Aspen EBSCO Discovery Service (EDS) Integration Usability Test Report

August 2020

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Summary

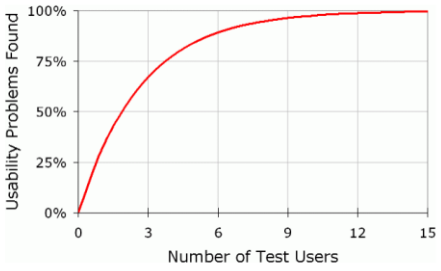
Robin Hofstetter, SWAN eResources Consultant, and Tara Wood, User Experience Manager, conducted remote usability testing of the EBSCO Discovery Service (EDS) integration into the Aspen catalog. SWAN is working with ByWater Solutions to test the Aspen Discovery platform to identify its ability to meet our discovery needs. The EDS integration is a new service in Aspen developed as part of this testing process.

4 people participated in online usability tests, each lasting about 30 minutes. Participants shared their screen and audio while the moderator walked them through a set of 5 tasks.

All participants were able to successfully navigate to the article results in the catalog, and they extensively used the dropdown search limit to “Articles & Databases” more than the researchers expected. Participants struggled with finding recent articles, since publication date does not appear in search results. In addition, “placards” that provide links to databases that are not integrated into EDS do not appear on the EDS results page – only the main catalog results page. As a result, participants that started their search using the “Articles & Databases” limit never saw the placards.

Methods

Remote usability testing



Usability testing is a design research method in which representative users – in this case, patrons who use the catalog – complete typical tasks. The standard number of participants for a usability test is 3-5 participants. The number of additional usability problems found testing with more than 5 participants drastically decreases. As Jacob Nielsen argues, "Elaborate usability tests are a waste of resources. The best results come from testing no more than 5 users and running as many small tests as you can afford."

SWAN staff recruited four participants through an online survey posted to the St. Charles Public Library catalog. Through a brief recruitment survey, participants were asked if they used online resources, what online resources they used from the library, and if they would be comfortable using online meeting software for the test. Respondents that were not willing to share their audio and computer screen in an online meeting were excluded from consideration. Selected participants received a $15 gift card.

Participant screening responses

Participant	**What online resources do you use from the library?**	**Have you seen this screen before? [Article Search in Enterprise]**
A	e-audiobooks, magazines	Yes
B	Consumer Reports	No
C	Newspaper reading in ProQuest and genealogy research	Yes
D	Hoopla, Overdrive, Online Catalog	No

While we intended to exclude library staff from this round of testing, we realized after testing was complete that one participant is a library employee – Participant A. We decided to include our findings from this participant in the results.

These usability tests were conducted remotely through the GoToMeeting platform. Participants shared their screen and their audio, and optionally video if they were comfortable. Robin Hofstetter, SWAN eResources Consultant moderated the tests, and the Tara Wood, User Experience Manager, took notes. Sarah Slack, St. Charles Public Library Electronic Resources Librarian, observed the first session. Tests were scheduled for 30 to 45 minutes.

Key Findings

1. Placards are an effective way to include resources in the catalog – but design and placement are important

Participant A did not notice the Consumer Reports placard in the "Library Catalog" limited search results. The placard featured a description of the resource, but it did not include a clear heading. For the subsequent tests, the researchers changed the design to include a heading that was similar in size to book and media results in the

catalog. Subsequent participants presented with the placards immediately noticed them.

