

## Developing a Statewide Discovery Toolkit A 21<sup>st</sup> Century Public Access Catalog

### PROJECT DESCRIPTION

The Illinois State Library has challenged regional Library Systems to collaboratively develop a technology-based, innovative idea that will put Illinois in the forefront nationally. This project will develop one statewide patron universal catalog interface that will be a uniquely valuable resource, both in Illinois and nationally.

Over the past decade, Internet search engines have raised the expectations of what an online search interface can and should be. It is generally agreed that the current state of the art of library public access catalog search tools is not as well developed as Internet search tools in terms of simplicity, and ease of use. Library Public Access Catalogs typically search only the bibliographic holdings of the participating libraries and do not natively discover resources outside the library “collection” as traditionally defined. Separate search interfaces or consolidated search interfaces are generally required to discover “non-catalog” resources such as library databases or local data repositories.

The 21<sup>st</sup> Century Public Access Catalog, a joint research and development project between Illinois Library Systems, Illinois libraries, and OCLC, will create a web toolkit, or a “one-stop information shop,” that allows for easy, one-search discovery of bibliographic and other unique Illinois information. Library materials available in Illinois libraries, library Web site content, Illinois government information, library databases, electronic journals, and digitized documents and photographs are examples of the resources that will be accessible as a result of this project. Along with information resources, other features of the product will include the ability for local library branding of the toolkit as well as social networking components that allow the public to add content to the site and be actively engaged in their experience.

We envision one web resource that any resident of Illinois can use to search these multiple and diverse resources. Patrons will continue to have the functionality they are accustomed to with their local PACs (placing holds, viewing accounts, creating lists) but will have other functionality they are accustomed to when searching the Internet, such as selecting default searches and creating patron reviews.

We also envision that the toolkit searchbox will have the capability to be ‘dropped’ into library web sites, course management systems, business Web sites, and government Web sites, allowing easy searching from any Web site of these valuable Illinois resources. This development will give much wider access to these materials; additionally, this enhanced access will greatly increase the presence and value of Illinois libraries for a much wider audience.

The Illinois library community applauds the development of SILC and believes it is a giant step forward in opening access to materials owned by Illinois libraries. Illinois libraries have made huge gains in contributing their cataloging information to the WorldCat database. However, the SILC interface is not designed for easy use by the public. And there are many Illinois information resources that are not accessible through SILC or are only accessible through separate, distinct

search portals outside of SILC. We believe this project takes the next logical step of opening access even more by creating a one-stop easy to use interface as well as increasing access to many more diverse resources.

## **Underlying Assumptions**

The 21<sup>st</sup> Century Public Access Catalog Project is based on the premise that a strategic partnership between OCLC and Illinois Library Systems, and Illinois libraries on the development of the next generation public access library search interface will benefit libraries and the citizens of Illinois.

**Why OCLC?** OCLC is uniquely positioned to partner with Illinois in this endeavor. Illinois libraries and OCLC share a common commitment to developing an advanced resource discovery tool as envisioned in this project. The decision to develop this toolkit in partnership with OCLC offers major advantages for Illinois. Illinois libraries already load bibliographic data for regional library system LLSAPs and the CARLI consortium into the OCLC system.

**Why Not Wait?** While Illinois could wait until OCLC or another vendor developed the next generation resource discovery interface independently, we have much to gain by participating in the development process at this early formative stage. The benefits include a substantial level of input into design criteria and “Day 1” capabilities of the new resource discovery tools to be developed. Successful implementation will include cooperation with vendors of online databases, and early participation will allow Illinois to communicate directly with vendors providing services to Illinois libraries, and to include these vendor products in the testing phase. Also input from Illinois librarians and library users in testing prototypes during the development cycle will ensure that the final product works in Illinois’ unique multitype cooperative environment.

