

Comparing Search Engines for Online Resources

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User Studies

- Compared 3 search engines to discover usability issues
- Each user performed some simple tasks with each search engine
 - 2 tasks with 3 search engines - ERDB, Antpac, and Cornell
 - 1 task with open-ended methods
- Screen captures + interviews

Common Themes

- Every user we tested wanted to minimize the number of clicks to the goal
- Several want the ability to conveniently find related articles
- Many had difficulty telling what kind of resource each search result was
- For the open-ended task, many of them opted for Google Scholar

ERDB

Recommendations

- Users had trouble finding their results because of an unexpected ranking
- For example, searching for “Journal of Popular Culture” would return that journal as the 4th hit, because other journals use the same words in the title
- Could be improved through better ranking algorithms or less ambiguous interface options
- For example, replace “Title contains” and “Title starts with” in the dropdown menu with simply “Title”

Find Online Resources

[All](#)[Journals](#)[Databases](#)[News](#)[Reference](#)[Statistics](#)[Help](#)

Search for Full-Text Journals ?

Enter words to search:

Search words as:

- ✓ Title Contains
- Keywords
- Title Starts With

- ☐ public resources only
- ☐ exclude serials ?

Browse by Title in Full-Text Journals ?

1	2	3	4	A	B	C	D	E	F
G	H	I	J	K	L	M	N	O	P
Q	R	S	T	U	V	W	X	Y	Z

- ☐ public resources only
- ☐ exclude serials ?

Browse by Subject in Full-Text Journals ?

- Arts (Visual & Performing)
- Biological Sciences
- Business, Management, & Economics
- Computing & Physical Sciences
- Engineering
- General and Multidisciplinary
- Health & Medicine
- History
- Law, Political Science, & Government
- Library & Information Science
- Literature & Languages
- Philosophy & Religion
- Social Sciences
- Women's & Ethnic Studies

Antpac

Recommendations

- Many users found Antpac records confusing
- The links taking you to the online resource were very difficult to decipher and sometimes even difficult to notice
- Hard to tell on the search results page what kind of resource it was - online, physical, etc.

Antpac Recommendations cont.

- Trouble with tabbed interface - Keyword as default gave people unexpected results
- Almost no one noticed the new Online Resources tab - those who did found it limited their filtering options
- Best thing for Antpac - completely rework how users can filter and identify resources



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HOME ABOUT US SERVICES RESEARCH TOOLS COLLECTIONS HOW DO I?

my
ANTPAC

ANTPAC

ASK A LIBRARIAN

Next-Generation Melvyl Pilot



Start Over Limit/Sort Search Another Search (Search History)

TITLE journal of popular culture Entire Collection System Sorted Sort Search
☐ Limit results to available items

Save Marked Records Save all on Page Save to My Lists

TITLES (1-2 of 2)

Journal of popular culture

1

Save
☐

Journal of popular culture

Bowling Green, Ohio : Bowling Green State University, 1967-

> Website
More...

1967 -
TEXTUAL MAT'L
Full Record

LOCATION	CALL #	STATUS
Langson Bound Periodicals	PN2 .J6 v. 6 1972/73	LIB USE ONLY
Langson Bound Periodicals	PN2 .J6 v. 7 1973/74	LIB USE ONLY
Langson Bound Periodicals	PN2 .J6 v. 9 pt. 1 1975	LIB USE ONLY

There are additional copies/volumes of this item

Correct result, but hard to tell
what kind it is

2

Save
☐

Popular abstracts : Journal of popular culture 1967-1977, Journal of popular film 1972-1977, Popular

[s.l.] : Popular Press, [1978 or 1979]

1978? -
1979?
TEXTUAL MAT'L
Full Record

LOCATION	CALL #	STATUS
Langson Library	Z7164.S66 P663	NOT CHCKD OUT

Save Marked Records Save all on Page Locate In Results 2

Start Over Limit/Sort Search Another Search (Search History)

- Interlibrary Loan Requests
- Document Delivery Service Requests
- Request In-Process Material

- New Titles
- New Videos
- Suggest a Book/Journal/Video

- Find an Article
- Create Bibliographies
- Comments and Suggestions



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ASK A LIBRARIAN Next-Generation Melvyl Pilot



Start Over Recall/Hold Add to My Lists Save Records Marc Display Return to List Limit/Sort Search Find More Info Another Search

(Search History)
TITLE journal of popular culture Entire Collection System Sorted Search
☐ Limit results to available items

Record 1 of 2
Record: [Prev](#) [Next](#)

Title: **Journal of popular culture**
Published: Bowling Green, Ohio : Bowling Green State University, 1967-

Connect to

v.29(1995)-v.39:no.2(2006:Apr.). IIPAF. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840
v.29:no.2(1995:fall)- IIMP. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840
v.29:no.3(1995:winter)-v.38:no.6(2005:november). LION. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840
v.1(1967)- Blackwell-Synergy via Wiley. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840
v.1(1967)-v.24(1991). Periodicals Archive Online. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840
Selected article text for v.24(1990)- Academic search complete. Restricted to UC campuses http://openurl.cdlib.org/?sid=SCP:SCP&genre=article&__char_set=utf8&issn=0022-3840

