved ways through training, education, information and research to help firefighters “do the work,” we have brought all of our servers, websites, on-line classes and information in-house.

Please take a moment to browse through our website. We have endeavored to make it more user-friendly by providing direct access to class information, including a **graphic map of Illinois** that will allow you to click on your county and receive the latest information on class availability in your area. Our library is only a mouse-click away to provide you with training materials. As we refine this new 4th generation web site, we will provide for on-line course registration and continue to expand our on-line course offerings located on our **Virtual Campus**. You will also find new features such as self-training exercises and a web board.

Please **register** for updates and fill-out an **on-line survey** on how we might serve you and your department better.

IFSI Main  
Resource Center  
Virtual Campus  
Homeland Security  
Library  
NAFTD

Illinois Fire Service Institute  
11 Gerty Drive  
Champaign, IL 61820  
(217) 333-3800  
1-800-437-5819  
Fax: (217) 244-6790  
fsi@uiuc.edu

University of Illinois Website

Search the Site:  GO  
Advanced Search





# 1998 Outreach Program Survey Findings

- Outreach Program: Provide No-Cost Library and Information Services to Every Firefighter in Illinois
- Great Benefit of the Outreach Program Would Go To:

Those Who Lack Funding and Resources,  
Particularly Small / Volunteer Departments  
in Under-served Urban and Rural Communities



# IFSI Advisory Committee

- . Four regions
- . 16-19 members from local fire departments and companies
- . Committee bylaw
- . Chair every 3 years
- . Purpose: To be advisory and regional liaison



# Strategic Regional Development

Highway 80, 70 and 39/51 to roughly and arbitrarily divide the whole State into four regions





## State:

- Illinois State Library
- ILLINET (public libraries, academic libraries, community college libraries)
- Fire Departments

## National:

- National Fire Academy
- National Library of Medicine
- SLA
- ALA
- CALA

# IFSI Library Partnerships

## Local:

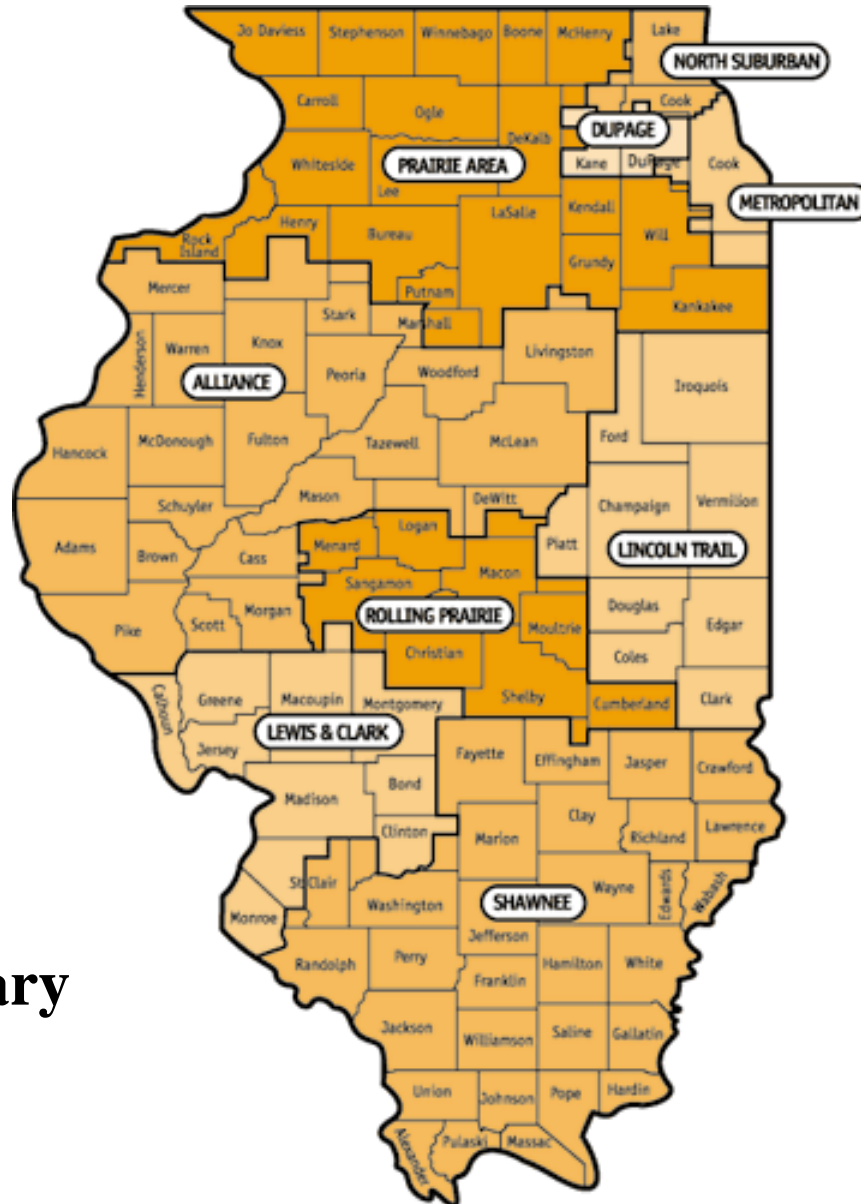
- IFSI
- UI Library
- GSLIS

## International:

- inFIRE
- Libraries in China







# Illinois Library Systems





# Funding Development: Grand Total \$307,264

## 1. Grant Awards from Illinois State Library

1) <u>FY 2010 LSTA DreamCatcher (Pending)</u>	\$24,118
2) FY 2008 LSTA Online Disaster Preparedness Pathfinder	\$4000
3) FY 2007 LSTA IFLODD	\$20,500
4) FY 2006 LSTA Creative Use of Libraries	\$81,626
5) FY 2002 Grow with Pro!	\$4,900



## Funding Development: Grant Awards from Illinois State Library

6) FY 2001 LSTA Libraries in 21-Century	\$49,570
7) FY 2001 LSTA Collection Connection	\$2,500
8) FY 2000 LSTA Full Year Grant, Internet Outreach	\$75,000
9) FY 2000 LSTA Equipment to Books	\$2,000
10) FY 2000 LSTA Marketing	\$1,000
11) FY 2000 Educate & Automate, Public Internet Access	\$1,820
12) FY 2000 Educate & Automate, Basic Equipment	\$1,065
13) FY 1999 LSTA Bring in an Expert	\$4,500





