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FEDERATED SEARCH

FROM REQUIREMENTS TO IMPLEMENTATION

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It's a Good Time of Year
To Reflect on Your Career

There's a well-qualified slate of candidates in the SLA board elections this month. It's your job to vote.

BY REBECCA B. VARGHA, SLA PRESIDENT

The summer is turning to fall in North America. There is a touch of autumn in the air. As another academic year begins on the campus at the University of North Carolina, I pause momentarily to reflect on the incoming class of future information professionals. They are starting the educational process for a new career, and acquiring a graduate degree is simply the first step.

What attracts new people to our profession? From savvy experienced librarians to new enthusiastic students, everyone has a different story. What is your story? Perhaps a parent, mentor, or friend encouraged you in pursuing a career in information and library science. Did you work in a library or information center as a student and see the possibilities, especially given the shifts in technology? Do you enjoy navigating through a digital world?

For an in-depth and practical look at our profession, you will want to read a recent book by SLA member Kim Dority. She teaches at the University of Denver Graduate School of Library and Information Science as adjunct faculty. The book is titled Rethinking Information Work: A Career Guide for Librarians and Other Information Professionals.

It is a fascinating read for information professionals at all stages of their careers. In the first chapter, the author discusses the specific differences between "lifetime employment" and "lifetime employability." She encourages readers to move forward with career goals and to practice "enlightened self-interest." The author also makes the point that "the only job security lies within ourselves and our ability to improvise our careers."

As SLA members, we have unique opportunities to participate actively in a professional organization that is integral to staying ahead of the constant change taking place within our profession. And we have access to myriad resources and activities at SLA that deliver valuable and tangible benefits for professional growth, from networking to continuing education through Click University, to career development.

As an association, how are we adapting to technology innovations such as RSS feeds, podcasts, blogs, and wikis? What is the leadership philosophy for SLA and how do we measure success? In a for-profit environment, the unit of measurement is clear—"the bottom line." In the non-profit sector, success is not so cut and dried. Of course, finances are important at SLA, but the true measure of our success is how well we meet your needs as members.

To help members advance their careers and improve the operations of SLA, we are installing a new association management software system to improve efficiency for chapters, divisions, and caucuses. The association also is evaluating additional technologies to enhance member networking and has launched a new WebEx system with video and audio conferencing capabilities. With more than 20 blogs and the continued growth and development of Click U, SLA offers many learning opportunities for members to pursue.

In 2006, the American Society of Association Executives published an insightful book, The 7 Measures of Success: What Remarkable Associations Do That Others Don't. It applies the research methodology pioneered by Jim Collins, the author of Built to Last, which stayed on the Business Week bestseller list for six years. Here are the seven success factors shared by farsighted nonprofits:

1. Customer service culture—focus on members
2. Alignment of products and services with mission
3. Data-driven strategies
4. Dialogue and engagement
5. CEO as a broker of ideas
6. Organizational adaptability
7. Alliance building

Leadership in business requires a clear sense of purpose, a customer-service-based culture, and a solid basis for decision making; leadership in the nonprofit world requires the same. In this regard, SLA is truly a leader in the association world.

SLA Elections

The July issue of Information Outlook included the profiles of 10 highly qualified candidates for five positions on the SLA Board of Directors. Detailed biographical information on the candidates and their speeches from our annual conference in Denver are online.

My sincere thanks to Nominating Committee, chaired by Wilda Newman, and to the committee members: Richard Geiger, Andrew Berner, Liz Blankson-Hemans, Marcia J. Rodney, and Linda Broussard. The committee worked tirelessly to identify an excellent slate of candidates. And thanks to all the candidates for their willingness to serve our association.

There is one more task for each member: Let's vote!

Yours in SLA,

Rebecca B. Varga
Bloggers' Entries Help Oxford Track Language for Dictionaries

To understand how the English language is developing, researchers at Oxford Dictionaries monitor how it is being used by everyone, everywhere, every day. They look at newspapers, magazines, and fiction—and blogs.

Here’s a report from the people at Oxford:

Since January 2000, researchers have fed more than 1.8 billion words of what people around the world are writing and saying into the Oxford English Corpus, an electronic database that makes it possible to see exactly how and why English is changing.

Comparing blogs with other sorts of writing helps researchers identify patterns in the language.

**Me, Myself, I**

Bloggers are interested in themselves. The pronoun “me” is five times more likely to be used in blogs than in other sorts of writing, while “myself” and “I” are both significantly more used by bloggers.

Bloggers also appear more interested in expressing opinions than in talking about facts. Adjectives such as “stupid,” “lovely,” “nice,” “interesting,” “odd,” and “wonderful” are staple words in a blogger’s vocabulary.

“Stuff” is the sort of vague word that many writers love to hate, but bloggers just love it. “Stuff” is more than five times as common in blogs as in other writing. Moreover, bloggers routinely use vague adverbs such as “somewhere” and “somehow.”

The words most likely to appear in blogs, in order, are: “blogger,” “blog,” “s-t,” “oh,” “yeah,” “stupid,” “post,” “ok,” “stuff,” “lovely,” “myself,” “update,” “nice,” “me,” and “my.”

Is there such a thing as “bloglish,” and is it worse or better than other sorts of writing? Some have suggested that bloglish might be an inferior type of English—with more spelling mistakes and careless, unimaginative writing. Oxford research has found that bloggers have a broadly similar range of vocabulary to other writers, and their level of misspellings and typos is not much higher.

This suggests that most bloggers take their roles as writers seriously, and they’re talking about serious topics. The level of political engagement and discussion of contemporary politics is evidenced by the prevalence of key proper names such as “Iraq,” “Bush,” and so on.

However, blogs are not professionally edited, and as such, they offer excellent evidence of the changing way that people are using the language. For dictionary writers, blogs are a prime resource for tracing the most recent changes in the language; and there is no doubt that some of these trends will find their way into future dictionaries.

For example, Oxford is looking at the word “minuscule”: many people use the incorrect spelling “miniscule.” But looking at the Oxford English Corpus as a whole, the “i” form is more common, and in the blog section it swamps the “u” spelling—there are more than twice as many “i” spellings.

**Blog Trivia**

- There are now more than 70 million blogs worldwide.
- 120,000 blogs created per day worldwide.
- About 1.5 million postings are made each day.
- Japanese is currently the top language for blogs, with 37 percent.
- English is second with 36 percent, followed by Chinese, Italian, and Spanish.

**Disasters Attract Top News Interest**

News of disasters has topped reader interest over the last two decades, according to a new report prepared for the Pew Research Center for the People and the Press.

In 165 surveys of Americans conducted since 1986, nearly four in 10 people (39 percent) have followed news of disasters “very closely.” The next top categories are money (34 percent), conflict (33 percent), and political news (22 percent).

The report, prepared by Pew consultant Michael Robinson, notes the top individual news stories readers have followed since 1986 are:

Bloggers are interested in themselves. The pronoun “me” is five times more likely to be used in blogs than in other sorts of writing, while “myself” and “I” are both significantly more used by bloggers.
access to Internet content.


FTC Chair Deborah Platt Majoras said, “This report recommends that policy makers proceed with caution in the evolving, dynamic industry of broadband Internet access, which generally is moving toward more—not less—competition. In the absence of significant market failure or demonstrated consumer harm, policy makers should be particularly hesitant to enact new regulation in this area.”

The report says that certain conduct and business arrangements that broadband providers may pursue—including data prioritization, exclusive deals, and vertical integration into online content and applications—can benefit consumers.

The report comes as Internet providers tout the advantages of offering faster access to content of providers who pay fees for the priority service. Critics of the proposal say it would create a two-tier system of large online companies that can afford the fees and small or start-up companies that cannot. The second tier would be less available to users, or would arrive at their computers more slowly.

“The primary reason for caution is simply that we do not know what the net effects of potential conduct by broadband providers will be on all consumers, including, among other things, the prices that consumers may pay for Internet access, the quality of Internet access and other services that will be offered, and the choices of content and applications that may be available to consumers in the marketplace,” the FTC report says.

Congress is considering legislation that would prohibit Internet providers from creating a two-tier network.

FTC Urges Caution On Net Neutrality

A Federal Trade Commission report recommends caution in setting new regulations to impose “neutrality” on

- The Challenger space shuttle disaster, followed very closely by 80 percent of the respondents.
- The 9/11 attacks, 78 percent.
- Hurricane Katrina, 73 percent.
- The 1989 earthquake in San Francisco, 73 percent.
- High gasoline prices (during 2005), 71 percent.

Of these top five, four are natural or manmade disasters.

On average, only about a quarter of the population follows political campaign news closely—and it gets less attention before Labor Day.

“Remarkably, even the most contentious presidential election in over a hundred years—the Supreme Court-determined election in 2000—achieved an average index score (based on four separate surveys) of 34 percent,” the report says. "In keeping with the adage that presidential politics fails to capture the public’s attention until after Labor Day, not a single campaign story broke the 40 percent news-interest barrier unless it occurred after that holiday.”

Despite the amount of coverage it receives, celebrity news doesn’t attract much attention. Notable exceptions are the deaths of Princess Diana and John F. Kennedy Jr., each followed closely by 54 percent of the respondents. These are the only two celebrity events in the survey to garner attention from more than half those surveyed.

For comparison, only 15 percent of the public closely followed the Michael Jackson scandal, which began in 1993 and ended in 2005.


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National Geographic's Green Guide Offers Info on the Environment

And if you're planning a trip, here are two sites: One may help you catch a plane; the other may keep you from catching a disease.

BY CAROLYN J. SOSNOWSKI, MLIS

The Green Guide www.thegreenguide.com
Not just "organic": The Green Guide, acquired by the National Geographic Society in March, focuses on providing planet-friendly environmental and health information to the public. On the product side, the site and magazine explore research and ingredients, and suggest items that are considered "safer" than those with, perhaps, unclear labeling or that may be loaded with chemicals that have been found to have a negative impact in the lab. The Green Home section covers energy-conscious living room by room and a calculator to determine carbon dioxide output. A lot to explore here.

Blogging for a Good Book http://bfgb.wordpress.com
Many public libraries have blogs that share library news, promote books and programs, and connect to the catalog. Here's one, from the Williamsburg Regional Library in Virginia, that publishes a book review every week day. Use the blog categories to find reviews by subject—fiction, humor, adventure, young adult, to name a few—or by reviewer, or search by keyword. There are feeds for both posts and comments, so you can keep up with what's new and what other readers have to say about new books and older ones. Thanks to the Librarians’ Internet Index (www.ili.org, featured in this column in December 2004) for bringing this site to my attention.

Travelers’ Health www.cdc.gov/travel
The Centers of Disease Control, part of the U.S. Department of Health and Human Services, presents this extensive resource for those traveling to countries not their own. Prepare for your trip with information on disease, illness, vaccinations, travel warnings, and medical facilities. Although Travelers’ Health is produced by a U.S. agency and some of the content is directed at those in the U.S., SLA members across the globe will find it helpful to use the destination guides to determine the specific recommendations and requirements for individual countries. The 2008 edition of The Yellow Book, an international travel reference for medical professionals (and other interested parties), is searchable, and the lists of maps and tables will help you zero in on the facts that you need, either for your own travel or for work projects.

Airline On-Time Statistics www.bts.gov/programs/airline_information/airline_on_time_statistics
Frequent travelers may already be aware of this site from the U.S. Bureau of Transportation Statistics that allows you to search historical flight schedule data. Before you make your U.S. travel plans, find out which flights routinely leave late so you can plan your connections and other arrangements accordingly. Summary statistics list all flights and late ones (by airline, airport, and flight number), while the detailed search provides day-by-day, flight-by-flight, minute-by-minute information. As you use your favorite travel reservations Web site (actually, I use at least three sites each time I need to make a hotel or plane reservation), consult this BTS database alongside to make informed decisions and prevent disappointment and frustration while traveling. SLA
From requirements to implementation
FOCUS: FEDERATED SEARCH ENGINES

Federated Search at the Intel Library

BY BARCLAY HILL

Intel employees' expectations for information search, discovery, and retrieval continue to be influenced by popular Internet technologies. Employees expect Intel Library information access to be as easy and convenient as their favorite Internet search engine. Due to user expectations and a continuously growing electronic collection, we knew we had to upgrade our existing search solution to retain and expand our user base. To maintain user satisfaction, a single search interface must include all of our resources within its search scope.

