

Comparative Evaluation: Online Journal Finder Project Report

SI 622 Assignment 5: Team Tiger (7)



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Executive Summary

The second phase of Team Tiger's usability research study of the University of Michigan Library's Online Journal Finder compared it with 10 "competitor" sites to gain insights about ways to improve the journal finder so it better meets users' needs and helps them achieve their goals.

The research yielded these recommendations:

- Consider decreasing the number of search results per page. This would decrease the amount of scrolling users must do. Let users set the number of results displayed, between 10 and 100. Consider reducing the space each result occupies. We plan for additional research with heuristic evaluation and usability testing.
- Retain the browse features. Survey users about what they like about browsing. Our future heuristic evaluation likely will yield actionable intelligence about the browse features.
- For the browse by subject feature, consider ordering the journals by popularity, latest update, or other relevant metric. There might be technical limitations to implementing this. We plan to include a question in our survey about users' interest in this functionality. Additionally, if the list of "highly recommended" journals remains atop the browse results, some brief descriptive text explaining where the recommendations come from should be added.
- Consider adding search term autocomplete. This would help users avoid misspelled search terms and reveal whether a journal title is available. More research on the desirability of this feature could be gathered with the survey and usability testing.
- On search results pages, use a bold typeface for the journal titles so users can scan them more rapidly. Retain the light blue background behind each search result, as well as the separator lines around them. Four competitor sites are recommended as examples to note.

Introduction

The Online Journal Finder is an application on the UM Library web site that links to a comprehensive list of online journals to which the library subscribes. It is a frequently used area of the library site with a wide user base. This includes faculty, graduate students, administrators, librarians and administrative assistants. For the purposes of our study, faculty users are the target audience, although their user goals with the journal finder overlap with those of other users. The application has existed for several years, and users rely on it as a tool for scholarly research. An updated version was released in November 2010 (Behm, Hegge, Thompson-Kolar, & Xu, 2011, p. 3).

The application is linked from the MLibrary Home Page and also is accessible via links from the results of MLibrary catalog searches. The journal finder interface offers users three search modes: by keyword in title and metadata, by keyword in title only, and by title start words. It offers two browse modes: by subject and subcategory, and by title. All the search and browse controls are on a single dynamic page controlled by three tabs.

The results of a browse or search are links to journals on the open Web or in commercial reference databases. Users selecting a link on a browse or search results page arrive at a journal web site with subscriber privileges authenticated through the library (see Figure 1).



Figure 1. Links from the Online Journal Finder's search results page take users to scholarly journal web sites or academic databases to which the UM Library subscribes.

The usability study Team Tiger is performing for our client, the UM Library, involves five research phases. In the first phase, the team interviewed five current or potential users. This research led to the creation of data-driven personas that can be used to predict user motivations and goals (see Appendix A). That research also led to recommendations that included evaluating competing web applications and comparing them with features of the online journal finder. This second report provides results and recommendations regarding that evaluation in light of our client's questions, our personas' needs, and other findings from our Phase 1 interviews. In Phase 2, we sought actionable information specifically regarding:

- The value to users of showing more (or fewer) than 50 search results per page (commonly known as results pagination);
- The importance to users of browse vs. search;

- The preferred ordering of results by popularity, most recent update, alphabetical or other; and
- The value users get from a search term autocomplete feature;

In addition, the comparative analysis revealed useful findings on the following concern:

- Effective use of color and fonts to group results elements on results pages.

Methods

In the second phase of the study, the team initially compared a dozen “competing” web sites with the journal finder. The process we followed was influenced by Mike Kuniavsky (2003, pp. 117-126) and Mark Newman (2011, Report writing). Our purpose was to understand how features of competing web sites address user needs, and how those sites’ interfaces implement the features. Implicit in this approach is an understanding that the same feature appearing in several competitor sites likely has been perceived by managers of those sites as useful to users.

Procedures

The analysis had three steps: finding suitable sites for comparison, determining which features to evaluate, and comparing the features with the journal finder’s.