## **Funding Development: 2. Grant Awards from University, National Library of Medicine, and SLA**

- |   |                 |
|---|-----------------|
| <b>14) FY 2003 UIUC Campus Research Board Award</b>                                 | <b>\$ 9,252</b> |
| <b>15) FY 2003 GMR Professional Fellow Development</b>                              | <b>\$ 1,700</b> |
| <b>16) FY 2003 SLA Research Grant</b>   | <b>\$20,000</b> |
| <b>17) FY 2004 UIUC Campus Research Board Award</b>                                 | <b>\$8,132</b>  |
| <b>18) FY 2004 GMR Public Outreach Award</b>  | <b>\$ 6,000</b> |
| <b>19) FY 2005 Sally Tseng Professional Development Award</b>                       | <b>\$ 700</b>   |
| <b>20) FY 2005 Provost Office, UIUC, Academic Professional<br/>Development Fund</b> | <b>\$ 500</b>   |





# Strategic Development

## **. User-Centered Philosophy:**

- FY 2006 LSTA (Library Service & Technology Act) Grant, "Creative Use of Libraries(CUOL Grant) - Deliver Right Information to Illinois Firefighters at Right Time" (\$81,626 Oct. 2005 – June 2006): “The Digital Illinois Fire Departments Training Network Database” (Network Database) to address firefighters’ local training needs.
- FY 2007 LSTA (Library Service & Technology Act) Grant, "Illinois Firefighter Line of Duty Death Database" (\$20,500, Oct. 2006-June 2007): about users’ stories, lessons learned, knowledge production and preservation. National recognitions





# Strategic Funding Developments

## . User's Natural Language:

- FY 1999 LSTA “Bring in an Expert Grant” (\$4,500, June to September): Hired Professor Pauline Cochrane to evaluate subject access and the idea of “FireTalk, IFSI Thesaurus” was born.

- FY 2000 LSTA 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” (\$75,000, Jan.-Sept. 2000): Hired a graduate student to work with Pauline and Lian to build “FireTalk, IFSI Thesaurus,” using Multites (<http://www.multites.com>)





# User-Centered Knowledge Production and Organization: The Structure of FireTalk

**00 GENERAL**

**01 MANAGEMENT AND ADMINISTRATION**

**02 PUBLIC EDUCATION AND AWARENESS**

**03 FIRE PREVENTION AND INSPECTION**

**04 HAZARDOUS MATERIALS (HAZMAT)**

**05 EMERGENCY AND HAZARD COMMUNICATIONS**





# Strategic Development

## **. Instructional Integration – Reference Services and User Training**

**- FY 2001 LSTA Libraries in the 21st Century – “Developing the Distance Learning Library Services for Illinois Firefighters: an Integrated Information Service with Online Firefighter II Certification Program” (\$49,570, Dec. 2000-June 2001)**







# **Instructional Integration: IFSI Field Staff Instructor Targeted Services**

- . Research to support instruction**
- . Provision of materials for classrooms**
- . Staff meeting updates**
- . Information literacy training**
- . Current awareness service**
- . Patron record information**
- . Collection development**



# **IFSI Field Staff Instructors – Developing Knowledge Bank**

- . Regularly used materials**
- . Material preferences**
- . Expertise**
- . Skillset (approved to teach)**
- . Curriculum developed**
- . Publications**
- . Non-fire subjects taught**



# **Collection Development – Forming Collaboration and Embedding in Instruction**

- . Requested/suggested items**
- . Instructional materials**
- . Regularly used reference materials**
- . Preferred formats**
- . VHS to DVD/CD-ROM conversion**
- . Audiobooks**
- . MP3 article downloads**
- . E-readers**



# Strategic Funding Developments

## . Outreach, Training and Marketing

- FY 2000 LSTA 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” (\$75,000, Jan.-Sept. 2000)





# User Training

## Training topics

**Library orientation and use**

**OPAC**

**FireTalk**

**Interlibrary loan process**

**NFPA codes online access**

**Audiobooks / e-readers**

**UIUC Library catalog and online resources**



# User Outreach

## Training venues

**Library**

**Library website / self-guided online tutorials**

**IFSI classes in IFSI classrooms**

**Fire department visits**

**Telephone / email**

**IFSI staff meetings**

**IFSI newsletters**

**UIUC main library (posters and displays)**

**Library conferences**



# Knowledge Organization and Preservation: Technical Services and Metadata

- **Multimedia Collection**
- **Modern Electronic Records and Born-Digital Files**
- **Historical Archival Materials**
- **Informational Exhibits and Museum Artifacts**





# IFSI Archives

1925-present

- 26 cubic feet of paper records
- 3,066 photographic *prints*
- 5,350 photographic *slides*
- electronic records
- artifacts
- 6 hours of digitized 16mm film footage from the 1930s-70s







# Illinois State Fire Service Archives

- **Illinois Fires and Emergencies**
- **Illinois Fire Departments**
- **Illinois Fire Service Organizations**
- **Illinois Fire Service Members**
- **Illinois Firefighter Line of Duty Deaths**
- **Illinois Fallen Firefighter Memorial and Firefighter Medal of Honor Ceremony**



- Courses
- Virtual Campus
- Research
- Corporate Relations
- About IFSI
- Library
- Homeland Security
- Outreach
- International Programs
- Donate

 **Search**

Student/Staff Login

**DL/Login:**

**Password:**

[Register](#) [Forgot Password](#)  
[Resource Center](#) [Webmail](#)

News

Registration form now available for the Illinois Prescribed Fire Council's 1st Annual Symposium  
[\[Show All\]](#)

Library

**Library Search**

**Popular Searches**  
[Homeland Security](#)  
[Fire Fighting](#)  
[Hazardous Materials](#)  
[\[More Library\]](#)

IFLODD

Today's Illinois Firefighter Line of Duty Deaths:

- [Angelo Catania 1966](#)
- [Robert Duvall 1996](#)
- [George Foley 1913](#)

[\[View More\]](#)

[\[IFLODD Homepage\]](#)

## WELCOME TO IFLODD

### ILLINOIS FIREFIGHTER LINE OF DUTY DEATHS

#### DIGITAL IMAGE COLLECTION DATABASE

Enter or select your search data in the fields below. You can narrow your search by selecting additional fields. All fields are optional. [Click here to Browse All Records](#)