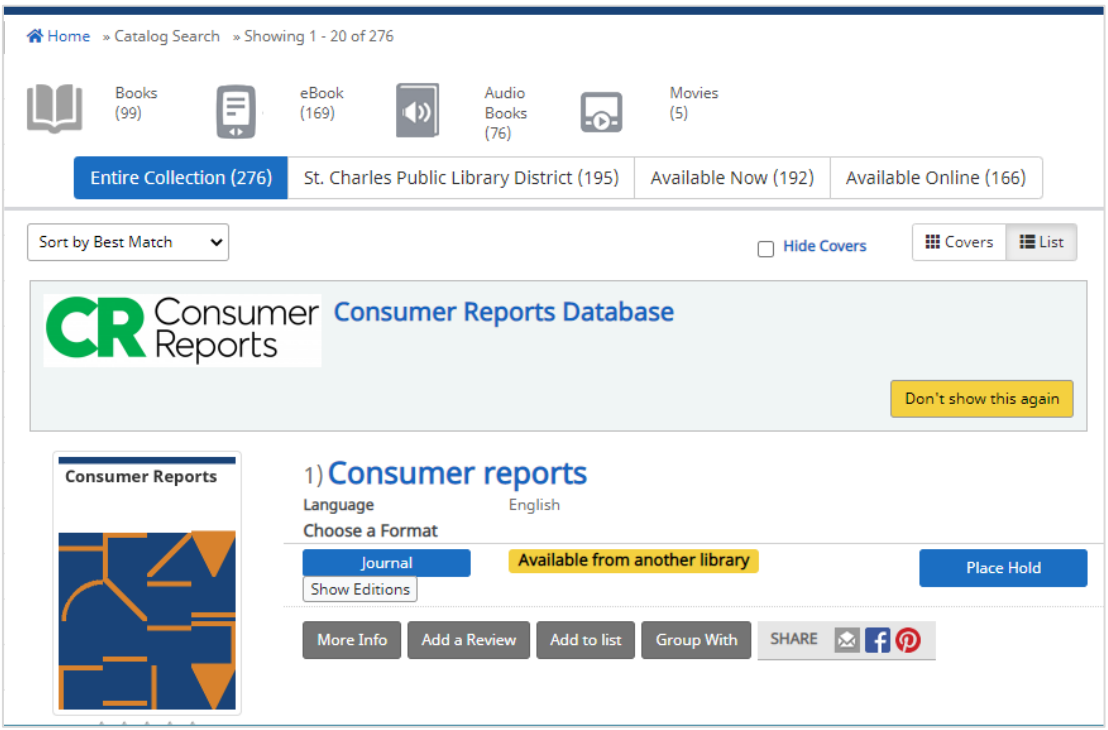


Figure 1 Consumer Reports placard, using a clear heading

Participants B and C immediately limited their searches for Consumer Reports to "Articles & Databases." Therefore, they didn't see the placards until prompted to search in the "Library Catalog" limited search later in the test.

Participant D immediately noticed the placard but thought it was an ad and was extremely hesitant to click on the link, even with the change in the design.

Recommendation 1a: Include placards on the EDS search results page

Ideally, users would see placards no matter what search limits they chose and have the opportunity to course-correct if they choose the wrong limit.

Recommendation 1b: Design placards to closely mimic search results, with a clear heading and brief descriptive information.

In Aspen, providing a heading field that would use the same styles as search results would help to keep the styles between placards and results more consistent in appearance.

2. Publication date and name are key to understanding and using search results

Participants expected to see the date of the article, since they were often looking for the most recent results. In addition, they struggled to find results from newspapers – the publication title wasn't present, only the database name, and they seemed to think the "found in" information was the publication name. While they could use the "Sort by" dropdown, participants either never noticed the dropdown or only noticed it after investigating the rest of the search result facets.

Recommendation 2a: Include publication date and name in the EDS search results display

Including the "Source" field from EDS would include the publication name and date of publication. This information would help users find the most recent articles and identify newspapers and magazines they are familiar with.

Figure 2 EDS result in Aspen with the Source field added

Recommendation 2b: Investigate adding a publication date filter

The native EDS interface includes a publication date. This would help users to locate recent articles, especially if they do not notice the sort dropdown option. We've seen users struggle with the sliding date filters in the past, so starting with a text field for year is preferred.

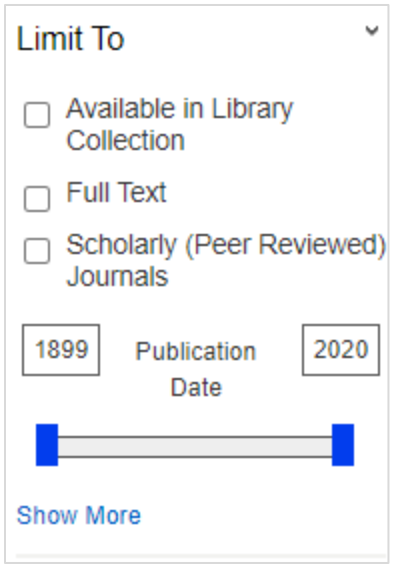


Figure 3 EDS interface, publication date filter

Recommendation 2c: Use the label "Database" instead of "Found In"

Using the label "Databases" ensures users don't mistake the database name for the publication name - this is an easy change configurable in Aspen.