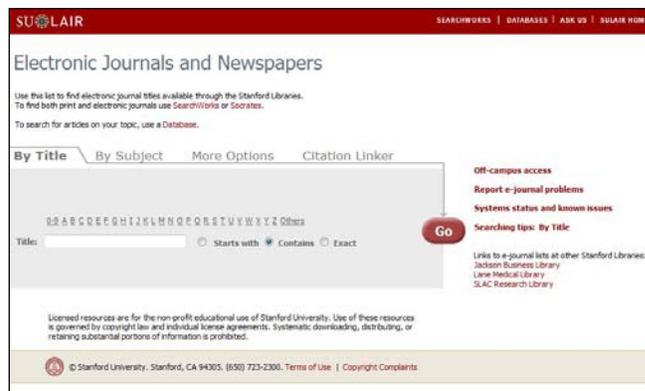


Figure 2. The Stanford Electronic Journal and Newspaper List is a direct competitor with the UM Online Journal Finder in this usability research study because it serves the same user needs and performs the same functions.

The team sought our client’s input regarding comparison sites and searched the Internet for sites of academic and public libraries, academic database vendors, reference information providers, and book retailers. The resulting list of competitors was categorized as direct, “offering the same functions in the same way” (see Figure 2); indirect, “offering the same functions in a different way”; partial, covering “some but not all functions”; and analogous, “a

non-competitor that covers some but not all functions” (Newman, 2011, Report writing). The journal finder offers a focused set of features, and our research questions concern effective methods for handling features that are common to many kinds of sites. We determined because of this that we should compare sites from all four categories to see a range of possible features and implementations.

Team members also researched best practices across a variety of publications as

they related to our questions. These included search term autocomplete, optimal number of entries on search results pages, ordering of search or browse results, and use of color and font variation to organize search results. Then we individually visited the competitor sites. Preliminary findings were recorded in 22 categories. During analysis this list of findings was pared down to include just the criteria for comparison most relevant to journal finder users' needs and goals.

Materials

The team compared the following sites' features.

- **The Stanford Electronic Journal and Newspaper List** provides a searchable listing of e-journal titles available through Stanford. It is a direct competitor and is very similar to the UM Online Journal Finder. URL: <http://sul-sfx.stanford.edu:3410/sfxcl41/az>
- **The University of California, San Francisco Online Journals List** allows searching and browsing for online journals at University of California, San Francisco. It is very similar to the online journal finder. Direct competitor. URL: <http://www.library.ucsf.edu/collections/journals>
- **The State of Michigan eLibrary** is an online research library. Its databases allow access to articles in hundreds of e-journals. Direct competitor. URL: <http://va9kx6en2s.search.serialssolutions.com>

- **GoogleScholar** employs the familiar Google interface to “search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites” (GoogleScholar, 2010). The results from searches of the site



Figure 3. GoogleScholar is an indirect competitor to the UM Online Journal Finder. It performs many of the same functions in a different way.

- are articles, not journal titles. The site can be accessed through the UM Library's Search Tools. Indirect competitor (see Figure 3). URL: <http://scholar.google.com>
- **The UM Library System** pairs its huge physical collection with an electronic catalog. Books, journals, microfilm and other physical copies of resources are available to patrons. Materials are in 20 libraries in 12 buildings. Indirect competitor. Physical holdings at the University of Michigan campus; online catalog URL: <http://www.lib.umich.edu>
- **Genamics JournalSeek** is a categorized database of freely available journal information on the Internet. The database contains 96,955 titles, but no articles or abstracts. Partial competitor. URL: <http://journalseek.net>

- **HighBeam** is a subscription-based online library and research tool for individuals, students and businesses. It contains more than 1 million research articles from published sources, including more than 1,500 academic journals. Partial competitor. URL: <http://www.highbeam.com>
- **Project MUSE**, run by The Johns Hopkins University Press, provides full text, subscription access to content from scholarly journals. Partial competitor: URL: <http://muse.jhu.edu>
- **The Thomson Reuters Web of Science Master Journal List** contains the titles of the Web of Science database's 12,000-plus scholarly journals and book series. Partial competitor. URL: <http://science.thomsonreuters.com/mjl>
- **Amazon Kindle Store** is the digital storefront for Kindle ebooks. Analogous competitor. <http://www.amazon.com/Kindle-eBooks>

Findings and Recommendations

The comparative evaluation of sites provides findings that will be helpful in planning future research and in offering preliminary answers for our client. (See Figure 4 for complete table of comparisons.)