LAST NAME:	<input type="text"/>	FIRST NAME:	<input type="text"/>
AGENCY:	<input type="text"/>	TYPE OF FIREFIGHTER:	<input type="text"/>
RANK:	<input type="text"/>	GENDER:	<input type="checkbox"/> Male <input type="checkbox"/> Female
AGE RANGE:	<input type="text"/>	YEAR OF DEATH:	<input type="text"/>
<input type="checkbox"/> Only retrieve records with images <input type="checkbox"/> Only retrieve records with audio			

IFLODD, the Illinois Firefighter Line of Duty Deaths Digital Image Collection Database, documents the ultimate sacrifice of more than 800 Illinois firefighters over the past 150 years. Providing access to this history memorializes the firefighters, increases awareness of their sacrifice, and supplies contemporary firefighters with valuable "lessons learned" from the various deaths. Original funding for this project was awarded by the Illinois State Library (ISL), a Division of the Office of Secretary of State, using funds provided by the Institute of Museum and Library Services (IMLS), under the federal Library Services and Technology Act (LSTA).

## LET'S NOT FORGET



Photo by: Scott Beveridge/Observer-Reporter

### Today's Line of Duty Deaths

April 07

- [Angelo Catania](#)  
[Chicago Fire Department](#)  
1966
- [Robert Duvall](#)  
[Granville Fire Department](#)  
1996
- [George Foley](#)  
[Chicago Fire Department](#)  
1913
- [Carl Gaessler](#)  
[Springfield Fire Department](#)  
1932







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- [About IFSI](#)
- [Library](#)
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- [Outreach](#)
- [International Programs](#)
- [Donate](#)

 **Search**

Student/Staff Login

**DL/Login:**

**Password:**
 

[Register](#) [Forgot Password](#)  
[Resource Center](#) [Webmail](#)

**News**

**6th Annual Explorer-Cadet Hands-On Training**  
 June 25 - 28, 2009

[\[Show All\]](#)
**Library**
**Library Search**
 

**Popular Searches**  
[Homeland Security](#)  
[Fire Fighting](#)  
[Hazardous Materials](#)

[\[More Library\]](#)
**IFLODD**

**Today's Illinois Firefighter Line of Duty Deaths:**

[Milton Neeley 1953](#)

[\[IFLODD Homepage\]](#)

## FIREFIGHTER RECORD

 NAME: [Richard Rechenmacher](#)

 AGENCY: [Naperville Fire Department](#)

 RANK: [Lieutenant](#)

 AGE RANGE: [46 to 50](#)

 DATE OF DEATH: [12/7/1970](#)

 CAUSE OF DEATH: [Vehicle collision](#)

 NATURE OF DEATH: [Trauma](#)

 ATTRIBUTE OF DEATH: [\[not applicable\]](#)

 TYPE OF DUTY: [Responding to/returning from incident](#)

 TYPE OF FIREFIGHTER: [Paid-On-Call \(POC\)](#)

 GENDER: [Male](#)

 DATE OF BIRTH: [2/24/1924](#)

 INCIDENT CITY: [Naperville](#) INCIDENT STATE: [IL](#)

 DATE OF INCIDENT: [12/7/1970](#)

 TIME OF INCIDENT: [07 : 55](#)

 INCIDENT LOCATION TYPE: [Street/Road](#)

 INCIDENT ATTRIBUTE: [Traffic accidents](#)

### INCIDENT SUMMARY:

On December 7, 1970, the Naperville Fire Department received an alarm at 7:55AM for a house fire west of the city. Firefighters immediately responded, but a fire truck carrying five firefighters collided with a semi-trailer truck at the intersection of Illinois Routes 59 and 65. Several fatal car accidents had occurred at the intersection during the preceding years and traffic lights had been installed at the intersection only two weeks prior to the accident.

Lieutenant Richard Rechenmacher, Engineer Jerry Herring, and Firefighter Bernard Petrowski, who were riding in the cab of the fire truck, were all thrown from the vehicle by the collision and killed instantly. Firefighter Mike Hill, who was also riding in the truck's cab, was taken to the hospital in critical condition, but Firefighter James Heinke, who was riding on the tailboard of the fire truck, escaped injury. Mutual aid responders from the Moecherville Fire Department responded to the house fire, and the Downers Grove Fire Department sent firefighters and fire apparatus to Naperville to assist with fire calls.

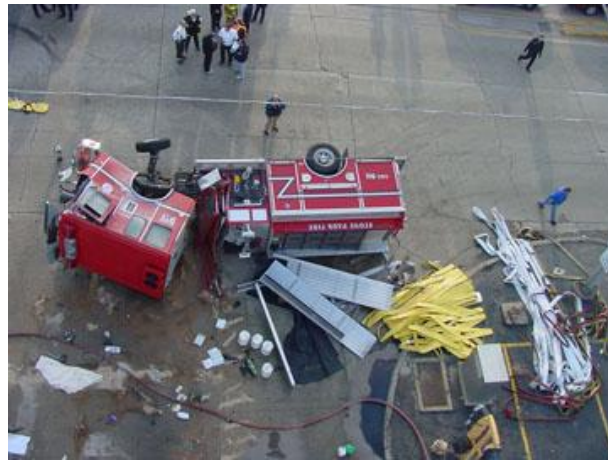
### Citations:

"Truck Collision Kills 3 Naperville Firemen," *Chicago Tribune*, December 8, 1970.

"Friends Recall Dedication of Three Naperville Firemen," *Chicago Tribune*, December 8, 1970.