Additionally, linking the database name would help users access similar results and identify specific databases that could be helpful in their research.

3. Dropdown limit menus were used extensively, though not always to the user's benefit

The researchers hypothesized participants would not use the dropdown limits in the search, since this has been the case in usability testing of the Enterprise catalog.

However, all participants used the dropdown search limits extensively.

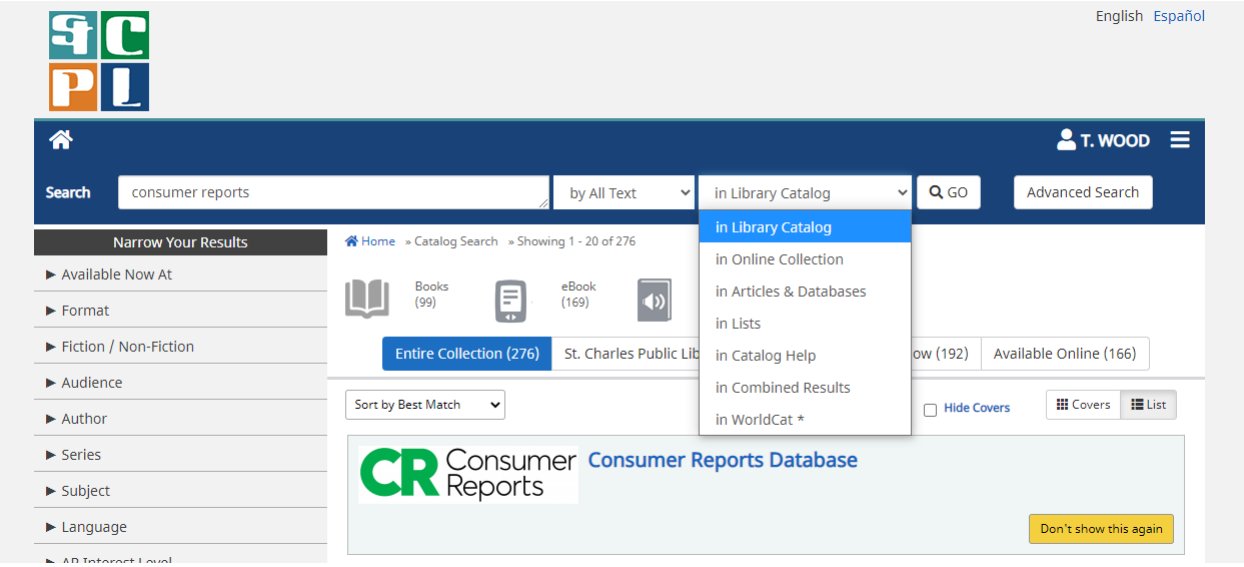
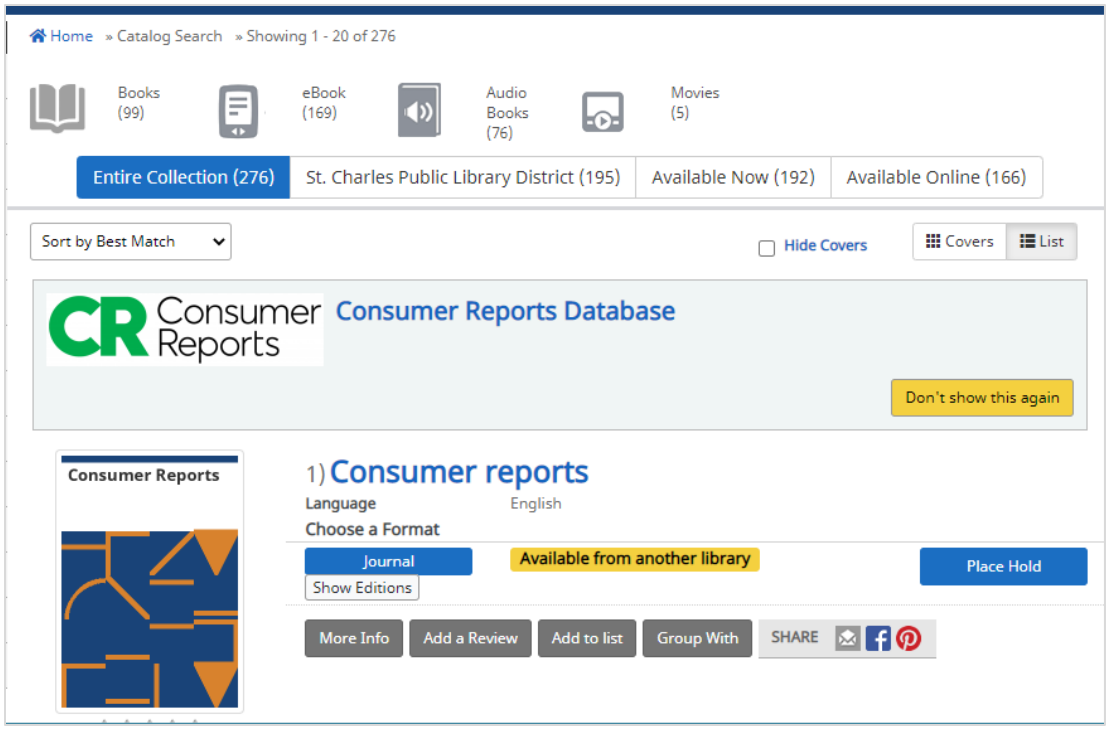