We pursued a federated search solution for two years, but available solutions fell short of our requirements. In late 2005, we selected Deep Web Technologies as our federated search vendor. In late 2006, while closely working with the vendor, we released our federated search solution.

This case study discusses project goals, requirements, vendor selection, technology selection, lessons learned, and benefits of our federated search implementation. We examine these aspects in terms of enhancements to current library services and the projected value of a flexible and adaptive search solution.

Overview

The Intel Library, founded almost 30 years ago, is Intel Corporation's corporate library. The Intel Library started out primarily serving Intel's U.S. Technology and Manufacturing Group. Its collection and services have now expanded to serve all Intel business groups worldwide.

Our mission: Sustain Intel leadership in technology, manufacturing, and business by designing and disseminating enterprise-wide information solutions.

Our vision: The Intel Library's goal is to be the corporate leader in delivering cost effective, integrated, enterprise-wide information solutions and to be respected as a trusted and effective strategic partner.

The Intel Library provides the following globally accessible services to employees:
- Research and reference services.
- Electronic and print document delivery.
- Book, journal, and materials circulation.
- Employee-authored technical document archival and retrieval.
- Access to licensed online databases, electronic books, and journals.

The library is committed to improving the accessibility and retrieval of high-quality, authoritative, published literature for employees. We implement solutions that aid employees in efficiently locating and retrieving information that will support them in their jobs. These include:
- Intranet portal with intranet search.
- Catalog system.
- Content management system.
- Document management system.
FOCUS: FEDERATED SEARCH ENGINES

- Customer request and ticket workflow system.

Online Services
The Intel Library evolved with the advances in information science and technology. It progressed from individual regional facilities at many sites to a centralized and completely virtual organization offering Web-based solutions. This model has evolved to effectively meet the changes in employee information needs. Employee self service has become our customer service goal. This provides our staff with greater opportunity to provide high-touch research and reference services to targeted business groups and stakeholders to maximize our contributions to the company’s bottom line.

Here’s how virtual development evolved:
- 1987. Host-based automated library database management system installed. Provided regional access to online catalog as well as other library-managed databases and bulletin boards.
- 2000. Intranet site released. Employees worldwide have access to online products.
- 2002 and 2003. Numerous products added to suite of information solutions. Supporting services added to these products to manage the interactions with employees; 97 percent of content budget allocated to electronic content solutions.
- 2003. Web and Systems Group (WSG) created to develop and support the Intel Library’s intranet solutions. WSG begins integrating the numerous online solutions into a consistent user experience. These improvements support the library’s self-service model.
- 2004 and 2005. Iterative improvements are made to online services and products. These enhancements improve staff efficiency in managing and delivering library content.
- 2006. Last physical library closes. Physical collection centralized and circulated from a closed facility. New online catalog released with automated workflows. All employee interactions with the Intel Library now occur through intranet portal.

Business Case
Intel employees work in an environment that is information and tool rich. They are required to learn many processes for retrieving information from different systems inside and outside of the company’s intranet. Employees do not have time to learn new processes or systems to get the information they need to do their jobs. They struggle to understand where they should start when they need information. They have little patience for excessive browsing and navigation to find promising resources.

Employees often asked, “Why can’t the Intel Library site work like Google or Yahoo?” They were not concerned

AN INFO ISLAND OR THE KITCHEN SINK
WHEN YOU THINK ABOUT FEDERATED SEARCH ENGINES, THINK ABOUT WHAT YOU’LL INCLUDE IN THE SEARCHES.

BY RICHARD L. TODD

Now that federated search engine software is more affordable and technically easier to implement, more medium and small libraries may be able to offer their patrons this popular “Google-like” interface. If your library decides to build a federated search engine, remember that in the midst of implementing all the technical and security requirements, it is easy to overlook the importance of establishing a collection policy specifically for this service.

Many of us are accustomed to working with the "comprehensive" collection policies of our libraries that govern what we purchase, subscribe to, and maintain. A federated search engine constitutes a new collection that can integrate freely available resources found on the Web with internal or subscribed resources that have met the criteria of an organization’s comprehensive collection policy.

In the course of implementing a federated search engine at my organization, I eventually recognized three fundamental approaches for determining which of the available sources to include in our system. I call these three guiding concepts the kitchen sink approach, the Easter Island approach, and the gatekeeper approach.

THE KITCHEN SINK APPROACH
While this "no-stone-left-unturned" approach may attempt to demonstrate the full power of the federated search engine, it risks frustrating patrons by becoming not so much "Google-like" as rather "just another Google."

As information professionals, we encounter all kinds of resources that have at one time or another assisted us in providing solutions for our patrons. It is in our nature to educate, inform, and share knowledge of these resources with our patrons. In the kitchen sink approach, the federated search engine is used as a platform, or reservoir if you will, for this transfer of knowledge. At its extreme, in addition to the organization’s subscription resources and internal databases, every available external resource that might possibly be of use is included, right down to the Amazon.coms and Google Scholars.

This approach may be desirable for certain applications such as in prior-art searches where the concern is to avoid overlooking any potential resource. However, should you include too many Web sources, the possibility exists that your organization’s subscription resources and internal databases could become buried in the mix.
with understanding the limitations of purchased content, lack of information provider integration, or the differences between information retrieval for commercial online databases and freely available Web content. They wanted to know how to retrieve information quickly from our resources. They went elsewhere if getting the information took too long or was too demanding.

Due to employee expectations, a continuously expanding collection, and the need for increased return on investment for our licensed content, we knew we must upgrade our search solution to include a larger scope of materials. We knew that to maintain employee loyalty a single search interface must include all our information resources within its search scope and demonstrate the same features and performance provided by popular Internet search engines.

Project Inception
In 2003, we began reviewing federated search engines (FSEs) on the market. We believed that FSE technology would resolve many of the information retrieval issues our customers were experiencing. FSE would also provide the glue to bind our many independent information databases together and produce a consistent user experience for the employee.

**Employee self service has become our customer service goal. This provides our staff with greater opportunity to provide high-touch research and reference services.**

We defined FSE as:

> "An information retrieval system that executes a user’s query across many databases, Web sites, and information systems called sources and then aggregates and ranks search results from these many sources into a single user interface. It integrates with sources through the source system’s native query languages, application-programming interfaces (API), and search user interfaces. It provides users with a simplified, consistent, and efficient method for retrieving relevant information from many systems in a familiar user experience. It also enables the retrieval of information from systems that do not have a web user interface. Federated Search goes by other names in the information industry, including distributed search, real-time search, cross search or cross-database search and metasearch."

The project problem statement was:

> "The Intel Library licenses a large number of commercial information databases together and produce a consistent user experience for the employee."
Employees often asked, "Why can’t the Intel Library site work like Google or Yahoo?" do not wish to learn a licensed product’s tool to retrieve information from its contents. They want a single search interface with familiar options to search and retrieve information with the least amount of effort possible."

Expected project outcome was: "This project will implement a Web-based search solution that allows an employee to submit a single search query to all Intel Library products at once and receive a combined set of ranked search results. The search solution will include internal and external information sources within its search scope. The search solution will be fully integrated with the Intel Library's intranet portal and be recognized by employees as the primary search tool to retrieve information from their corporate library. All search results will allow for direct linking to the full-text of items being returned through search, thereby eliminating a significant amount of employee browsing and navigation."

**Vendor Evaluation**

We began our thorough vendor evaluation and selection process in 2003. We developed and prioritized a set of requirements. We then developed a vendor short list that included five of the strongest vendor products on the market at that time. Vendors were selected based on their product's feature set, recommendations, and reputation.

Our criteria were based on:
- Vendor product software and system specifications.
- Vendor product feature functionality.
- Intel Library requirement satisfaction.
- Vendor product end user training resources.
- Vendor maintenance and support.
- Total cost of ownership.

Our initial evaluation process was frustrating. After evaluating vendor products and scoring each vendor based on the defined criteria, we selected a vendor that best met our criteria. We had the vendor demo a software prototype using our licensed information products. We piloted the prototype for a number of weeks and gathered stakeholder input and feedback on the product. Once the product passed stakeholder review, we negotiated an agreement with the selected vendor.

During the negotiations, we reevaluated many of the specifications we established during the evaluation phase. We discussed specifications in much more detail as we began developing the implementation plan and anticipating a signed contract with the vendor. Unfortunately, through these discussions, it became apparent the vendor could not completely meet the specifications. The issues were largely based on some of the implementation requirements. After more discussion and additional review, we terminated negotiations.

The project team's post mortem on the vendor evaluation process determined what went wrong and recorded the knowledge for the next evaluation process. The team concluded that a thorough evaluation process had been performed, but we missed working through the finer implementation details with the vendor. We spent most of our efforts in the evaluation process reviewing feature functionality and negotiating pricing for the solution. Insufficient effort was spent planning for the imple-

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**Vendor Evaluation**

<table>
<thead>
<tr>
<th>Intel Library One Search (Search Completed)</th>
<th>Intel Library portal with One Search</th>
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<tr>
<td><img src="image" alt="Intel Library One Search (Search Completed)" /></td>
<td><img src="image" alt="Intel Library portal with One Search" /></td>
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**Expected project outcome was:**

- Total cost of ownership.
- Vendor maintenance and support.
- Intel Library requirement satisfaction.
- Vendor product end user training resources.
- Vendor product software and system specifications.

**Vendor Evaluation**

We began our thorough vendor evaluation and selection process in 2003. We developed and prioritized a set of requirements. We then developed a vendor short list that included five of the strongest vendor products on the market at that time. Vendors were selected based on their product's feature set, recommendations, and reputation.

Our criteria were based on:
- Vendor product software and system specifications.
- Vendor product feature functionality.
- Intel Library requirement satisfaction.
- Vendor product end user training resources.
- Vendor maintenance and support.
- Total cost of ownership.

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- Vendor product feature functionality.
- Intel Library requirement satisfaction.
- Vendor product end user training resources.
- Vendor maintenance and support.
- Total cost of ownership.

Our initial evaluation process was frustrating. After evaluating vendor products and scoring each vendor based on the defined criteria, we selected a vendor that best met our criteria. We had the vendor demo a software prototype using our licensed information products. We piloted the prototype for a number of weeks and gathered stakeholder input and feedback on the product. Once the product passed stakeholder review, we negotiated an agreement with the selected vendor.

During the negotiations, we reevaluated many of the specifications we established during the evaluation phase. We discussed specifications in much more detail as we began developing the implementation plan and anticipating a signed contract with the vendor. Unfortunately, through these discussions, it became apparent the vendor could not completely meet the specifications. The issues were largely based on some of the implementation requirements. After more discussion and additional review, we terminated negotiations.

The project team's post mortem on the vendor evaluation process determined what went wrong and recorded the knowledge for the next evaluation process. The team concluded that a thorough evaluation process had been performed, but we missed working through the finer implementation details with the vendor. We spent most of our efforts in the evaluation process reviewing feature functionality and negotiating pricing for the solution. Insufficient effort was spent planning for the imple-
We established a design goal to minimize the dependency of the implementation on any specific vendor product.

mentation as we moved forward with negotiations.

The specific implementation issues were:
• FSE product support for the operating system software, database software, and hardware.
• Ability to deploy FSE solution behind Intel firewall with no remote connections from vendors.
• Compatibility with existing service and software components.

The project team revisited the vendor short list and concluded that no vendor existed that could meet our requirements. In early 2004, the project was shelved because FSE technology had not reached the maturity level the project sponsor had expected. The project team was reallocated to other projects that supported the Intel Library's self-service model.

Requirements
We continued to refine requirements for the FSE implementation project over the next two years as the project team completed related projects. We replaced the Intel Library's Web site with a portal integrating all the solutions into a common user interface. The Intel Library's intranet portal search now included all internal products in one search interface.

