

UC-eLinks Usability Testing, October 2003

Introduction

During October 2003, CDL staff conducted usability tests at two campuses, UCSC and UCSF, with a total of 9 participants. The goal of the testing was to find out how and if users could easily navigate from a citation in a journal article database via UC-eLinks (where applicable) to either the online full text of an article, the call number for the print version or if they could submit an Interlibrary Loan Request for items not available on their campus.

Methodology

Prior to the test, each participant was asked to fill out a demographic questionnaire (see Appendix A: Pre-Test Questionnaire). The participants were then given a set of tasks to complete and were observed while performing the tasks. Each task was given to the participants in writing and read out loud to ensure that, for each participant, the task was described in the same way. While the participants were completing the tasks the experimenter encouraged them to "think out loud" (verbalize their thoughts as they completed each task). The observer recorded the participants' "click trail" and any comments about the system. After the session, participants were asked to share overall impressions.

For each task, participants were placed at the results page in one of CDL's most heavily used journal article databases (based on our statistics) and asked to find a given article either in print or electronic format. (Since we were not testing the participants' ability to use journal article databases, the searches were run ahead of time.) Each participant was asked to complete 9-10 tasks, using 3 different databases (see "Appendices B and C: Tasks" for the tasks and the databases). A potential problem when testing several interfaces with one participant is the "learning transfer" effect; that is, participants can potentially learn how to use the second and third interfaces more effectively based on having used the first one—which they did. In our tests, we limited this effect by alternating the order of the interfaces the participants tested.

Participants

Campus staff secured the participants for the usability tests. Three of the five participants at one campus worked in the Library and a fourth was the child of a faculty member at another UC campus who had used the UC library, its resources and catalogs extensively since high school. CDL staff recognized that they would probably have different results on the usability tests had they used a less library-savvy group of participants. To discover all the problematic areas of these tools, we would need to do more testing with complete novices. Nonetheless, useful results were obtained.

Status

- 5 undergraduate students (ranging from freshman through senior)
- 2 staff members who regularly helped faculty PIs in conducting their research
- 2 graduate students

Discipline

- 1 humanities
- 1 social sciences
- 1 sciences
- 1 double major humanities/social sciences
- 4 medical and nursing fields


Findings

Summary

- Overall, there is little confusion about UC-eLinks interface.
- All participants, regardless of whether they had prior knowledge of UC-eLinks or not, clicked it without prompting.
- If there was no full text, participants chose the first link on the UC-eLinks window, “See if your campus has this. Select the Full Record on Melvyl.” They were then sometimes confused by Melvyl itself. Due to the minimized Melvyl window, it was hard to understand where they were. Because going to Melvyl did not match their mental model they may have thought they were being taken directly to the full text (ideally a PDF link) or to a page that clearly indicated that there was no online version available, and was going to show them how to get the print.
- Participants preferred the Gale and PubMed interfaces because they offered the most direct access, in many cases, to the full text—via pdf or publisher links.
- Classroom instruction was an effective way to make students aware of these tools and services.

Possible mitigations and action items follow some of the findings below. Many of these, for example those relating to Melvyl, would most likely not occur until a new version of the Aleph software was made available. In other words, although changes are desirable, they may not happen until a logical next time to bring in multiple changes at one time.

Details

1. Because of the pervasiveness of the UC-eLinks icon (), visible in many databases licensed by the CDL and on all records within those databases, all participants found and clicked on the icon in order to track down items in full electronic text or print. Some participants had not heard of nor seen UC-eLinks before the usability testing, others had either come across it themselves or learned about it in classes taught by librarians.
2. Most users did not notice the gray area on the UC-eLinks screen that repeats the article citation (Figure 1). The citation becomes convenient when the user needs to go back and forth between the citation and the catalog record or the **Available Online** link in the catalog, and does not choose to return to the vendor site list of citations.

Close this Window [More](#)

UC-eLinks

Title When creators, corporations and consumers collide: Napster and the development of on-line music distribution.

Source Media, culture & society [0163-4437] McCourt
yr: 2003 vol: 25 iss: 3 pg: 333

[See if your campus has this. Select the Full Record on MELVYL](#)

Figure 1

Possible Mitigation: Work with web designer to make information in gray box more visible.

Action: CDL will take the lead, consulting with campus groups.

3. Participants were not likely to click on “More” because its usefulness was not clear (Figure 1).
Possible Mitigation: Change “More” to “Help”.
Action: CDL will make this change. This will be on a list with other priorities.
4. Participants appreciated full text links, and their placement as the first item on the UC-eLinks menu. They were able to get to full text even when the link did not link directly to the item, but to the journal title level. That is, they were able to navigate successfully the variety of vendor web site interfaces presented to them.
5. When linking to Melvyl, several participants were baffled by retrieving zero results (Figure 2). Upon reading the on screen message, participants were unclear as to next steps.

Saved Items

Your search retrieved zero items. Try entering new terms or running your search in the keyword index.

Basic Search: **Entire Collection** [Change Collection](#)

Words as Phrase

Search: No Yes

Figure 2

One participant was unable to complete the task of going back to the UC-eLinks window and selecting Request.