## **Major Project Goals**

These are the areas of development that will be covered by this project during its two-year time frame:

### **Resource Discovery and Delivery**

- **Inventory of Illinois information resources and determine which resources to include in the toolkit**

An extensive inventory of Illinois information resources will be conducted for initial inclusion in the discovery toolkit. These resources will extend beyond the current scope of Illinois library holdings in WorldCat and may include digitized documents, Illinois government information Web sites, e-resources, ELI data, state publications, digital and audio books, and the Talking Book Selection Service catalog to name just a few. Project staff will develop an evaluation methodology that will assist the participating libraries in choosing which resources to include in both the initial product and ongoing.

- **Investigate the utilization of the NCIP protocol to allow discovery of identified resources and provide shelf status through links to LLSAP ILS’s**

The toolkit will utilize NCIP protocol for discovery of information as well as interacting with ILSs to retrieve information about availability of the materials.

**•Examine the possibility of incorporating the statewide virtual reference product, AskAway, in the toolkit**

With the advent of the virtual reference tool, AskAway, it is important to examine how this resource can be incorporated in the toolkit. When users come to the toolkit to do self-directed searching, there can be needs that could be best handled by human interaction, and AskAway could provide that interaction.

**•Research and implement a variety of fulfillment options that patron can choose for delivery of resources**

With the ease of Internet shopping and choices that abound for shipping materials, users need to be able to make choices (and possibly elect payment options) to get material based on their timeframe instead of a library's timeframe.

**•Investigate the implementation of a hosted link resolver for FirstSearch databases in Illinois**

All ILLINET libraries in Illinois have access to a variety of FirstSearch databases. A hosted link resolver would allow users to link directly to the FirstSearch-provided fulltext of articles directly from the discovery tool.

## **Search & Interface Design**

**•Research the search strategies and functionality designed by the end user and incorporate into the toolkit**

In the age of Google, what do end users require of a search site? This process will involve studying search behavior, conducting focus groups, and evaluating such functionality as relevance ranking, stemming, field weighting, support for popular queries, and sorting flexibility, among others. What works best for the Illinois user is what will be included.

**•Utilize FRBR (Functional Requirements for Bibliographic Records) to provide for de-duplication of results.**

The end user is primarily interested in content and generally doesn't care about choosing between different records for the same content (e.g., Hamlet and its various editions). The ability to reduce duplication can already be handled by OCLC and will be pursued as a functionality of the toolkit. The ability to use this ability to collapse records representing variant editions and formats has a major benefit to users in terms of simplification of results. When results are displayed, users will not be forced to parse long lists of records for the same bibliographic item

**•Develop a faceted results search capability, allowing users to more fully understand search results and further define results according to their needs.**

Faceted searching is a design component that allows search engines to present multi-faceted categories after an initial search query. This categorization directs the user to more appropriate resources that can help in the path to resource discovery. Faceted searching relies on metadata and libraries have long applied extensive metadata to bibliographic records. This data needs to be mined and made available to assist users in their information discovery.

## Library & User Customization

- Examine social networking functionality and determine which elements to include so people can add content to the site**

Social networking is critical to bring people to the site and create ownership. Will we encourage the public to add reviews of resources or contribute their own content of digitized images? Any examination of social networking will weigh the possibility of increased communication and allow for interaction between interest groups. It is also important to bring in diverse populations by adding multilingual capabilities.

- Develop and design an Illinois ‘brand’ for the toolkit as well as library-specific branding.**

It is important to design and create a branded site for the toolkit as a way to provide not only a welcome but also a sense of security to users. A brand also helps users easily recall the site and can further the marketing and promotion of the site. In addition to a general branding, libraries may also wish to develop a library-specific brand for a more localized subset of the site and this capability will be developed as well.

- Implement an authentication component to validate library users**

Developing an authenticating process to validate local library users will be needed for access to local library resources that may have licensing limitations. Authentication is also important for tracking use of the resources and the toolkit as well as providing statistical information.

- Develop an individual library customization component so a ‘subset’ of resources specific to a library can also be created.**

Development of this functionality will allow a subset of the toolkit to be created with a limit to local library resources first if that is what the library desires. The capability to design a ‘local library’ resource will allow libraries to incorporate local licensed resources into the discovery tool.