# Firefighter Memorial Hall





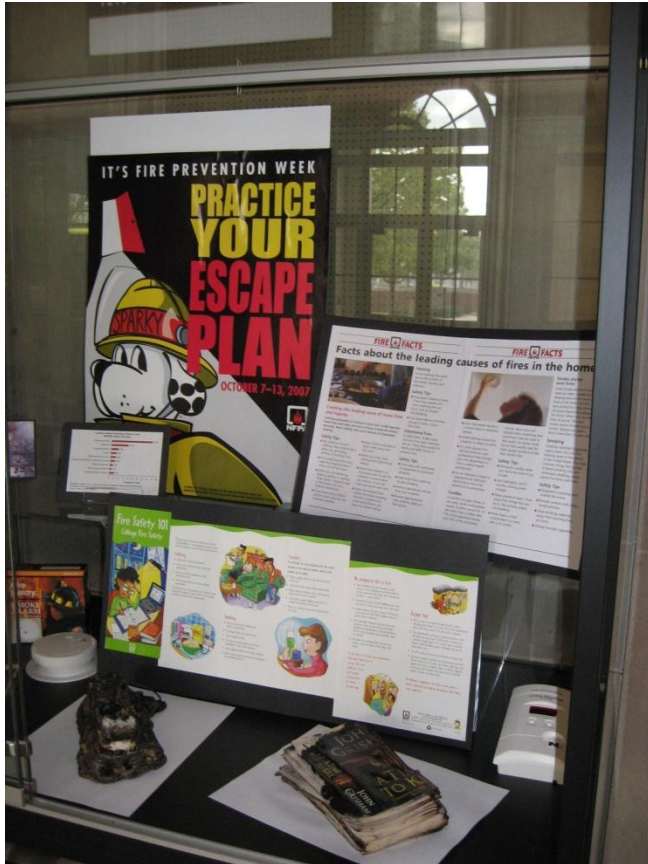


# Outreach: “*Significant Fires and Emergencies*” Exhibit





# Outreach: *Campus Fire Safety Exhibits*







# Outreach: Library Disaster Recovery Workshops







# Research and Evidence Based Practices: SLA Research Project

Research Project Funded by 2003 Special Libraries Association Steven I. Goldspiel Memorial Research Grant and 2004 Campus Research Board Award, University of Illinois at Urbana-Champaign

Co-Investigator: Professor Linda C. Smith

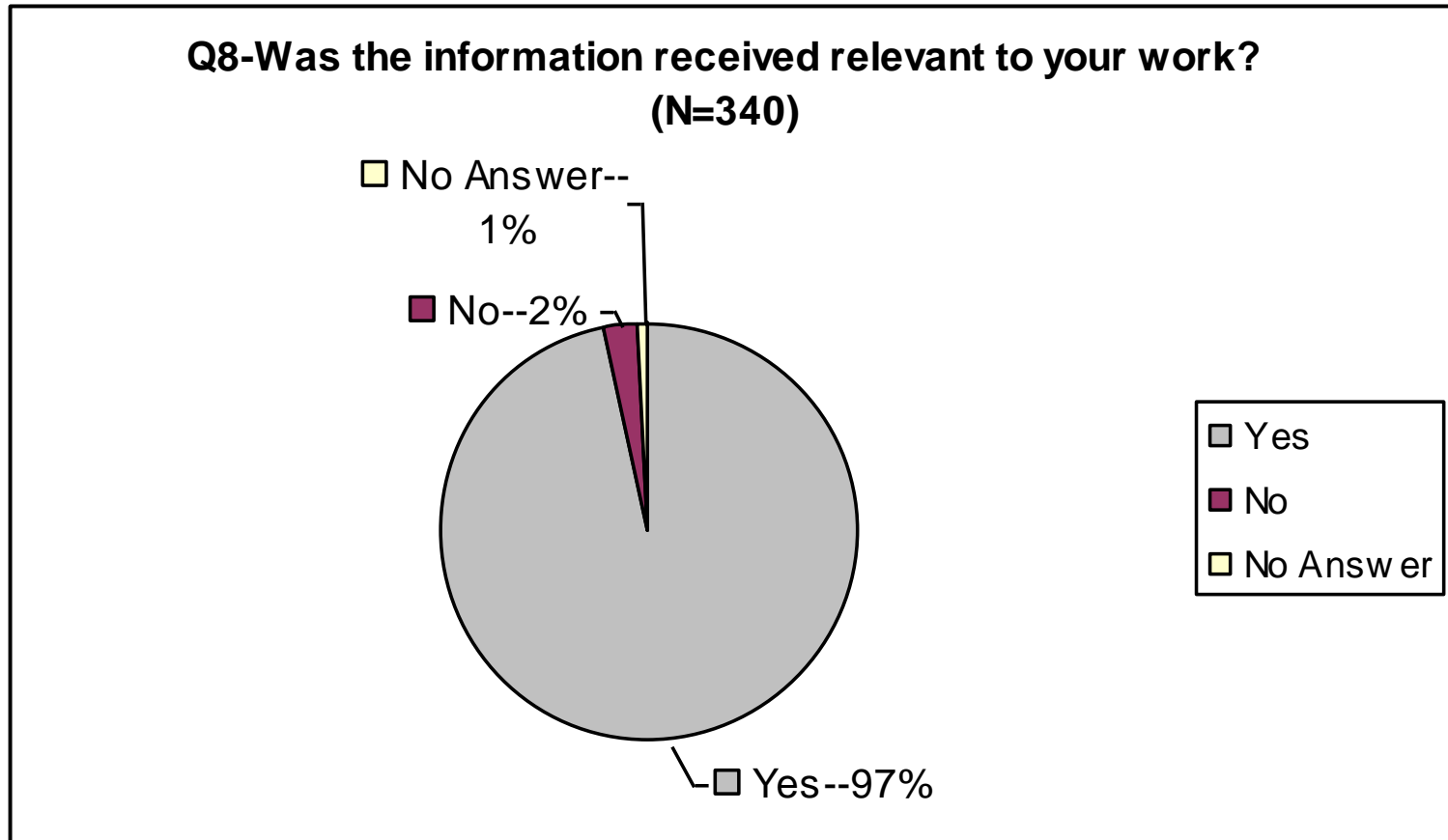




<b>Fire Library-Training</b>	<b>Fire Library-Research</b>
1) New York State Department of State's Office of Fire Prevention and Control, Academy of Fire Science	1) National Fire Protection Association (NFPA)
2) Illinois Fire Service Institute, University of Illinois at Urbana-Champaign	2) Fire Protection Publications/Oklahoma State University
3) Fire/EMS/ Safety Center-Minnesota State Colleges and Universities	3) Oklahoma City National Memorial Institute for the Prevention of Terrorism