Figure 4 Dropdown limits in Aspen

That said, elements of the dropdown limits were confusing to participants and they sometimes made limit decisions that excluded relevant results.

Two participants used the “Online Collection” limit when searching for articles, even after using the Articles & Databases limit successfully previously in the test. They both expected this limit to include all online items. This limit includes eBooks and download and streaming results.



One participant consistently used the "Source" limit for EDS results in Aspen when searching for topics and article titles, even though they said they did not know what "Source" meant. This limit would search the publication title information.

Recommendation 3a: Change the "Source" label in the limit dropdown, or reduce the number of EDS search limit options

The EDS interface uses the label "Journal Title/Source" in the Advanced Search. Updating the Source dropdown label to match could help with some of the confusion – out of context it is hard to tell what "Source" refers to. Including the Source field in the results, as recommended in 2a, may also be all that is needed so that users have a cue that tells them what the Source field included.

Alternately, only Keyword, Author, and Title appear in the basic search in the native EDS interface. The other limits – Source, Subject Term, ISSN, and ISBN – appear only in the advanced search. It's possible these limits in Aspen could confuse more users than they will help, but they may also be important for researchers. Additional research is needed to understand the impact of removing those limit options in Aspen.

Recommendation 3b: Change the "Online Collection" label

With the addition of EDS, there are two online collections. Further research is needed to identify a label that would clearly indicate this limit will show eBooks, eAudio, streaming video, etc.

Making the search limit labels editable could also solve this issue and allow for flexibility in testing out alternate labels. Not all Aspen users include the EDS integration, so this issue would only apply to those libraries using EDS.

Issues & Task Completion Rates

Task 1

Success Criteria: Find and click on the Consumer Reports placard

Pass: 1 out of 4 (one with difficulty)

Participant A searched the "Library Catalog" results, which returned a placard, but they didn't notice it. Instead, they investigated the item results for physical Consumer Reports buying guides. For subsequent tests, the placard design was changed to use a heading that looked similar to the titles in item search results.

Participants B and C both immediately used the "Articles & Databases" limit, so they never saw the placard. Participant B searched for "Consumer Reports refrigerator" and returned article results that they found relevant – these were for online versions of the buying guides available through MasterFile Premier.

