



EasyBib Search Page Optimization - Remote Interviews

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Problem:

- The Search Results page across all of our citation sites has one of the highest drop-off rates. The drop-off rate is comprised of users who “go back” to a previous page in the workflow and users who “exit” (leave the site completely).
- On EasyBib redesign, there is a 12.3% drop-off rate on the search results page.* This drop-off rate contributes to a poor user experience on our site and decreases business revenue.

* EasyBib redesign GA data collected from 6/19/18 - 7/15/18 (1 month)

Background/Context:

- A recent poll of user satisfaction on the search results page indicated that 31% of users are not satisfied with their search results.
 - This poll ran on the EasyBib search results page from 07/16/2018 - 07/23/2018 and collected 687 responses.
- The Product team aimed to understand why students are not satisfied with the search results, and why they are dropping off from the search results page.
- Research findings and recommendations will be used to redesign the search results page on EasyBib Next, and implement improvements across Citation Machine, BibMe, and CiteThisForMe.

Goals/Objectives:

- To uncover the reasons students are not satisfied with the search results page, and why they are dropping off from the search results page
- To gather feedback on user search behaviors, expectations, and usability issues that prevent students from finding and selecting a source or continuing in the citation workflow

Methods:

- All participants were recruited through Ethnio (screener), and required to submit a list of recent citations prior to the interview.
- Interviews consisted of two sections:
 - *Citation Flow:* During the interview, students were instructed to focus on one or two sources from their citation list. During the session, students used EasyBib to create their citations.
 - *Citation Scenarios:* Students were instructed to walk through a few citation scenarios. These scenarios include citing PDF link, finding irrelevant results, reaching the “no results screen”, and getting an “unreachable website” error.

Participants:

- 8 remote one-on-one student interviews
 - 3 Male / 5 Female
 - 7 Undergraduate / 1 Graduate
 - 4 STEM-B / 3 Non-STEM-B / 1 Undecided

Key takeaways:

Search Behaviors and Expectations

- Students who search by book or journal title expect to find results with a matching title, but they are often presented with many irrelevant search results and have a difficult time finding their source.
 - Journal articles were commonly searched for by the article title, which often led to irrelevant results and prevented students from finding their source.
 - When one student was unable to find an article by searching the title, she mentioned, *“Usually title is very specific, so [I] don’t expect to find a lot of results”* - Michelle
 - Students assume adding additional information to their search query will refine/filter their search results. However, students who include additional information often receive results that are not more specific.
 - One participant’s response in regards to finding an article after searching by title, *“Since I was not getting specific results, I typed in [the journal name] too”* - Michelle
 - *“If I searched something and the first few results did not seem ‘accurate’ then [I] would search author’s name or a different part of the title”* - Kiersten
- Students are unsure which source type to select on EasyBib (Figure 1), which can lead to searches under incorrect source types. The source type affects the results presented on the search results page, and can contribute to drop-off if students do not find their source.
 - When instructed to cite a journal article, students searched for a source type “article” or “academic journal” before reluctantly selecting “journal”.
 - Students associated the website source type strictly with URLs. As a result, users will copy journal article URLs and cite them as a website, rather than a journal.

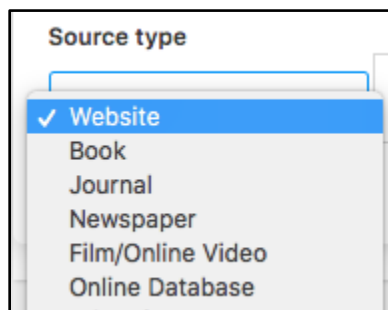


Figure 1. EasyBib dropdown menu for source type

- When students do not find their desired source on top of the search results page, they are reluctant to continue searching and are inclined to leave the site.

- Students give more weight to the first result, as they expect it to be correct.

