Information Use Management and Policy Institute

School of Information Studies, Florida State University

FLORIDA ELECTRONIC LIBRARY: PILOT PROJECT FUNCTIONALITY ASSESSMENT

By:

John Carlo Bertot, Associate Director and Associate Professor jcbertot@lis.fsu.edu

Charles R. McClure, Director and Francis Eppes Professor <u>cmcclure@lis.fsu.edu</u>

> Kim M. Thompson, Research Associate thompson@lis.fsu.edu

Paul T. Jaeger, Senior Research Associate ptj0956@garnet.acns.fsu.edu

Lesley Langa, Research Assistant lal3052@garnet.acns.fsu.edu

For:

The Florida Division of Library Services

August 6, 2003



School of Information Studies Florida State University Information Use Management and Policy Institute Tallahassee, FL 32306-2100

TABLE OF CONTENTS

| LIST OF FIGURES AND TABLES | II |
|--|----|
| INTRODUCTION | 1 |
| METHODOLOGY | 2 |
| STUDY INSTRUMENT | 2 |
| INTERFACE AND FUNCTIONALITY ASSESSMENT | 3 |
| COMPARISON OF SEARCH RESULTS | 5 |
| RESULTS | 5 |
| Overview of Findings | 6 |
| GROUPING | 7 |
| LIMITING | 8 |
| SEARCH RESULTS | 9 |
| SEARCH FUNCTIONS | 10 |
| LANGUAGE | 14 |
| SEARCH REFINING | 15 |
| SUPPORT/INSTRUCTIONS/HELP TOOLS | |
| PRINTING/SAVING | |
| Accessibility | |
| AGGREGATE SCORES | |
| COMPARATIVE SEARCHES | 20 |
| ADDITIONAL RECOMMENDATIONS | 21 |
| APPENDIX A: FLORIDA ELECTRONIC LIBRARY EVALUATION FORM | 23 |
| APPENDIX B: SEARCH COMPARISON FORM | |
| APPENDIX C: SEARCH COMPARISON RESULTS | |
| SEFLIN: MYLIBRARYSERVICE.ORG | |
| TBLC: ANYTIME/ANYWHERE ALLEYCAT | |
| OCLC: FLORIDA GROUP CATALOG | |

i

LIST OF FIGURES AND TABLES

INTRODUCTION

During the past several years the Division of Library and Information Services of the Florida State Library, Department of State, has awarded Library Service and Technology Act (LSTA) awards to three pilot projects within the state of Florida (SEFLIN, CCLA and TBLC, and TBLC as per below). In addition, a fourth pilot project is also of interest to the development of the Florida Electronic Library. The pilot projects of specific interest are:

- SEFLIN: MyLibraryService;¹
- CCLA and TBLC: Collaborative Statewide Live Reference;²
- TBLC Anywhere/Anytime Library ("AlleyCat");³ and
- OCLC Florida Group Catalog Pilot Project.⁴

Also during this time period, the Florida Library Network Council,⁵ assisted by RMG Consultants, Inc., has been developing a plan for a statewide Virtual Library, the most recent version of the plan being, *The Florida Virtual Library: Plan for Statewide Implementation*.⁶

In May of 2003, the Florida State Library contracted with the Information Use Management and Policy Institute at the School of Information Studies at Florida State University to complete a study with its primary goal to assess the degree to which these pilot projects (1) have developed technology and services that support the resource sharing goals of the evolving Florida Electronic Library (FEL),⁷ and (2) the degree to which the pilot projects have implemented technology and services as outlined in the Plan.

This phase of the assessment project focused on the actual functionality of the pilot projects (except the Statewide Live Reference project) through an evaluation of specific system features regarding a statewide virtual union catalog that would be part of the FEL. In particular, the functionality testing:

- Focused on selected functions and features (see Appendix A for the features examined);
- Attempted to determine the extent to which the pilot projects meet certain functional specifications;
- Reviewed the extent to which the pilot projects meets accessibility criteria the Americans with Disabilities Act and Section 508 of the Rehabilitation Act; and
- Provided selected assessments regarding the extent to which the pilot projects accurately search and retrieve individual library OPACs.

¹ Southeast Florida Library Network (SEFLIN), <u>http://mylibraryservice.org/</u>

² College Center for Library Automation (CCLA) and Tampa Bay Library consortium (TBLC), http://info.Virtualreference.lib.fl.us/

³ TBLC Anytime Anywhere Library, <u>http://www.anywhereanytimelibrary.org/</u>

⁴ OCLC Florida Group Catalog Pilot Project, <u>http://dlis.dos.state.fl.us/bld/OCLCPilotBenefit2.pdf</u> and <u>http://www5.oclc.org/groupcatalog/</u>

⁵ <u>http://dlis.dos.state.fl.us/bld/FLNC.pdf</u>

⁶ RMG Consultants, Inc. *The Florida Virtual Library: Plan for Statewide Implementation* (July 2002), see <u>http://dlis.dos.state.fl.us/bld/FLVirtualLibPlanFinal.pdf</u>

⁷ More recently, the Florida Virtual Library is being referred to as the Florida Electronic Library.

The assessment is limited in scope, but intends to provide FEL decision makers with an overall sense of how the pilot projects might actually work as a statewide virtual union catalog as of July 2003.

METHODOLOGY

The methodology for this phase was designed to evaluate which elements of the three virtual union catalogs and their retrieval interfaces could meet the needs of the FEL. The evaluations focused on the needs of librarians and patrons in searching for items of information and the ways in which these groups would retrieve citations and references.

STUDY INSTRUMENT

The questions studied in the research process were (the complete study instrument can be found in Appendix A):

- 1. **Ability to group**—prior to searching, user can delimit pending results listings, grouping them by item characteristics such as type or format;
- 2. **Limiting**—user can limit searches by library (e.g. selecting a specific library or group of libraries, limiting by types of libraries or locations of libraries, etc.);
- 3. Search process options—user can perform basic and advanced searches; searches can be done by subject, author, keyword, and title;
- 4. **Stated location and availability of resources**—results include the name of the lending institution and the availability, call number, and format of the item retrieved;
- 5. Languages—search can be performed in a language or languages other than English;
- 6. **Ability to refine searches**—user can search results at a greater level of specificity once results have been retrieved, thus focusing and reducing the number of items retrieved;
- 7. **Support/instructions/help tools**—instructional rubrics guide users through the search process;
- 8. **Save/print functions**—users can save or email entire results listing or select portions of the results list and can print results in whole or by selection;
- 9. Accessibility—interface and functionality comply with World Wide Web Consortium (W3C) accessibility guidelines; and
- 10. **Equivalence of results**—same items are retrieved across the virtual union catalog portal and native online public access catalogs (OPACs).

These functions cover a diverse range of the virtual union catalogs capabilities and are based on the general information behaviors of users, whether patrons or librarians. The questions studied in this phase were shaped by the results of the pretesting, details of which can be found in the report *Assessment Criteria and Guidelines for Selected Projects Related to the Florida Electronic Library* (McClure and Bertot, 2003).⁸

⁸ McClure, C. R. & Bertot, J. C. (2003). Assessment criteria and guidelines for selected projects related to the *Florida Electronic Library*. (Discussion draft). Tallahassee, FL: Division of Library and Information Services, The Florida State Library.

INTERFACE AND FUNCTIONALITY ASSESSMENT

Three members of the study team evaluated each of the three virtual union catalogs and their retrieval interfaces. Each evaluator conducted the assessments independently. The results from the separate evaluations were then compared and compiled for triangulation of the data resulting in increased validity and reliability.

The results for each question are based on a Functional Requirement Capability Index, devised by summing all the points that a single functional requirement (and its subcomponents, if applicable) received from each evaluator.⁹ In effect, this index indicates the extent to which the virtual union catalogs satisfied the capability in each question. Points for each functional requirement were assigned for the following values:

- Yes, the feature or function was present = 2
- No, the feature or function was not present = 0
- Somewhat, the feature or function was partially present = 1

Each study question was evaluated on this scale of zero to two (0-2) by each researcher. The totals for each question represent the combined scores of all the researchers. As such, the combined minimum number of points possible was zero (0), and the maximum number of points was six (6) for each function (2 points maximum x 3 testers). If a study question contained multiple parts, each part was assigned a separate total score. In the tables in the text, the scores are represented as percentages in results. Therefore, a study question that received a score of 4 points out of a possible 6 is shown as 66%.

⁹ This index has been applied to the assessment of online virtual catalogs in previous studies. See Texas Center for Digital Knowledge. (2002). Assessment of ZLOT Resource Discovery Service Proof of Concept Prototypes. Denton, TX: University of North Texas.

