



Evidence Summary

Usability Study Identifies Vocabulary, Facets, and Education as Primary Primo Discovery System Interface Problems

A Review of:

Brett, K. R., Lierman, A., & Turner, C. (2016). Lessons learned: A Primo usability study. *Information Technology and Libraries*, 35(1), 7-25. <https://doi.org/10.6017/ital.v35i1.8965>

Reviewed by:

Ruby Warren
User Experience Librarian
University of Manitoba Libraries
Winnipeg, Manitoba, Canada
Email: ruby.warren@umanitoba.ca

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Abstract

Objective – To discover whether users can effectively complete common research tasks in a modified Primo Discovery System interface.

Design – Usability testing.

Setting – University of Houston Libraries.

Subjects – Users of the University of Houston Libraries Ex Libris Primo Discovery System interface.

Methods – The researchers used a think aloud usability test methodology, with participants asked to verbalize their thought processes as they completed a set of tasks. Four tasks were developed and divided into two task sets (Test 1 and Test 2), with session facilitators

alternating sets for each participant. Tasks were as follows: locating a known article, finding a peer reviewed article on a requested subject, locating a book, and finding a newspaper article on a topic. Tests were conducted in front of the library entrance using a laptop equipped with Morae (screen and audio recording software), and participants were recruited via an assigned “caller” at the table offering library merchandise and food as a research incentive. Users could opt out of having their session recorded, resulting in a total of fifteen sessions completed with fourteen recorded. Thirteen of the 15 participants were undergraduate students, one was a graduate student, one was a post-baccalaureate student, and there were no faculty participants. Facilitators completed notes on a standard rubric, coding participant

responses into successes or failures and noting participant feedback.

Main Results – All eight participants assigned Test 1 successfully completed Test 1, Task 1: locating a known article. Participants expressed a need for an author limiter in advanced search, and had difficulty using the citation formatted information to locate materials efficiently. Again, all eight participants found an article on the requested subject in Test 1, Task 2, but two were unable to determine if the article met peer review requirements. One participant used the peer-reviewed journals facet, while the rest attempted to determine this using the item record or with facilitator help. All seven participants in Test 2 were able to locate the book requested in Task 1 via title search, but most had difficulty determining what steps to take to check that book out. Five participants completed Test 2, Task 2 (finding a newspaper article on a topic) unassisted, one completed it with assistance, and one could not complete it at all. Five users did not notice the Newspaper Articles facet, and no participants noticed resource type icons without facilitator prompting.

Conclusions – The researchers, while noting that there were few experienced researchers and a narrow scope of disciplines in their sample, concluded that there were a number of clear barriers to successful research in the Primo interface. Participants rarely used post-search facets, although they used pre-search filtering when possible, and ignored links and tabs within search results in favour of clicking on the material's title. This led to users missing helpful tools and features. They conclude that a number of the usability problems with Primo's interface are standard discovery systems usability problems, and express concern that this has been inadequately addressed by vendors. They also note that a number of usability issues stemmed from misunderstandings of terminology, such as "peer-reviewed" or "citation." They conclude that while they have been able to make several improvements to their Primo interface, such as adding an author limiter and changing "Peer-reviewed Journals" to "Peer-reviewed

Articles," further education of users will be the only way to solve many of these usability problems.

Commentary

There is, as the authors of this study note, substantial literature available on the usability of discovery systems, and on the Primo interface in particular. This study, while not precisely replicating any previously published usability studies of the Primo interface, does not seek out or fill any gaps in the literature available; however, it is important to conduct usability studies periodically to identify needs or issues unique to an institution's local context, a purpose this study ultimately serves.

This study scored an 88% overall validity rating in Glynn's critical appraisal tool for library and information science research (2006), with points deducted for the lack of representative diversity in the study participant population (as noted by the study authors), and for the impact of observer bias and observer influence on the results. The authors note that usability study facilitators provided participants with guidance and prompting to use certain features, which negatively impacts the face validity of the study – completions obtained with facilitator assistance can't tell us if the user would have been ultimately successful independently navigating the Primo interface, and should have been recorded as incomplete tasks or invalid results.

Although study participants do not completely represent the spectrum of library users at the University of Houston Libraries, adequate information was collected from undergraduate students to inform design decisions that would impact them. Although the number of respondents might seem low for other types of research, for insight gathering usability studies a total of 13 participants is quite high and more than enough to inform design decisions (Nielsen, 2012).

The authors confirm a number of standard usability findings as valid, including reducing the amount of jargon and unclear terminology

used in web interfaces. Should they decide to pursue further research to confirm their hypothesis that instruction is the only way to reduce interface difficulties caused by a lack of understanding of research components, reducing observer influence on study results should be a top priority.

References

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