Usability Issues

- Students do not notice all results on the page.
 - The search result (C1) ad placement isolates the first result and shifts the remaining results out of view. Depending on the size of the screen, students often think there is only one result on the page (Figure 2).
 - *“There are other sources underneath ad. I didn’t notice that at first.”- Kiresten*

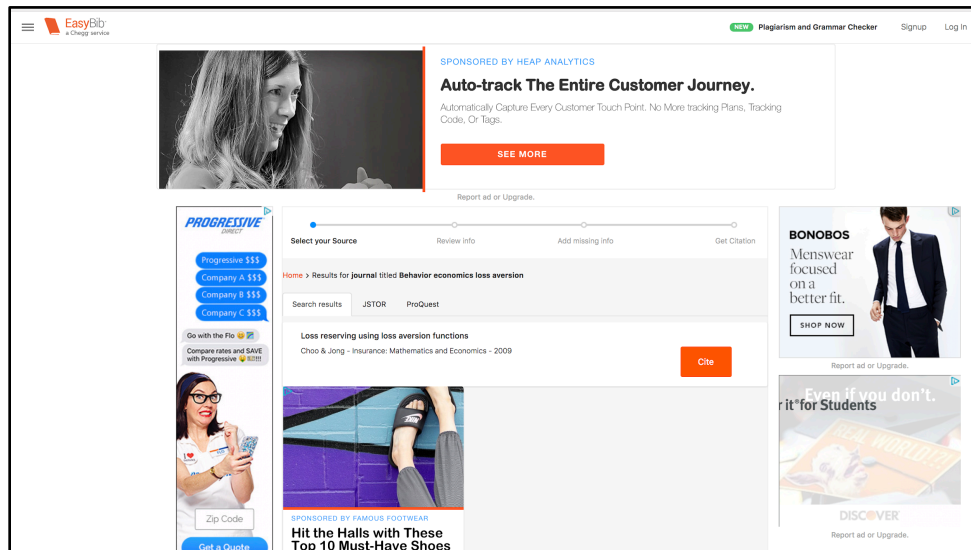


Figure 2. Search results page containing the C1 ad placement

- It is very difficult to quickly scan the information about the sources on the results page.
 - When a search query yields multiple results, a matching title is the most important attribute to help students select and verify their source.
 - Author and date are also important attributes for students to see about their results, as they filter through results. The design of the search results page makes it difficult to view this information because of small font and unlabeled information (Figure 3).
 - One participant was looking through the results and did not realize where the author information was located for the source, *“I did not even realize ‘Quick’ is the author. There is no way to tell when search results are shown.” - Michelle*

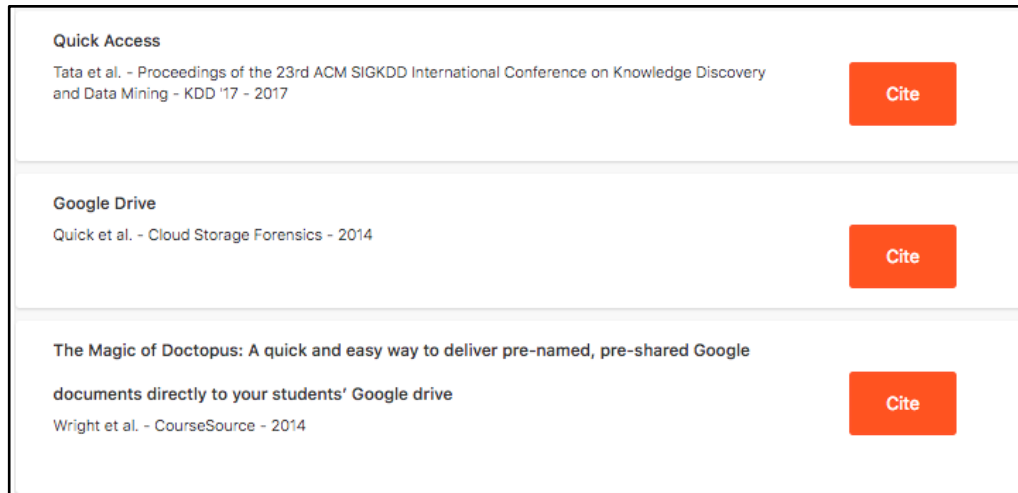


Figure 3. Journal results on EasyBib's search results page

- Some students select a result and view information on the Eval page in order to confirm their choice; because they cannot view all the necessary information on the results page (Figure 4).