## Evaluation

- Develop a statistical tracking component to allow for evaluation of the product and the resources**

An essential component of ongoing evaluation of the toolkit means that statistical functionality must be included. This means that individual resources, branded sites, and local customization must include statistics that can be used for management decision-making.

The multitype group of libraries participating in this project include Northeastern University, Olney Central College, SIUE, Elmhurst Public Library, Wood Dale Public Library, Hoopston PL, Carol Stream Public Library, Williamsville Schools, Roxana Public Library District, Vespasian Warner PLD, Clinton, Evans Public Library District, Vandalia, Illinois State Museum, Sarah Bush Lincoln Health Center. Other libraries may be included after the project commences.

Alliance Library System, DuPage Library System, Lewis & Clark Library System, Lincoln Trail Libraries System, Metropolitan Library System, North Suburban Library System, Prairie Area

Library System, Rolling Prairie Library System, and Shawnee Library System will work together, along with the Illinois State Library, to cooperatively complete this project. Key to the success of this toolkit is collaborating with OCLC as the primary developer of this project. Because so many Illinois library holdings are already reflected in OCLC, this will serve as a starting point. OCLC is also currently doing much research and development on the concept of a robust, easy-to-use discovery tool. There is also much interest in increasing access from WorldCat-centric materials to resources that reside on local databases as part of the enhanced discovery tool. This partnership will allow Illinois libraries to create a discovery tool that addresses the unique needs of Illinois patrons and libraries of all types.

The scope of this project will require two years, one for research and development and one for implementation.

In Year 1, the research and development phase of this project will accomplish these goals:

- Solicit input from Illinois residents and Illinois libraries to make sure Illinois needs and issues are heard as the concept moves forward.
- Implement NCIP technology or compatible technology to ensure that the discovery tool works effectively and that authentication is in place.
- Inventory the current information resources that already exist and need to be discovered.
- Design the Day 1 toolkit.

In Year 2, the implementation phase of this project will accomplish the following:

- Implement the Day 1 toolkit.
- Solicit input from users and augment the Day 1 design based on that input.
- Continue to identify information resources that should be included.
- Implement a customization component so individual libraries can include local resources in their own discovery subset.

## **TARGET AUDIENCE NEEDS AND OUTCOMES**

### **Target Population**

The primary target population for this project are the 12,000,000+ citizens of the State of Illinois. This population includes men, women, children, adults, seniors, minorities, disabled, disadvantaged, white collar professional, blue collar workers, immigrant populations, middle-income, and poor. Beyond the citizens of Illinois, information that is currently unavailable will be made available to anyone (the entire world population that uses the Internet) through a web-based portal or to anyone who visits a library and requests information that can be answered through this portal.

Other target populations would include any Illinois service or governmental organization, the library system staff, and the librarians of the State of Illinois. Many Illinois service or governmental organization have created and maintain important databases filled with Illinois information. Accessibility to these databases via the toolkit will create a “one-stop” shop for Illinois information.

Currently, each library system with an LLSAP maintains their own patron interface. Each interface contains different searching indexes and features. Combining these interfaces into one will reduce the need for system staff to devote time and resources for maintaining the OPAC.

These savings will be realized by the system staff who no longer will be fine-tuning separate web catalogs but will instead be delivering a statewide library portal that can be branded as an integral component of their membership's web pages.

The last target population – librarians across the State – will benefit from one interface simply by reducing the amount of time and energy for bibliographic instruction. In the current environment, librarians train their patrons to use multiple tools such as SILC, their local OPAC and other databases. With only one interface, the patron will have all of their resources available to them – anytime, anywhere.

### **Unmet Needs of the Target Population**

The expectation of a citizen of the United States has risen to the level that we live in a culture of “give it to me now”. Waiting for results or being denied access because of physical location is not a realistic ideal. There is currently no easy-to-use discovery tool that provides one-stop access to Illinois resources and Illinois bibliographic information. There is no “google-like” experience that provides a comprehensive search of Illinois resources.

The library has historically failed its users by maintaining unfriendly search interfaces that causes user's to struggle with finding items in a timely and efficient manner. The library is failing in its mission of providing freedom of information to all by not rededicating itself to the future of the online community. The library must also be consciously aware of individuals who will never be online. Having one interface to search will enable librarians to help their patrons who will never search for themselves.