Summary Results

The UM Online Journal Finder largely provides the same feature set as its direct competitors, with variations in particulars. For example, the journal finder and all of the direct competitors offer search by title, and browse by title, subject and subcategory. None offers a true advanced search. They order their results alphabetically, and generally offer a sophisticated look and feel. Variations occur in whether search autocomplete is offered, in number of search results per page, and in ways color and font are used to group the elements of each search result.

The two indirect competitors provide noteworthy differences in features from the journal finder. They offer advanced search, results ordering by relevance, and shorter result pages. They do not provide browse capability.

The four partial competitors differ from the journal finder in various features: None offer autocomplete, some offer advanced search, some offer relevance results ordering, and the number of results varies from a default of 10 to the entire list on one page. Aesthetically, some arguably are more appealing than the journal finder, while two are significantly less attractive. The analogous competitor, an online retailer, offered most of the journal finder's features as well as autocomplete and results ordering by relevance and date. Notably, all the competitors' response times during searches and browses were comparable to the journal finder's, regardless of specific features offered.

Compared sites	Search by title, subject	Search autocomplete	Advanced search	Order results by	Browse title, subject, subcategory	Pagination, number of results	Text variation, color screens as organizer(s)	Save "Favorites"	Aesthetics	Other comments
 UM Library Online Journal Finder	Yes, yes	No	No	Alphabetical	Yes, yes, yes	50+ entries visually spaced out, requires extra scrolling.	Font size similar. Titles medium font, similar to body of listing. Light blue background screening.	Yes	Sparse, muted colors. Icons could be smaller.	Journal Finder pages have Mirlyn catalog tools at top.
 Stanford Electronic Journal and Newspaper List	Yes, yes	No	Can limit by vendor and subject.	Alphabetical, highly recommended (in browse by subject)	Yes, yes, yes	100, not adjustable; list is compact, easy to read. Has detail view.	Journal titles are underlined red. Gray column headers blend in with gray links to other results pages. Lines separate results.	No	Stanford red, gray, small icons sophisticated look.	Results appear in a new window. Citation linker allows direct link to article via a citation.
 Michigan eLibrary Full Text Electronic Journal List	Yes, no	No	No	Alphabetical	Yes, yes, yes	100+ pagination by letter and Next Page.	Titles bold, links blue. Centered listings difficult to read. No separator lines or background screen.	No	Highly text driven, look from early 2000s.	Resources a mix of general interest and academic journals.
 UCSF Online Journals	Yes, yes	Yes	By title, ISSN, vendor, category.	Alphabetical	Yes, yes, yes	20, not adjustable. Has detail view.	Titles are bold blue links. Uses lines to separate results.	No	Sophisticated look & feel.	Results appear in a new window. Citation linker allows direct link to article via a citation.
 Google Scholar	Yes, yes	No	Yes	Relevance	No, no	10+ industry-standard setting pagination.	Blue, link titles, green author name, black text, blue links beneath. Has separator lines.	No	Familiar Google appearance.	Allows creation of e-mail alert queries by terms in title.
 UM Library Digital catalog and physical retrieval	Yes, yes	No	Yes	Relevance, newest, oldest, author	No	20, not adjustable.	Titles bold blue links. Other text black, gray or link blue. Alternating light blue background screens.	Citation info	Organized, minimalist design with lots of data.	Mirlyn catalog can be confusing to seek physical items vs. digital items.
 Genamics JournalSeek	Yes, no	No	No; has Google Search box.	Alphabetical	Yes, yes, no	Entire list displayed on one page. All result terms are links.	N/A. Only title is displayed. No separator lines.	No	Sparse design; ads hurt credibility.	Similar appearance and functional design to Google.com search pages, but with ads and more color.
 HighBeam Research	Yes, yes	No	Yes	Relevance, oldest, newest	Yes, yes, no	Default is 20; range is 10-50.	Article titles are underlined links, bold. Has separator lines between results.	No	Attractive use of colors, appealing design.	Paid service, combines variety of information types beyond academic journals.
 Project Muse	No, no	No	Yes	Alphabetical, relevance, journal title, oldest, newest	Yes, yes, no	Default 10; increments up to 100.	Browse results are one line only; distinctions among the entries obvious by blue titles and separator lines.	Tagging; citation tools, social net-work sites.	Attractive use of colors, appealing design.	Allows for e-mail alerts of RSS feeds when new journals are available; has browser plug-in.
 Thompson Reuters Web of Science Master Journal List	Yes, no	No	No	Alphabetical	No, no	10; not adjustable.	Font weights, colors, upper-case/lower-case used effectively. Has faint separator lines.	No	Functional and elegant, consistent colors, fonts	Links lead to publisher sites. Function "view journal changes" allows user to view newly added journals.
 Amazon Kindle Store	Yes, no	Yes	No	Relevance, popularity, price, reviews, publish date	Yes, yes, no	12; not adjustable.	Font weights, colors used establish information hierarchy. Has separator lines.	Yes. Shopping cart and Wish List.	Images well sized; appealing and efficient.	Material can only be viewed on specific devices.