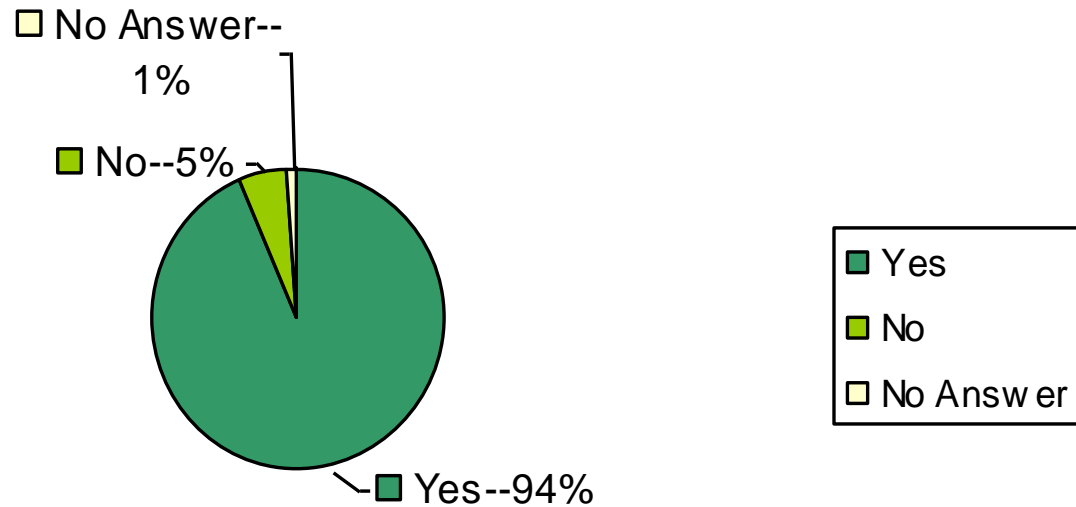
## Effective in Supplying Information: Relevant Information





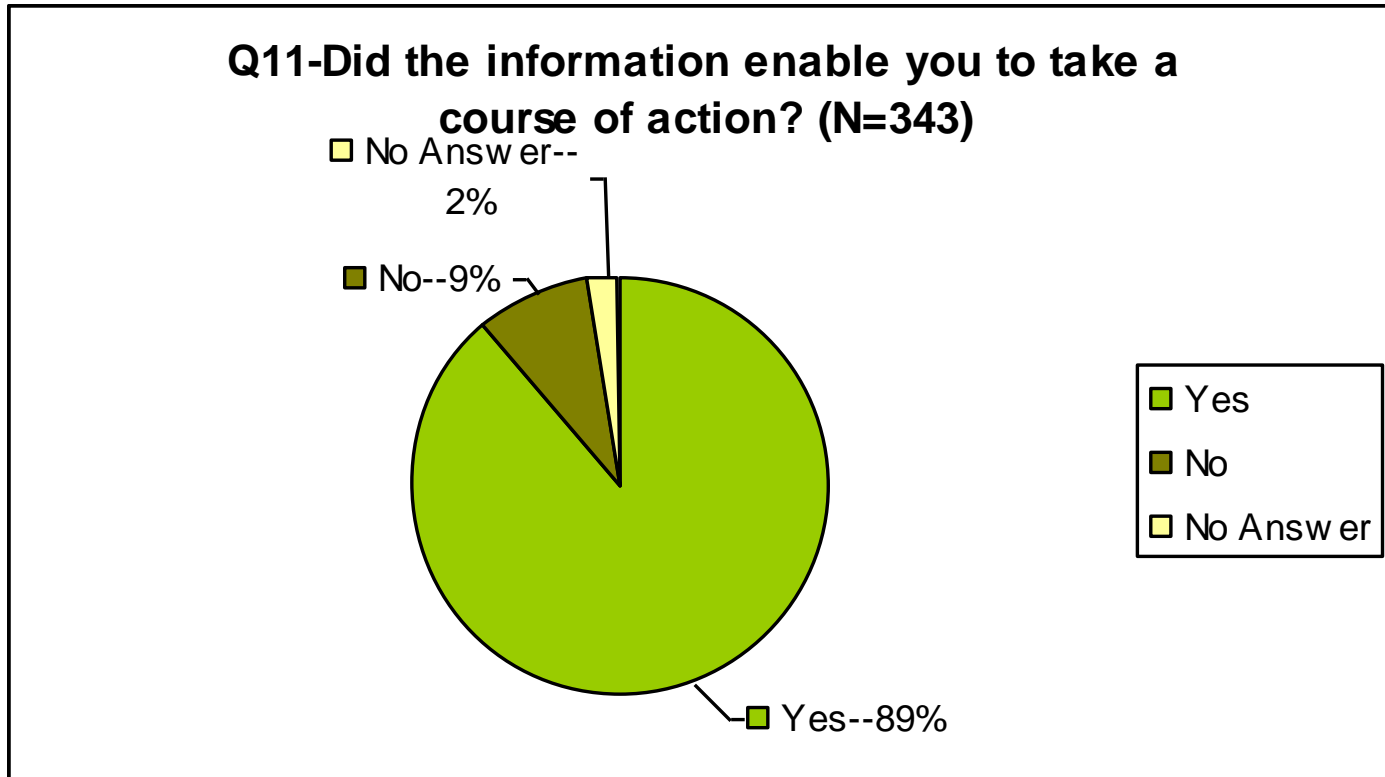
## Effective in Supplying Information: Better-Informed Decisions

Q10-Did the information received lead to better-informed decisions? (N=343)