Integrating other tools into this search mechanism such as FRBR and AskAway! will increase the likelihood that pertinent search results will be returned.

### **How the Library and Other Community Services Do Not Meet the Needs of the Target Population**

In our current OPAC's, the library user must be sophisticated enough to wend their way through the various levels of finding the right item. Libraries have many different resources to offer but the OPAC interface oftentimes will not easily allow federated searches across all information resources. Different LLSAP's have different levels of these types of services; however, the user typically is not utilizing this mechanism or they simply do not know it exists.

Even search engines in Amazon or other online stores do not necessarily render great search results. The user's needs are simply not being met.

### **How Proposed Project Will Meet the Unmet Need**

By the creation of one interface for all of the citizens of Illinois to utilize, we will be taking a giant step forward in how users interact with their local library. Utilizing technologies that are currently available to reach out past the primary LLSAP's and into the more unreachable databases and resources that individual libraries have will bring the experience of your library to a new level. Libraries will become a more relevant presence on the Internet. Users will have more resources available for interlibrary loan. The library can take its place once again as *the* source for information.

## **Anticipated Outcomes**

There are many resources in libraries and other cultural institutions waiting to be exposed. One of the outcomes of this project would be the discovery of these resources, as well as making them available on the open web.

Another outcome will be a new search and interface design specific to the needs of Illinois citizens. The project will undertake a study to learn more about the searching strategies of all of the users in Illinois. From the findings, we will have a better understanding of the types of searching that will take place in the catalog. From there, we will be able to insure that all types of users' needs are met. At this point, no such comprehensive study has been undertaken. The design of the interface will also insure that the results returned will guarantee successful searches.

The advantages for Illinois residents will be numerous. Discovery of resources will be key, but identification of a central tool for searching any library or information resource will be an additional outcome. Searches will be customizable to either a broad to local search, or the opposite from a local to a broad search, depending on the needs of the user.

## **IMPLEMENTATION PLAN**

Illinois Library Systems will partner with the Illinois State Library and a group of participating libraries and OCLC to provide this product to the residents of Illinois. This timeline explains the activities that will be accomplished in Year 1, the research and development phase of the project.

The implementation of this project will begin by hiring a project manager.

October 2006	Hire project manager; hold first informational meetings with participating libraries; plan for research of end user searching strategies and social networking preferences
November 2006	Implement end user research; begin development of information resource inventory process
December 2006	Investigate social networking functionality and continue to survey users; begin design phase of toolkit development
January 2007	Implement NCIP in system LLSAP's, determine if other information resources can be accessible through NCIP or other means
February 2007	Research and develop the authentication process, as well as the utilization of FRBR and fulfillment strategies that will be included
March –June, 2007	Continue and complete the design of the toolkit; develop marketing materials for this phase of the project

## **MANAGEMENT PLAN**

Lincoln Trail Libraries System has received numerous LSTA, Live & Learn, Educate & Automate, and other grants in the past. These grants have been completed within the timeframes and budgets of the original projects. We believe that the project is feasible and can be accomplished by our agency within the stated timeframe.

Personnel involved with the project include the following:

Jan Ison, Executive Director, Lincoln Trail Libraries System, will serve as the Project Director. Jan has worked for more than 23 years in an Illinois library system and during that time has overseen the management of automation systems. She has also served on OCLC Members Council and has a key understanding of the role of interface design, sharing of resources, and the importance of understanding the end user in facilitating discovery of resources.

A project manager will be hired to carry out the day-to-day activities of the project. The project manager will be an expert in collaboration and resource sharing, systems design, and project development.

Lincoln Trail Libraries System is financially stable and also understands that LSTA grants are reimbursable grants. We also understand that there is a requirement to attend an LSTA Grants Reporting Requirements meeting in Springfield. LTLS has read the LSTA Assurances and will comply with all Federal laws, Illinois statutes, and contractual obligations related to federally funded grants.

