

**WorldCat Local at the University of California  
Usability Testing: Round One, Spring 2008**

*Findings and Recommendations from the UC-OCLC Spring 2008 Assessment Project*

SUMMARY REPORT

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## I. INTRODUCTION

In May 2008, staff from the University of California (UC) and OCLC tested how well a Next Generation Melvyl system based on OCLC's WorldCat Local system serves UC faculty and graduate students. Test goals included:

- Assess whether WorldCat Local meets the expectations of advanced researchers using UC's systemwide collection; measure how successful these users are in performing common and critical tasks; discover and assess any barriers to adoption.
- Assess what test participants feel will be gained by a transition to WorldCat Local. Is this an improvement over current Melvyl?
- Discover what would improve WorldCat Local for users like these.

## II. OVERVIEW OF TEST OBJECTIVES

Test objectives were informed by two primary sources: 1) use cases developed by UC subject task groups; and 2) the need to test new functionalities present in WorldCat Local but not in the current Melvyl, *e.g.*, the ability to search multiple collection scopes. Test objectives included:

- Determine how advanced researchers understand and act on collection scopes
- Assess perception and use of journal article content
- Assess discovery of known and unknown items
- Assess display of search results, including large-set search results
- Assess the display of edition and format relationships
- Assess whether users can obtain electronic resources

Test tasks and structured discussion topics were designed to raise issues important for the test objectives and to focus on tasks most common and critical for advanced researchers. Tasks were designed to facilitate observation of behaviors including:

- Attempts to prelimit or search specific fields
- Use of facets
- Impressions of ranking in display of search results
- Confusion or wrong turns on search result pages
- Confusion or wrong turns on item detail pages
- Navigational barriers

## III. TEST METHOD

With the support of campus library staff, testing was conducted at UC Berkeley (using [berkeley.worldcat.org](http://berkeley.worldcat.org)) and UC Irvine (using [uci.worldcat.org](http://uci.worldcat.org)).<sup>1</sup> Test sessions involved one participant, a facilitator and an observer; scripted tasks were followed by structured discussion, and each test session lasted approximately 90 minutes.

## IV. TEST PARTICIPANTS

Campus staff were responsible for recruiting test participants within broad screening guidelines that stipulated participants come from different subject areas including humanities, social sciences and sciences; that some participants have musical competence; and that some be non-native speakers of English. Participants included eight faculty and six

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<sup>1</sup> UC campus library staff included Mary Ann Mahoney and Peter Fong (technical support) at UC Berkeley; Catherine Palmer, Kevin Ruminson and Brandon Emlinger (technical support) at UC Irvine.

graduate students from a mix of disciplines. While this sample is adequate for discovering usability problems, observations about utility, values and habits can only be suggestive.

#### UC Berkeley 5/19–20/2008

Graduate student	Ancient History
Faculty	English
Graduate student	Latin American Studies
Lecturer	International and Area Studies
Graduate student	Music
Graduate student	Architecture
Graduate student	Chemistry

#### UC Irvine 5/28–29/2008

Faculty	Philosophy
Faculty	History
Lecturer	English
Graduate student	English
Lecturer	Anthropology
Faculty	German
Faculty	English

## V. KEY FINDINGS

- Most (10 of 14) participants described WorldCat Local as an improvement over the current Melvyl system. Attributes participants identified most often as improvements:
  - Inclusion of journal article content
  - Ability to search multiple collections (local, UC systemwide and global) in a single environment
  - Google-like searching, *i.e.*, a single search box present on every page where “you can just type in anything”
  - Presence of facets on search results pages
- Participants repeatedly mentioned the inclusion of journal article content as something they valued highly.
- Participants demonstrated patterns of misunderstanding about the many links and icons associated with electronic resources.
- For test participants, the primary use of Melvyl is as a fulfillment tool; they do not regard Melvyl as a primary tool for discovering unknown items.

## VI. DETAILED FINDINGS

1. **Including local, systemwide and worldwide holdings worked well.** The ability to search three collection scopes – the local collection, ‘University of California Libraries’, and ‘Libraries Worldwide’ – in the same system was repeatedly cited as an improvement over the current Melvyl. The collection scope dropdown menu was discovered almost immediately by most participants, and was understood and used by nearly all participants. Participants often adjusted the scope based on the task at hand. About half of participants stated that the system default scope should be the local campus collection. One participant would have preferred the systemwide ‘University of California Libraries’ scope for the default, one would have preferred ‘Libraries Worldwide’ and one had no preference.