Possible Mitigation: Explore using other language upon receipt of zero results, since some users will receive this message when coming from UC-eLinks. When they do, the particular message they receive, “Your search retrieved zero items. Try entering new terms or running your search in the keyword” is not useful and is confusing to them. An alternate might be, “Your search retrieved zero items. Consult a librarian for help.”

Action: Requires fuller consultation internal to CDL with Melvyl Operations Team and campus groups.

6. The participant who was not a library employee never discovered library holdings, and the print version of an item because she never clicked on **Full Record** during the entire test period. While all other participants did click on **Full Record**, some circled around the screen several times before clicking on it, and did not always seem to remember that **Full Record** was the place to click to find campus holdings.

Possible Mitigation: Explore other terminology for **Full Record**.

Action: Former campus Melvyl Education/Usability and Services Team members have been consulted. CDL Melvyl Operations Team will make a final decision, since this has high impact on language in Help, guides, and campus training materials.

7. During the debriefing we explored the possibility of having another link in the UC-eLinks window for the campus OPAC. Some students said they would like to have a link to their campus OPAC; however, we are concerned that when confronted with zero results, more often than would occur in Melvyl, they would be confused and not understand what next steps to take.

Action: Campuses should decide whether or not to add links to their campus OPACs in the UC-eLinks pop up window.

8. Several participants mentioned training was an effective method of making students aware of UC-eLinks and how to use it.

Relationship to Melvyl

9. Most participants were able to navigate in Melvyl when it was necessary to select this link. However more than one novice user was puzzled by the way the window popped up with **Display** and **Sort options** prominently displayed in the Melvyl pop-up window, and never clicked on **Full Record** in order to display holdings information, even when the participant opened the window fully.

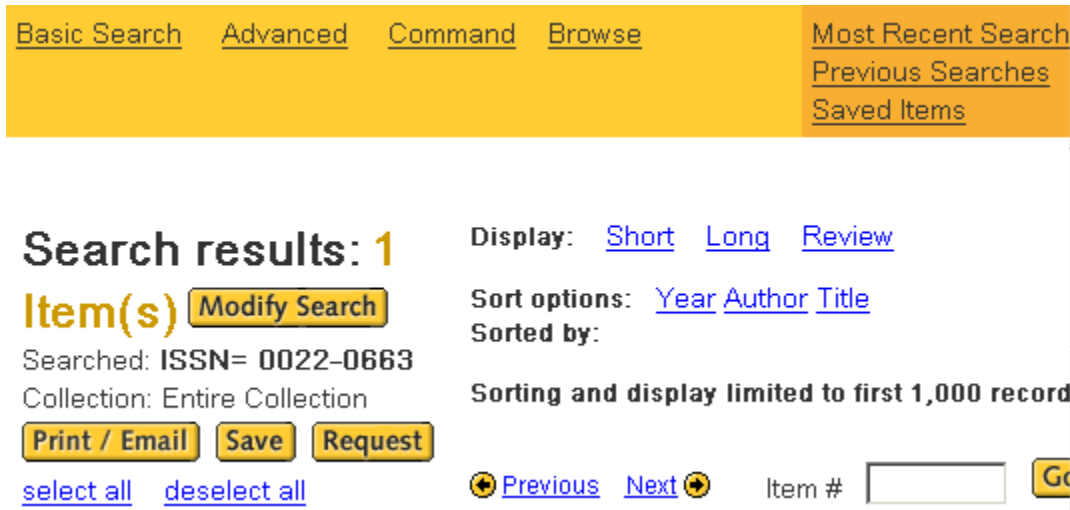


Figure 3

Another area of confusion was the **Item #**. One participant wondered whether it was for entering some part of the journal article citation from the database site.

Possible Mitigation: Explore opening up the Melvyl screen fully when this is selected on the UC-eLinks window; explore using other terminology for Full Record.

Action: Melvyl Operations Team will explore and consult with campus groups before a decision is made.

10. Many participants expressed the desire to have the call number/library location information they needed on the first Melvyl screen or as an active link from the first screen to their campus information—ideally a link directly to full text (Available online) or to print holdings as a far second choice. This is not possible with the current Ex Libris Aleph 500 software for a union catalog.
11. One user did not understand what Melvyl was, and seemed to treat it as if it were a journal article database.

Comments on Vendor Interfaces

CSA

12. There were mixed reactions to the CSA interface—some liked it; others did not. All found and clicked on the UC-eLinks icon, either directly or after exploring the interface first. Some were overwhelmed by the information they saw after clicking, **View Record**. Some users clicked in the check boxes after retrieving their results, then clicked UC-eLinks or **View Record**—not a fatal error, but unnecessary for the task.

Gale

EMeltzer

1/5/04

E:\projects\uc_eLinks\usability_fall2003\ucelinks_usability_final_report.doc

13. Those who commented thought the interface appeared simple, non-cluttered, and preferred when the PDF icon appeared on the first page. They were able to distinguish when something was an abstract or full text by hovering over the icon and reading the alt tag. One wanted a legend on the left to distinguish what Gale's icons meant. Some were confused by full text when article was only very short; it was unclear that this was the entire article.