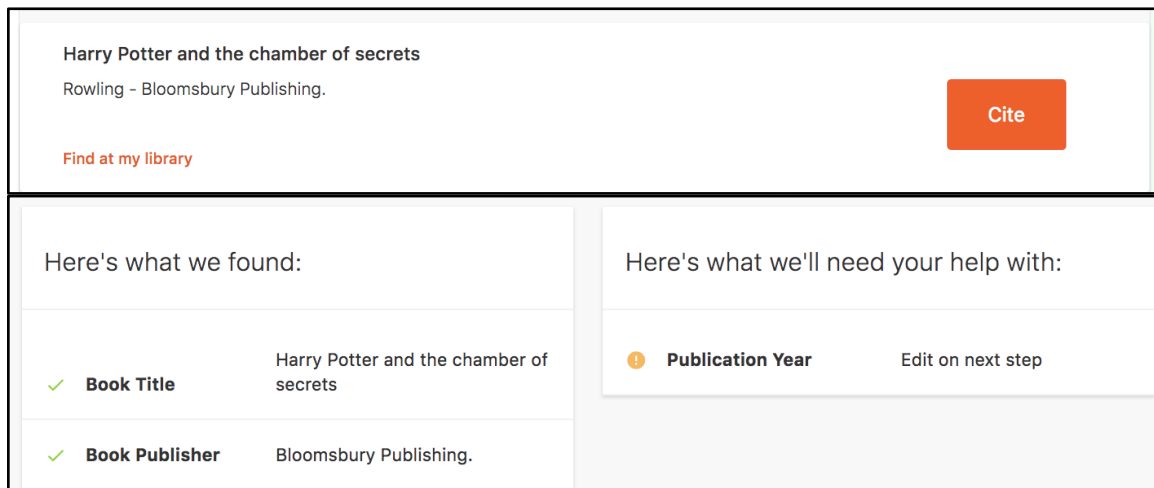


Figure 4. Search result and eval information for "Harry Potter and the Chamber of Secrets"

- Students who cannot find their source on the search results page, do not have an option to easily re-search.
 - Students must go to a new page to search again, which can be troublesome because of load times and effort. As a result, they are less inclined to search again, and may drop-off or use another resource to create their citation.
 - *"Instead of going back, I'd be nice to edit search on search results page. Like on Google, I can edit search query on page."* - Michelle
- Students who cannot find their source on the results page, cannot easily continue to create a citation manually. As a result, they feel inclined to exit the site altogether and look for online citation guides elsewhere.

- Creating a citation manually requires students to leave the search results page and find the manual cite feature on the home screen. The CTA for manual cite is not visible, nor presented right where the user needs it (Figure 5).
 - When asked how he would manually enter information, *“I know there’s an option... oh here it is... manually cite”* - Alberto
 - *“After 10 results, I did not find it. I would expect something to be like, create it manually? Can’t find it? And they will keep the article title I entered into the fields.”* - Michelle

Figure 5. CTA for manual citation on the search page

- Additionally, the manual citation feature requires the user to enter their citation information into the form fields, continue through the remaining citation workflow, and copy and paste their citation into their paper (Figure 6). This process can be perceived as more taxing than creating a citation with Purdue Owl directly inside their paper.
 - *“It would be faster to type [the citation] myself using a source that told me what order to put stuff in, than filling out all these forms manually, then copying and pasting citation and reformat[ting] it.”* - Amanda

★ Add in any information you have below. The starred boxes are strongly suggested.

What I'm citing

Article title

Contributors

	First Name	MI / Middle	Last Name	Suffix
Author	<input type="text" value=""/> ★	<input type="text" value=""/>	<input type="text" value=""/> ★	<input type="text" value=""/>

[+ Add another contributor](#)

Online publication info

Website title

Publisher / sponsor

URL

Electronically published

Day	Month	Year	Time
<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/> ★	<input type="text" value=""/>

Figure 6. EasyBib form page with missing information

Recommendations:

Search Behaviors and Expectations

- Provide messaging to encourage students to search by URL, ISBN or DOI, when possible
- Meet student's expectations when searching by URL, ISBN, DOI and limit the number of results shown
- Allow students to refine their search result by entering more qualifying information in the search bar (eg. advanced search, title + author)
- Provide suggestions for misspelled search queries
- Provide a CTA for explanations and examples of each source type to users who are confused or unsure of their search query.