GRAPHIC BY MARK THOMPSON-KOLLER

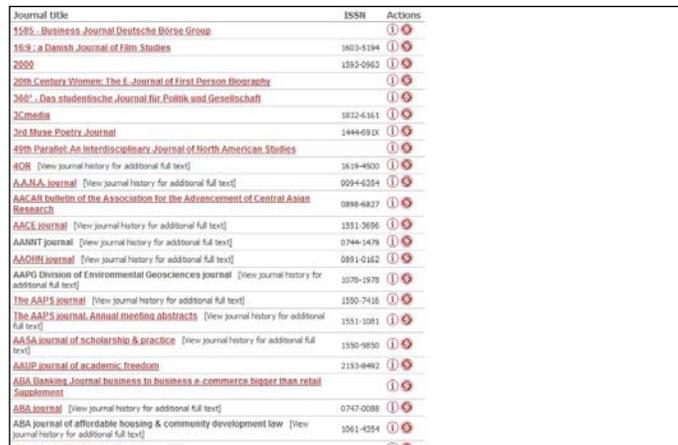
Figure 4. Table of sites compared for this phase of the study.

Key Findings with Recommendations

A further examination of competitor sites via a journal finder yields five findings and related recommendations.

Finding 1: Value to users of showing more (or fewer) than 50 search results per page. Competitors' approaches to this question vary greatly. Two direct competitors, Stanford and the Michigan eLibrary, provide a fixed

maximum of 100 results per page. However, the Stanford site defaults to a "list view" that puts each result on its own line, so the number of scrolls a user must do to read the entire list is 5 – displaying approximately 25 results per page (see Figure 4). In contrast, the journal finder's results occupy more space per page; viewing a page of 50 journal finder results requires 10 to 13 scrolls – approximately 4 results can be viewed at once. The indirect, partial and analogous competitors tend toward a far lower number of results per page, with defaults of 10 and 20 common. Several allow users to control the number displayed per page.



Journal Title	ISSN	Actions
1585 - Business Journal Deutsche Börse Group		🔍 🔗
1630 - a Danish Journal of Film Studies	1603-4394	🔍 🔗
2002	1593-0962	🔍 🔗
2008 Century Women: The E-Journal of First Person Biography		🔍 🔗
2667 - Das studentische Journal für Politik und Gesellschaft		🔍 🔗
3Cmedia	1832-4161	🔍 🔗
3rd Phase Poetry Journal	1444-091X	🔍 🔗
49th Parallel: An Interdisciplinary Journal of North American Studies		🔍 🔗
AOR [View journal history for additional full text]	1619-4500	🔍 🔗
A.A.N.A. Journal [View journal history for additional full text]	0094-6254	🔍 🔗
AACAR Bulletin of the Association for the Advancement of Central Asian Research	0888-6827	🔍 🔗
ABCE Journal [View journal history for additional full text]	1551-2696	🔍 🔗
AANRT Journal [View journal history for additional full text]	0744-1479	🔍 🔗
AACIIN Journal [View journal history for additional full text]	0891-0162	🔍 🔗
AAPG Division of Environmental Geosciences Journal [View journal history for additional full text]	1078-1978	🔍 🔗
The AAP's Journal [View journal history for additional full text]	1550-7416	🔍 🔗
The AAP's Journal Annual meeting abstracts [View journal history for additional full text]	1551-1081	🔍 🔗
AASA Journal of scholarship & practice [View journal history for additional full text]	1530-9850	🔍 🔗
AATP Journal of academic freedom	2153-9492	🔍 🔗
ABA Dasking Journal business to business e-commerce bigger than retail Supplement		🔍 🔗
ABA Journal [View journal history for additional full text]	0747-0088	🔍 🔗
ABA Journal of affordable housing & community development law [View journal history for additional full text]	1061-4354	🔍 🔗