The study questions in the evaluations were sequenced as follows:

| Question | Functionality |
|-----------------|--|
| Question 1 (Q1) | Can users group items in searches (e.g. by type, format, author, date)? |
| Question 2 (Q2) | Can a search be limited to particular location(s)? |
| Question 3 (Q3) | Do the search results indicate an item's: |
| | A: call number? |
| | B: location? |
| | C: availability? |
| | D: format? |
| Question 4 (Q4) | Does the search process have functions for: |
| | A: advanced searching (ability to search 2 or more fields at once)? |
| | B: keyword? |
| | C: subject? |
| | D: author? |
| | E: title? |
| Question 5 (Q5) | Can searches be performed in any languages other than English? |
| Question 6 (Q6) | Can searches be refined? |
| Question 7 (Q7) | Does the site provide: |
| | A: support? |
| | B: instructions? |
| | C: help tools? |
| Question 8 (Q8) | Can user: |
| | A: save entire results? |
| | B: save selected results? |
| | C: print entire results? |
| | D: print selected results? |
| Question 9 (Q9) | Do the appearance and function of the site comply with the accessibility |
| | principles mandated by Section 508 of the Rehabilitation Act by |
| | complying with W3C principles that: |
| | A: Provides equivalent alternatives to auditory and visual content? |
| | B: Does not rely on color alone? |
| | C: Uses markup and style sheets and does so properly? |
| | D: Creates tables that transform gracefully? |
| | E: Ensures user control of time-sensitive content changes? |
| | F: Ensures direct accessibility of embedded user interfaces? |
| | G: Designs for device-independence? |
| | H: Provides context and orientation information? |
| | I: Provides clear navigation mechanisms? |
| | J: Ensures that documents are clear and simple? |

| Search Type | Search String I | Search String II |
|-------------|-----------------------|-------------------|
| Subject | Arthritis | West Nile Virus |
| Author | Austen Jane | Gould Stephen Jay |
| Keyword | Mosquito | Kayak |
| Title | To Kill a Mockingbird | Living History |

To test the specific functions as described above, the study team used the following search strings:

The evaluators began with Search String I. If no results were retrieved, terms from Search String II were then used. The searchers specified which terms they used throughout the evaluation. The study team decided to do author searches by last name, first name as this was the most common of the author field requirements.

Accessibility was evaluated based on the criteria identified in Question 9.

COMPARISON OF SEARCH RESULTS

The study team compared the search results from the three virtual union catalogs with search results from four databases within the union catalog. Two native OPACS for public libraries within the region covered by the virtual union catalog portal were chosen based upon the results list of the portal. For example, the results from the SEFLIN search retrieved at least five (5) items for each search from the Miami-Dade Public Library OPAC. The Miami-Dade OPAC was then searched using the same search terms and search fields as the original search in SEFLIN. The Miami-Dade and SEFLIN results were then compared to assess whether the portal and the native OPAC retrieve the same first five (5) items. The results from the portal were likewise compared to an additional native OPAC (Martin County Public Library), the Florida University System Libraries/WebLUIS (SUS) union catalog, and Florida's Library Information Network for Community Colleges (LINCC).

For the AlleyCat and OCLC searches, the first five (5) items marked as located in the appropriate library (Sarasota County Public Libraries and Pasco County Library System for AlleyCat, Jacksonville Public Libraries and Orange County Library System for OCLC) were compared to the first five (5) results listed in the two native OPACS, SUS and LINCC. Findings from this comparison of each of the three portals to two public library native OPACS, the SUS, and the LINCC catalogs are included as Appendix C.

RESULTS

The results section presents each research question individually. Each question is followed by a table compiling the results of the researchers' scores as a percentage, as well as an explanation of each site in terms of the features studied by the question. The final table presents the aggregate scores for each virtual union catalog from all the questions for overall comparisons. Following the final table, there is a discussion of comparative searches between the virtual union catalogs and their native OPACs.

OVERVIEW OF FINDINGS

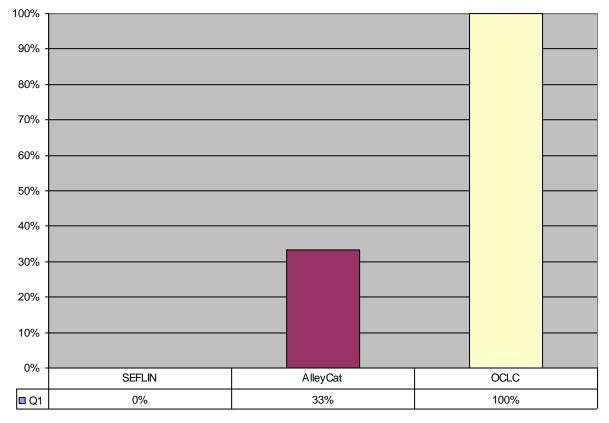
The figures and tables that follow in this report will provide detailed analysis of the feature assessments and search comparisons performed by the study team. Key findings from these data suggest the following:

- All three virtual union catalogs allow for some amount of refining or limiting of search results, but only OCLC allowed for limiting of results in detail both before and after the search is performed.
- SEFLIN has the most cooperative interface for limiting based on location, but did not have limiting options by format, date, or other key search elements.
- Each of the three sites provides information on individual items retrieved (call number, location, availability, format) if and when such information is available from the native OPAC and is compatible with the portal's results fields.
- All three portals have advanced search interfaces and multiple search field options (author, title, subject).
- The three portals each accept multiple language search terms and each retrieve items relevant to the search performed; however, only OCLC has multiple language interface options (Spanish, French, Japanese, and Chinese).
- Each site provides some amount of user support and help, but none of the three had adequate instruction.
- While a user can print the entire result list from any of the three portals via browser print options, only OCLC provides printing options for entire results or selected results within its own interface. OCLC also provides an email option (hence a saving of the results), which feature is not available with either SEFLIN or AlleyCat interfaces.
- Of the three portals, OCLC is the leader in accessibility compliance.

The OCLC portal ranked highest in terms of limiting and grouping of searches, advanced searchability, language options, printing and saving of results, and accessibility. This is not to suggest that the study team recommends the use of OCLC, only that that particular interface performed best based on the criteria used during this assessment. The following tables and figures will provide additional detail regarding the performance of the three portals based on the aforementioned evaluation criteria.

6

GROUPING

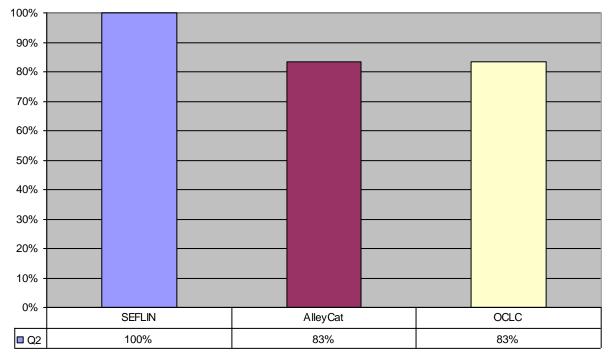


Q1: Can users group items in searches?

Figure 1. Ability to group items in searches

As shown in Figure 1, OCLC's virtual union catalog provides the best interface for the limiting of the search results prior to the actual search. In the OCLC database, limiting or grouping can be performed by format, content, and audience (juvenile, non-juvenile, all audiences) both before and after the search is entered. AlleyCat provides a search mechanism specifically for "journals" (i.e. magazines, newspapers) or "books and other media," but SEFLIN has no grouping options to refine the search by anything other than location, which is specifically addressed in Question 2.

LIMITING



Q2: Can a search be limited to particular location(s)?

Figure 2. Limiting searches to particular location(s)

As seen in Figure 2, SEFLIN's interface provides patrons the best ability to limit searches by location. In fact, the SEFLIN virtual union catalog searches are limited exclusively by location, that being by location of library or type of library, but both searches limiting by the individual libraries that are searched. The search feature requires the user choose among options of library by type (university, school, public, state, national, international) or location (individual libraries within the southeast region). In AlleyCat, the only limitations available are by Virtual Catalog, Pinellas County, WorldCat, or All Florida Libraries. Finally, OCLC does allow for limitation to particular locations, but this does not reduce the number of items retrieved, as it retrieves information about other libraries (from across the US) as well, simply listing the delimited libraries first.

SEARCH RESULTS

- Q3: Do the search results indicate an item's:
 - A: call number?
 - B: location? C: availability?
 - D: format?

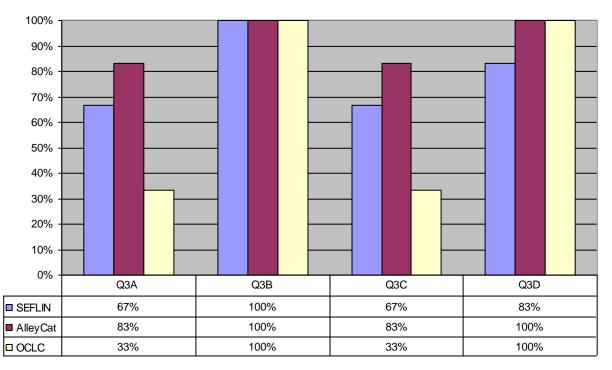


Figure 3. Indication of call number, location, availability, and format

The information provided by the search results varies between the virtual union catalogs, as can be seen in Table 3. As SEFLIN's retrieval interface collects the results lists from native OPACs (not limiting to any particular number of hits per native catalog, retrieving anywhere from 0 to 25 in each native set), the results retrieved depend heavily on the design of individual library OPACs. Whether or not the call number, location, availability, or format is present in the results depends on the fields retrieved from the native OPAC.

AlleyCat's results table includes locations of items (although some locations listed are as ambiguous as "2" or "5" with no explanation of what the numbers reference) and format. Call numbers, availability, and other more detailed item descriptions are available with a click on the individual title retrieved.