*"This dropdown menu I like very much: all the zones I might want to be in." (P1)*

*"I would default to UC Irvine because I want immediate access. Next is to go to Melvyl. Normally, I start out in Antpac, then Melvyl, then WorldCat." (P8)*

*"I assumed at first that WorldCat was too broad, but it appears to me that when you search it gives you the UC sources first. That's good. Because it seems to me that it could be made a default choice. If I particularly knew that I wanted a book that I could go to UCI and get, then it would probably be better to limit to UCI, but otherwise it seems WorldCat would be a good option." (P11)*

**RECOMMENDATION:** Participants indicated their preferred default scope to be either the local campus collection, e.g., 'UC Berkeley Libraries' or the systemwide 'University of California Libraries.' Because desired scope varied with the task and because scope proved easy for participants to understand and change, the choice of default scope is not very consequential.

- 2. The single, persistent search box worked well.** Participants valued the presence of a single persistent search box on every page, describing it positively as "Google-like searching." For the majority of their search sessions, nearly all participants entered search terms on whatever pages they happened to find themselves, although 'Advanced Search' was well-utilized by many when conducting specific searches, e.g., searching for the journal title *Nature*.

- 3. Inclusion of journal content was highly valued.** Participants valued the inclusion of journal content in WorldCat Local and frequently mentioned it as an important advantage over the current Melvyl. Nearly all participants (13 of 14) preferred for journal article content to be included; one had no preference.

*"Wow, articles are also coming up here. Of course it's really good – if it's really clear." (P1)*

*"If it's a shortcut to get to the article when I know the title... it could save some steps." (P14)*

*"All I need to know is are all the journals that are accessible through the UC system where you can get full databases, are those on this? Are they accessible through the title?" (P14)*

- 4. Finding materials in specific formats worked well.** Participants were successful using facets or the search box to find items in particular formats – scores or CDs.

- 5. For test participants, the primary use of Melvyl is as a fulfillment tool; they do not regard Melvyl as a primary tool for discovering unknown items.**

Participants made a clear distinction between several kinds of searching, reporting that they use Melvyl far more often to obtain something they already know about than to discover things they don't yet know about. Participants reported that they never or rarely used Melvyl for "looking up a person's work, finding all the editions of a work, browsing, preliminary research or discovery of new materials in their fields of expertise." They mentioned, instead, listservs, publisher Web sites, the *New York Review of Books* and other journals that review books, library new books displays, Google, Google Scholar, and a range of licensed resources.

Despite our efforts to present participants with tasks that would require them to interact with large-set results, most resisted. Instead, participants reported that they

wouldn't use Melvyl or the local library catalog for many of these tasks, explaining patiently that they instead preferred to do them in environments where more full text and context can inform the discovery process.

*"Most of the time I come with a specific item in mind – about three-quarters of the time. The other quarter of the time is when I'm starting a research project and I just want to find one book... or I might try to put together a list of them." (P5)*

*"I rarely research by subject. I'm usually looking for a specific book." (P3)*

*"When we [scholars] ask these questions, we go to Google. So when we go to a library's Web site, the priority is to see if the source is here, in the library." (P6)*

*"If I wanted to know something about the book – let's say I wanted to look up the date of the latest edition – I wouldn't go to Melvyl for that. I would just go to Google. I would just put in "Orientalism"... I would never even think of going to Melvyl for that. But if I wanted to borrow the book, then I would definitely go to Melvyl." (P12)*

Importantly, participants described Melvyl and local OPACs as essential tools for gaining access to specific items they already have in mind. Ease of obtaining is paramount, and a system that provides access, whether through call numbers to local holdings, ILL, DDS, Request or full-text linking, is indeed highly valued.

- 6. Order of search results needs adjustment.** Participants expect search results to be in order of "relevance." Most participants were able to articulate a fairly high level of awareness of the several factors – relevance, popularity and location – which contribute to the current ranking of search results. However, consequences of this present ranking, which puts the most relevant systemwide items after the least relevant local items, were not clear to participants. When we pointed this out, participants expressed concern and unease.