Usability Issues

- Signal to the student when there are search results out of view
 - Show the number of results on the page
 - Reduce whitespace to increase the number of results shown on the page
- Make it easier to scan information about each result.
 - Highlight relevant information (title, author(s), date) for each source.
 - Increase the font size to improve readability
- Allow students to view more information about their source on the search results page.
- Include a search widget on the search results page so students can quickly edit their query and re-search.
- Include the option to manually cite on the search results page so the user can reach the forms page easily.

- One student expected a manual cite option to be placed at the bottom of the search results page after scrolling past 10 results.
- Provide information to help students create citations from scratch on the search results page. This may include articles on how to format citations or links to relevant citation guides.

Next Steps:

- Review of findings and recommendations with EasyBib product team (8/23)
- Use findings to inform “Find” experience design (9/13)

Appendix:

Ad Experience

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- Each time a student moves to another page in the citation workflow, the ads must load on the page, which increases the amount of time needed to create a citation. Additionally, the content on each page shifts to accommodate the ads as they load. This increases the effort required to search for a citation, and discourages users from continuing on EasyBib, if they cannot find their source.
 - *“Ads make the loading time a little bit longer. It makes it longer to load, especially when just a form to fill out” - Alberto*
 - [Page Loading Video](#)
- Some students reported that the ads detract attention away from content on the page. Students have trouble finding “I only want to create citations” on the homepage (Figure 7). Additionally, students mentioned ads draw attention away from sources on the search results page.
 - One participant mentioned improving the ads on the page,, *“Mostly ads- can be in the way, Ads make seeing your results harder” - Amanda*

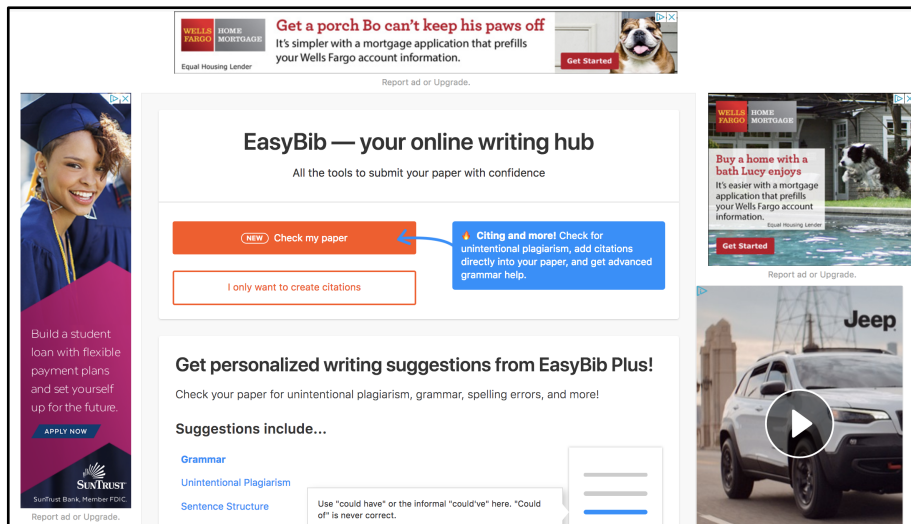


Figure 7. EasyBib landing page

Citation Guide Pages:

- Students use guide resources like Purdue Owl to create their citation from scratch.

- Students are not aware of similar citation guide content on EasyBib. Providing citation information that is simple, relevant, direct, and timely will encourage users to use EasyBib's guide resources.
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- As part of their citation workflow, students will generate citations through EasyBib and use Purdue Owl to verify the format. Future research should explore students' perceived trust of sites like Purdue Owl and EasyBib.
 - When asked why a participant uses Purdue Owl to check citations, she mentioned, *"If I just leave it up to Citation Machine, I might get some points off. But If my teacher is not strict enough, then I don't bother checking with Purdue."* - Michelle

Citation Database

- One student assumed the search results on EasyBib were pulled from a database of previously created citations. This finding has been seen in previous research as well. EasyBib can meet students expectations by presenting search results with auto-generated and user-generated content.
- *"Usually when I something, it's been cited by someone else. So I can use their citation and tweak it."* - Michelle