While OCLC's portal does have links to detailed information including call numbers, locations, availability and formats, transitions to the detailed records within OCLC can be prohibitively slow and, in some cases, completely unreachable.

SEARCH FUNCTIONS

Q4: Does the search process have functions for:

A: advanced searching (ability to search two or more fields at once)?

B: keyword?

C: subject?

- D: author?
- E: title?

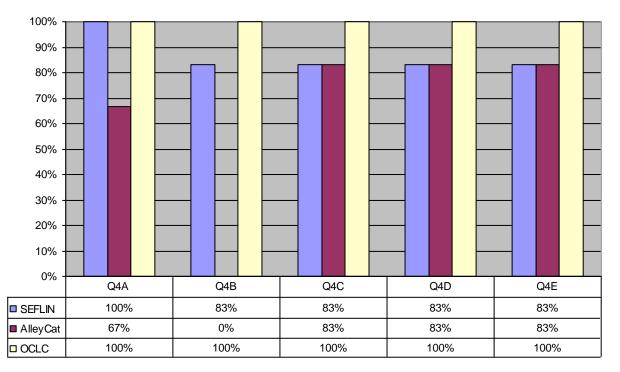
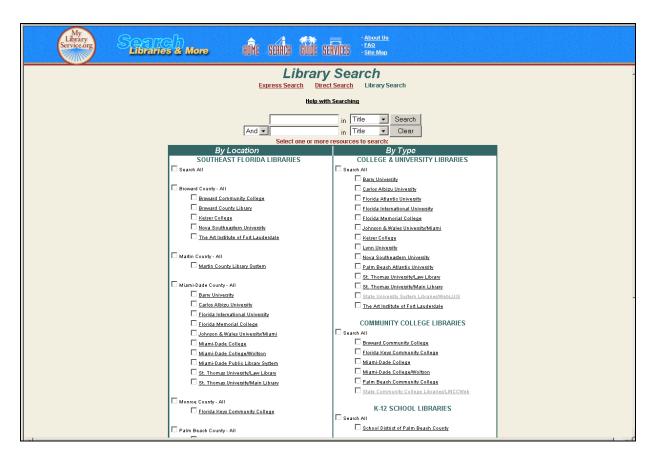
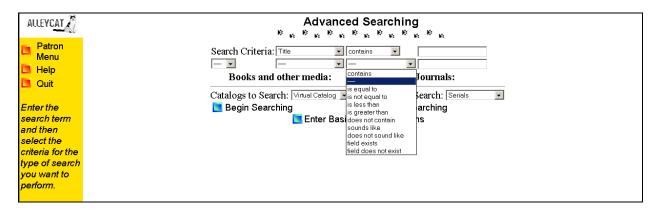


Figure 4. Ability to search in advanced search and/or by, keyword, subject, author, and/or title

The results in Figure 4 show relative levels of consistency across most search functions in the virtual union catalogs. As seen in the screen shot below, SEFLIN's Library Search interface opens with an advanced search (two search fields, Boolean operators, and title, author, subject and keyword options); however, once the search terms are entered, the native library OPACs appear to convert some types of searches to other types (i.e. from author to keyword), retrieving a result listing that is not necessarily accurate for the search performed. Beyond the two-field advanced search interface, the search can be limited by library type or location. There are no additional limiters or search refining options in SEFLIN's portal.



AlleyCat opens to a basic search but has an option for advanced searching. This, too, has no more than two search fields, and the options for narrowing the search (title, subject, author, etc.) do not include a "keyword" search. In addition, the advance search interface has multiple complex limiters such as "contains," "is equal to," "is not equal to," "is less than," and so forth, that prove confusing and unhelpful in the search. This feature is shown in the screen shot below. For example, the "sounds like" feature search for *Austin Jane* does not retrieve anything by, on, or even remotely related to *Austen Jane*. This complicated advanced searching mechanism does not appear to fare well with the native OPACs either. Several catalogs return errors in advanced searching mode.



The OCLC portal opens to a basic search interface, as can be seen in the screen shot below. This interface does not provide any search limiting terms (subject, author, keyword, or title) and one must select from a number of databases. If no selection of a particular database is made, the search results include items retrieved from four broad databases: WorldCat, ArticleFirst, ECO, and UnionLists. The "Select a Topic or Database" dropdown menu lists general search areas (i.e. Arts & Humanities, Biography, Business & Economics, etc.) or databases (i.e. ArticleFirst, ECO, ERIC, etc.) than can limit the search.

| PC FirstSearch | STATE LIBR OF FLORIDA |
|---|---------------------------------------|
| FirstSearch Home | |
| Welcome to the OCLC FirstSearch service, connecting you to information in a wide range of su Looking for a general database to search? Try: <u>ArticleFirst</u> - Articles <u>ECO</u> - Journal Articles <u>WorldCat</u> - Books etc. | ubjects in 11 databases. |
| Home <u>Databases</u> | Options Comments Exit Hide tips |
| List All Databases List Databases by Topic Suggest Best Databases Go to page | |
| | |
| Intro News Help | |
| Search for: In: -Select a Topic or Database - Search Clear | |
| Jump to Advanced Search: -Select a Database to Search - | |
| <u>English Español</u> <u>Français</u> 日本語 中文(繁體) 中文(简体) <u>Options</u> | Comments Exit |
| © 1992-2003 OCLC Terms & Conditions | |

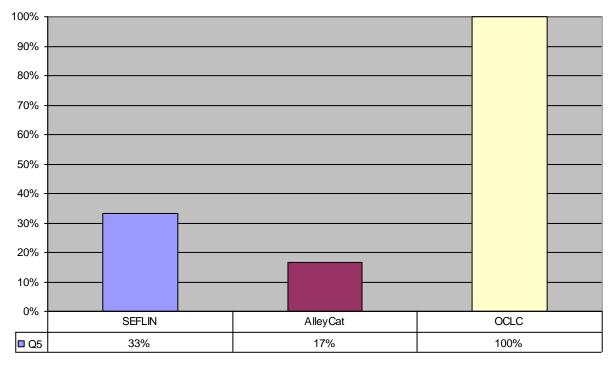
The "Jump to Advanced Search" field changes the interface to the advanced interface shown below. One must select a specific database in which to perform the advanced search (Florida Library Group Catalog (FLGC) being one of the choices available). This selection can be changed within the advanced search interface. However, it is worth noting that many patrons may not necessarily be able to easily select the Florida Library Group Catalog option unless they are aware that they should be choosing "FLGC."

An advanced search in the OCLC interface has many, many term limiting options (i.e. Keyword, Access Method, Accession Number, Author, Author Phrase, etc.). These options are grouped with simpler search terms heading each subsection. There are many limiting fields for the search and there are clear headings for each of the limitations.

Interestingly, while the options for language interfaces are limited to English, Spanish, French, Japanese, and traditional and simplified Chinese, the list of possible search languages is immense (approximately 480 different language selections), ranging from Abkaz to Zuni. This range of language searching is primarily useful for searches in the alternate databases (i.e. WorldCat) that have items cataloged in different languages.

| Basic Search Advanced Se | earch Expert Search Go to page |
|--|---|
| | Current database: Florida Group Catalog |
| Subjects News Help | |
| | Search Clear |
| Search in database: | Florida Group Catalog Limit to: Florida Group Catelog |
| Search for: | Keyword |
| and 🔻 | Keyword |
| and 💌 | Keyword |
| Limit to: | Year (format: YYYY-YYYY) Language All Show all languages Number of Libraries All S |
| Limit type to: match any of the following | □ ◆ Books □ ◆ Serial Publications □ ● Articles □ ● Visual Materials □ ◆ Sound Recordings □ ● Musical Scores □ ■ Computer Files □ ● Archival Materials □ ● Maps □ ◆ Internet Resources • ● O |
| Subtype limits | Any Audience 🔽 Any Content 🔄 Any Format 💽 🥝 |
| Limit availability to: match any of the following | S Items in my library (FBA, STATE LIBR OF FLORIDA) Find codes |
| Rank by: | Default 🔹 🔞 |
| | Search Clear |

LANGUAGE



Q5: Can searches be performed in any languages other than English?

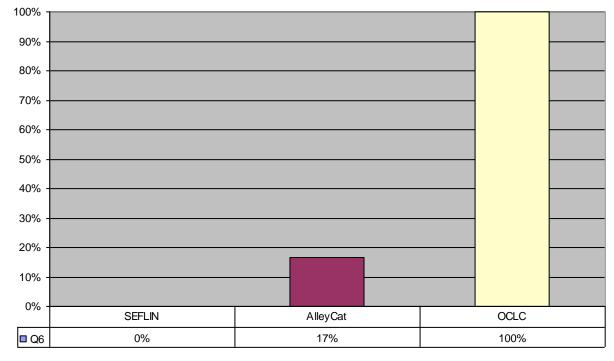
Figure 5. Capability of search in other languages

While only OCLC had clear options for multi-language search interfaces, the results in Figure 5 show that all three portals allow for some searching in other languages (using Romanized alphabet only). OCLC has searching interfaces for English, Spanish, French, Japanese, and Chinese (both simplified and complex characters). The results, however, are retrieved in the language in which the item is catalogued. It is not clear how the Asian characters are entered for searches in those three languages, nor are the rules on using diacritics for the Latin languages clearly explained.