Figure 5. The Stanford Electronic Journal and Newspaper List shows about 25 results per page, which means users can view 100 results while scrolling the page only 5 times.

Best practices address likely user expectations in this area. “When searches return too many results to display on a single page, separate the information into a sequence of pages” (Design pattern library, 2009). Also, “if designers are unable to decide between paging and scrolling, it is usually better to provide several shorter pages rather than one or two longer pages. ... Users only should have to scroll through a few screenfuls, and not lengthy pages” (U.S. Department of Health and Human Services, n.d., p. 71).

Recommendation: Consider providing shorter pages with fewer results to minimize scrolling and offer users the ability to set the number displayed, between 10 and 100, with 20 as default. Consider reducing the space taken up by each result. See Recommendation 5, below. We plan to seek additional information through the heuristic evaluation, user survey and usability testing.

Finding 2: The importance of browse vs. search. All the direct

competitors provide browse by title, subject and subcategory. Three out of four partial competitors and the analogous competitor provide browse by title and subject but not by subcategory. Additionally, two of our interview subjects in Phase 1 said they do not use the journal finder browse features. However, one project persona, which is based on needs, goals and motivations of users and potential users, “wants to be able to see all the journals specific to her field of study in one place, with links to full-text provided” (see Appendix A). There is substantial reason to keep the journal finder’s browse features.

Recommendation: Retain the browse features. Consider survey questions about how widespread their use is, and what users value about them. The heuristic evaluation also likely will yield actionable intelligence about specific usability aspects of the browse.

Finding 3: Preferred ordering of results by popularity, most recent update, alphabetical or other. All the competitors whose main function is to provide lists of journal titles as results use alphabetical ordering on their search and browse results pages, although the journal finder provides a type of relevance in its browse by subject with “highly recommended” journals listed first. Competitors that primarily find articles, not journal titles, offer a variety of ways to order results, including relevance and date. It is not obvious what constitutes “highly recommended” on the journal finder. It also is not clear from our research that methods of ordering other than alphabetical are sensible for browse by title or search results.

Best practices address likely user expectations regarding ordering of results. The concept of “best first’ is crucial to making search simple, fast, and relevant. ... Consequently, best first must be a top priority... .” (Morville & Callender, 2010, p. 87).

Recommendation: Consider offering results from browse by subject in a manner other than alphabetically. Giving users the option of ordering the journals by popularity, latest update, or other relevant metric may be more useful. We will investigate this further in later stages of this study. We understand from our client that the metadata used in the online journal finder might be insufficient to add this capability. Perhaps there is more information in different UM Library databases that could augment the existing metadata; alternately, perhaps journal Impact Factor or some other objective “rating” system could provide a form of relevance to the browse. Further research, particularly the survey, will help gauge users’ interest in this functionality. In addition, if the “highly recommended” results remain in the journal finder, consider adding an explanation of the source of the recommendation.

Finding 4: Value users put on search term autocomplete. This feature makes suggestions appear automatically as users type into a text entry box (Morville & Callender, 2010, p. 82). It is not currently a feature of the UM Online Journal Finder. One interview subject in Phase 1 emphasized his frustration at the lack of an autocomplete; he wants it to help him avoid searching on misspelled words and to provide him a rapid short list of subscribed journal titles as he types a search term. Of the compared sites, only one direct competitor and the analogous competitor offer autocomplete; the UCSF Online Journals site has an impressive implementation of it (see Figure 6).