*"What came up first is the 'Bible' of this stuff, so it's totally expected... it makes sense that the most important seminal works come up first." (P12)*

*"Landmark books are expected to be among the first." (P2)*

*"Oh! That would maybe be a problem because I feel like when you see number 1 it is supposed to be the best one." [Reflecting on role of location in the sort order] (P10)*

**RECOMMENDATION:** OCLC should change the default ordering of search results to relevance weighted by holdings, without local/systemwide/worldwide location as a factor. The scope dropdown menu should be the control for focusing on content at the local, systemwide, or worldwide level – it's simple, effective, well-understood and widely used. This eliminates the hidden danger of more relevant, less local results unpredictably far down in the search result, as is currently the case.

- 7. Some bibliographic details important to scholarly users are not displayed.** Both the search results and item detail pages lack bibliographic information commonly used by the academic community, e.g., series statements. Test participants expected to see the title of a series on search results and item details pages for items in a series, and couldn't identify those items without that information. The series title problem has already been fixed, during the course of testing. However, there are comparable details for music, maps and archival materials; many of them already identified in the reports of the UC subject task groups, focusing on the tasks most common and critical for advanced researchers.

**RECOMMENDATION:** OCLC should conduct a thorough analysis of what bibliographic details should be displayed on the search results, on the item display, and of what things are separately indexed to support scholarly use, leading to design changes for these pages and inclusion of additional bibliographic content.

- 8. Presentation of editions needs adjustment.** The majority of participants articulated that the ability to locate a specific edition of a work was vital, be it the earliest edition, the latest or the latest during an author's lifetime. However, given the task of locating the most recent edition of a specific work, performance was poor. Also, participants accepted the default when not directed to find a specific edition, without recognizing that it was not the edition they later described as preferable (earliest or latest) but rather the most widely held edition that is also held locally.

*"As a historian, I usually prefer to read a first edition of something if it's primary; if it's secondary, the most recent." (P4)*

*"Editions matter, they definitely do. It's important to know the year, the first and the most recent. The first edition is generally more relevant—chronological development of an idea, from author to author." (P6)*

**RECOMMENDATIONS:** OCLC should modify how editions are indicated and displayed on both the search results display and item level display. On the search result list, the default display should be the most recent local edition, not the most widely held local edition; include a link to the list of available editions. On the item level display ('Editions' tab) list items in reverse chronological order without regard to location (local/systemwide/worldwide).

- 9. Searching for journals and journal articles needs to be improved.** Participants had varying degrees of success in completing tasks where they were required to locate journals and journal articles, given a known item identified by an article title and an author name. Participants' ability to discover articles they did not already know about was not tested. Although participants expressed interest in using WorldCat Local to access items they already know about, *i.e.*, known item searches, they explained repeatedly that Melvyl is not a system they would use to discover the existence of articles they don't already know exist.

Many participants expressed a strong desire for the ability to search a journal "field" or journal title index; most of those who did request the ability to search by journal title were motivated to look for that functionality on the advanced search page. Those who arrived at 'Advanced Search' and attempted to limit their search by format did not easily recognize the format 'Serials/ Magazines/ Newspapers' as including journal titles. Others described how the current Melvyl contains a "convenient" dropdown box with frequently used search fields, *e.g.*, journal title, author name, etc.

**RECOMMENDATIONS:** OCLC should add the ability to search a journal field or journal title index to 'Advanced Search'; rename the current 'Serials/Magazines/Newspapers' format limit to include the term 'journal'; explore the possibility of providing a facet for journal titles; explore the possibility of sorting search results by journal title.

- 10. The inclusion of journal articles created confusion between books and book reviews.** Participants failed to recognize book reviews and distinguish them from the books being reviewed. Although participants had no trouble recognizing the article icon, they were slow to understand the nature of the article content, in this case, books reviews.

**RECOMMENDATION:** OCLC should consider whether there is additional information available about article genre that can be included in the initial search result display.