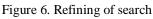
SEFLIN's portal (My Library Service.org), for example, will return results for searches for some words in Spanish, however the site does not inform the user of this ability. There is a sister-site (Mi Servicio de Biblioteca.org) that has a Spanish interface but this is not easily reached once inside the Library Search interface.

AlleyCat retrieved some results with searches in other languages, but the interface did not facilitate multi-language use. The results were items that are listed in other languages by title or subject.

SEARCH REFINING



Q6: Can searches be refined?



Refining searches once results have been retrieved is key to creating a useful and manageable listing of relevant items. Figure 6 displays the considerable differences in ability to refine searches between the virtual union catalogs. SEFLIN does not include any sort of result refining. AlleyCat has options for sorting the results by author, title, or date.

Only OCLC allows for detailed sorting and limiting of results once a results list has been retrieved. The refining can be by date, author, item, type, language, and so forth. OCLC also provides one click options for finding items by related authors, related subjects, and gives the user the option to search for holdings only within the state of Florida.

SUPPORT/INSTRUCTIONS/HELP TOOLS

Q7: Does the site provide:

- A: support?
- B: instructions?
- C: help tools?

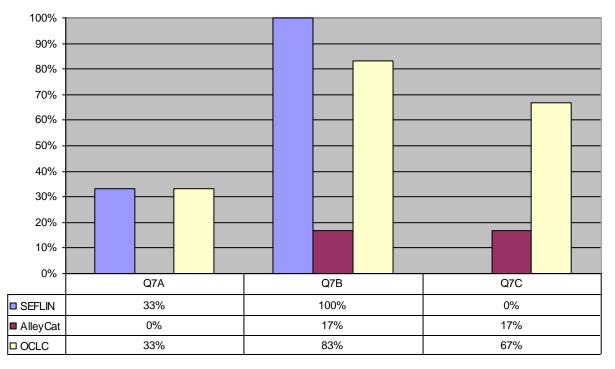


Figure 7. Availability of support, instructions, and help tools

Figure 7 reveals varying levels of support, instructions, and help tools between the virtual union catalogs. The SEFLIN interface has some suggestions for improving a search. SEFLIN also provides a "contact us" page for the users to submit questions, but the interface has such required fields as name, email, phone number, and address, that may be difficult or uncomfortable for some users to fill out. AlleyCat contains help buttons, but they appear to be broken links, as each one retrieves a box that reads "information not available for this page." Some instructions are scattered throughout the site. The instructions in OCLC are general and useful, but are perhaps a bit too general, as they do not answer some fundamental questions about the search interface.

PRINTING/SAVING

Q8: Can user:

A: save entire results?

- B: save selected results?
- C: print entire results?
- D: print selected results?

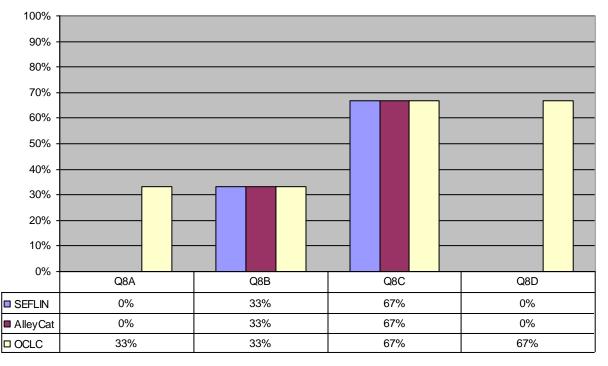


Figure 8. Ability to save entire and selected results or print entire and selected results

The results in Figure 8 reveal limited abilities to print or save search results in the virtual union catalogs. For all three, the user can print through the browsers print options (if the library has printers available for public use) but there is no internal print option for either SEFLIN or AlleyCat. SEFLIN and AlleyCat also have no email or save options for search results.

While OCLC does have internal printing options and email options, it is difficult to figure out how to print only selected items and only one page of complete listings can be printed at a time. The email feature sends items that are selected or even complete results listings to personal email addresses, which serves as a method for saving results.

ACCESSIBILITY

Q9: Do the appearance and function of the site comply with the accessibility principles mandated by Section 508 of the Rehabilitation Act by complying with W3C principles that:

- A: Provides equivalent alternatives to auditory and visual content?
- B: Does not rely on color alone?
- C: Uses markup and style sheets and does so properly?
- D: Creates tables that transform gracefully?
- E: Ensures user control of time-sensitive content changes?
- F: Ensures direct accessibility of embedded user interfaces?
- G: Is designed for device-independence?
- H: Provides context and orientation information?
- I: Provides clear navigation mechanisms?
- J: Ensures that documents are clear and simple?

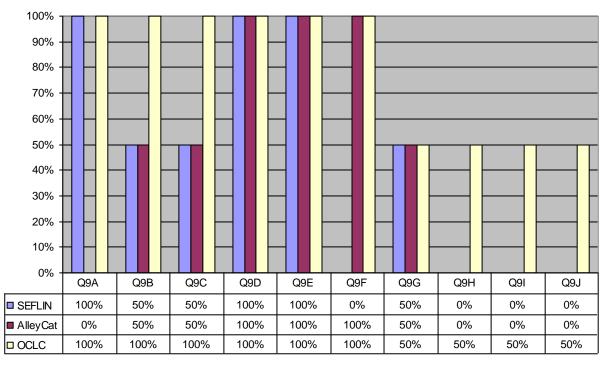
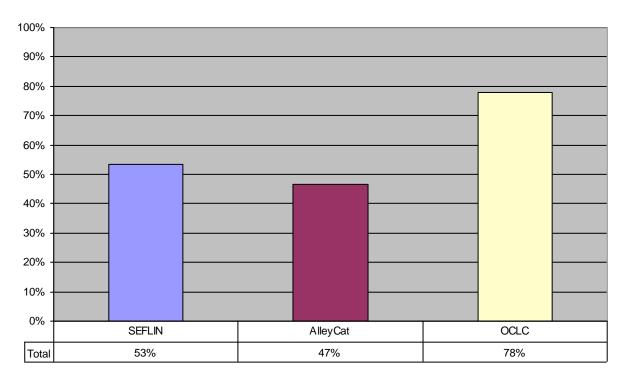


Figure 9. Compliance with accessibility principles of Section 508 of the Rehabilitation Act

Figure 9 demonstrates a wide variance in accessibility in the virtual union catalogs. SEFLIN has the most accessibility problems. Depending on the color scheme of the display for a patron, much of the text disappears completely. On the search screen, for example, all of the library names become unreadable if the screen is set with a background that is not white. A further serious difficulty for patrons with visual impairments is the heavy reliance on graphic icons to convey information about results, such as format. The search has several problems that make the site difficult for patrons with learning disabilities, including a lack of meaningful context or orientation information and a lack of clear navigation systems. Another significant problem is the fact that many member OPACs have considerable accessibility problems of their own, paralleling those in the SEFLIN site. As a result, patrons may have to deal with a range of accessibility problems, beyond those of SEFLIN itself, when they enter a member catalog.

AlleyCat also has many accessibility problems. The graphics and buttons lack text descriptors, limiting accessibility for patrons with learning disabilities and visual impairments. Depending on the color scheme for the screen display used by the patron, some of the text disappears or is unreadable, a considerable problem for users with visual impairments. The design has several problems that make the site difficult for patrons with learning disabilities, including a lack of meaningful context or orientation information and a lack of clear navigation systems. The advanced search function will also be difficult for many patrons with learning disabilities due to the complexity and oblique nature of the options provided.

OCLC is, by far, the most accessible site. The only notable issues relate to some problems with providing context, orientation information, and clear navigation mechanisms for patrons with learning disabilities. Also, the complexity of some of the results pages might pose problems for some patrons with learning disabilities.



AGGREGATE SCORES

Figure 10. Aggregate scores

Figure 10 presents the total combined scores for all of the questions for each virtual union catalog. There were a total of 30 questions (including questions and sub-parts to questions) at a maximum value of two (2) points per question, meaning that each of the three (3) evaluators could assign up to 60 points to an individual virtual union catalog. As such, the total possible

score for a virtual union catalog from the results of the three evaluators was 180 points. Out of this 180 total points possible, OCLC (140) had the highest score, followed by SEFLIN (96) and then AlleyCat (84).

COMPARATIVE SEARCHES

Using an instrument designed to compare results of the returns of the virtual union catalogs and their member catalogs (see Appendix B), the study team compared two native OPACs within each virtual union catalog system to the results of the pilot project interfaces. In each case, the native OPACS were two public libraries within the region covered by the virtual union catalog portal. The results from the portal were also compared to university results retrieved from the State University System Libraries/WebLUIS (SUS) and the Library Information Network for Community Colleges (LINCC).