Figure 6. The UCSF Online Journals site offers suggestions about journal titles a user could enter.

Best practices literature says, “Autocomplete is now a familiar fixture across desktop, web, and mobile platforms” (Morville & Callender, 2010, p. 82). It is used heavily by industry leaders Google, Yahoo, Amazon, eBay and others, although unexpectedly not in the GoogleScholar site. Users have come to expect it.

Recommendation: If it is technically feasible to add autocomplete to the journal finder, doing so would be advisable. This would help users avoid spelling mistakes and quickly let them know whether a journal title they are entering will be found in the search. Further research on this feature can be done with the survey, heuristic evaluation and usability testing. It probably is safe to assume, however, that users would use and like the feature.

Finding 5: Effective use of color and fonts as organizing elements on results pages. Both the journal finder site and its competitors use bold or italic fonts, larger sizes for titles, and colored letters to distinguish and organize informational elements within search results. Only one competitor, the UM catalog, uses a background screen color to unify all the elements in one listing item. However, almost all the competitors – including the UM Library catalog – use horizontal lines between results for separation from each other. Of particular note, the Thompson Reuters Web of Science Master Journal List, HighBeam Research, Stanford and UCSF sites use font variety, color and lines to provide orderly results pages. These follow best practices such as the following from the U.S. Department of Health and Human Services: “Use color to help users understand what does and does not go together” (p. 178) and “Change the font

characteristics to emphasize the importance of a word or short phrase. ... Font characteristics that are different from the surrounding text will dominate those that are routine. Important font characteristics include bolding, italics, font style (serif vs. sans serif), font size (larger is better to gain attention), and case (upper vs. lower). When used well, text style can draw attention to important words” (p. 109). The journal finder has one weakness in this area: Its journal titles are a medium-weight font, so they do not stand out from the other text in the results.

Recommendation: First, bold the font used for the journal titles. This will allow them to stand out, facilitating scanning by users. Second, as stated by the recommendation in Finding 1, consider reducing the amount of space each result takes up. Bolding the titles and keeping the light blue background should allow the page to remain orderly and informative, even with more results occupying less space. If the results continue to present the same amount of information, consider the HighBeam Research or Thompson Reuters sites as examples; if results are condensed to just one or two lines, use the Stanford or UCSF sites as examples.

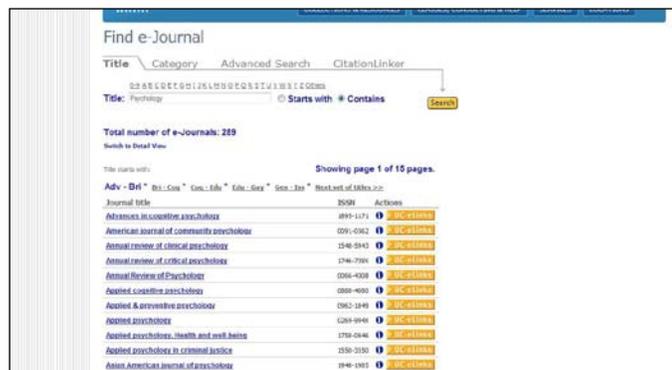
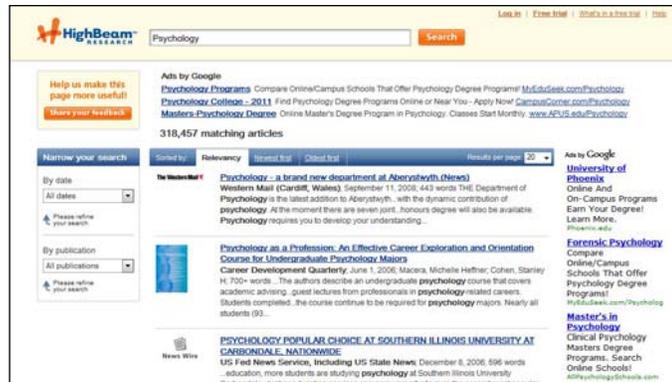


Figure 7. The HighBeam Research results pages, top, and the UCSF results pages could serve as examples for making the UM Online Journal Finder’s search results pages easier for users to scan quickly.