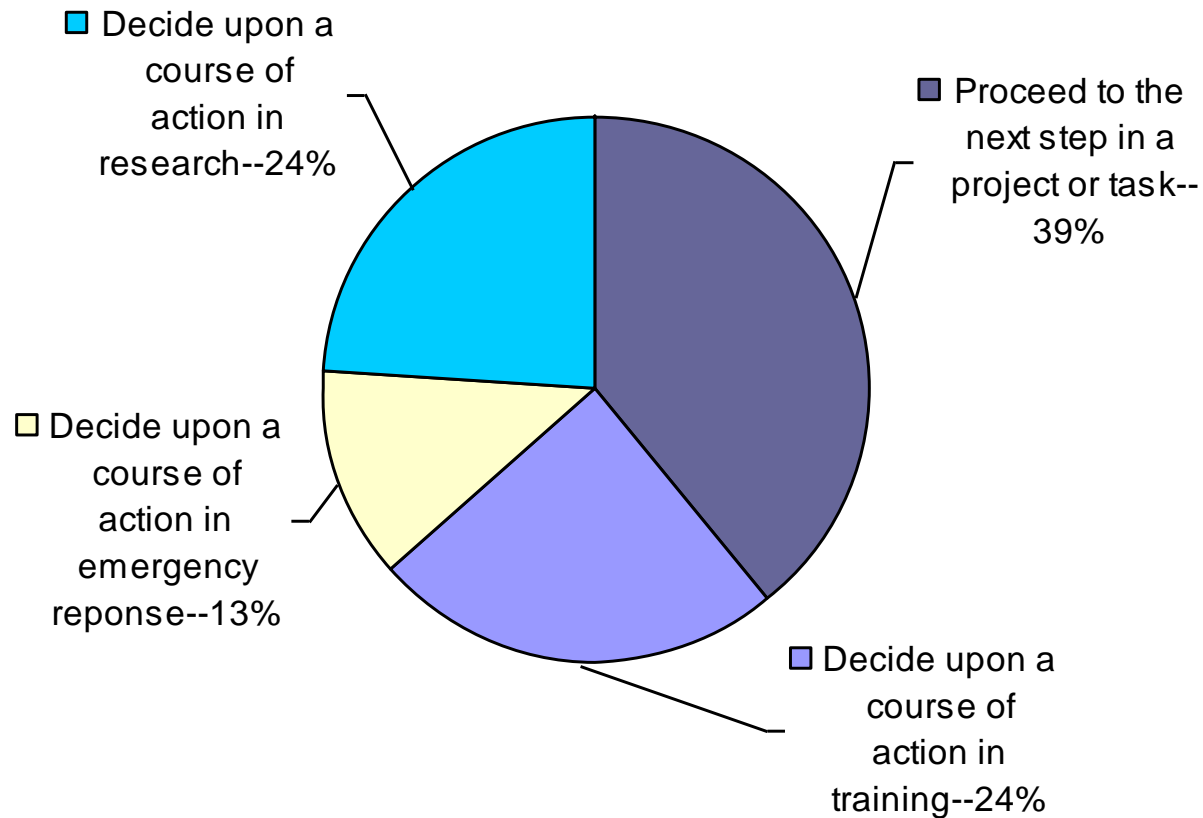
## Effective in Supplying Information: A Course of Action Taken





# Effective in Supplying Information: Specific Types of Decision-Making Situations

Q20-Did the information contribute to your ability to do any of the following: (check all that apply)? (N=318)





# **Information-Seeking and Sharing Behaviors among Fire Service Field Staff Instructors: A Qualitative Study**

**Lian J. Ruan**

**Graduate School of Library and Information Science  
University of Illinois at Urbana-Champaign**

**Dissertation Defense  
November 29, 2010**

**Committee Members:**

**Professor Linda C. Smith, Chair**

**Professor Carole L. Palmer, Director of Research**

**Professor Caroline Haythornthwaite**

**Professor Marshall Scott Poole**



## Objectives of the Study

- 1) On the empirical level, the study aims to discover and analyze fire service field staff instructors' information-seeking and sharing behaviors. The findings will help enhance library collection and information services to support their information sharing and collaboration in a complex information use environment of daily routines, such as training, teaching, curriculum development and actual incident response;**
- 2) On the conceptual level, it aims to extend existing conceptual frameworks of information-seeking and sharing of professionals;**
- 3) On the practical, operational and technological level, it will inform librarians and information professionals about the information-seeking and sharing behaviors among fire service field staff instructors, so they can be more responsive in key areas, such as information services, user training and collection development.**







## Research Questions

- 1) How do fire service instructors, in particular the Fire Academy's field staff instructors, organize, work and perform their training, teaching and curriculum development?**
- 2) What views of the world and theory of work inform their instructional activities?**
- 3) What are the typical problems that lead them to engage in information-seeking while they are involved in their training, teaching and curriculum development activities?**
- 4) What kinds of information sources do they look for and where, to solve these problems?**
- 5) How does collaborative teamwork affect an individual field instructor's information-seeking behavior?**
- 6) What obstacles do they perceive in the search for and use of necessary information during the course of their work?**