The results from SEFLIN revealed the highest levels of commonality between the results from native OPACs and the virtual union catalog. As demonstrated in Table 1, for one native OPAC, one search produced five titles in common, and another produced three, though the other two searches had zero similarities. For the other native OPAC, all of the four searches had five matching titles in the first five results. For the SUS catalog, only one search had results in common. The searches in the LINCC catalog produced matches for all four searches.

| | SEFLIN OPAC I | SEFLIN OPAC II | SEFLIN SUS | SEFLIN LINCC |
|--------------------------|------------------|-------------------|------------|-----------------|
| Arthritis | 0 | 5 | 0 | 5 |
| Austen Jane | 0 | 5 | 0 | 5 |
| Mosquito | 5 | 5 | 5 | 5 |
| To Kill a Mockingbird | 3 | 5 | 0 | 5 |

Table 1. Search results from SEFLIN and native catalogs

As reflected in Table 2, the results from AlleyCat demonstrated some commonality with the results produced by member OPACs or by the SUS and LINCC catalogs. Compared with the results from the two native OPACs, AlleyCat had between zero and three titles in common for a search. AlleyCat and SUS had no more than one result in common, while AlleyCat and LINCC had between zero and two items in common.

| | AlleyCat OPAC I | AlleyCat OPAC II | AlleyCat SUS | AlleyCat LINCC |
|--------------------------|-----------------|------------------|--------------|----------------|
| Arthritis | 2 | 1 | 0 | 0 |
| Austen Jane | 3 | 0 | 1 | 1 |
| Mosquito | 1 | 0 | 0 | 0 |
| To Kill a Mockingbird | 1 | 0 | 1 | 2 |

Table 2. Search results from AlleyCat and native catalogs

As shown in Table 3, only two results from OCLC reflected any commonality with the native OPACs, SUS, or LINCC. Across all four searches, one title from the OCLC results was also available in the Jacksonville Public Library and a second title appeared in the Jacksonville Public Library, the Orange County Public Library, and LINCC. As such, there were only two titles with any commonality in the four searches.

| | OCLC OPAC I | OCLC OPAC II | OCLC SUS | OCLC LINCC |
|--------------------------|-------------|--------------|----------|------------|
| Arthritis | 0 | 0 | 0 | 0 |
| Austen Jane | 0 | 0 | 0 | 0 |
| Mosquito | 0 | 0 | 0 | 0 |
| To Kill a Mockingbird | 2 | 1 | 0 | 1 |

 Table 3. Search results from OCLC and native catalogs

Overall, only SEFLIN's virtual union catalogs produced results that, in the first five items, were comparable to the first five results from the two native OPACs, the SUS catalog, and/or the LINCC catalog. The complete results of these searches are available in Appendix C.

ADDITIONAL RECOMMENDATIONS

In addition to the formal results herein reported, the researchers indicate the following general features seem to be beneficial to users of a virtual union catalog:

- Should open with search interface that offers a number of options. Though a catalog does not necessarily need to open with all of the possible searching options, it is helpful to provide patrons with more than the most basic set of search capabilities when they begin. Doing so will help new users become aware of the search capabilities of the catalog and will offer greater ease to experienced users of the catalog.
- Should have details in results. The results need to convey basic information about the items without the users having to go into each member catalog. Results for searches in

the virtual union catalog should indicate details such as the location, format, and availability of an item.

- More options for sorting, limiting, grouping. Patrons will benefit from the ability to perform searches with a great deal of specificity. Once initial searches have been performed, patrons will benefit from the option to further limit, sort, or group the results of the search for greater detail and utility in the results.
- **Include context within the site**. Patrons should be able to know where they are within the virtual union catalog at all times.
- **Navigation and orientation information** needs to be clearly available. These should include the ability to return to results, the ability to contact (phone, email, etc.), and the ability to ask-a-librarian.
- **Design that works with accessibility standards**. A very large percentage of Floridians have a disability. For a virtual union catalog to provide for all the members of its community, it must account for accessibility requirements in design and function.
- **Easy to understand and remember URLs**. A URL that is easy to decipher and remember will help some patrons initially reach and return to the virtual union catalog.
- Searching in multiple languages. The catalog needs to make clear to patrons what language options (other than English) are available for searching in a catalog and provide instructions to related to those languages.
- If sub-library does not have a "true" hit, should read as 0 in results list. Some member catalogs will indicate that they have items related to a search in a virtual union catalog whether or not they actually do. These member catalogs report "no matching items" as a result in the native OPAC, but the patron is led to check catalogs that have no available items related to the search.
- **Email/print options within the interface**. The ability to save, print, or email search results should be available and made clear to the patron.
- University/college Inter-Library Loan or use agreements. If libraries from schools of higher education are a part of a virtual union catalog, patrons who are not students at a college or university need to be aware of their ability to get items from these libraries. They need either to be informed of the inability to inter-library loan items from these libraries or instructed how to do so, depending on which is appropriate.
- Account for usability needs of primary groups of patrons. The design and function of a virtual union catalog needs to account for any particular usability needs of the main groups of users, such as seniors.
- Keep interface simple for users' slow Internet connections. The speed and capacity of patrons' Internet connections will vary greatly. Virtual union catalogs need to account for these differences, eschewing unnecessary complexity in design that would limit access of patrons using lower-end Internet access.

These recommendations represent the range of issues that must be considered in the design of any statewide virtual union catalog. In order for a catalog to truly be useful to and usable by the diverse patron community within a state such as Florida, issues such as these must be carefully considered in the design and implementation of a virtual union catalog.

APPENDIX A: FLORIDA ELECTRONIC LIBRARY EVALUATION FORM

| Evaluator Name: | | |
|----------------------|----|--|
| Virtual Library: | | |
| Date/Time Accessed: | // | |
| Time Completed: | | |
| Computer Type: | | |
| Operating System: | | |
| Browser and Version: | | |
| Screen Resolution: | | |
| Connection Type: | | |

Comments on access to site or other general access issues:

| Search Type | Search String I | Search String II |
|-------------|-----------------------|-------------------|
| Subject | Arthritis | West Nile Virus |
| Author | Austen Jane | Gould Stephen Jay |
| Keyword | Mosquito | Kayak |
| Title | To Kill a Mockingbird | Living History |

| Functional Requirement | Result | S | | Comments |
|---------------------------------|--------|----|----------|----------|
| Can users group items in | Yes | No | Somewhat | |
| searches? | | | | |
| Can a search be limited to | | | | |
| particular location(s)? | Yes | No | Somewhat | |
| Do the search results indicate | | | | |
| an item's: | | | | |
| -call number? | Yes | No | Somewhat | |
| -location? | Yes | No | Somewhat | |
| -availability? | Yes | No | Somewhat | |
| -format | Yes | No | Somewhat | |
| Does the search process have | | | | |
| functions for: | | | | |
| -advanced searching (ability to | | | | |
| search 2 or more fields at | | | | |
| once)? | Yes | No | Somewhat | |
| -keyword? | Yes | No | Somewhat | |
| -subject? | Yes | No | Somewhat | |
| -author? | Yes | No | Somewhat | |
| -title? | Yes | No | Somewhat | |
| Can searches be performed in | | | | |
| any languages other than | Yes | No | Somewhat | |
| English? | | | | |
| Can searches be refined? | Yes | No | Somewhat | |
| Does the site provide: | | | | |
| -support? | Yes | No | Somewhat | |
| -instructions? | Yes | No | Somewhat | |
| -help tools? | Yes | No | Somewhat | |
| Can user: | | | | |
| -save entire results? | Yes | No | Somewhat | |
| -save selected results? | Yes | No | Somewhat | |
| -print entire results? | Yes | No | Somewhat | |
| -print selected results? | Yes | No | Somewhat | |

| Functional Requirement | Results | | | Comments |
|----------------------------------|---------|----|----------|----------|
| Do the appearance and | | | | |
| function of the site comply | | | | |
| with the accessibility | | | | |
| principles mandated by | | | | |
| Section 508 of the | | | | |
| Rehabilitation Act by | | | | |
| complying with W3C | | | | |
| principles that: | | | | |
| | | | | |
| -Provides equivalent | | | | |
| alternatives to auditory and | | | | |
| visual content? | Yes | No | Somewhat | |
| -Does not rely on color alone? | Yes | No | Somewhat | |
| -Uses markup and style sheets | | | | |
| and does so properly? | Yes | No | Somewhat | |
| -Creates tables that transform | | | | |
| gracefully? | Yes | No | Somewhat | |
| -Ensures user control of time- | | | | |
| sensitive content changes? | Yes | No | Somewhat | |
| -Ensures direct accessibility of | | | | |
| embedded user interfaces? | Yes | No | Somewhat | |
| -Designs for device- | | | | |
| independence? | Yes | No | Somewhat | |
| -Provides context and | | | | |
| orientation information? | Yes | No | Somewhat | |
| -Provides clear navigation | | | | |
| mechanisms? | Yes | No | Somewhat | |
| -Ensures that documents are | | | | |
| clear and simple? | Yes | No | Somewhat | |

APPENDIX B: SEARCH COMPARISON FORM

Note: This form is intended to help the evaluators perform a basic check on the items returned by the integrated search interface versus selected participating library OPACs. To conduct the test, evaluators should first search using the integrated interface, review the results of the search from a pre-determined participating library OPAC, and then go directly to that participating library's OPAC and conduct the same search. This will allow for a relatively quick check on the extent to which the searches yield the same results.