Discussion

The recommendations from the team's comparative analysis offer suggestions for making the journal finder work better for users. "Any user experience effort aims to improve efficiency. This basically comes in two key forms: helping people work faster and helping them make fewer mistakes" (Garrett, 2003, p. 18). As long as they do not compromise system response time, the suggested changes would address needs and frustrations of real users and of our personas by improving efficiency in the following ways:

- Users would have to scroll less on pages with many results.
- Retaining the browse functions would let users who use them continue benefitting from a feature that works for them.
- Offering browse by subject results in other orders than alphabetical would put more-desirable results before users faster.
- Adding search term autocomplete would let users know very early in the search process whether a journal is available in the journal finder.
- Autocomplete also would help users avoid wasted search time on misspellings.
- Bolding titles and potentially "tightening" the result listings would enable quicker scanning of more information per page.

It is important to emphasize that the team's choice of sites for comparison are highly subjective, and this research is qualitative. For example, whether to include HighBeam and GoogleScholar, which aid academic research but focus on article searches, or Amazon's Kindle Store, which is an e-retailer, is an educated but somewhat arbitrary decision. Our team believes their inclusion provides useful information, and that a failure to examine some non-journal list sites would introduce the risk that we would not encounter some potentially beneficial usability ideas. Additionally, our perception of the value of the features of other sites is subjective; we included best practices to counter some of that potential bias.

It will be important to continue research in future phases to determine whether users would find the recommended changes valuable and worth the necessary resources to implement. Three phases of research remain in the project. Our recommendations urge a combination of survey, heuristic evaluation and usability study research to gauge the value of suggestions contained in this report. We believe research will show that decreasing the number of results listed per page, enhancing the browse by subject to include relevance ordering, adding search term autocomplete and refining the search results display pages would enhance usability and be received well by users.

Conclusion

This phase of our study involved evaluating direct, indirect, partial and analogous competitor sites. Researching the features other sites employ is beneficial to any team doing usability research. The comparisons we made between the journal finder site and its competitors is instructive in suggesting features our client should consider and areas we should investigate in future research. We have made those recommendations in this report with the goal of improving the journal finder's ability to serve user needs and minimize their frustrations.

The number of sites compared in this phase was too small for this research to be considered anything but subjective. The sites exemplify (or violate) a few best practices and reveal potentially useful ideas we are recommending that our client consider.

This phase did not investigate a few questions that are part of our overall study, such as changes to the journal finder interface that would most improve its usability, complaints current users have, whether the presence of the whole-site search box above the journal finder search box confuses users, whether the Table of Contents link is well-located, and why users choose to use the journal finder instead of the library catalog. Future phases will address these questions.

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Primary Persona: Steve Scott

“I need to keep up with the research my peers are doing”

Respected researcher on faculty

- **Job:** Faculty researcher in University of Michigan Physics Department
- **Duties:** Primary research for papers, peer reviewer for academic journals
- **Computer use:** Very computer savvy, as user and programmer

- **Background:** Steve Scott, 52, is a tenured faculty member in the University of Michigan Physics department. He lives in a three-bedroom house in a neighborhood on Ann Arbor’s West Side with his wife and two daughters, ages 12 and 16, and a golden retriever. Steve recently gave his eldest daughter his old car and bought himself a new Toyota Prius.

At work, Steve spends a lot of time working on his own primary research projects, as well as reading academic journal articles about what his peers in his field have been working on. He also is a peer reviewer for a physics journal and needs to research topics related to the papers he reviews for publication.

Steve uses existing computer applications and also writes programs as needed in his work. He prefers using a Linux-based machine but can use others.



Key Goals

- Conduct research to gain a comprehensive understanding of what is happening in his field
- Avoid replicating peers’ research
- Remain a respected peer reviewer

User Experience Goals

- Needs access to articles in academic journals to which the university subscribes
- Needs search results to be comprehensive and fast
- Is used to visiting multiple sites and using different sources to achieve his online academic research goals

Use Scenario

- Steve’s work as a researcher requires frequent access to articles in a select group of peer-reviewed academic journals in his field. Often, he reads about his peers’ findings as he considers experiments his lab might perform. At other times, he checks the backgrounds and methods of other researchers in his role as a peer reviewer.