Possible Mitigation: Indicate when something is a full article, even when brief.

Action: CDL will refer to Gale

14. Although most did not click to a second Gale page by clicking on the abstract, one who did suggested that the UC-eLinks icon be located at the top of the page, rather than at the bottom.

Possible Mitigation: Move UC-eLinks icon up to top of page on second page (after clicking abstract icon).

Action: CDL will refer to Gale.

Ovid

15. Participants never used the Ovid navigation tools ("Return to Ovid Session"); instead they used the browser back button. One user explicitly wanted to see search results stay on the screen; others were momentarily baffled by the search results being replaced by Ovid's interim screen with no citations.

Action: CDL will refer to Ovid.

PubMed

16. All UCSF participants were familiar and comfortable with this interface. They were not fazed with the fact that publisher icons and UC-eLinks were not on the first page. All clicked on either the title or abstract icon to get to the items. When a publisher icon was present, participants chose that to access the article. One participant to whom we showed the multi-item Citation List was delighted with this feature.

Web of Science

17. In trying to find direct links to full text, several users clicked on the "Cited Reference" link. They had to go into the second screen to find the UC-eLinks icon; this was not a favored interface.

Appendix A

Digital Library Services – Questionnaire (UCSC)

1. Are you:

- UC undergraduate student
 UC graduate student
 UC faculty
 Other

2. Field of study _____

3. What is your native language? _____

4. How many Library Instruction classes have you attended?

- None
 1-2
 3-5
 6-10
 Unsure

5. Approximately how often do you use your campus library (including in person and via the web)

- At least once a week
 A few times a month
 A few times a semester
 This is my first visit

6. How confident are you in your ability to do academic research using the Internet?

- Very comfortable
 Somewhat comfortable
 Not comfortable at all

Digital Library Services – Questionnaire (UCSF)

7. Are you:

UC graduate student

UC faculty

Other

8. Field of study _____

9. What is your native language? _____

10. How many Library Instruction classes have you attended?

None

1-2

3-5

6-10

Unsure

11. Approximately how often do you use your campus library (including in person and via the web)

At least once a week

A few times a month

A few times a semester

This is my first visit

12. How confident are you in your ability to do academic research using the Internet?

Very comfortable

Somewhat comfortable

Not comfortable at all

Appendix B – UCSC Tasks

The participant is told to get the following items either in print or electronic format. The searches have already been completed in different databases, and participants are handed the items one at a time. They are told to indicate when the task is complete.

Get the item titled - “An examination of the effects of stress management training for Japanese college students of social work” [CSA –PsycINFO]

Get the item titled - “Helping College Students Succeed: A Model for Effective Intervention” [CSA –PsycINFO]

Get the item titled - “Roles of leisure in coping with stress among university students: A repeated-assessment field study” [CSA –PsycINFO]

Get the item titled – “Digital music and online sharing: software piracy 2.0? Considering the similarities and unique characteristics of online file sharing and software piracy.” [Gale—Expanded Academic ASAP]

Get the item titled – “Don Quixote and digital snake oil: the importance of tilting at windmills.” [Gale—Expanded Academic ASAP]

Get the item titled – “When creators, corporations and consumers collide: Napster and the development of on-line music distribution.” [Gale—Expanded Academic ASAP]

Get the item titled – “Self-handicapping, defensive pessimism, and goal orientation: A qualitative study of university students” [Web of Science]

Get the item titled – “Moralization of college grading: Performance, effort, and moral worth” [Web of Science]

Get the item titled – “Gifted black males in a predominantly white university: Portraits of high achievement” [Web of Science]

Appendix C – UCSF Tasks

Get the item titled - “Randomized controlled evaluation of the effects of cognitive-behavioral stress management on cortisol responses to acute stress in healthy subjects” [CSA –PsyncINFO]

Get the item titled - “Efficacy or effectiveness: which comes first, the cure or the treatment?” [CSA –PsyncINFO]

Get the item titled – “Rational thinking and stress management in health workers: A psychoeducational program” [CSA –PsyncINFO]

Get the item titled – “Mismatch negativity in evoked brain potentials in adolescents in normal conditions and attention deficit in response to presentation of short-duration acoustic stimuli.” [PubMed]

Get the item titled – “Autonomic responses in boys with externalizing disorders.” [PubMed]

Get the item titled – “Adult age differences in episodic memory: Further support for an associative-deficit hypothesis.. ” [PubMed]

Get the item titled – “Adult age differences in episodic memory: Further support for an associative-deficit hypothesis.. ” [PubMed]

Get the item titled – “Psychiatric disorders and psychiatric consultation in a general hospital: A case-control study” [Ovid-BIOSIS Previews]

Get the item titled – “Recognizing stress in postgraduate medical trainees” [Ovid-BIOSIS Previews]

Get the item titled – “Medical cost and illness pattern among Ramathibodi medical students” [Ovid-BIOSIS Previews]

Get the item titled – “Cellular and humoral immunity, mood and exam stress: The influences of self-hypnosis and personality” [Ovid-BIOSIS Previews]