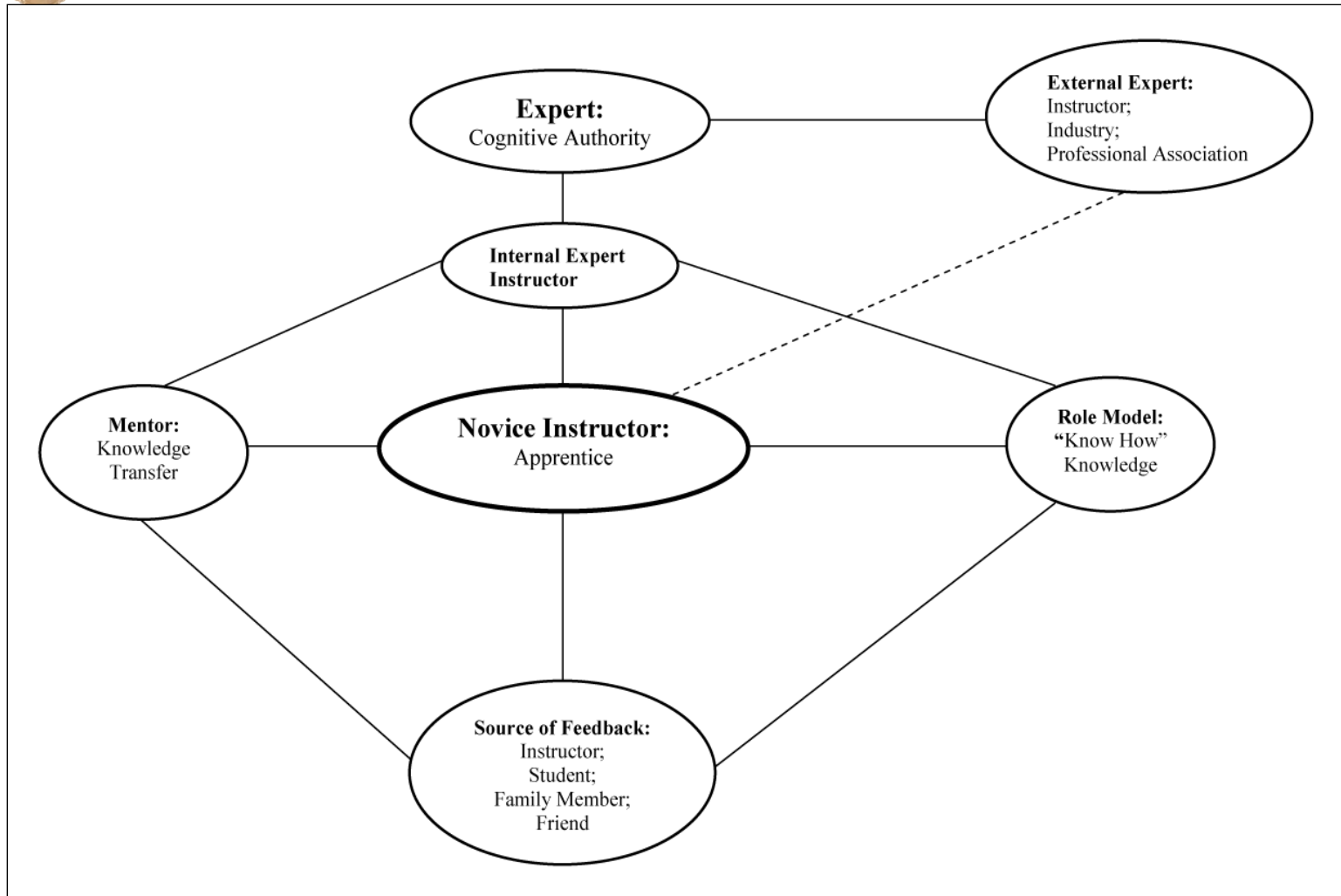
# Key Themes of Empirical Findings

- . Formal and institutional sources of information (Print sources, media sources, and library)**
- . Informal and personal sources of information (Personal social network of people internally and externally), street experience, “know how” knowledge through direct hands-on training and storytelling) and personal collections. Digital sources)**
- . Group network-mediated sources of information, especially transactive memory system**
- . Patterns of field staff instructors’ information-seeking and sharing: Integration of multiple types of information sources and cross over to access and use knowledge from outside their core subject areas**
- . Field staff instructors’ information process and practices: Seeking, gathering, sharing integrating and presenting along with their information practices**
- . Attributes of field staff instructors as information seekers: Savvy, active and determined information seekers**
- . The Recognition-Primed Decision (RPD) model, especially automatic RPD leads instructors toward a heavy reliance on experiential knowledge**



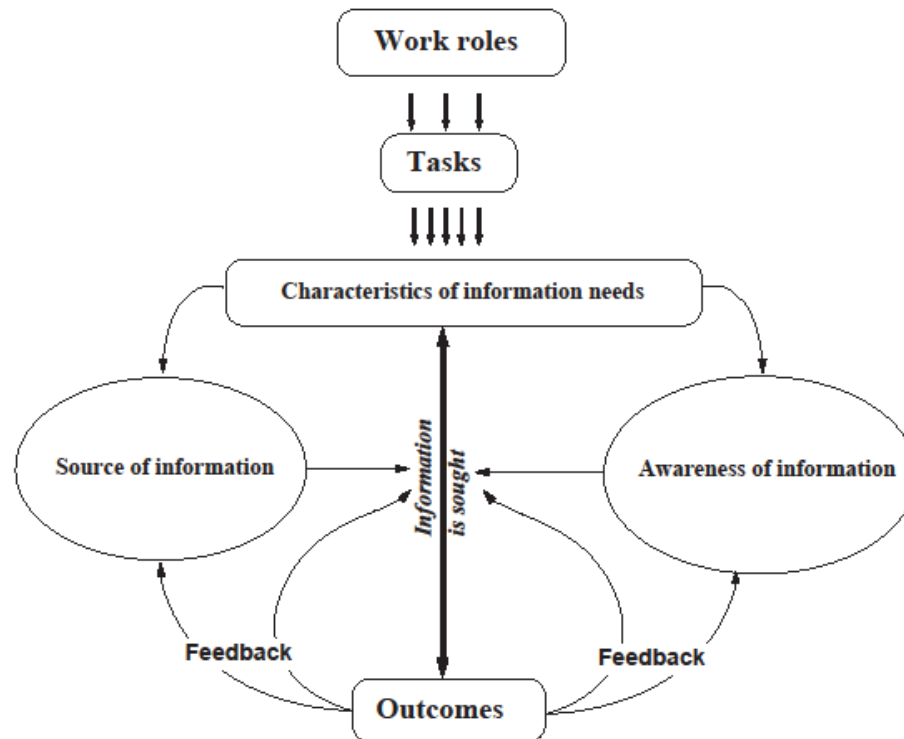


**Figure 6. Actors in Field Staff Instructor's Personal Social Network**





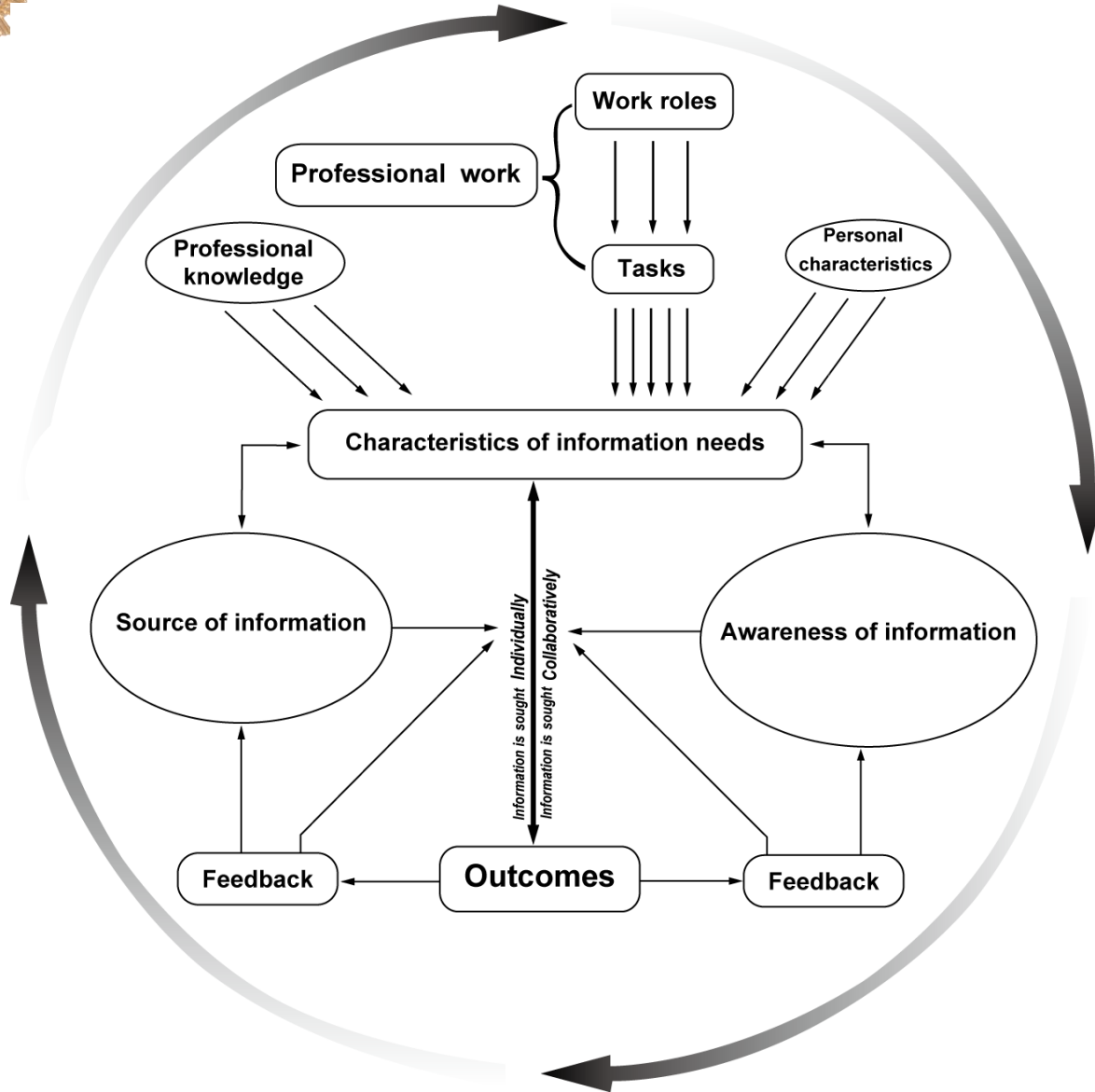
**Figure 1. Leckie's Model of Information Seeking of Professionals (Leckie, Pettigrew & Sylvain, 1996, p. 180)**