**11. Navigation needs adjustment.** In general, participants utilized the browser 'back' button to navigate. Although sometimes cumbersome, this was not confusing or problematic; however, participants requested specific improvements to the number of items displayed in a search result page and the addition of a 'Back to Search Results' link.

*"That word 'Back' – I appreciate that as a user." (P1)*

*"Is there any way of increasing the number of results on a page? What takes time is clicking on 'Next'." (P2)*

**RECOMMENDATION:** OCLC should refine the initial search results page to allow users to increase the number of items displayed; provide a 'Back to Search Results' link on item level display pages.

**12. Options for beginning a new search need adjustment.** Participants valued the presence of a single search box on every page, but because of the persistence ("stickiness") of advanced search values, need an easier way to clear previous search values and begin a new search. Participants expected their most recent choice of collection scope (local/systemwide/worldwide) to carry over to the 'Advanced Search' page. However, participants did not expect or want other values to carry over when their intention was to begin a new search. Participants in this situation did not use the 'Clear' button on the Advanced Search page. Users who selected 'Advanced Search' to begin a new search described having to "clean up" the search boxes, meticulously deleting search terms, but they often forgot to clear optional limits, such as format.

*"I went back to the home page – I thought I had a clear slate. That's how I think about it." (P1)*

*"I have to do the cleanup." (P12)*

Participants described a desire to begin a new search that would inherit none of the previous search values – a type of "clean slate." Some discovered and utilized the 'WorldCat Home' link from the Home menu (top white horizontal bar).

**RECOMMENDATIONS:** OCLC should review and refine the mechanisms available to users for clearing search values, and the circumstances under which values remain persistent, with the goal of making them more obvious, intuitive and consistent. Additional suggestions include:

- The 'WorldCat Home' link in the 'Home' menu should be renamed to reflect the correct name of the system, e.g., 'Melvyl @ UC Irvine Home.' Choosing this link should clear all search values, including those entered on 'Advanced Search.'
- Advanced Search 'Clear' button should be redesigned to increase usability.
- Establish and emphasize a way to begin a new search.

**13. Scholarly workflow is not completely supported.** Participants' workflow is heavily dependent upon highlight-copy-paste, creating and maintaining Word documents, and e-mailing citations.

*"I copy, cut and paste the bibliographic information into the document. I tried to use the EndNote program but didn't find it very user friendly." (P4)*

*Now that I'm using Zotero, I would take a bunch [of citations]... Those tags go straight into Zotero." (P1)*

*"Sometimes I click on those little boxes, and then e-mail that to myself... I e-mail a bunch of call numbers to myself with author, title and call number." (P2)*

Repeatedly, participants described a workflow that was heavily dependent upon keeping lists of items, a type of "running" bibliography of citations, on their personal computers. Their workflows within the OPAC environment frequently include highlighting text – either on the initial search results or the item details page – and copying and pasting it into an e-mail message to themselves or into a Word document. Call numbers are important in this process.

No participants reported using EndNote or other citation tools, and although some were apologetic or embarrassed by their reticence to integrate a citation package into their workflow, most seemed content with the highlight-copy-paste technique. Some participants reported that when saving the full-text of an item on their machine is possible, they do that rather than save a citation.

**RECOMMENDATIONS:** OCLC should modify the display of bibliographic information on both the initial search result and item detail pages to accommodate highlight-copy-paste citations. The system should support users in e-mailing lists of citations to themselves without first having to create an account or sign in.

- 14. Scope of journal content is not clear.** Participants were mostly mistaken in their expectations and impressions of how comprehensive journal article coverage is. WorldCat Local currently includes journal article content from MEDLINE, ERIC, OCLC ArticleFirst, OCLC Electronic Collections Online and 20 million British Library Inside Serials records. A majority of participants (9 of 14) reported that they expected journal article coverage to be more comprehensive.

*"Integrates several databases – the big ones – JSTOR, EBSCOhost." (P4)*

*"Overlaps pretty much exactly with SciFinder Scholar." (P7)*

*"All the journals that are accessible through UC-eLinks are searchable through this database. That would be a lot broader than if you go to MLA or Sociological Abstracts or PubMed – it's all separated that way. But here it seems you get access to all of those." (P11)*

**RECOMMENDATIONS:** Recognizing that users expect librarians to have made careful decisions regarding what article content is included in WorldCat Local, UC should develop principles and rationale for content inclusion, advising OCLC on collection development priorities and identifying appropriate mechanisms for selection and deselection of article content. Additionally, information regarding the scope of article content included in WorldCat Local should be made easily available to users.