We conducted a user study in mid-2005 to determine employee satisfaction with recent Intel Library upgrades. This study covered a significant segment of Intel Library users and solicited participation from multiple geographies and business groups. Twenty-five employees were interviewed and observed using the new portal. We also surveyed a sampling of 13,000 employees from our user base.

Employees reported satisfaction with the recent changes, but also said that the search engine was ineffective. The fact they could now search all internal collections (like our online catalog and the Intel author research database) through the portal's search engine mattered little to them. There was a common perception our search engine searched all online products on our portal. When customers did not receive results from our licensed products, they assumed the search function was broken. This was also a common finding during the observations and interviews with employees. Employees ranked "ease of use" as the most important characteristic of an information retrieval tool. This user study confirmed much of what we already knew. Our search solution required an upgrade, and our search scope needed to be expanded to include all of our resources. We made licensing an FSE our top priority.

In July 2005, we renewed our vendor selection process for a FSE product. We planned a 2006 implementation and set a goal to deploy a significant search upgrade by the end of 2006. Since we had spent a significant effort upgrading our existing systems and employee service points over the past three years, we adopted an integration approach as opposed to a side-by-side implementation approach. Our goal was to license an FSE solution, but only the engine component. We would integrate the engine into our existing intranet portal architecture. Instead of adding another search solution, we would replace our existing search solution with the FSE and integrate it into the user interface of our portal. This solution would serve as our primary search interface.

This approach created new requirements and specifications for the vendor evaluation criteria. These new requirements were much more detailed than our previous set of requirements as they identified the application programming interfaces (API), software and hardware specifications, performance and scalability targets, and related features necessary for the selected product. In addition to the previous criteria, we identified the following requirements categories:
• Vendor product API support.
• Vendor software and hardware platform support.
• Vendor product performance and scalability.
• Vendor product customization and configurability.
• Vendor product installation and implementation requirements.

With this detailed set of requirements, we accelerated our vendor evaluation process. We had a firmer grasp on the requirements and knew which were critical to implementation success. We largely followed a disqualification process in our vendor evaluation process as we found most vendors could not support our new set of requirements.

Vendor Selection
In October 2005, we disqualified most of the vendors on our shortlist because two critical requirement categories were not supported. The API and the software/hardware requirement categories were particularly lacking in support by most vendors. We changed our approach and decided that the ideal product did not exist. We then focused our efforts on selecting a vendor with whom we could work to meet these requirements.

One vendor remained. It was not on our shortlist but had indicated it supported APIs and the platform on which we wanted to deploy the FSE. The vendor was Deep Web Technologies (DWT) in Santa Fe, New Mexico. DWT had completed a large-scale implementation for the federal government that we reviewed over the Internet. We decided to revisit the vendor to review our requirements and specifications.

On an onsite visit, we were impressed with the DWT team. They demonstrated a significant knowledge of search technologies and systems integration. This was refreshing given our experience with
Each phase of the project was managed as a mini-project that had tangible and measurable deliverables as its output. Each phase also built on the previous phases in a progressive elaboration of the larger project.

identified the milestones and deliverables throughout the timeline for the project. We used this information to plan our internal development and implementation of our search upgrade.

**Solution Design**

Intel's Web and Systems Group designed the integration of the FSE into the library's intranet portal, the user interface for search and results, and the integration of our internal sources. We established numerous design goals that would guide our implementation of the FSE. We added federated searching capability to the library portal without substantially affecting our existing systems or requiring our employees to learn a new product.

We established a design goal to minimize the dependency of the implementation on any specific vendor product. To minimize this dependency, we designed an abstraction layer that would serve as the interface between the FSE and our internal systems. All our development would target the abstraction layer and not directly communicate with the FSE.

If we selected a new vendor or the product changed substantially in the future, impacts on our other systems would be minimized. This abstraction layer would be constructed with Web Services and would be based on the W3C SOAP 1.2 Messaging Framework (http://www.w3.org/TR/soap12-part1).

The team spent a fair amount of time designing the user interface to make it simple and easy to use. A design goal was set that no training or support would be necessary for employees to use the upgraded search solution. We assumed that employees had previous exposure to an Internet search engine, and this experience was all they needed to use the new search solution. We also assumed that employees would search all sources the majority of the time. This allowed the team to simplify the search interface and easily fit the new search solution into the home page of our portal. We located advanced search options on a secondary level employees could easily access if they wanted to change the default options and search scope.

We set a performance goal that users should receive search results within a maximum of three seconds and that searches for all sources together should complete in an average of eight seconds. To accomplish this, we needed the FSE's API to return results asynchronously as soon as they became available, and we needed an interactive user interface to stream search results back to the user as the search executed. As a result, we designed the search interface as a Rich Internet Application and used AJAX (Asynchronous JavaScript and XML) for portions of the user interface that required interactivity. A usability issue we had to overcome was that

standards and thus largely hardware and OS independent. This allowed us flexibility in deployment and in sustaining the solution into the future.

**Vendor flexibility.** DWT was flexible and had strong customer orientation. They were dedicated to understanding our requirements and proposed innovative solutions to meet our specific needs. They also sufficiently demonstrated their ability to deliver the customization required to meet our specifications.

**Competitive product.** DWT's FSE satisfied all of our FSE feature requirements and some of our nice-to-have features such as search within search results and dedupping. DWT supported numerous APIs, protocols, and options for creating source connectors that take best advantage of each source's search capabilities. Their FSE also supported a significant amount of configurability.

**Relevant results.** DWT's FSE employs sophisticated relevance ranking algorithms that effectively merge and rank search results in order of relevance to the user's query based on the occurrence and location of search terms within titles and snippets.

**Existing implementations.** DWT's Explorit was deployed on public-facing Web sites for some very large organizations. This demonstrated the maturity of DWT's FSE and showed it would likely scale to meet our current and future need.

We scheduled the project to start March 1, 2006, and targeted November 2006 for completion. DWT provided a comprehensive product schedule that
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most employees had never before used a search engine that ran asynchronously in their browsers. The interactive portions of the interface were limited to just areas where it supported the user. We made a number of iterative modifications to this design to make the interface easy to understand and to ensure that performance was within employee expectations.

Intel Library internal sources needed to be integrated into the FSE search scope. It is desirable to limit the integration with our internal systems and a vendor supplied product. DWT supports a number of source APIs. We already had experience with developing SOAP Web Services and the DWT FSE effectively worked with Web services. We designed a Web service to search all of our internal databases. The DWT FSE would treat our internal web service API as just another source. Our API was designed to support basic and advanced search features and would allow filtering to subsets of the collection. For example, through our API, employees could search the catalog system, document management system, content management system, or all of our internal repositories at once. This simplified the integration of internal and external sources into one search scope as they are handled within the FSE in a consistent manner. By its nature, federated search can be a fragile distributed system because network connectivity between the FSE and its many sources can be affected by factors uncontrollable by the FSE vendor or the administrator. Network latency has a significant impact to the user's perceived performance of the solution. If network connectivity between the FSE and the source degrades, integration with the FSE can become inoperable. Also, minor changes at the source can have significant effects on the integration. Recognizing there will be times when it is necessary to expand and contract the search scope, we designed controls that would allow for bypassing the FSE entirely so our portal could use our internal search API independently. These controls also allow the temporary removal of sources from the search interface with a few clicks of the mouse.

Implementation
The implementation ran through the remainder of 2006, with the release now scheduled for the first week of December. Our development and implementation milestones ran approximately two weeks behind DWT's product schedule. We broke the project into phases and prioritized the implementation so we could guarantee some level of federated search capability by the end of the year. Our implementation plan included the following phases:
- **Phase 1**—Detailed design of Intel Library search application.
- **Phase 2**—Development of the FSE API abstraction layer.
- **Phase 3**—Development of prototype application that included the top six external sources.
- **Phase 4**—Procurement and installation of hardware that would host the FSE.
- **Phase 5**—Development of internal Web service API.
- **Phase 6**—Development of a functional application that included the remaining 15 sources.
- **Phase 7**—Development of Intel Library search interface.
- **Phase 8**—Integration into Intel Library portal.
- **Phase 9**—Customer acceptance and release testing.

We executed the project concurrently with other high-priority projects. The team members responsible for the development and implementation portion of the project consisted of a systems analyst, software engineer, and project manager. One third of the team's time was dedicated to the project. This team collaborated with DWT's technical team throughout the project through e-mail and phone discussions.

The team managed the project with an agile software development approach and integrated the project into the team's larger project roadmap. Each phase of the project was managed as a mini-project that had tangible and measurable deliverables as its output. Each phase also built on the previous phases in a progressive elaboration of the larger project. Within each phase, the team performed the analysis, design, development, integration, and testing tasks for each deliverable. Some phases ran concurrently and some synchronously. The scope and schedule of the project was aggressively managed to ensure that a partial release of the solution would be possible by the end of the year, regardless of what occurred in the final phases of the project.

The project was implemented as planned with the exception of two areas. The first was issues with our information providers' ability to support connectors to be developed for their products or APIs that did not work as expected. The second was technical challenges with the AJAX technology we had selected for the user interface.

In 2003, shortly before the project's inception, the team had surveyed all of our information providers to determine what integration technologies they supported. We performed another survey...
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Our federated search implementation was not perceived as an enhancement or new capability by our employees, but rather a fix to what was previously broken.

in 2005 when the project's priority was elevated. Based on responses from our suppliers, we saw that not all sources might be integrated by release time. We managed this risk by prioritizing the sources based on customer usage; making sure to include the most heavily used sources in the early phases of the project. We also began communicating with our sources' technical support services to determine any issues that might occur with the integration of their products.

We were surprised by our supplier's lack of knowledge of federated search technologies. Some suppliers were unresponsive regarding integration. Some that had APIs for search integration were found to be in beta and had not previously supported a client in production status. The vendor management aspect of the project swelled and consumed time we had not previously scheduled.

The AJAX component we selected for our user interface was in beta. We selected the component based on compatibility with our existing development tools. We discovered in development that the component was undependable and could not support the complexity of our design. We also identified that the component might not be compatible with all employee browser configurations. Given these issues, we built our own AJAX solution to meet the implementation schedule. We were confident that stable and dependable off-the-shelf AJAX component solutions would be available to support additional enhancements to the user interface after our release.

Release

Our upgraded search solution was released the first week of December 2006, one week behind what the original project plan identified. We spent that additional week making last minute user interface modifications and source configuration changes. The search solution's scope covered both internal and external sources and was fully integrated with the portal. Twenty of the 21 sources identified for the initial release were available. During implementation, one vendor refused to include its product in the FSE search scope out of fear that their systems would not be able to support the load.

At the time of the release, we branded the new search solution "Intel Library One Search" instead of merely calling it a federated search engine. We felt that...
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requesting that we expand our search scope even further and that our recent upgrade saves employees time. We consider all of this feedback a good indication of success.

The Future
Since the release of Intel Library One Search, our search scope has been expanded. We added the remaining source that was not part of the initial release. All of our licensed online databases that have been identified to have value in the FSE search scope are now included. We also added a few more sources that had been identified as valuable to employees and that have expanded our search scope to include public domain Internet sources. The flexibility of DWT and our internal search application have made adding new sources simple, quick, and cost effective.

We have also begun implementing saved search and alerting capabilities. Both are using APIs provided by the DWT FSE. Our implementation will follow the process that was used for the original project and the new features will be fully integrated with our One Search interface and portal. Alerts will be available for the majority of our external sources and all of our internal sources. Alerts will be delivered to employees through email and RSS. This new alerting capability will satisfy many outstanding requirements we have for a number of our internal systems and provide employees the ability to track content changes in these systems. Employees are excited about the new feature, as it will save them time tracking topics important to their work. As this was written, the project was progressing well and we expected to release the enhancement before the end of the second quarter of 2007.

We have begun scoping the clustering of search results as an enhancement upgrade to One Search in the second half of 2007. Employees have shown interest in textual based topic clusters that are dynamically generated from search result metadata. At this time, we are uncertain to what degree employees will use the feature but believe that it will be a valuable feature as our search scope continues to expand. Features that allow the employee to navigate through large sets of results based on topic, source, type, and other facets will improve employees' search success.