## 7. Expansion of Leckie's Model

Figure 9. Model of Information Seeking and Sharing of Fire Service Instructors

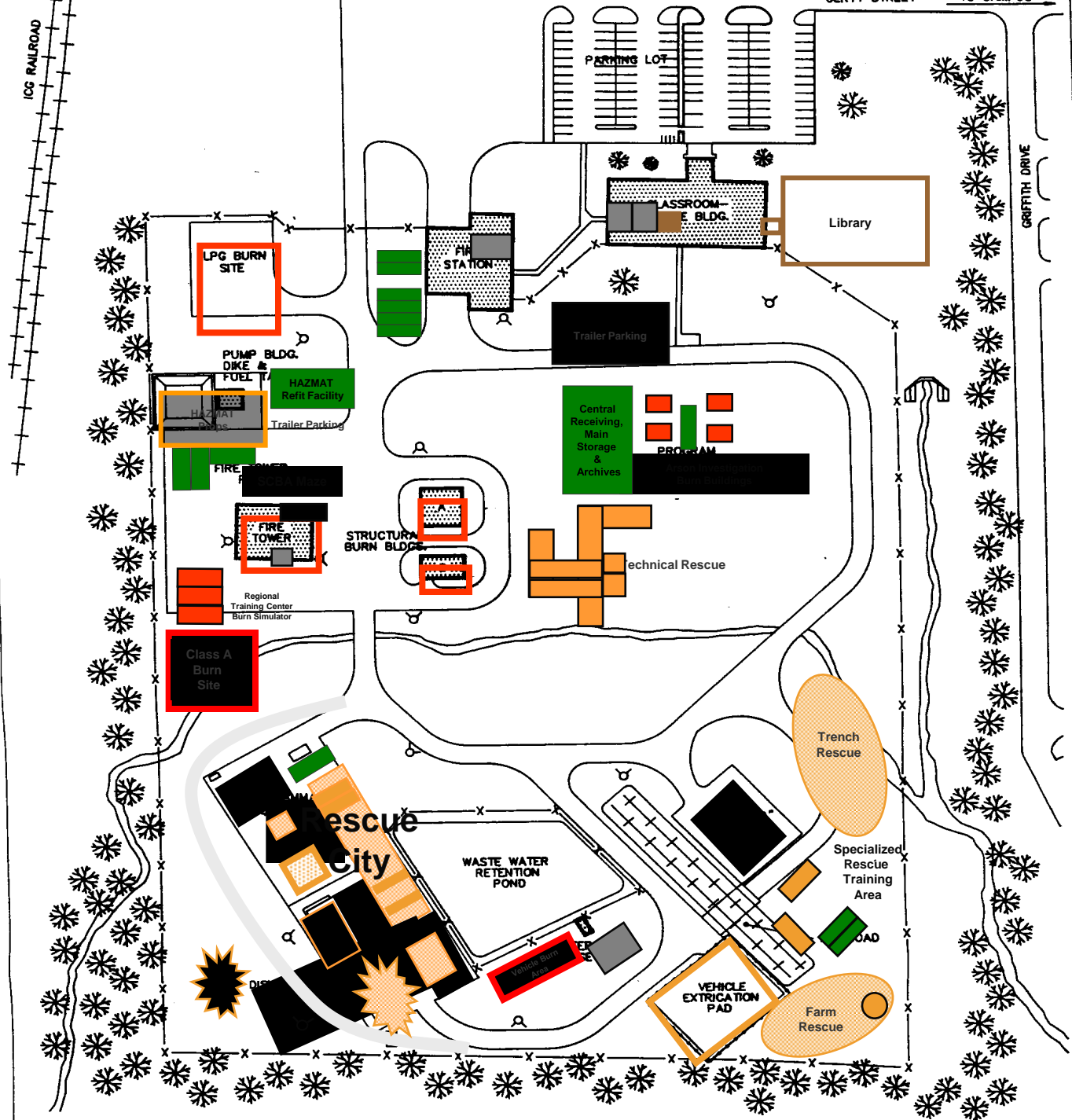




# Strategic Funds Development – Permanent Home in the New Building

- . Worked on “A Building Program for the Fire and Emergency Library” with a building consultant, funded by LSTA grant to expand the library in 2001
- . Received the Chancellor Capital Review committee’s Approval in 2001 and 2007 respectively
- . Participated in design, construction and dedication (in 2011) of 9-million dollars Learning Resource and Research Center (LRRC) building













# Vision 2020

- . Reviewing the Existing Products
- . IFSI Library on 4-Dimensions:
  - \* Library Programs and Information Services
  - \* Archives
  - \* Exhibits and Memorial Hall
  - \* Knowledge Management of Experience-based Knowledge