## **COMMUNICATION/MARKETING PLAN**

Lincoln Trail Libraries System will market this project in several ways:

- Press releases about the research and development process and the grant project will be sent to state and national media outlets.
- The Illinois Library Systems Directors Organization Web site will serve as an informational Web site that will provide updates and will also be used to solicit feedback on the various design phases from both end users and librarians.
- Promotional materials will be developed for use both inside and outside of the libraries teaching users about the new product and to provide a pathway of communication with the users.

Additional communication and marketing will occur as the project progresses.

## **PROJECT SUSTAINABILITY**

The Illinois regional library systems and the participating libraries are committed to sustaining support of this project on an ongoing basis. It is anticipated that the 21<sup>st</sup> Century OPAC will become a part of the statewide OCLC Group Services offerings, but how and when this will be included is unknown at this time. This will be developed as the project unfolds.

## BUDGET AND EXPLANATIONS

### *LSTA GRANT BUDGET SHEET*

BUDGET CATEGORY	EXPLANATION	AMOUNT (in dollars only)
Library Materials	Books, non-print, software	
Capital Outlay*	Equipment valued over \$500	
Professional Contracts*	Hiring an individual on contract	\$45,000
Contractual Services*	Hiring an agency on contract	\$60,000
Personnel	Salaries and benefits for additional agency staff	\$
Travel and CE for Staff	Agency staff travel and meeting registrations	\$2,000
CE and Meetings for Others	Travel, registrations and honorariums for others	\$3,000
Public Relations	Advertising done by outside firm	\$
Supplies, Postage and Printing	Equipment/supplies valued under \$500	\$
Telephones and Telecommunications	Phone charges and rental	\$
Equipment Rental, Repair, and Maintenance	Rental, repair, insurance and maintenance of equipment	\$
	<b>TOTAL</b>	<b>\$110,000</b>

- Please attach on a separate sheet a list of equipment and/or description of all contracts.

## BUDGET EXPLANATION

Professional Contract – This line item will be used to contract with a project manager.

Contractual Services – This line item will be used for expenses associated with NCIP investigation, OCLC expenses for the project, design of the interface, and other development products that may be needed for providing access to information resources.

Travel and CE for Staff – Monies in this line item will be used to pay for the statewide travel that will be necessary to manage this project.

CE and Meetings for Others – This line item will be used to pay for meetings with participants as well as meetings with end users of the product.

**LIBRARY'S LOCAL CONTRIBUTION BUDGET SHEET**

BUDGET CATEGORY	EXPLANATION	AMOUNT (in dollars only)
Library Materials	Books, non-print, software	
Capital Outlay*	Equipment valued over \$500	\$
Professional Contracts*	Hiring an individual on contract	\$
Contractual Services*	Hiring an agency on contract	\$100,000
Personnel	Salaries and benefits for additional agency staff	\$35,000
Travel and CE for Staff	Agency staff travel and meeting registrations	\$5,000
CE and Meetings for Others	Travel, registrations and honorariums for others	\$
Public Relations	Advertising done by outside firm	\$1,000
Supplies, Postage and Printing	Equipment/supplies valued under \$500	\$500
Telephones and Telecommunications	Phone charges and rental	\$500
Equipment Rental, Repair, and Maintenance	Rental, repair, insurance and maintenance of equipment	\$
	<b>TOTAL</b>	<b>\$142,000</b>

Please attach on a separate sheet any explanation needed to understand the type of support being given to the project using local funds.

## BUDGET EXPLANATION

Contractual Services – Lincoln Trail and other participants will cover some costs involved with NCIP implementation and other types of product development that may be required to access resources.

Personnel – Lincoln Trail and the participating libraries will contribute staff time to this project.

Travel and CE for Staff – Lincoln Trail and the participating systems will provide the costs involved in supporting some of the meetings for the statewide collaboration and end user research.

Public Relations – Monies will be contributed to develop public relations materials that will disseminate information about the project to the Illinois library community

Supplies, Postage and Printing – Participants will contribute costs involved with supplies, postage, and printing

Telephones and Telecommunications - Participants will contribute costs involved with telephones and telecommunications