The Intel Library One Search user interface is producing usage information not previously available to us. It is now possible for Intel Library staff to understand not only what the employee is searching for, but also what they are finding and where the information is coming from. We were previously limited to seeing this level of detail only with our internally managed collection. It is now possible to see a more complete picture of employee usage across almost all of our sources. We are establishing measures from this data that will be integrated with our collection development processes. These measures will enhance the accuracy of our collection development decisions and thereby help us maximize our collection budget.

Lessons Learned
User expectations and adoption
• Intel employees expect the Intel Library to provide a robust search solution that covers all available materials. Our federated search implementation was not perceived as an enhancement or new capability by our employees, but rather a fix to what was previously broken.
• Not all users will immediately make the switch to federated search. Old habits are hard to break. It is important to maintain browsing features as users take time to begin using search as a means to navigation.
• Sites that have been browse-centric may have a drop in usage as their users become more search-centric. Users may spend less time at a site when they are successful in easily finding what they need through a search.

Vendor evaluation and selection
• Establish project success criteria early and prioritize requirements based on user value. What users deem as important will often be a subset of the original feature requirements.
• Effective vendor evaluation and selection is critical to the successful implementation of any large system or solution. The vendor evaluation process should be comprehensive and include not only functional and cost requirements, but also implementation and sustaining requirements. A relationship with a federated search vendor may span years. Plan.
• Federated Search is more of a service than a product. It depends on many factors that can change over the life of the solution. It requires ongoing monitoring and source adjustments as changes are inevitable. Ensure the vendor is flexible and agile enough to meet your organization's needs.

Information supplier management
• Federated search can add supplier management complexities that your organization previously did not have to manage. This is especially true for...
large collections. Plan by sufficiently resourcing supplier management processes for the implementation and sustaining phases of the project.

- Federated search can affect content development policies as content integration and the ability to surface information through search becomes more critical. Products that are not in the search scope can suffer from lower utilization as users become more search dependent. This is especially true of expensive, single-source information products that require sufficient usage levels to achieve ROI. Intel Library product renewal and selection procedures now require that the licensed content solutions support the necessary technologies to enable FSE capabilities.

- Information suppliers that are typically used for certain subject or topic searches may see a change or decrease in usage as other sources, previously less known, rise to the top of the search results. In a quarters time we are seeing shifts in usage of our licensed products that had historically remained consistent. Federated search levels the field for lesser-known products as relevancy ranking becomes the driving force of usage.

Implementation

- A phased or incremental federated search implementation approach is easier to manage and helps reduce risk in the project. Users are pleased to see incremental progress and can provide valuable feedback so that additional features can be accurately prioritized and weighted. It may be that users are more interested in expanding the search scope than adding new features.

- Federated search does not always fix a portal that is perceived to be broken. Federated search is much more valuable to the user when it supports an existing site by consolidating the search functions of already well-performing products. We waited and addressed many of the areas that needed improvement before committing to federated search. This paid off, as all of our internal content is easily searchable through Intel Library One Search. The employee now has a consistent user experience throughout all of our internal products.

Simplicity of design

- Design the user interface to match the user's expectation. Our employees wanted simple and efficient information search and retrieval. The Intel Library wanted employees to be self-sufficient. The design of the user interface was guided by these expectations.

- Replacing a limited search solution with FSE can be more effective than running both search solutions side-by-side. The Intel Library wanted to have fewer places for the employee to search for information. This has facilitated employee adoption and reduced need to educate employees regarding the change.

- Advanced search features are not for everyone. We designed the user interface to use the most common use case as the default configuration for each search. The decisions the users are required to make before using the search interface were either eliminated or reduced as much as possible. Advanced search options are used by less than 5% of our users and less than 4% of total searches. Prioritize search options accordingly.

- Introduce new features incrementally to allow users to consume features at a comfortable pace and without excessive change to the user interface. Users like familiarity and consistency in the tools they use. New features are best driven by the users of the tool not the tool implementer. We have phased the implementation of our search enhancements to allow employees to become comfortable with changes. Employees are providing us the feedback and usage data necessary to select features that best meets their needs.

Conclusion

Federated search takes the concerted effort of a team to effectively deploy and sustain. It is more of an ongoing program than a discrete project. It requires periodic adjustments throughout the life of the solution. Selecting a flexible and responsive FSE vendor is important to support an organization through these changes and ensuring success. DWT's products and services substantially contributed to our success. Through integrating DWT's FSE, we have achieved seamless federated search capability integration with our library portal. We also have a manageable and sustainable federated search solution that we can build upon for the future.

Our federated search implementation has advanced us in our mission and vision. We have a comprehensive and user-friendly search solution that spans our external licensed information, internal managed information, and internal information sources. We have achieved a higher level of employee satisfaction with our online services and increased ROI for our licensed information. The Intel Library collection will continue to expand to meet the employee's information needs. We are confident the search solution will support this growth and increased scope. As employees continue to adopt the search solution, we expect employee time savings to increase. Current usage data and customer feedback supports this assertion. We will continue working with employees to identify the features and sources that will increase the value of Intel Library online services to their work and the company's bottom line.

BARCLAY HILL is manager, Web and Systems Group, Intel Library at Intel Corporation. Specific figures, vendor names, and statistics considered confidential by Intel Corporation have been omitted. Hill thanks the talented team of folks at the Intel Library for their contributions. The article was written for the 2007 SLA Contributed Papers program. Details—and full texts of the papers—are online at www.sla.org/content/Events/conference/ls2007/conference/papers.cfm.
SHE BEGAN HER CAREER IN THE PAPER AGE, BEFORE GOOGLE'S FOUNDERS WERE BORN. THEN SHE GOT A JOB AS A DIGITAL LIBRARIAN.

BY FORREST GLENN SPENCER
Pam Osborne was born, trained, and raised professionally as an analog librarian. When she received her MLS in 1972, index-card catalogues reigned, printed books and journals were the only true source of information and reference, Bill Gates was writing BASIC for TRW, there were no e’s or i’s before words like ‘mail’ and ‘pod,’ and Google founders Sergey Brin and Larry Page were yet to be born.

But times change, as did technology—and the means of delivering and accessing information altered almost beyond what anyone imagined as information professionals were able to reach more people faster and better. No longer did people need to go to a library, the library came to them: in their homes, in their offices, and through their wireless devices. The digital revolution spurred the information revolution, and new economies emerged in its wake.

So when Osborne tells people that she is a digital librarian by profession, she says there is a joke that usually follows: “So...what part of you is digital?”

<table>
<thead>
<tr>
<th>Pam Osborne</th>
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<tr>
<td><strong>Joined SLA:</strong> 1997</td>
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<td><strong>Job:</strong> Digital librarian</td>
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<tr>
<td><strong>Employer:</strong> Mercy Corps</td>
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<td><strong>Experience:</strong> 35 years</td>
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<tr>
<td><strong>Education:</strong> B.A., English Literature; MLS, University of Washington, Seattle</td>
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<tr>
<td><strong>First job:</strong> Audiovisual librarian in a high school library</td>
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<tr>
<td><strong>Biggest challenge:</strong> Working in the high-tech realm of IT when many of my clients are in low-tech parts of the world. My team always struggles with whether to plan projects for the lowest common denominator or aim higher when we know that will leave some people out.</td>
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Osborne loves telling this story with her infectious laugh. Asked when she made the transition into the digital age, she will say it was the day she became the Digital Librarian for Mercy Corps in 2001. "I sat down at my cubicle after I was hired and said, 'Okay, now that I've got the job, what am I supposed to do?'" And another laugh erupts.

Yet, in only nine months, she produced the agency's first Digital Library, transforming the way information was delivered to its field offices in various developing countries. Her efforts were recognized last year with The SLA Professional Award.

"I was looking for a job that would allow me to use my professional skills in a different way, and I wanted to give back to the world at large in some way. Landing the job at Mercy Corps gave me both things," Osborne says. "Graduating with my MLS when I did, I have had to remake myself over the years—along with everyone else who graduated back then, because librarianship has changed so hugely. Today, it's still a challenge for me. Basically, I'm a content person; I'm not technically oriented. I'm much stronger with people, consensus-building, and organizing information than getting into the guts of software."

Osborne is proud of her work and that of her associates at Mercy Corps. Since 1979, the organization has provided $1.3 billion in assistance to people in 100 nations. It is supported by headquarters offices in North America, Europe, and Asia. Its unified global programs employ 3,400 staff worldwide and reach nearly 14.4 million people. Osborne works in the group's international office in Portland, Oregon.

Mercy Corps believes that communities recovering from war or social upheaval must be the agents of their own transformation for change to endure. Part of the effort requires readily accessible information.

"I sat in my cube in shock from the first month and wondered, 'How did I get here?'" Osborne recalls. "I am not a digital person. I'm strongly book-oriented. But I thought about what traditional libraries are for. They document our culture's history and act as our culture's memory, supply the information and reading needs of a given audience, and foster the free exchange of information and ideas. "I decided that the organization's library needed to do those same things. It's just that instead of the information being in books, journals, tapes, etc., it was in electronic documents. The principles of selecting and collecting, organizing, accessing, and preserving were much the same across the board—it was only the medium and the delivery and storage mechanisms that were different.

Osborne joined Mercy Corps on a two-year grant project. She was charged with developing a digital library to improve the accessibility of information for the organization's field personnel globally, which she did in less than one year. As one of Mercy Corps' emergency workers told SLA in 2006, "Having things all in one place not only helps our institutional memory, but it really helps us move quickly in the field. The less time we spend searching for files or e-mailing people to get old proposals, the more time we have to do the life saving work or get some sleep every once in a while."

In 2005, The Bill and Melinda Gates Foundation provided funds to seven major non-governmental organizations to improve their capacity to respond in emergencies. Mercy Corps' Digital Library was honored as a best practice across all the seven organizations.

"We created the digital library as a way of distributing its material to a world-wide staff," Osborne described. "The library was originally designed to enable the field office to get to a body of information 24/7. We work across 16 different time zones, so when people were emailing HQ for information there was at least a 24-hour delay, and sometimes more depending upon the day of the week and the international dateline."

The digital library handles all sorts of file formats, including audio and video. "One of the reasons we chose the software that we use is because it ports really easily to CD-ROM and DVD. About a third of our offices don't have good, cheap, fast Internet access, so we port the digital library onto a DVD on quarterly basis and ship two or more copies out to each of our offices. We also make it available to all of our program officers here who are traveling into the field. They can pop a DVD into their briefcase and they've got the digital library with them if they can power their laptop, whether they have connectivity or not. The DVDs are also used by the emergency response team when responding to a natural disaster like an earthquake or a tsunami."

She's the first digital librarian (and the first of any kind, Osborne will say) for Mercy Corps. It was a newly created position from the grant. Osborne was soon put on core funding. Her job includes maintaining and enhancing the library—and it also gave her an opportunity to travel to parts of Africa, like Eritrea, Ethiopia, and Kenya in 2005 to train staff on the use of the digital library and conduct usability studies. Because of her experiences there, she redesigned the library's navigation system and interface. The result, Osborne reports, was an increase in usage of about 25 percent.

"I've also been to Bulgaria and Jordan for Mercy Corps," she said.
“In Jordan, I got to spend the night in the Wadi Rum desert—this is where Lawrence of Arabia was filmed—in a Bedouin tent, which is huge. Unless there’s a sand storm, the sides are all fully raised. Just before falling asleep, I raised my head to see if I could catch the slightest breath of air moving, and here came three camels sauntering by. I remember thinking, ‘Where in the world am I that I’m seeing camels?’ It was incredibly peaceful.”

Other Duties
Besides being responsible for the digital library, Osborne works on the Corps’ organizational learning task force and serves as a liaison between the IT and programming departments. In addition, she is heading up the formation of a communities-of-practice site using collaboration software and building an intranet.

“The digital library itself was a big hit when it went online, and its usage is still steadily increasing each year,” Osborne says. “It’s a library of largely internal documents, so we put our forms and templates, policies and procedures, proposals and reports, case studies, presentations—everything that helps us share ideas and avoid reinventing the wheel.”