Later in the test when prompted to search in the "Library Catalog" results, both participants immediately noticed the placard with the altered design. Interestingly, Participant B preferred the article results over the placard because they were more specific though they noted that the Consumer Reports logo was what they had expected to see when they searched.

Participant D was the only participant to notice the placard, which they noticed immediately but thought that it was an ad and did not want to click on it. After investigating more options on the page and going to the second page of results, they finally decided to give the link a try.

Task 2

Success Criteria: Find news article results on Bryce Canyon through the Explore More section of "Library Catalog" results, or use the "Articles & Databases" dropdown limit

Pass: 2 out of 4 (two with difficulty)

All participants successfully searched in the "Articles & Databases" section and found results, but when they got to the results, they were not sure what was a news article. Participants A and B eventually found news articles scrolling and looking through the format information in the results. Participant C never saw a news article and they gave up and didn't click on any results. Several participants noted the "Found in" information, which listed the database for the result, seeming to think it was the publication information.

Task 3

Success Criteria: Find and open a scholarly full-text article about Jane Addams (optional: use the Scholarly Journal facet)

Pass: 3 out of 4

Participant A began their search using a search for "Jane Addams scholarly articles" and the Online Collection limit, which limits to eBook and streaming collections. They noted, "When my kids bring home an assignment and it has specific words we just start from that." They also noted that they used Online Collection as a limit because that is what is most accessible from home. While this returned "no results found", Academic Journals appeared in the search suggestions on the no results found page. From there, the participant was able to course correct and find articles.

Participant B was not sure how to narrow down to just scholarly articles – they were expecting to find something in the limit dropdown menus. They could clearly describe the keyword, author, title, and subject limits but they did not know what source, abstract, ISSN or ISBN meant. They ultimately decided on source as a limit, which did produce results, but they were confused by the results and a lack of the word "scholarly article" in the results descriptions that they gave up and didn't select an article.

All of the participants struggled with identifying what would be appropriate for a 7th grader. Participant A is a parent and they looked at the database name in the results

to evaluate resources. The same participant also used the Sort By dropdown to find most recent articles, thinking that would be important for the assignment. Participant D is a teacher, and they were drawn to the research starters. There is no audience filter in EDS results, unfortunately.

Task 4

Success Criteria: Find the article, "Blue Dye Thinking" in New Scientist, and open the full text

Pass: 3 out of 4 (one with difficulty)

This was a straightforward task for Participants B and C. Participant A was looking for the publication, so they were not sure that they had found the correct article at first.

Participant D did not find the article. They were already on the "Articles & Databases" results. They typed in the search term, selected "Online Collection" from the dropdown limits, but did not submit their search. Then they tried to pre-select the publication name from the facets, but "New Scientist" didn't appear in the facet options, since the facet was listing terms for the previous search. They said they would assume the library didn't have it, since it didn't appear in the Publications facet options.

Task 5

Success Criteria: Find an article on a personal research topic using the Article & Databases dropdown on results from the Explore More section in the "Library Catalog" results

Pass: 4 out of 4 (two with difficulty)

Participant A used the Combined Results option and easily navigated to the article results on their topic, "google classroom".

Participants B and C used the "Articles & Databases" search. They were looking for the most recent articles on their topic, and they struggled to identify dates.

Participant B used the "Sort by Newest" option but did not feel the results were relevant to their search, "Tesla company". They noted that they often are looking for articles in ProQuest after they hit a paywall, and they usually search for the author name and sort by most recent to find the article. They specifically noted they thought dates should be shown in the results, and they also noted that they could not see how

many results their search returned. Participant B was also confused by seeing Gale eBooks in the results: “I had articles and databases selected here, why would that be coming up with books?“

Participant D used the Online Collection search on math teaching resources, so they returned results for ebooks. They noticed they were just seeing results for books, scrolled around and found the Explore More bar links for Academic Journals and Magazines. They chose Magazines since they didn’t want academic results, and they successfully returned article results.

Additional comments

Two participants received EBSCO errors during the test and were unable to log in for access to the articles. The researchers counted these tasks as a “pass” because the participants would have been successful without the error.

Participant B used what appeared to be an older version of the Internet Explorer browser. During the test they did not see any of the facets as these did not appear on their screen. In addition, they did not see the Explore More results. However, all other search functions worked as expected for them.