Relationship to Product

- Steve needs to go through the UM website to get to the journals to which the university subscribes. The Online Journal Finder lets him see easily which journals he has no-cost access to, sorted by area of study. He can link directly from the OJF to the journals, with the university authentication intact, which saves time.

Appendix A



Secondary Persona: Hee-Young Kang *“As a student, a GSI, and a mother I have a lot to do”*



Hard-working graduate student

- **Jobs:** Ph.D. candidate in the Psychology Department; also a graduate student instructor
- **Primary responsibilities:** Research for dissertation, writing, creating lesson plans
- **Computer use:** Fairly computer savvy, comfortable using applications

- **Background:** Born in South Korea, Hee-Young Kang, 33, immigrated to the U.S. with her parents at age 4. She lives in an on-campus apartment complex with her husband and 1-year-old son. Her husband also is a graduate student, and they share a used car and do a lot of commuting by bus or on foot.

Hee-Young is very busy. She frequently needs to find academic articles as she prepares her dissertation. Hee-Young also needs to read some articles as she readies her weekly lesson plans as a GSI.

Hee-Young is fairly computer savvy. She feels very comfortable using the Web, library databases, and basic applications but knows nothing about how computers work “under the hood.” She does almost all of her work on the MacBook Pro that she carries with her everywhere.

Key Goals

- Deepening her knowledge in relevant and specific subject matter as she writes her dissertation
- Gaining more knowledge about the wider field of psychology beyond her specific area of expertise
- Preparing competent lesson plans each week

User Experience Goals

- Needs to get information very quickly
- Wants to be able to see all the journals specific to her field of study in one place, with links to full-text provided
- Likes a simple interface: using it should be intuitive

Use Scenario

- As she works on her dissertation, Hee-Young wants to find information in all relevant journals quickly. She recently decided to alter her dissertation’s main focus, so she has begun looking at some other journals than the ones she had been relying on up to this point.

Relationship to Product

- Hee-Young likes the Online Journal Finder’s comprehensive list of all the relevant journals UM subscribes to, by subject. With 954 titles in psychology, it is very likely the ones she needs are on the list. She knows that any journals she finds here won’t cost her anything to access.



Tertiary Persona: Caroline Walsh

“I just need easy access to a few useful academic journals”



Career placement administrator at university

- **Job:** Administrator in the career placement office at Ross School of Business
- **Duties:** Helps graduates of the college to find jobs
- **Computer use:** Very comfortable using computers and the Internet

- **Background:** Caroline Walsh, 28, lives in an apartment in Ypsilanti. She moved there from Ann Arbor a few years ago to save money to buy a house.

As part of her work, Caroline tries to stay on top of the latest trends in job placement. She spends time keeping up with the economy through the general web, but increasingly she spends time finding the latest research about effective academic advising in peer-reviewed journals. She often is called on to give presentations about this information to students on campus and to other administrators at conferences.

She is very capable at using office applications, the Internet, and at dealing with the Ross interoffice computer network. She considers herself “very comfortable” around computers.

Key Goals

- Maintaining reputation as a source of up-to-date information for students and faculty, which means staying current with her field
- Becoming increasingly aware of theories concerning the effectiveness of different methods for academic advising
- Incorporating theory into presentations she gives

User Experience Goals

- Needs access to academic research because she needs authoritative source material
- Needs to easily access journals to which the university subscribes
- Does academic research on a less-than-frequent basis, so the more intuitive the interface is, the better

Use Scenario

- Caroline is preparing for a professional conference about student placement in the field of economics. She plans to do some online academic research to be sure that theory is supporting the practices she will be encouraging. She knows a few good titles in the field and is enlarging her list slowly.

Relationship to Product

- Caroline does not need exhaustive research options, but rather a few good journals to reference. The Online Journal Finder will give easy access to the journals the university subscribes to, with authentication already taken care of. This is helpful to her and saves time.