Mercy Corps’ mission is “to alleviate suffering, poverty, and oppression by helping people build secure, productive, and just communities.” The library’s mission follows suit: “The Mercy Corps digital library exists to alleviate the suffering of its worldwide staff caused by miscommunication, inefficiency, and duplication of effort. It will ensure the highest quality of programming, by facilitating the sharing of information and knowledge and preserving our institutional memory.”

“Preserving our institutional memory was something I pushed for in early discussions about the digital library and its purpose,” Osborne recalls. “A few years ago, Mercy Corps was trying to decide whether to start up a program in the Sudan. We had worked in the Sudan about 15 years ago, so there was a scramble to find out what

At Mercy Corps, she stepped into a newly created position and no one knew exactly who she was or what she was supposed to be doing there. The phone never rang, and no one came by.
The Mercy Corps digital library exists to alleviate the suffering of its worldwide staff caused by miscommunication, inefficiency, and duplication of effort. It will ensure the highest quality of programming by facilitating the sharing of information and knowledge and preserving our institutional memory.

Osborne came to Mercy Corps from a small, private academic health sciences library where she served as its director. She recounted how at that job she was used to having the phone ringing often and solving problems all day while managing staff and serving many people's needs. It was quite a contrast to her cube at Mercy Corps where she stepped into a newly created position and no one knew exactly who she was or what she was supposed to be doing there. The phone never rang, and no one came by.

Osborne had spent her career in public or school libraries in the Pacific Northwest. But by 2000 and 2001, the recession began to take its toll. Enrollment at this medical college was down.

"We lost a lot of people due to downsizing, including library staff," said Osborne. "But, as a manager, you hang in there because that's what you do. I ended up doing the jobs of two other people including my own. You can have three full-time jobs for a limited period, but when there's no end in sight, it is time to pull the plug. And I wasn't interested in working for a profit organization. Throughout my career I've worked in the non-profit arena, and I'm strongly oriented that way."

Osborne began looking at possibilities, such as pursuing another degree, but then she spoke with a woman in her church who had been a manager of a country and western clothing store and moved on to a grant-funding agency where she looked at potential programs to be funded.

"I wanted to find out what kind of a background she had to do that kind of work. One day she let me buy her lunch," Osborne recalls, "and she started laughing when she told she had gotten the foundation job precisely because she did not know anything about it. They wanted a different perspective in their grant funding process. I told her my story and that I was looking for a new way to use my skills. She told me that Mercy Corps had applied for a grant for some sort of an intranet librarian. She said she did not know if they would get the grant and that she was not the one who would be making the grant decision, but that I could contact them and use her name if I wanted to."

Several months later, after Mercy Corps received the two-year grant,
While she was a student teacher in her senior year of college, grading papers on evenings and weekends, it had become clear that the appeal of teaching had faded. Still, she still wanted to be connected with schools.

Osborne applied for the job that she maintains today. "It's a neat networking story. Based on where they advertised for this position, I never would have even heard about it if I hadn't had that lunch talk."

Helping Others
Born and raised in Michigan, Osborne knew early on that she wanted to help others. Since the second grade, she wanted to be a teacher, but when she graduated in 1969 from the University of Washington with a bachelor's in English, there was a teachers' glut and getting a job in the profession was difficult.

But that wasn't a problem. While she was a student teacher in her senior year of college, grading papers on evenings and weekends, it had become clear that the appeal of teaching had faded. Still, she still wanted to be connected with schools.

Osborne's family had moved to Washington State when she was a teenager. There, at the age of 16, she worked as a page in a public library. She never forgot her love of books. "It was my first job," she recalls, "but my love for books dated back to early childhood. When I didn't get a teaching job, I found a job working at the University of Washington library and then I discovered—lo-and-behold—there's a master's degree in library science, which I didn't even know existed." She continued working at the library while pursuing her MLS. Her first professional job was as a high school media specialist so she got to work with students as she originally had dreamed of doing.

Osborne joined SLA in 1997 but was more active in the Medical Library Association where she was president-elect of the Chiropractic Library Section. She switched to SLA when she joined Mercy Corps in 2001. She knew that SLA would be a fine networking outlet for her new job.

"I remember going to the Oregon chapter's annual kick-off breakfast in September where I introduced myself and I told them about my new job and what I would be doing. I told people I needed to see some intranets, and several people offered advice, gave me their business cards, and issued invitations to visit their libraries."

One of those people was the then-president of SLA's Oregon Chapter who soon asked Osborne to run for President. "I figured I would never win because I was very new to the chapter, and no one would vote for me. But then..." and Osborne begins to laugh again, "I forgot to ask whether I was running unopposed. My first learning experience: Always ask if you're running unopposed!"

Osborne served as president of the chapter for the 2004-2005 term. She and the chapter were actively involved in continuing education, outreach and, networking opportunities for its members. The outreach programs included partnering with other organizations, such as PORTALS (Portland Area Library System) and the Oregon Library Association, and sponsoring a "twin" member through SLA's twinning program: Dr. P.R. Goswami, director of the National Social Science Documentation Center in India. Osborne volunteered to be on the President's Task Force for Natural Disasters after the 2005 South Asia tsunami. She's also a member of the Social Science Division and the International Information Exchange Caucus.

Osborne expects to remain at Mercy Corps for several more years. After that, she is seriously considering retirement. She just completed yoga teacher training and is starting a two-year certification program in spiritual direction this fall. She and her husband, who's a software engineer, reside in Vancouver, Washington, just across the Columbia River from Portland. She loves the Pacific Northwest and the fact that her family is nearby. This is where she wants to remain and to continue growing professionally.

"That's why I joined the organization's learning task force," she said. "I try to insert myself in new projects where information or knowledge management aspects might come up and see where I can help, going to the need rather than sitting and waiting for the needs come to me. I've had to become more comfortable with ambiguity on this job and learn to think more proactively. I used to sit behind a desk and wait for patrons to come to me and ask questions, but not any more."
The More the Info,
the More Important the Info Pro

Mary Ellen Bates president and founder of Bates Information Services, is an expert in customized information research. A frequent speaker at SLA conferences, Bates has written or co-written six books and nearly 300 articles and white papers on research and information gathering.

In an interview with regular IO contributor Cybèle Elaine Werts Bates shares her secrets of online research and her thoughts on what info pros must do to remain relevant.

Werts: I first met you at the Special Libraries Association conference this year when I attended two of your very popular seminars, so popular, in fact, that they were standing room only in a room designed to hold hundreds of participants. Considering that most of the workshops there had plenty of seats for latecomers, to what do you attribute the popularity of your presentations, aside from your charm and good looks?\n
Bates: Well yes, certainly, besides that, I think, that, Number One, I try to come up with focused, practical topics. My goal is that everybody who leaves the presentation has something to take back and apply as soon as they get back to the office.

My other goal is to watch people taking notes. If nobody's taking notes, then I'm probably not saying something that's of interest to them. So that's my
feedback...

Werts: There seems to be a fair bit of concern that we information specialists are losing ground to Google, that people can do searches on their own, and that they will no longer need us. I've often responded that it's okay to let people try to find what they need on Google because they'll find it pretty soon. But not only does Google not have everything they need, but their search-

A challenge in our profession is to raise users' expectations. So they're not happy with what they find on Google. We want to raise their dissatisfaction level...So they're not happy and they go to us to find more information.

We need to project the perception that we're not threatened by Google. It's one of our tools. It's one of everybody's tools. But if you're relying on it, that's like a Fortune 500 company relying on QuickBooks to do their accounting. We need to project the perception that we're not threatened by Google. It's one of our tools. It's one of everybody's tools. But if you're relying on it, that's like a Fortune 500 company relying on QuickBooks to do their accounting.

What are your thoughts on the bigger picture of the information profession around this?

Bates: It's interesting because I started my business back in '91—that's before the days of the Web and barely in the days of email. And that time, it was a little hard to explain to people what I did because most people didn't know what LexisNexis is.

And so I would have to say, "Well, I use computers to find information," and it always seemed kind of lame.

And, you'd see their eyes roll back in their heads as if they're just dying from boredom.

And then the Web came, and the initial sense was, "Oh my gosh, there's nothing here." And then, companies started putting a lot of information on the Web and then there was a sense about eight or nine years ago that, "Oh my gosh, we're all going to be put out of business."

Fortunately, the more information that's available on the Web, the better it's been for information professionals standing in their organizations, because people understand that although there's a lot of stuff in Google, there needs to be an efficient way to find information. And it's still a challenge because everyone thinks that they're an expert Google searcher.

QuickBooks to do their accounting.

When someone says, "I find most of what I need on Google," the secret is to look puzzled like you're looking at a strange insect that you haven't seen before and say, "How interesting," like you'd say to a small child if he brings something to you and you're trying to sort of humor him and not embarrass him. And what we need to do then is to get the user to think, "Wait a minute, maybe that's not the best that there is. Maybe this information professional knows something I don't or has resources that I don't have."

Werts: In the keynote speech with Dilbert Cartoonist Scott Adams at SLA's annual conference this year, he talked about a comic strip where Dilbert's boss asked him out to print out the entire World Wide Web. That reminds me that you pointed out that no search engine covers more than 15 percent of the Internet. Even using a number of search engines combined is only going to catch, I think you said about 50 percent of the content out there. So why is it so important for people to know what they aren't finding with standard search tools?

Bates: The numbers that I sometimes bandy about—the no one search engine gets more than 15 percent and, even if you use a bunch, it's 50 percent—those are just numbers that people pull out of up residence three feet to my front door. I've been calling all these beekeepers to see if someone wants to come out and take my bees. I don't want to kill them. And I couldn't find anyone who wants them, but one of these guys said, "Well, I don't really use computers, but I think you can go on the Internet and find a beekeeper association."

Sure enough, I went onto the Web and I found the site for the Boulder County Beekeepers Association, who put me in touch with some beekeepers who can hopefully come out and take my bees away.

So for something like that, it works just fine. I found the answer to my question and, yes, it was the 10th hit down but for things like that, Google works just fine.

Werts: Oh my God. You mean you have to scroll down?

Bates: Yeah, I did. I did.

Werts: That's a lot of work.

Bates: It was. The first hit that I got, was the Colorado Beekeepers Association. Their Web site says, "This Web site has moved." But then it didn't say where it moved.

So I did have to scroll down. I'm willing to stoop to that. Search engines are calibrated for people that are doing searches for beekeeper associations, not for in-depth research. So a lot of stuff that may be conceivably findable...
through a search engine isn't—because that's not what they're designed for. That's not the appropriate tool to find stuff on the Web.

The more experienced information professionals intuitively know that the best place to go to find information, even on the Web, is to directories, portals, or places where people who care about a topic have compiled information.

Because that's what we've been doing for hundreds of years.

The thing that worries me a little bit is people that are just coming out of library schools who, Number One, don't think that they need to take any classes in the fee-based online services because they already know how to search...

And Number Two, who are trained, just from having grown up with it, to Google everything. The rest of us, even civilians, who grew up before Google, learned that you had to look for information and that you had to go someplace to find the best stuff.

I think the millennial generation is assuming that it isn't going to take work, that it'll just be findable in the Google search.

That worries me, not only with the library profession but also with people in general, that as the millennial generation hits the workplace there's an entirely different expectation about information-seeking behavior...

I think that a lot of us don't appreciate the difference in their life experience in terms of finding information.

Werts: Do you think that they'll figure it out as they go?
Bates: I think that they'll hear that or they'll be out-competed by other departments within their organization that also have knowledge workers who manage to get a flat fee contract with LexisNexis, Dialog, or Factiva. And so they have access to that stuff. The online vendors are not limiting their marketing to information professionals, and this isn't news. And if we've got millennial generation people saying, "Why am I paying thousands of dollars a month for something I could Google?" Then they're going to be out-searched by people who don't have that attitude.

Werts: For those who are unfamiliar with your work, you provide business research to business professionals, and corporate librarians, and consulting services to the online industry. How is it that businesses know that they need someone like you and how do they find you?
Bates: Since the beginning of my business, I have relied almost entirely on word of mouth. And I recommend that to other independent info pros. The most effective way of marketing is to cultivate word of mouth. People know about me and come to me.