Location Langson Bound Periodicals PN 2 J6
LIB HAS: v.1 (1967)- v.37 (2004)

LOCATION	CALL #	STATUS
Langson Bound Periodicals	PN2 J6 v. 6 1972/73	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 7 1973/74	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 9 pt. 1 1975	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 10 pt. 1 1976/77	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 14 1980/81	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 15 1981/82	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 18 no. 1-2 1984/85	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 18 no. 3-4 1984/85	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v. 25 1991/92	LIB USE ONLY
Langson Bound Periodicals	PN2 J6 v.1 1967/68	LIB USE ONLY

View additional copies or search for a specific volume/copy

Send via Text Message

?

These links to online text
are cryptic and scary

General Recommendations

- Get rid of all the middle steps - e.g. search goes to resource record goes to UC e-links goes to host page goes to PDF.
- Search result should have the ability to go straight to PDF, no matter what search engine
- For journals, a list of volumes that link to PDFs would be sufficient

Recommendations

cont.

- More filtering options. Some users complained that on Antpac, they could filter by Journals or by Online Resources, but not both.
- In fact they can filter by both but it requires looking through a drop-down menu
- Filtering with checkboxes a la Cornell might work well

Filtering with Checkboxes

Narrow by Format

☒ All Formats (18,204)

☐ Article (15750)

☐ Chapter (47)

☐ Downloadable article (8)

☐ Internet resource (722)

☐ Website (4)

☐ Book (654)

☐ eBook (113)

☐ Thesis/dissertation (24)

☐ Microform (5)

☐ Journal, magazine (322)

☐ eJournal/eMagazine (189)

☐ Audiobook (108)

☐ CD (59)

☐ Cassette (48)

☐ Computer file (107)

[Show more ...](#)

Recommendations

cont.

- Conduct another study with the Melvyl search engine - got some indications that it might already have solved some of these problems
- In our brief look at it, it was better at finding and filtering results, but still took as many clicks to get to text

Google Scholar

- Several lessons learned from its example
- Simplest possible interface - single search bar, single button
- Ranking algorithms seem to work better than all others
- Single click from results page to PDF for articles
- Availability of related works

Google Scholar cont.

- Even the advanced search is simple:

The screenshot shows the Google Scholar Advanced Search interface. The browser address bar displays the URL: `http://scholar.google.com/advanced_scholar_search?hl=en&as_sdt=2000`. The page features a green header with the Google Scholar logo and the title "Advanced Scholar Search". Navigation links for "Web", "Images", "Videos", "Maps", "News", "Shopping", "Gmail", and "more" are visible. On the right, there are links for "Scholar Preferences" and "Sign in".

The main search area is divided into several sections:

- Find articles:** Includes radio buttons for "with all of the words", "with the exact phrase", "with at least one of the words", "without the words", and "where my words occur". A text input field is provided for each option, and a dropdown menu for "anywhere in the article" is located at the bottom right of this section.
- Author:** A text input field with the label "Return articles written by" and an example: "e.g., 'PJ Hayes' or McCarthy".
- Publication:** A text input field with the label "Return articles published in" and an example: "e.g., J Biol Chem or Nature".
- Date:** Two text input fields with the label "Return articles published between" and an example: "e.g., 1996".
- Collections:** Includes a section for "Articles and patents" with radio buttons for "Search articles in all subject areas (include patents)" and "Search only articles in the following subject areas". Below this are checkboxes for various subject areas: Biology, Life Sciences, and Environmental Science; Medicine, Pharmacology, and Veterinary Science; Business, Administration, Finance, and Economics; Physics, Astronomy, and Planetary Science; Chemistry and Materials Science; Social Sciences, Arts, and Humanities; and Engineering, Computer Science, and Mathematics.
- Legal opinions and journals:** Includes radio buttons for "Search all legal opinions and journals.", "Search only US federal court opinions.", and "Search only court opinions from the following states:". Below this is a grid of checkboxes for various US states: Alabama, Florida, Louisiana, Nebraska, Oklahoma, Vermont, Alaska, Georgia, Maine, Nevada, Oregon, Virginia, Arizona, Hawaii, Maryland, New Hampshire, Pennsylvania, Washington, Arkansas, Idaho, Massachusetts, New Jersey, Rhode Island, West Virginia, California, Illinois, Michigan, New Mexico, South Carolina, Wisconsin, Colorado, Indiana, Minnesota, New York, South Dakota, Wyoming, Connecticut, Iowa, Mississippi, North Carolina, Tennessee, Delaware, Kansas, Missouri, North Dakota, Texas, Dist. of Columbia, Kentucky, Montana, Ohio, and Utah.

A "Search Scholar" button is located at the bottom left of the page.

Timeline

- Interview one or two more non-ICS professors - Colin, by 12/3
- Compile the interview results into a comprehensible format - All, 12/4
- Create some simple mockups to illustrate our recommendations - Sam/Rahul, 12/8
- Compile everything and submit final report - 12/10

Questions?