| Evaluator Name: | | | |
|-----------------------------|---|---|---|
| Virtual Union Catalog: | | | |
| Date/Time Accessed: | / | | |
| Time Completed: | | - | |
| Participating Library OPAC: | | | |
| Date/Time OPAC Accessed: | | / | |
| Time OPAC Search Completed: | | | - |
| Computer Type: | | | |
| Operating System: | | | |
| Browser and Version: | | | |
| Resolution: | | | |
| Connection Type: | | _ | |

Search conducted in Integrated System and OPAC (please circle one):

| Search Type | Search String I | Search String II |
|-------------|------------------------|-------------------|
| Subject | Arthritis | West Nile Virus |
| Author | Austen Jane | Gould Stephen Jay |
| Keyword | Mosquito | Kayak |
| Title | To Kill A Mocking Bird | Living History |

Additional Comments:

Virtual Union Catalog (circle one): SEFLIN Native OPAC:

AlleyCat

OCLC

Subject:

| First Five Results Displayed by OPAC (if less than 5, indicate all) | |
|---|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

Author:

| First Five Results Displayed by OPAC (if less than 5, indicate all) | |
|---|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

Keyword:

| First Five Results Displayed by OPAC (if less than 5, indicate all) | |
|---|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

Title:

| First Five Results Displayed by OPAC (if less than 5, indicate all) | |
|---|--|
| 1. | |
| 2. | |
| 3. | |
| 4. | |
| 5. | |

APPENDIX C: SEARCH COMPARISON RESULTS

SEFLIN: MYLIBRARYSERVICE.ORG

Begin: 9:56 AM, Tuesday, July 15, 2003

* Items in bold are items that are found in both the SEFLIN search and the native OPAC searches.

- Miami-Dade Public Library
- Martin County Public Library
- State University System Libraries/WebLUIS (SUS)
- Library Information Network for Community Colleges (LINCC)

Subject: arthritis

Miami-Dade Public Library

1. Title: What you doctor may not tell you about autoimmune disorders : the revolutionary drug-free treatments for thyroid disease, lupus, MS, IBD, chronic fatigue, rheumatoid arthritis, and other diseases / Stephen B. Edelson and Deborah Mitchell. Author: Edelson, Stephen.

Published: New York : Warner Books, c2003.

- Title: The inflammation syndrome : the complete nutritional program to prevent and reverse heart disease, arthritis, diabetes, allergies and asthma / Jack Challem ; [foreword by Ronald Hunninghake and Hugh Riordan]. Author: Challem, Jack. Published: Hoboken, N.J. : John Wiley & Sons, c2003.
- 3. Title: The arthritis helpbook : a tested self-management program for coping with arthritis and fibromyalgia / Kate Lorig, James F. Fries ; contributors, Maureen R. Gecht ... [et al.]. Author: Lorig, Kate.

Published: Cambridge, Mass. : Perseus Books, c2000.

- 4. Title: Conquering arthritis : what doctors don't tell you because they don't know, 9 secrets I learned the hard way / by Barbara D. Allan.
 Author: Allan, Barbara D.
 Published: St. Louis, MO : Shining Prairie Flower, 2002.
- Title: MSM : the definitive guide : the nutritional breakthrough for arthritis, allergies and more / [by] Stanley W. Jacob [and] Jeremy Appleton. Author: Jacob, Stanley W. Published: Topanga, CA : Freedom, 2003.

Martin County Public Library

1. Living with rheumatoid arthritis / Tammi L. Shlotzhauer, James L. McGuire ; foreword by Carol M. Ziminski Author: Shlotzhauer, Tammi L.

Details: 616.7227 SHL year: 2003

- 2. All you need to know about joint surgery : preparing for surgery, recovery and an active new lifestyle / by the Arthritis Foundation ; chief medical editor, John H. Klippel Author: Klippel, John H. Details: 617.47 ALL vear: 2002
- 3. Preventing arthritis : a holistic approach to life without pain / Ronald M. Lawrence and Martin Zucker
 Author: Lawrence, Ronald Melvin, 1926-Details: 616.722 LAW
 year: 2002
- 4. The hospital for special surgery rheumatoid arthritis handbook / Stephen A. Paget, Michael D. Lockshin and Suzanne Loebl Author: Paget, Stephen A. Details: 616.722 PAG year: 2002
- Strong women and men beat arthritis / Miriam E. Nelson, Kristin R. Baker, and Ronenn Roubenoff, with Lawrence Lindner Author: Nelson, Miriam E. Details: 616.722 NEL year: 2002

SUS

- 1. Florida arthritis news. Miami :; [serial]
- Newsletter Florida Arthritis Foundation. Florida. Arthritis Foundation.; Bradenton, Florida :; [serial]
- 3. Pharmacologic approaches to disease states.[sound]
- 4. Florida's arthritis strategic plan. Tallahassee :; [serial]; 2004
- 5. Florida's arthritis strategic plan. Tallahassee, FL :; [serial]; 2004

LINCC

- Taking charge of arthritis / Larry Katzenstein. Author: Katzenstein, Larry. Description: Pleasantville, NY : Reader's Digest, c2001. 271 p. : col. ill. ; 26 cm.
- 2. Care of arthritis in the older adult / Ann Schmidt Luggen, Sue E. Meiner, editors. Description: New York : Springer Pub., c2002. xi, 220 p. ; 23 cm.
- 3. Arthritis / by Barbara Sheen. Author: Sheen, Barbara. Description: San Diego, Calif. : Lucent Books, 2002. 112 p. : ill. ; 23 cm.
- 4. Rheumatoid arthritis : the infection connection : targeting and treating the cause of chronic illness / Katherine M. Poehlmann ; [with a foreword by Harold W. Clark].

Author: Poehlmann, Katherine M. (Katherine Margaret) Description: Rolling Hills Estates, CA : Satori Press, 2002. 394 p. : ill. ; 21 cm.
5. Living with rheumatoid arthritis / Tammi L. Shlotzhauer, James L. McGuire ; foreword by Carol M. Ziminski. Author: Shlotzhauer, Tammi L. Description: Baltimore, Md. : Johns Hopkins University Press, c2003. xix, 290 p. : ill. ; 24 cm.

Author: Austen Jane

Miami-Dade Public Library

- Title: Jane Austen. Author: Tomalin, Claire. Published: Circe Publications.
 Title: Jane and the shorts of Netley (Ster
- Title: Jane and the ghosts of Netley / Stephanie Barron. Author: Barron, Stephanie. Published: New York : Bantam Books, 2003.
- **3.** Title: Women's wicked wit : from Jane Austen to Roseanne Barr / Michelle Lovric. Author: Lovric, Michelle. Published: Chicago : Chicago Review Press, 2001, c2000.
- 4. Title: Emma : the Oxford illustrated Jane Austen. Author: Austen, Jane, 1775-1817. Published: Oxford ; New York : Oxford University Press, c1988.
- Title: The novels of Jane Austen : the text based on collation of the early editions / by R.W. Chapman ; with notes indexes and illustrations from contemporary sources. Author: Austen, Jane, 1775-1817. Published: Oxford ; New York : Oxford University Press, 1934.

Martin County Public Library

- Sense and sensibility : authoritative text, contexts, criticism / Jane Austen ; edited by Claudia L. Johnson Author: Austen, Jane, 1775-1817. Details: AUS year: 2002
- 2. Pride and Prejudice Author: Austen, Jane Details: LARGE PRINT ON ORDER year: 2003
- Pride and prejudice / Jane Austen ; edited with an introduction and notes by Vivien Jones Author: Austen, Jane, 1775-1817. Details: YA CLASSIC AUS vear: 2003

- 4. Jane Austen in Boca / Paula Marantz Cohen Author: Cohen, Paula Marantz, 1953-Details: COH year: 2002
- Sense and sensibility [sound recording] / Jane Austen Author: Austen, Jane, 1775-1817. Details: AUS/AUDIO year: 2002

SUS

- 1. The complete novels of Jane Austen.
- Austen, Jane, 1775-1817. 2. Emma
 - Austen, Jane, 1775-1817.
- 3. Northanger Abbey Austen, Jane, 1775-1817.
- Persuasion Austen, Jane, 1775-1817.
 Persuasion
 - Austen, Jane, 1775-1817.

LINCC

- Pride and prejudice [videorecording] / Loew's Inc. ; directed by Robert Z. Leonard ; produced by Hunt Stromberg.
 Description: Burbank, CA : Turner Entertainment Co., 2001, c1940. 1 videocassette (114 min.) : sd., b&w ; 1/2 in.
- Emma / Jane Austen. Author: Austen, Jane, 1775-1817. Description: Berlin : Aufbau-Verlag, 1976. 536 p. ; 20 cm.
- Pride and prejudice [videorecording] / a Metro-Goldwyn-Mayer picture ; screenplay by Aldous Huxley and Jane Murfin ; directed by Robert Z. Leonard ; produced by Hunt Stromberg. Description: Burbank, CA : Warner Home Video, [2001]. 1 videocassette (118 min.) : sd., b&w ; 1/2 in.
- 4. Mansfield Park [videorecording] / Miramax Films and BBC Films present in association with The Arts Council of England a Miramax Hal Films Production; a Patricia Rozema film. Description: Burbank, CA. : Miramax Home Entertainment : distributed by Buena
- Vista Home Entertainment, [2000]. 1 videodisc (ca. 112 min.) : sd., col.; 4 3/4 in.
 5. Mansfield Park / Jane Austen. Author: Austen, Jane, 1775-1817. Description: Mineola, New York : Dover Publications, 2001. viii, 322 p. ; 21 cm.