And the ways I do that is a whole lot of public speaking. I started doing it just as a marketing tool and since then I've enjoyed it and it's now one of my sources of income.

Werts: How long did it take to build your business up to where you were comfortable?
Bates: I was lucky because my first client was my last employer.
Werts: So do you think that there is space for a lot more people like you out

Although I don't normally do this, I wound up going to a university library and going to The Cambridge World History of Food and, of course, Feast: A History of Grand Eating.

INTERVIEW
Bates: That's why I wrote an entire book about this and I do professional business coaching for people who are starting out as independent info pros.

I firmly believe there is far more business out there than there are people doing it. And I just rejoice in building one more person who's doing it. I'm a huge evangelist for the Association of Independent Information Professionals.

I think you either live your life in a spirit of contraction, of pulling it all in, feeling as if you're limited, that you're competing with lots of people, or you live with an attitude of expansion, that there's plenty out there that you live in abundance. I have always had the attitude of abundance. And I think it's a self-fulfilling process...

I feel like I owe it to the people who mentored me to do the same thing for other people.

Werts: So what might be an example of an information research project you've worked on recently that could explain the more complex work you've done.

Bates: No two questions are alike. One recent project was kind of fun. I have a client who does documentaries for Discovery Channel and places like that. And she's doing a documentary on the history of food. I can hardly wait to see when it comes out. So what she needed was to find experts on the history of food so she could interview them in her documentary.

And she needed academic journals on the history of food, not the cultural magazines with all the glossy pictures and stuff like that, but academic journals, peer-review journals on the history of food. And people...

Although I don't normally do this, I wound up going to a university library and going to The Cambridge World History of Food and, of course, Feast: A History of Grand Eating. I went through to see who was the most frequently cited and who contributed the most. And then the depressing part was finding out how many of them were still alive.

So, it was finding live people around the world who could talk about the history of food. So that was one.

I had another client, a client of about 10 years, where I actually went in to their office once a week. They brought in engineers, semiconductor engineers... It was the patent research office of a Fortune 100 company. Whenever any of their engineers came up with something they thought was patentable, they would send it to one of these guys who would come to me. I would sit down with them at a terminal and do patent research with them. They would tell me the word. I would construct the search and I would walk them through reviewing the results—because it was a connect-time based service...

A lot of times I had no idea what I was searching, but they would explain it to me, and I would get other words from them, and I actually got real good at building the search strategy because I learned the synonyms for a lot of those common concepts within the semiconductor industry.

And then they'd get really excited about a patent that they found. I've looked at this thing and it might as well be in Latin. But they were excited; and if they're excited, I'm excited.

There are some times when I felt like

Is doing research not to find the answer but to find out where the answer would be? It sounds kind of bizarre, but it's a huge difference in terms of how you do work.
I think that the high-level techniques are the same. The whole idea is to think creatively, think peripherally. You think who—beyond the normal—would be interested in this?

I was searching blind and the only way I would have taken that job on was to make sure that my client understood that I was doing the construction of online search—but the engineers were responsible for the completeness.

Werts: You have a very entertaining blog called the Librarian of Fortune. [See www.librarianoffortune.com.] Why do you need yet another venue of your ideas?

Bates: Actually, I was encouraged to do it by a few friends and colleagues, mainly because I just had interesting thoughts or experiences. I would have observations about the information industry and I wanted to have a venue for it. I write a column for EContent and one for Online but those only come out every two months.

And I do my newsletter. But that's focused on really practical things. I don’t want to talk about things like date of visualization in the newsletter, because that's not a real practical value of most people....

I also use the blog as a place to put weird stuff that I find on the Web. Or sometimes I will blog about what I've learned about a topic just because it's of interest to me. So the blog is a fun place to publish stuff that no editor would let me get away with....

Werts: The last 25 years have seen the greatest changes in technology in history. What research techniques or tools from your early years are just as effective today and which have become completely outmoded?

Bates: I think that the high-level techniques are the same. The whole idea is to think creatively, think peripherally.

You think who—beyond the normal—would be interested in this?

I was doing some research on the impact of Chinese tungsten on the U.S. tungsten market; and no, that was not a boring job. I know more about tungsten now than I ever thought I would.

One of the people who was an absolute gem was this guy in the Bureau of Land Management who keeps track of tungsten. He knows the tungsten industry like the back of his hand. And he talked to me for half an hour about it....

I could look at the tungsten industry, I could look at tungsten importers, I could look at the Chinese Hong Kong Tungsten Association; and, yes, there is one. But then I thought, "Who else would be looking at tungsten." And that's why I came up with the Bureau of Land Management. So it's thinking about who else would care about something, not necessarily in the same context as this question, but who might also know a lot....

Is doing research not to find the answer but to find out where the answer would be? It sounds kind of bizarre, but it's a huge difference in terms of how you do work.

And even if you Googled it, you wouldn't know whether this is a good answer or reliable site.

And that hasn't changed a bit from when I did collection development 20 years ago...You didn’t just wander bookshelves or wander a book publisher’s catalogs to look for sexy titles. You read book reviews, you look at the book, and you look at who edited it, you look at the index. You just evaluate resources. And those things haven’t changed a bit. We still need to do the same thing.

It is having those skills to evaluate resources, go where you think someone might know the answer, and then think creatively and go out from there. And I think I do that the same as I did 25 years ago.

Werts: So what has become completely outmoded?

Bates: The only thing I can think of as outmoded is a printed bibliography, like Readers’ Guide to Periodical Literature. It’s been outmoded by online indexes that lead us to brilliant searching.

Werts: How about a card catalog?

Bates: Well the online card catalog is still used. I use it....

Werts: No, I mean the actual ones.

Bates: Well, actual ones are online. But you mean... I don’t think I’ve seen any print card catalogues in a long time....

Werts: You said a little earlier today that you went to a library.

Bates: And that was so unusual for me. I was kind of excited. I actually got the use of a card catalog. I had searched their catalog at home, I had all the call numbers for the books on the history of food, and I went into the stacks and pulled a pile of 20 or 25 books. And I started going through them....

Werts: What kind of courses should students who want to be special librarians take?

Bates: For a special librarian, I would always encourage a class in marketing or in entrepreneurship. Unless you’re in a public or academic library, you have to market, because you’re not guaranteed a job.

No corporation has as part of its strategic goals to maintain a world-class library. To succeed, you need to be able to constantly prove your value—because you are not inherently valuable to an organization, much as librarians would like to think that, we’re not. And so the ability to show and to prove and demonstrate our value is critical to our success and to the success of our organizations. So a class in marketing is always useful.

Werts: You’ve done a workshop on that: How to convince your clients they desperately need you. Would that be the same as your company desperately needs you?

Bates: Oh, absolutely. It's for special librarian to get their users, or patrons, or clients, whatever you want to call them, to understand that they desperately need you.
Because if they don’t, they’ll go somewhere else …

The half-day course that I did for SLA was on what do you do after you log off? The whole thing is on post-processing, massaging the results, doing things that don’t take much time or energy, but make a profound difference in how people can use the information. Anything that helps with analysis and synthesis of information, I think it’s critical for the success of information professionals.

We can just find it better than anyone else can anymore. We have to be able to make answers out of it. We have to make it instantly useful to our patrons. If they just need information or information overload, they can get that on their own from Google. You have to make it palatable and understandable and easily absorb into everything else that they’re doing.

The fact that we have a Dialog password and other people don’t—that made me golden 20 years ago if I knew how to search Dialog. These days, it gets you a cup of coffee. So it’s what else can I do that makes me indispensable to my organization? What can I do that nobody else does? And that’s not find information anymore.

**Werts:** What are the key changes that you see coming down the pike? Have you found that there is resistance to your ideas or do you find that we as a profession are embracing them?

**Bates:** Both. The challenge is that most of us didn’t go into library science because we enjoyed marketing. And I understand that as much anybody else does. It’s not necessarily the part of our job that we love the most, but it is more and more an essential part of what we do. We need to be sure that people understand our value just like any other group within an organization needs to be able to justify itself.

The competitive intelligence department in an organization isn’t guaranteed existence. It could be closed down tomorrow. And so the CI professionals are busy, making sure people realize their value. And we have to be the same way.

Part of it is certainly adjusting, as I mentioned earlier, to the millennial generation and understanding that they work much more collaboratively, that they make joint decisions, that they need to be challenged professionally that, putting in your time or paying your dues doesn’t resonate to them the same way. They want a job that challenges them now, not something that might challenge them in five years.

And we can’t just dump data on our users even if we know it’s the best information out there, unless it’s evident on its face that this is valuable information. People aren’t going to pay attention to it.

So I think that a real part of our job that has changed is focusing on our deliverables. Embracing the Web and embracing our job to teach our client base about the Web and what it does and doesn’t do. And I think the best way that we can do that is to take the lead and to say, “I can teach you how to search Google better. I can give you five things that you didn’t know about Google before.” And by doing that, you establish your expertise as a Google searcher, and then you have more credibility when you talk to them about other resources.

I did a half-day customized workshop for a group of people a couple of weeks ago. My job was to teach them how to find information on executives. So the focus was all these value-added services and blah-blah-blah. And in passing, I happened to show them some
Werts: Considering how fleeting new technology is, what are your top three sources for staying on top of Web search strategies and other kinds of technologies that you need to know about. And with all this information being downloaded into your brain, how do you keep it organized and available for when you need it?

Bates: For the first question, I keep on top of it. I read a fair number of blogs and e-newsletters, research. It rocks my world. I read some of the search engine blogs. I read the regular professional literary content and Searcher.

The way I keep it organized is I give so many talks on a lot of these topics, but if I find something that interests me, I actually have slides at the end of my presentations where I put notes for the next time I do a talk.

And so, if I know that I just saw something interesting, I pull out my most recent presentation on that and plug the note into the end, and then know I can find it there again.

What that means is that whenever I do a talk, I’ve already got it updated because I’ve been updating it all the time.
How Can We Make Innovation Spread Through Our Organizations?

Tell your stories, experiment, play with new technologies—and, above all, communicate.

BY STEPHEN ABRAM

In June, I participated on a keynote panel at the SLA Annual Conference where we considered innovation. Later, I participated on the second annual ALA LITA Great Debate panel at the American Library Association conference in D.C. I spent the week of Canada Day (July 1) and Independence Day (July 4) immersed in the issues of innovation in libraries.

On July 4, I was a guest in Joe Jane’s summer credit course on transforming libraries at the University of Toronto’s Faculty of Information Studies. And then, coincidentally (are there really any coincidences?), I met an old friend, Mike, for lunch and what was the topic? You guessed it, the innovation gap. Mike is a very talented and senior consultant, and he’s not from the world of libraries at all. He advises senior executives and government mandarins all over globe. He and I asked ourselves, in a meandering conversation over Thai and Diet Coke, the following questions:

1. Can organizations be truly innovative? Professions? Is the public sector different?
2. What allows good ideas and innovations to diffuse through our organizations?
3. What are the root causes or barriers to innovation?
4. Are there some solutions to this puzzle?

This is just a column but it seems to me that a conversation that interested me might interest you. So, why does the diffusion of ideas and innovations in libraries feel so slow?

Definitions of diffusion on the Web:

- Dispersion: the act of dispersing or diffusing something; “the dispersion of the troops”; “the diffusion of knowledge” (http://wordnet.princeton.edu/perl/webwn).
- The spread of a cultural pattern from one culture to another, and where no directed change agent is apparent (www.oregonstate.edu/instruct/anth370/gloss.html).
- The spread of people, ideas, technology, and products between places (www.yumaed.org/kofahigh/Vocabulary/SocialStudies/SocialStudies/glossary).
- Technology diffusion is the dissemination of technical information and knowledge and the subsequent adoption of new technologies and techniques by users. Technology diffusion is a component in the broader innovation process (www.smartstate.qld.gov.au/strategy/strategy05_15/glossary.shtml).