- 15. Getting electronic content is problematic.** While the inclusion of journal articles and the proliferation of electronic content were valued by participants, their inability to successfully access electronic content should be considered a critical problem.

*"I thought from the search results I had a shot to get it." (P1)*

*"There's got to be a better way of doing electronic resources." (P4)*

On both the search results page and the item-level detail page, participants experienced

confusion and performance was poor when trying to access electronic items. After scanning either page, participants often drew incorrect conclusions about the availability of electronic resources and the path most likely to result in successful fulfillment.

The 'Internet Resource' icon was frequently interpreted as *the* marker indicating the presence of online content.

*"It said it was available online – it said Internet Resource." (P10)*

*"It has the Internet Resource icon – so the answer is yes to the question about whether it's available online." [Participant then tries to click on 'Internet Resource' icon] (P6)*

*"I can't find it online because there's no Internet Resource button." [Participant viewing search results page] (P10)*

Test tasks specified six different electronic resources including a journal, a journal article, an online newsletter and three books, available in a range of formats and from differing sources. Over the course of the test, participants tended to acquire a preference for one button or link on 'Item Details' pages over the other, most often the link below the label 'Internet resources found.' In light of the high rate of failure to complete the tasks successfully, it is essential that the number of choices on an item detail page be reduced.

Some conditions of the test environment will be different in the near future, most notably, the presence of the 'UC-eLinks' button on item detail pages. Currently, UC-eLinks is serving as the vehicle by which users can connect to Request; this will no longer be the case after the 'Request' functionality is fully implemented in the coming months. During the test, there were a significant number of instances where participants selected 'UC-eLinks' expecting a path to full-text when there was none—a condition that was both triggered and exacerbated by the ubiquitous presence of the 'UC-eLinks' button.

**RECOMMENDATIONS:** UC should consider the mix of links on the item detail page, some of which are supported by UC and some not. UC should establish guidelines for when the 'UC-eLinks' button appears and what priority it should have in relation to alternative paths. OCLC should provide a more reliable indicator of electronic access on search results pages, including when access is provided through UC-eLinks.

## VII. Summary

Participants reported being largely satisfied with WorldCat Local as a basis for a Next Generation Melvyl system, considering the sorts of tasks they reported that they would bring to Melvyl. However, their remarks and performance completing test tasks indicated that there are a number of issues requiring the attention of both UC and OCLC.

Based on our test results, we feel that addressing journal article coverage and access to electronic resources ought to be the highest priority for UC and OCLC. Validating changes to those areas of the system is the highest priority for further testing.

## TEST TASKS

1. [We suggested, for each participant, topics we'd heard them mention in the introductory discussion of their own research, and asked them to search on a topic of their own choosing in order to assess the quality, comprehensiveness and currency of results.]
2. You're looking for statistics on U.S. housing from the 2000 census. Where can you get them?
3. You want to read John Hope Franklin's *From Slavery to Freedom*. Is it available at Berkeley [or Irvine]?
4. You are interested in the influence of Edward Said's book *Orientalism*. How many editions have been published? Is the latest edition available at Berkeley [or Irvine]?
5. You've found an interesting book, *An Englishwoman in a Turkish Harem*, by Grace Ellison in the series *Cultures in Dialogue*, and you wonder whether others in this series have a similar focus. Which ones do?
6. You're looking for a score and a recording of Mozart's *Symphony 550*. Is either available at Berkeley [or Irvine] now?
7. You want to scan articles in the British journal *Nature*. Is it available online?
8. You want to read *Community-Level Determinants of Child Growth*. Is it available online?
9. You want to read *Marketing Nutrition: Soy, Functional Foods, Biotechnology, and Obesity*. Is it available online?
10. You want to read the article "Words, Music, Opera" by Terry Teachout. Is it available online?
11. You're interested in the newsletter *Global Health Matters*. Is full text available?
12. Can you get the full text of *Child and Adolescent Mental Health Policies and Plans* by Michelle Funk?