Participant C used an Android mobile phone, but they experienced no difficulties related to using the mobile display of the catalog.

Both Participants B and D expected the library logo in the EBSCO Discovery (EDS) interface to link to the library home page. Instead, it links to the St. Charles EDS home page. Participant B did not realize they were no longer in the catalog or in the library website.

Participant D was confused by search-the-filter functionality. They twice did not complete a search – they entered in a search term and selected dropdown filters, but they did not hit “Go” or the Enter key to complete the search. Instead, they selected a filter on the page and expected that to submit the search. There may not be an interface solution to their issues, but it is interesting behavior to note.

Next Steps

SWAN will provide these recommendations to ByWater Solutions and work to include them in future releases of Aspen.

Additional testing is needed to find the ideal label for “Online Collection.” The “Found in” label has already been updated to “Database”.

When SWAN libraries receive training in adding placards to their Aspen catalogs, SWAN will incorporate best practices for placard design.

Appendix 1: Usability Testing Script

Usability Test Script: Aspen Round 1

Introduction

Hi, _____. My name is _____, and I’m going to be walking you through this session today. This is my colleague ____ and they will be taking notes.

Before we begin, I have some information for you, and I’m going to read it to make sure that I cover everything.

We’re here to test out a different version of the library catalog.

The first thing I want to make clear right away is that we’re testing the catalog, not you. You can’t do anything wrong here. There might be times during the test that something may not work and we will need to reset, and that is just the catalog and not you.

As you use the catalog, I’m going to ask you as much as possible to try to think out loud: to say what you’re looking at, what you’re trying to do, and what you’re thinking. This will be a big help to us. Also, please don’t worry that you’re going to hurt our feelings. We’re doing this to improve the catalog, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them, and if you need to take a break at any point, just let me know.

If it is okay with you we’d like to record this session – it will just be audio and your screen, no video of you. That will just help us take fewer notes.

Start the screen recording

Pre-Test Questions

Before we start looking at the catalog, I have a few questions for you.

- What online resources do you use? How do you get to them?

- Finally, what is something you were recently trying to learn about?

Tasks

Now we are going to look at the catalog. Click the link in the chat to get to the catalog we're looking at. You will need to share your screen – 3rd button at the bottom of the screen.

1) Your refrigerator is very old and you are looking to replace it. A friend recommended checking the library for Consumer Reports – they said you can search it online. How would you find Consumer Reports from here? [testing: can they find the placards]

2) Your friend also told you that you can search for articles from newspapers in the library catalog. You want to find articles about visiting Bryce Canyon National Park. How would you find those?
    a) Tell me about the results you are seeing?
    b) How would you narrow down to new articles?
    c) Tell me what this is (Explore More)

Paste in chat: Bryce Canyon

3) Pretend you're helping a 7th grader with their homework assignment. They have to research Jane Addams, and they need two full text scholarly articles about her for their assignment. How would you find those? [testing: using filters, searching on a specific topic, response to research starters.

Paste in chat: Jane Addams

    a) Tell me about the results you are seeing?
    b) What would be good for a 7th grader?
    c) Are you able to read the whole article? (log in and go to an article)
    d) Now how would you go back to your search results? (from EBSCO)
        - Is this what you were expecting to see?

4) You found this article online that looked interesting, but you couldn't get the full text without paying for it. You want to see if you can get it for free from the library. How would you find this article? [Blue dye thinking: Blue pigments are so rare

that people will go to the depths of the planet to create new ones, says Joshua Howgego. By: Howgego, Joshua, New Scientist, 02624079, 12/23/2017, Vol. 236, Issue 3157/3158]

Paste into chat: Blue Dye Thinking, New Scientist magazine

5) (if time) You said you were recently trying to learn about_____. How would you find information from your library about that? [testing: do they see the Explore More]
    a) Tell me about what you are seeing.
    b) What does this mean to you ("All EBSCO Results")

Wrap Up

Thanks, that was very helpful. Those are all the questions I have.

Do you have any questions for us?

Do you have any questions for me, now that we're done?