At the SLA Leadership Summit in January, we heard from Chip Heath, co-author with his brother Dan of the book Made to Stick. I love the story in that book about ulcers. It’s almost an updated tale of Sister Kenny, who found a better treatment for paralysis caused by polio and whose ideas were dismissed for many of the same reasons as the doctors in this story.

This is the story of two Australian doctors, Dr. Robin Warren and Dr. Barry Marshall, who discovered that ulcers are caused by bacteria (H. pylori). This is accepted knowledge now, but the story of how the medical establishment resisted the discovery is illuminating. They found the bacteria and its effects in the early 80’s and had great difficulty in publishing their results. In 1984, in a pique of frustration, Dr. Marshall, reminiscent of Dr. Banting injecting himself with insulin to prove its safety, had to make himself sick with pre-ulcers by consuming doses of H. pylori bacteria and then curing himself with simple antibiotics and Pepto-Bismol ingredients!

Eventually (finally?), 10 years later, the National Institutes of Health endorsed antibiotics as the preferred treatment for ulcers. Hundreds of millions of people suffered needlessly for more than a decade because of this delay in accepting the innovation. It ends well with both doctors receiving the Nobel Prize in Medicine in 2005.

Now, we information professionals know a little something about the value of information. We can improve health, learning, policy, discovery, competitive advantage, and infinitely more. Do we have to poison ourselves to get attention? I hope not. Can we get our ideas and innovations to diffuse through our profession, our host institutions, and enterprises? How?
In their book, the Heaths offer that it comes down to trust and belief. People believe because their parents and friends believe. (Just think how many people in your community believe that crime is up because everyone believes that—even though it is down in general by more than 65 percent!) They say that our personal experiences lead us to our beliefs, and beyond that, faith and the role of authorities that we trust is substantial.

Just think of the amazing number of e-mail hoaxes sent to you (if you’re anything like me) by people who should know better who got it from a trusted source—their friends. Personal trust is a very powerful thing. Now, to be fair, the good Australian doctors also suffered from being outside of mainstream medicine—they were practitioners instead of traditional researchers, and they were from Australia instead of the primary medical R&D centers. They were from a hospital and not a university. At one of their early presentations they were openly mocked! That’s quite a hole to dig out of in the nasty world of R&D politics.

Now, think about it. Are special librarians mostly insiders or outsiders? Are we in the mainstream or on the fringes? Do we speak the language of those we need to influence or our own argot? Are we trusted as we would like? Are we personally connected to the social networks through which change and ideas diffuse? Do we have personal equity and professional equity? Hmmmm. I’d hazard that we’re not as connected as we’d like or need to be.

What are we innovative at? Does it diffuse through our own networks quickly? Think about some of the things we see that are exciting at our conferences and chapter meetings: customized taxonomies, excellent intranets, creative licensing, imaginative training and marketing programs, research style innovations, and much, much more. We have a lot of WOW-factor things to celebrate. What limits their diffusing more quickly, even in our own professional networks? Here are a few thoughts:

- In order to learn we must share the case study—the whole thing, warts, errors and missteps and all. Do we have the courage to do this, or are we too perfectionist to be totally honest?
- Are we limited in many of our environments by worries about the competition, trade secrets, confidentiality, and privacy issues? Are there ways to get the message out safely? Sometimes vendors see the innovation and have to make it vanilla in order to get the word out. It’s sad the innovators don’t get as much credit as they deserve.
- Are we just too self-effacing? Do we suffer from feelings that it won’t measure up to public scrutiny or that we’ll be embarrassed? Does the solitary nature of many of our positions leave us without the team support to get out there with confidence? Do we just think someone is going to notice without that all-important pointing finger or look-at-me-Mom—I’m-on-the-diving-board?
- Do we lack the budgets to innovate? Are our environments often visionless to try edgier innovations with bigger payoffs? Do we have too weak of a connection to our organizations’ social networks, key influencers like IT, hierarchies? Maybe we don’t just recognize our actual power.

- Is our profession conservative and introverted by its very nature? I don’t think so, but it needs to be asked. Are we too isolated in our work environments and need the freedom of SLA to learn and experiment?

All of the above may be true in degrees. Are they reasons or excuses? Are there good workarounds?

Does the solitary nature of many of our positions leave us without the team support to get out there with confidence?

Still, innovation does happen and it does diffuse. How do we get it to happen more and faster—and involve more of us and our ideas and contributions?

I’ve been thinking about this a lot lately, especially in the context of what role SLA can play in making our association, our profession, and our enterprises more innovation-ready.

Somewhere at the core of value is change. Few people tell value stories about their colleagues and about how they prevented the organization from changing and kept everything the same. The stories are usually about how they led well in periods of intense change. I believe that my colleagues are ready for more leadership roles in aiding our organizations to evolve and adapt to a changing world. I think one
Are special librarians mostly insiders or outsiders? Are we in the mainstream or on the fringes?

important diffusion lubricator is communication. I encourage you to submit articles, blog, build wikis and webliographies, submit award nominations (even self-nominations), and of course, contribute case studies. We need more stories. Find a way.

In 2008, you’ll see a number of opportunities to be involved in SLA Innovation Laboratories. We’re going to devote the year to doing what associations do better than anyone else does: network, learn and advocate. We’ll do this for ourselves, our profession, and our employers. We matter.

The Heaths propose in their book that credibility is a critical component of trust and that by tapping credibility networks, you get your message out to the people you want to influence in a very powerful way. At SLA Denver, we announced the Faces of SLA project. This is a very exciting project being led by the SLA PR Advisory Council and our PR czar, Cara Schatz. We are collecting the digital pictures of SLA members and testimonials (and eventually photos) from their key, visible, and perhaps famous executives and users in their sector or industry. It’s a start! I hope we get thousands! There will be plenty of opportunities to build this testimonial archive in preparation for our SLA 2009 Centennial and more. We’re starting the process to tap our users’ circles of influence so that we can advocate more effectively for ourselves.

Watch for more exciting news about the SLA Innovation Laboratories. We’re creating an exciting sandbox for you to play safely, learn, and expand your professional toolkit.

It’ll be an exciting year (and fun too). By now, you will have received a communication from me looking for volunteers. Change happens through those who show up. I welcome you to show up. SLA

To Do Item

Subject: FIND LIBRARY SYSTEM THAT FITS INTO OUR LOTUS NOTES/DOMINO INFRASTRUCTURE

When: Due by Fri 06/01/2007

Priority: High

Status: State Not started

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STEPHEN ABRAM, MLS, is vice president, innovation, for SirsiDynix, chief strategist for the SirsiDynix Institute, and the president-elect of SLA. He is an SLA Fellow, the past president of the Ontario Library Association, and the past president of the Canadian Library Association. In June 2003, he was awarded SLA’s John Cotton Dana Award. This column contains his personal perspectives and does not necessarily represent the opinions or positions of SirsiDynix. His blog is Stephen’s Lighthouse, http://stephenslighthouse.sirsidynix.com. You may contact him at stephen.abram@sirsidynix.com.
CALL FOR PAPERS
SLA – Seattle 2008:
"Breaking Rules – Building Bridges"

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Have you learned valuable lessons that could help other information professionals?
If so, here is your opportunity to engage in scholarship and share that knowledge with your peers.

SLA is now accepting proposals for papers to be presented at its Annual Conference and INFO EXPO June 15-18, 2008, in Seattle, with the theme “Breaking Rules – Building Bridges.” Accepted papers will also be published on the SLA Web site.

Every SLA member is eligible to apply. The proposals will be evaluated by a panel of SLA members in a blind review, with the strongest selected for development into full papers due May 1, 2008. In addition, this year, the paper that best demonstrates the theme of the conference will receive an award at the annual business meeting.

Topics of the papers should be related to library science, information management, research or other issues related to customer service, technology, or administration in special libraries. Proposals will be judged on their relevance to the conference theme “Breaking Rules – Building Bridges” or to the SLA tag line “Connecting People and Information,” as well on the strength of the idea, quality of writing, and potential member interest.

MINIMUM REQUIREMENTS FOR ACCEPTANCE
In addition to the quality and relevance of the proposed paper, it must meet these requirements:

• At least one author is a member of SLA.
• At least one author commits to present the paper at the annual conference.
• The proposal has been received by the deadline.
• The paper has not been published in or submitted to any other publication or conference planning group.
• The author (and any co-authors) must be willing to sign a copyright assignment that will permit SLA to use the paper in various formats.

SUBMISSION GUIDELINES AND SPECIFICATIONS
For examples of papers from SLA’s 2007 Annual Conference in Denver, see www.sla.org/content/Events/conference/ac2007/conference/papers.cfm. Full guidelines, including formatting instructions, are online at www.sla.org/seattle2008/callforpapers.

DEADLINES
December 14, 2007 – Proposal due. Submit an abstract of your paper via e-mail to brandy.king@childrens.harvard.edu.
Abstracts should be 250-300 words in length, or roughly one page in 12-point text.

January 31, 2008 – Notification. Twelve to 15 proposals will be chosen and all applicants will be notified of a decision.

May 1, 2008 – Paper due. Authors submit their completed paper and copyright assignment to SLA.

June 15-18, 2008 – Conference presentation. Authors will deliver a 15-minute presentation of their papers (along with three to four other authors) during a 90-minute Contributed Papers Session.

We look forward to your submissions and to hearing how you have broken rules and built bridges in the information profession!
12 September 2007
Surveying as a Planning Tool, Part I

26 September 2007
Surveying as a Planning Tool, Part II

Presenter:
Dianna (Dee) Magnoni, Library Director
Franklin W. Olin College of Engineering

www.sla.org/clickulive
Managing Global Copyright Issues: What You Need to Know About Foreign Copyright

Navigating the copyright globe means knowing your own country's copyright laws—and knowing that other countries may do things differently.

In the pre-Internet days, global copyright management included photocopying an article in a U.S. office and mailing or faxing it to an office in London. With the Internet, enterprises are faced with myriad new copyright issues, from posting an audio recording on their Web sites, to accessing from abroad a licensed database—to dealing with rights such as moral rights, which are much more limited in the U.S. than elsewhere.

Keeping up with technology is difficult enough, so where does a librarian begin grappling with global copyright issues? First, it is important to know as much as possible about your own country's copyright laws. Your country's copyright law will continue to govern the majority of your copyright use issues.

Second, you should be aware that copyright laws vary from country to country. Take, for example, the United States and Canada. The duration of copyright protection is 20 years longer in the U.S. than in Canada; moral rights protection is much stronger in Canada than in the U.S.; and fair use is much broader than the Canadian fair dealing.

No International Copyright Law

Third, you should understand that there is no such thing as international copyright law. There are copyright treaties (the leading one is the Berne Convention, www.wipo.org), however it is up to Berne member countries (163 at the current time), to amend their laws to meet the minimum standards required from member countries.

As an example of how Berne works, Berne provides a minimum protection of 50 years from the author's death. So many countries (Canada included) protect copyright works for life of the author plus 50 years.

However, countries are free to protect for a longer period. The U.S. and European Union countries, among others, protect copyright works for the life of the author plus 70 years. This means that if you use a copyright-protected work in the U.S., you will have to clear the copyright in the work if the author has been not been dead for 70 years. If you use the same work in Canada, you may freely use the work if the author has been dead for only 50 years.

However, if you are using that work on a Web site accessible around the world (and following the rule that you apply the law of the country where the work is being used), even if you are located in Canada, you would clear the rights for life-plus-70 to "cover yourself" for access from the U.S. and other countries with the longer duration of copyright protection.

License Agreements

In many circumstances, your license agreements for digital content (such as databases and periodicals) will govern terms and conditions for using such content. The Authorized Users clause may state that employees in your U.S. office may use the licensed content, or it may allow those same U.S. employees to access the content from outside the U.S. Also, Authorized Users may extend to content users in other countries. Check your existing licenses, and keep these issues in mind when negotiating future licenses.

Also important from a global perspective are the governing law and dispute resolution clauses in your licenses. These clauses set out what state/province and country laws will govern the interpretation of the contract (should that be necessary), where any agreed upon mediation/arbitration may take place, and in what jurisdiction any litigation would take place.