Keyword: mosquito

Miami-Dade Public Library

- 1. Title: MOSQUITO ABATEMENT FOR SAFETY AND HEALTH ACT... REPORT 108-12... HOUSE OF REPRESENTATIVES... 108TH CONGRESS, 1ST SESSION Author: Published: [S.l. : s.n., 2003?] Call #:
- Title: El mosquito zumbador / texto de Veronica Uribe ; ilustraciones de Gloria Calderon. Author: Uribe, Veronica. Published: Caracas, Venezuela: Ediciones Ekare, c1999. Call #:
 Title: The Song Of The Teeny-Tiny Mosquito (El Canto Del Mosquito). Author: Ada, Alma Flor. Published: S.l. : Santillana, 1992. Call #:
- 4. Title: Mosquito: the story of man's deadliest foe / Andrew Spielman and Michael D'Antonio.
 Author: Spielman, A. (Andrew)
 Published: New York : Hyperion, c2001.
 Call #:
- 5. Title: The de Havilland Mosquito / by M. J. Hardy. Author: Hardy, M. J. (Michael John) Published: Arco Pub. Co., c1977. Call #: 623.746 H271d

Martin County Public Library

- Corbett & Madagascar [videorecording] : sanctuaries of India and Africa / Frederic Lepage, Stephen Cohen [executive producers] ; Bernard Senter, Maria Somorrostro, Sylvie Chevolleau, producers ; Anne Gallois, production coordinator ; written by Serge Levoyageur ; English script by Bob Wayte ; XL Productions in association with The Discovery Channel Author: Lepage, Frederic. Details: 915.42 COR/VIDEO year: 1998 Availability: 1 copy available at STUART in AV
- The Mosquito Coast [videorecording] / Saul Zaentz Company and Warner Bros. Inc Author: Theroux, Paul. Mosquito Coast. Details: MOS/VIDEO year: 1999 Availability: 2 copies available at STUART and HOBE
 Things that make you feel good/things that make you feel bad / Todd Parr
- 3. Things that make you feel good/things that make you feel bad / Todd Parr Author: Parr, Todd. Details: E PAR

year: 1999

Availability: No copies currently available. (Estimated wait is 7 days)
4. The mosquito book / by Scott Anderson & Tony Dierckins Author: Anderson, Scott, 1965-Details: J 614.4323 AND year: 1998 Availability: 2 copies available at STUART and MID-CTY
5. Zzzng! zzzng! zzzng! : a Yoruba tale / retold by Phillis Gershator ; illustrated by Theresa Smith Author: Gershator, Phillis. Details: E GER year: 1998

SUS

1. Cape Canaveral : Mosquito Lagoon ; miscellaneous data 1973. UF Coastal Archives

Availability: 1 copy available at STUART in CHILDRENS

- 2. Keys to the adult females and fourth instar larvae of the moquitos of Florida (Diptera, Culicidae). Darcie and Morris
- 3. Mosquito Lagoon barrier beach study : Mehta, Ashish J.
- 4. Mosquito nightmare : West Nile virus University of West Florida
- 5. Predation by Mesocyclops longisetus [Thiebaud] (Crustacea: Copepoda) of container-inhabiting mosquito (Diptera:Culicidae) larvae under laboratory and field conditions, c2002. Soumare, Mohamed K.F.;

LINCC

- Let the bastards go : from Cuba to freedom on God's Mercy / Joe Morris Doss ; with a foreword by Walker Percy. Author: Doss, Joe Morris. Description: Baton Rouge : Louisiana State University Press, c2003. xvii, 279 p. ; 24 cm.
- Central Brevard Mosquito Beaters memory book. Description: [Cocoa, FL : Mosquito Beaters, 1996-] v. : ill., ports. ; 28 cm.
- Penny ante imperialism : the Mosquito Shore and the Bay of Honduras, 1600-1914 : a case study in British informal empire / Robert A. Naylor. Author: Naylor, Robert A. Description: Rutherford [N.J.] : Fairleigh Dickinson University Press ; London : Associated University Presses, c1989. 315 p. : maps ; 25 cm.
- 4. The mosquito coast [text (large print)] / Paul Theroux. Author: Theroux, Paul.

Description: Leicester : Charnwood : F. A. Thorpe, 1982, c1981. 574 p. (large print) ; 22 cm.

 Malaria, West Nile, and other mosquito-borne diseases / Nancy Day. Author: Day, Nancy. Description: Berkeley Heights, NJ : Enslow Publishers, c2001. 128 p. : ill., map ; 24 cm.

Title: To Kill a Mockingbird

Miami-Dade Public Library

- 1. Title: Ubit peresmeshnika-- / Kharper Li; [perevod s angliiskogo Nory Gal i Raisy Oblonskoi]. Author: Lee, Harper. Published: Sankt-Peterburg : Azbuka-klassika, c2002. 2. Title: To kill a mockingbird. Author: Lee, Harper. Published: Leicester, Eng. : Ulverscroft, 1976 3. Title: Matar un ruise~nor / Harper Lee ; [traduccion de Baldomero Porta]. Author: Lee, Harper. Published: Esplugues de Llobregat (Barcelona) : Plaza & Janes, 1988 4. Title: To kill a mockingbird. Author: Lee, Harper. Published: Philadelphia, Lippincott c1960 5. Title: To kill a mockingbird [videorecording] / directed by Robert Mulligan ; produced by Alan Pakula ; screenplay by Horton Foote. Author: Published: MCA Home Video, c1987 Martin Country Public Library
 - To kill a mockingbird / Harper Lee Author: Lee, Harper Details: LEE year: 2001 Availability: 3 copies available at STUART, INDIANTOWN, and JENSEN
 Readings on To kill a mockingbird / Terry O'Neill, book editor
 - 2. Readings on To kin a mockingbird / Terry O Neill, book editor Author: O'Neill, Terry, 1944-Details: 813.54 REA year: 2000 Availability: 1 copy available at STUART in NON-FIC
 3. To kill a mockingbird / Harper Lee Author: Lee, Harper.
 - Author: Lee, Harper. Details: LP LEE year: 1999 Availability: 1 copy available at MID-CTY in LG-PRINT

- 4. To kill a mockingbird / edited and with an introduction by Harold Bloom Author: Bloom, Harold.
 Details: REF 813.54 HAR year: 1999 Availability: 2 copies available at STUART
- To kill a mockingbird [videorecording] / screenplay, Horton Foote ; produced by Alan J. Pakula ; directed by Robert Mulligan ; a Pakula-Mulligan, Brentwood Productions picture Author: Foote, Horton. Details: TO/DVD year: 1998 Availability: No copies currently available. (Estimated wait is 3 days)

SUS

- 1. Readings on To kill a mockingbird. 2000
- 2. In context To kill a mockingbird [visual]; 1999
- 3. To kill a mockingbird. Lee, Harper.; 1999
- 4. To kill a mockingbird. Lee, Harper.; 1999
- 5. To kill a mockingbird. Lee, Harper.; 1999

LINCC

1. To kill a mockingbird [videorecording] / directed by Robert Mulligan ; produced by Alan Pakula ; screenplay by Horton Foote ; A Pakula-Mulligan, Brentwood Productions Picture.

Description: Universal City, CA : Universal Home Video, c1998.

2. To kill a mockingbird [videorecording] / directed by Robert Mulligan ; produced by Alan Pakula ; screenplay by Horton Foote ; A Pakula-Mulligan, Brentwood Productions Picture.

Description: Universal City, CA : Universal Home Video, c1998.

- 3. To kill a mockingbird / by Harper Lee. Author: Lee, Harper. Description: New York : Warner Books, [1982], c1960. 281 p. ; 18 cm.
- To kill a mockingbird [sound recording] / by Harper Lee. Author: Lee, Harper. Description: Auburn, Calif. : Audio Partners Publishing ; Boulder, Colo. : distributed by Landmark Audiobooks, a subsidiary of Audio Adventures, 1997. 9 sound discs (10 hr., 20 min.) : digital ; 4 3/4 in.
- To kill a mockingbird / Harper Lee. Author: Lee, Harper. Description: New York : Warner Books, 1982. 281 p. ; 18 cm.

End: 11:11am, Tuesday, July 15, 2003

TBLC: ANYTIME/ANYWHERE ALLEYCAT

Begin: 1:26pm, Monday, July 14, 2003

Logged on to AlleyCat through Dunedin Public Library. The searches are basic book searches in the Virtual Catalog setting.

- Sarasota County Library System
- Pasco County Library System
- State University System Libraries/WebLUIS (SUS)
- Library Information Network for Community Colleges (LINCC)

* Items in bold are items that are found in both the AlleyCat search and the native OPAC search.