Keep in mind that although litigation between content owners and libraries is rare, your licenses do and should address such a possibility. It is always best for the governing law, jurisdiction for any mediation/arbitration, and litigation, to take place in your jurisdiction, as your lawyers are likely more familiar with that law, and it would likely be less expensive to resolve such disputes without paying for travel and taking the time to travel for that purpose.

LESLEY ELLEN HARRIS is a copyright lawyer who works on legal, business, and strategic issues in the publishing, content, entertainment, Internet and information industries. She is the editor of the print newsletter, The Copyright and New Media Law Newsletter. If you would like a sample copy of this newsletter, email contact@copyright-laws.com. She also is a professor at SLA's Click University where she teaches a number of online courses on copyright, licensing, and managing copyright and digital content for SLA members. You may now register for the fall 2007 courses at: http://www.clickuniversity.com/.
Employee Learning May Outrank Customers-First Initiatives

A well-prepared staff leads to well-served customers, more innovation, less turnover, greater success.

September always makes me think of returning to school, even in those years when I’m not attending classes or teaching. Although for many organizations January is the time to do overall planning for the year, the academic calendar tends to act as a reminder of the opportunities for new studies and new professional development opportunities. And the value to our organizations for investing in ongoing employee education and professional development should not be underestimated.

At the professional level, continuing education and ongoing development for you and your staff is something that can easily slip by the library’s planning process. If you have a performance management system, training and professional development may be incorporated into your annual plans for each individual. The budget may also assign funds to each individual for professional development opportunities. In many organizations, however, very little is actually directly budgeted for each employee, so it is important to plan ahead to incorporate funding in the annual budget. If that’s not possible, there are creative ways to offer cost effective professional development, such as internally or through local associations. Ideally, your organization’s human resources department should offer some internal training and staff development, but it is not always a given.

Why Continuous Learning?
We hire the best candidates, based on their education and work experience; we provide them with an orientation to the organization and training for the specific position—and then what? The employee may be eligible to attend a conference or to take a training course occasionally, but ongoing employee development may not necessarily be embedded in the organization’s culture.

Therefore, we need to ensure that learning opportunities are available regularly for each employee. There are several reasons, some of the most important of which are:
1. We want to ensure that employees continue to be challenged by their work and continue to improve.
2. We want to take opportunities for implementing new processes, technologies, etc., to increase efficiency and productivity.
3. We want to develop innovation.
4. We want to increase employee morale by showing that we invest in our employees through ongoing professional development.
5. We want to empower our employees.

Employee Empowerment
Why is empowering our employees important? The easiest answer is that it makes our lives as managers and supervisors easier, but perhaps that may seem a bit glib. The truth is many managers feel they need to be the ones who know the most and who can and should answer every question or solve every problem.

We need to rely on our staff to be informed and to help us see the trends that are happening on the front lines. Ideally, we should receive and act on employee suggestions for improvements and innovations. By not empowering our employees we will run ourselves ragged, we will have employees who lack motivation, and employee turnover may increase.

Not surprisingly, info pros, as a group, seem to be some of the most supportive of continuing education and learning opportunities. But in the daily work environment, the emphasis on continuous learning is not necessarily followed up. Continuing education, whether it be basic technology training or more advanced courses in subject areas or operational activities, is an excellent way to develop empowered employees. If an individual has particular development needs, usually identified in the performance review or through ongoing discussions with the supervisor, these may be more basic training courses to begin with. Other employees will benefit from more cutting edge educational opportunities or seminars, such as the SLA.
annual conference and other professional seminars.

On a practical level, organizations have a lot to lose by not investing in employee development. Employee turnover, specifically through retirement and the resulting loss of years of expertise, is leading to interest in knowledge management and succession planning. One manufacturing organization, McCormick & Company, addressed this issue by developing continuous learning as a major component of its organizational culture.

"While performance-based training and development has always been a key business strategy at McCormick, the goal of an adaptable learning organization and the potential loss of expertise through baby boomer retirements led us to identify a new need: to create a teaching organization in which knowledge and expertise are shared at all levels globally." (Rick Frattali, "The Company that Teaches Together Performs Together," Training & Development, July 2007)

Few companies have accepted wholly the ideals of the learning organization, but certainly, the information center plays an important role in modeling and promoting these concepts for the organization at large.

Another piece of evidence supporting investment in employee development and empowerment is a recommendation that advocates, somewhat surprisingly, against the "customer first" business trend of recent years. In the July/August Ivey Business Journal, Daniel Wentland turns the concept of customer first on its head. His premise is that without putting the employee first—as in training, support, and development—long-term organizational success will never be achieved. If you don't have well trained and well developed staff, you won't have good customer service.

"The heart of an organization is its employees and its members. The abilities, decisions, plans, training, and actions of the employees of an organization are what draw individuals to a particular college or retailer or even to purchase a product or pay for a service.... Highly qualified employees produce quality products and provide quality service that satisfies consumer needs," Wentland wrote. In a world focused primarily on customer service, it is easy to forget this most important part of achieving customer service excellence. We must refocus on strategic training and development of our employees to sustain that aim.

It is heartening to see the increasing recognition in the business literature about investing in employee development. We may be in a better position to advocate for and lead continuing education, but it is ultimately our organizations that provide the budget and support for these initiatives.

Providing educational and learning opportunities is a small part of developing the learning organization, as outlined in the McCormick example. Ongoing learning opportunities not only support customer service, employee morale and more, but also have an impact on how managers, supervisors, and employees react to the realities of organizational change and development. In today's rapidly changing business environments, employees who are themselves involved in personal and professional development are more likely to embrace change and see new positive opportunities for themselves than those who are not.

Many managers feel they need to be the ones who know the most and who can and should answer every question or solve every problem.

DEBBIE SCHACHTER has a master's degree in library science and a master's degree in business administration. She is the associate executive director of the Jewish Family Service Agency in Vancouver, British Columbia, where she is responsible for financial management, human resources, database and IT systems, and grant application management. Schachter has more than 15 years' experience in management and supervision, technology planning and support, in a variety of nonprofit and for-profit settings. She can be reached at dschachter@jfsa.ca.
Other Events

**SEPTEMBER**

9-12
LIANZA Conference 2007—TRANSFORM
Library and Information Association of New Zealand Aotearoa
Rotorua, New Zealand

**OCTOBER**

4-7
LITA National Forum
Library & Information Technology Association
Denver, Colorado
www.ala.org/lita/litane/events/litanationalforum2007/denvercallforproposals.clm

7-11
International Conference on Information Society
IEEE
Merrillville, Indiana
www.i-society.org/

6-8
Internet Librarian International
Information Today
London, U.K.

11-12
Second International Conference on Metadata and Semantics Research
University of Alcalá and Ionian University
Corfu, Greece
www.mtr.ionio.gr

18-25
American Society for Information Science and Technology Annual Meeting
Milwaukee, Wisconsin
www.asis.org/Conferences/AN07/tcm07fp.html

20-22
Book 2007: Fifth International Conference on the Book
Common Ground
Madrid, Spain
http://007.gppublisher.com

22-24
Third Rizal Library
International Conference
Ateneo de Manila University
Quezon City, Philippines

23-26
EDUCUSE Annual Conference
Seattle, Washington
www.educuse.org/407

24-27
Deutsches Competitive Intelligence Forum/SCIP Competitive Intelligence Conference
Bad Nauheim, Germany
www.dclif.de/dci

28-31
Fourth International Conference on Knowledge Capture
ACM SIGART
Whistler, British Columbia, Canada
http://www.cs.adm.ox.ac.uk/~cap07/index.php

29-31
10th Interfriending and Document Supply International Conference
IFLA
Singapore
www.ibconference.com/ids/index.htm

**NOVEMBER**

1-5
Annual Course on International Law Librarianship
International Association of Law Libraries
Mumbai, India
www.ialf.org/ial2007

2-5
International Conference on Web Intelligence
IEEE, WIC, ACM
Fremont, California
www.cs.sjsu.edu/wi07

5-8
KMWorld and Intranets
Information Today
San Jose, California USA

6-7
Enterprise Search Summit West
Information Today
San Jose, California
www.enterprisearchsummitwest.com

8-9
Taxonomy Boot Camp
Information Today
San Jose, California
www.taxonomybootcamp.com

6-9
18th Conference on Information and Knowledge Management
Association for Computing Machinery
Lisboa, Portugal

7-10
XXVII Annual Charleston Conference
The Charleston Information Group
Charleston, South Carolina
www.katina.info/conference

10-14
2007 American Medical Informatics Association Annual Symposium
AMIA
Chicago
www.amia.org/meetings/upcoming.asp

27-29
4th Annual Gilbane Conference Boston
Lighthouse Seminars
Boston, USA
gilbaneboston.com

**DECEMBER**

1-5
Annual Course on International Law Librarianship
International Association of Law Libraries
Mumbai, India
www.ialf.org/ial2007

10-13
10th International Conference on Asian Digital Libraries
Hanoi, Vietnam
http://dc02007.wistia.gov.vn

12-13
3rd International Digital Curation Conference
Coalition for Networked Information
Washington, D.C.
www.dcc.ac.uk/events/dcc-2007

**JANUARY 2008**

11-16
ALIA Midwinter Meeting
American Library Association
Philadelphia

23-26
SLA Leadership Summit
Louisville, Kentucky

**FEBRUARY 2008**

11-12
First International Conference on Web Search and Data Mining
ACM SIGIR, SIGKDD, SIGMOD, and SIGWEB
Stanford, California
http://wsdm2008.org

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2007 Schedule of Cities/Dates

- Cleveland, OH: September 18
- Houston, TX: September 25
- Seattle, WA: October 17
- Boston, MA: October 25
- San Francisco, CA: November 7
- Los Angeles, CA: November 8
- Washington, DC: December 4
- Atlanta, GA: December 13

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It’s all about the money. Whether you work in the private sector or the public sector, someone has to pick up the tab. Even the public sector is being forced to be more financially accountable and become more business-oriented. As you, the information professionals, establish yourselves as important players within your organizations, an understanding of financial management is vital to help you hold your own at the top level of management. It will also help you to become more effective and efficient information managers, to make better decisions and to produce better results.

Financial management is initially all about the numbers, but before the less-numerate of you start to break out in hives, remember that numbers just paint a picture. As the artist paints a picture of what he sees in front of him, so the accountant paints a picture with numbers of the financial performance of the organization. In spite of what you may think after the experiences of Enron and WorldCom, the accountants normally paint in the style of Rembrandt rather than Dali. The canvas of financial management is the budget and the finished work of art is the financial statements.

With the financial statements or accounts being the tools used by the shareholders and stakeholders to measure the success of the organization, it is not too surprising that the bosses put so much emphasis on them. They are the yardstick of assessing the bosses’ survival, and therefore important to your survival as well. Because you will be concentrating on your own department’s results—and may well not receive information about the whole organization’s performance until the publication of the financial statements—it is worth using your current awareness services to keep up with the business and political news about your organization. You will receive internal releases, but they may only tell you what management wants you to know. If you know that the organization is experiencing financial difficulties, be prepared for some cost-cutting exercises, remembering that information centers, together with R&D, are often the first areas to be axed. Being prepared is not just the Boy Scout’s solemn oath.

Fortunately for us, we do not receive a blank canvas on which to paint our budget. The picture is outlined for us in advance and we just add the colors. Sadly, selecting the colors, or forecasting income and expenditures, can be difficult. Look at the budget as a summary of the organization. When preparing your justifications, draw upon information gathered throughout the year. You may have prepared a return-on-investment report on one or more services offered. You may have survey results from users that can be converted into monetary terms, or usage statistics provided by vendors of electronic products. Consider partnering with users or other departments to share the burden of the cost of providing services. Research costs using online providers are invariably easy to quantify and charge to a specific department or directly to an outside client or customer.

At the end of the day, we have to justify our existence by evaluating our services in monetary terms, and we must understand the budget and learn how to use it to our advantage.
CIC05. Cl Published Source Collection: Research Techniques Part II
10 September 2007 - 28 September 2007

CIC06. Knowledge Management for Cl
1 October 2007 - 19 October 2007

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