Subject: arthritis

Sarasota County Public Library

- 1. Di Fabio, Anthony. Arthritis : about osteoarthritis and rheumatoid disease, including rheumatoid arthritis / by Anthony di Fabio & Gus J. Prosch, Jr. 1997
- 2. Arthritis aquatic exercise [videorecording] / produced by Bart Cox, Jr. ; Cox Entertainment. 1993
- Engleman, Ephraim P. The arthritis book : a guide for patients and their families / by Ephraim P. Engleman and Milton Silverman ; with a foreword by Robert J. Glaser. 1979
- 4. Powers, Mary C. Arthritis / by Mary C. Powers ; introduction by C. Everett Koop. 1992
- Berkley, George E. Arthritis without aspirin : effective new ways to control arthritic pain / George Berkley. 1982

Pasco County Library System

- Young, Pat. Artritis y reumatismo : la guâia integral para un tratamiento eficaz / Pat Young ; traducciâon de Juan Alberto Gioia. 1997
- Leonardo, Bianca Freedom from Arthritis Through Nutrition & Help for Allergies. 1995
 Sill + I
- Shlotzhauer, Tammi L. Living with rheumatoid arthritis / Tammi L. Shlotzhauer, James L. McGuire ; foreword by Carol M. Ziminski. 2003
- 4. Move those joints! [videorecording] 1995
- 5. PACE [videorecording] : level 1. 1993

Author: Austen Jane

Sarasota County Public Library

- 1. Mansfield Park [videorecording] / a BBC Video. 1986
- Aiken, Joan, 1924-Jane Fairfax [sound recording] / Joan Aiken. 1993
- 3. Austen, Jane, 1775-1817. Bite-size Jane Austen : sense & sensibility from one of England's greatest writers / compiled by Karin Baji and John P. Holms. 1999
- 4. Austen, Jane, 1775-1817. The complete novels of Jane Austen.
- 5. Austen, Jane, 1775-1817. Emma.

Pasco County Library System

- 1. Pride and prejudice [videorecording] / a Metro-Goldwyn-Mayer picture ; screenplay by Aldous Huxley and Jane Murfin ; directed by Robert Z. Leonard ; produced by Hunt Stromberg. 1997
- 2. Aiken, Joan, 1924-Eliza's daughter / Joan Aiken. 1994
- 3. Austen, Jane, 1775-1817. Emma / Jane Austen. 1988
- Austen, Jane, 1775-1817. Mansfield Park / Jane Austen. 1988
- 5. Austen, Jane, 1775-1817. Northanger Abbey / Jane Austen. 1976

Keyword [Subject]: Mosquito

Sarasota County Library System

- Johnston, Tony, 1942-The Chizzywink and the Alamagoozlum / by Tony Johnston ; illustrated by Robert Bender. 1998
- 2. Control of mosquito breeding in permitted stormwater systems : final report / investigators, Frederick J. Santana ... [et al.]. 1994
- 3. Ecology of mosquitoes : proceedings of a workshop / edited by L.P. Lounibos, J.R. Rey, J.H. Frank. 1985
- Cuda, J. P. Evaluation of Lagenidium giganteum for biocontrol of Florida Mansonia mosquitoes : final report / J. P. Cuda ... [et al.] ; prepared for Florida Institute of Phosphate Research. 1995
- 5. Flies & mosquitoes [videorecording] / produced and directed by David Yarnell Productions. 1998

Pasco County Library System

The Pasco native OPAC database records 18 items available with "mosquito" as the keyword; however, within the AlleyCat interface, while it reports there are three items in Pasco County's Library System, not one of these three is retrievable through the AlleyCat system.

Title: To Kill a Mockingbird

Sarasota County Library System

- Lee, Harper. Matar un ruiseänor / Harper Lee ; [traducciâon de Baldomero Porta]. 1995
- 2. Lee, Harper. To kill a mockingbird.
- 3. Lee, Harper. To kill a mockingbird [sound recording] / by Harper Lee. 1988
- Lee, Harper. To kill a mockingbird [sound recording]
- 5. To kill a mockingbird [videorecording] 1987

Pasco County Library System

No items are reachable through AlleyCat, although 7 hits are listed in the results list. The Pasco County Library System OPAC lists 8 hits.

END: 2:00PM, MONDAY, JULY 14, 2003

OCLC: FLORIDA GROUP CATALOG

Begin: 10:35am, Monday, July 14, 2003

Logged on to OCLC's Florida pilot interface, searched Florida Public Libraries. Results included public libraries, academic libraries, state library, and others.

- Jacksonville Public Library (JPL)
- Orange County Library (ORL)
- State University System Libraries/WebLUIS (SUS)
- Library Information Network for Community Colleges (LINCC)

* The abbreviations below the search indicate which of the four searched native OPACs have the item. Items in bold are items that are found in both the OCLC search and the native OPAC searches, as indicated.

Subject: arthritis

1. Understanding arthritis / Author: Kushner, Irving,; Forer, Ann. Publication: New York : C. Scribner's Sons, 1984 Document: English : Book JPL, ORL, SUS, LINCC

2. Mayo Clinic on arthritis / Author: Hunder, Gene G.
Publication: Rochester, Minn. : Mayo Clinic, 1999
Document: English : Book
JPL, ORL, SUS, LINCC

3. The Arthritis Foundation's guide to alternative therapies / Author: Horstman, Judith.; Arnold, William J., Publication: Atlanta, GA : Arthritis Foundation, 1999 Document: English : Book JPL, ORL, SUS, LINCC

4. The Duke University Medical Center book of arthritis / Author: Pisetsky, David S.; Trien, Susan Flamholtz. Publication: New York : Fawcett Columbine, 1992 Document: English : Book JPL, ORL, SUS, LINCC

5. Arthritis : what works / Author: Sobel, Dava.; Klein, Arthur C. Publication: New York : St. Martin's Press, 1989 Document: English : Book JPL, ORL, SUS, LINCC

Author: Austen Jane

 Sense and sensibility
 Author: Lee, Ang,; Thompson, Emma,, and others Publication: Culver City, CA : Columbia TriStar Home Video, 1996
 Document: English : Visual Material : Videorecording JPL, SUS, LINCC

2. Mansfield revisited / Author: Aiken, Joan, 1924-; Austen, Jane, Publication: Garden City, N.Y. : Doubleday, 1985 Document: English : Book : Fiction JPL, ORL, SUS, LINCC

3. Sanditon / Author: Another lady.; Austen, Jane, Publication: Boston : Houghton Mifflin, 1975 Document: English : Book : Fiction JPL, ORL, SUS, LINCC

4. Emma
Author: McGrath, Douglas.; Paltrow, Gwyneth., and others Publication: [United States] :
Burbank, CA : Miramax Home Entertainment ; Distributed by Buena Vista Home Video, 1997, 1996
Document: English : Visual Material : Videorecording
ORL, SUS, LINCC

5. Jane Fairfax: Jane Austen's Emma, through another's eyes / Author: Aiken, Joan, 1924-; Austen, Jane, Publication: New York : St. Martin's Press, 1991 Document: English : Book : Fiction JPL, ORL, LINCC

Keyword: mosquito (Note: "keyword" search is only available in the advance search interface)

1. Why mosquitoes buzz in people's ears : a West African tale / Author: Aardema, Verna.; Dillon, Leo,; Dillon, Diane, Publication: New York : Dial Press, 1975 Document: English : Book : Juvenile audience JPL, ORL, SUS, LINCC

2. The Mosquito Coast : a novel / Author: Theroux, Paul.Publication: Boston : Houghton Mifflin, 1982Document: English : Book : Fiction JPL, ORL, SUS, LINCC

3. Tinkering with Eden : a natural history of exotics in America / Author: Todd, Kim, 1970-Publication: New York : W.W. Norton, 2001 Document: English : Book JPL, ORL, SUS, LINCC

4. Mosquito : a natural history of our most persistent and deadly foe / Author: Spielman, A.; D'Antonio, Michael. Publication: New York : Hyperion, 2001 Document: English : Book JPL, ORL, SUS, LINCC

5. The invisible hunters : a legend from the Miskito Indians of Nicaragua = Los cazadores invisibles : una leyenda de los indios miskitos de Nicaragua / Author: Rohmer, Harriet.; Chow, Octavio.; Vidauro, Morris., and others Publication: San Francisco : Children's Book Press, 1987 Document: English : Book : Juvenile audience ORL, SUS

Title: To Kill a Mockingbird

1. To kill a mockingbird / Author: Lee, Harper. Publication: Philadelphia : Lippincott, 1960 Document: English : Book : Fiction JPL, ORL, SUS, LINCC

2. To kill a mockingbird / Author: Lee, Harper.
Publication: New York : HarperCollinsPublishers, 1995 Document: English : Book : Fiction JPL, SUS, LINCC

3. To kill a mockingbird / Author: Lee, Harper. Publication: New York : Warner Books, 1982, 1960 Document: English : Book : Fiction JPL, ORL, SUS, LINCC

4. Understanding To kill a mockingbird : a student casebook to issues, sources, and historic documents /
Author: Johnson, Claudia D.
Publication: Westport, Conn. : Greenwood Press, 1994
Document: English : Book

JPL, SUS, LINCC

5. To kill a mockingbird : threatening boundaries / Author: Johnson, Claudia D. Publication: New York : Twayne Publishers, 1994 Document: English : Book JPL, ORL, SUS, LINCC

END: 11:17AM, MONDAY, JULY 14, 2003