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Dare to know

Database Research Skills

Introduction

The *American Library Association Glossary of Library and Information Science* (4th ed.) defines databases as “an organized collection of computer records such as bibliographic data, documents that are full-text, abstracts, images, and more. Records are standardized to allow for the searching and retrieval of content using a database management system.” As the term applies to the Barton Library, a database is a systematized assemblage of journal, magazine, newspaper, and eBook publications.

Database search skills are vital to the continued success of a student and researcher. The Internet offers millions upon millions of results when conducting a search, but this is not a desirable outcome. The painstaking process of judging which website is reliable, not to mention the constraints of time, will be detrimental to an efficient, productive search.

When searching the Library’s databases, researchers naturally want to find materials that match their topic and assist them in completing the assignment. This guide will cover some of the basic skills required to efficiently search a database.

Basic Search

A Basic Search will allow a researcher to use Author, Publication Title, Subject, or Keyword as their search term(s). Entering the Author, Publication Title, or Subject into the search input box is best as Keywords will result in a sizeable list.

Search Options	
Author	<ul style="list-style-type: none">Searching for an author’s first name and surname will result in all documents that have been penned by people sharing those names.
Publication Title	<ul style="list-style-type: none">Searches for all documents available where the publication title contains the word(s) entered.
Subject	<ul style="list-style-type: none">Subject searches survey topics such as academic disciplines, companies,

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	<p>events, laws, geographic locations, organizations, and people.</p> <ul style="list-style-type: none"> • This is a good first step when beginning research or when linking to related subjects suggested by the system. • A subject search will ensure the entire article addresses the topic.
<p>Keyword</p>	<ul style="list-style-type: none"> • Keyword searches examine significant fields in documents, including titles, introductory text, authors, and subject terms. • A keyword search may grab articles that do not address the topic. Search results may simply have found the search word(s) in the article(s).

Options for filtering the search include retrieving documents only from full-text sources, a specific date range, peer-reviewed publications and/or only those containing images.

Limit Results	
Option	Description
<p>Documents with full text</p>	<ul style="list-style-type: none"> • Search results can be limited to include only documents with full text, thereby eliminating any citation-only and abstract-only articles.
<p>Peer-reviewed or scholarly publications</p>	<ul style="list-style-type: none"> • Search results can be limited to include only articles from peer-reviewed publications. • The ALA defines the term “peer-review” as “the process by which one or more experts in a field read ... an article or book to determine whether it should be published.” • The Oxford English Dictionary defines “scholarly” as work “pertaining to, or

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	characterizing, a scholar; befitting, or natural to, a scholar; learned, erudite.”
Documents with images	<ul style="list-style-type: none"> This option limits results to only those documents that contain some form of image such as an illustration, map, or chart.
Publication date(s)	<ul style="list-style-type: none"> Search results can be limited to include only documents published on a specific date or in a range of dates.

With large and diverse periodical collections, a Basic Search may produce too many results that are not pertinent to the user’s goal. This may be especially true when search terms consist of common words or names.

Advanced Search

Use Advanced Search when you need to enter additional search criteria. Advanced searches allow for a search in a particular field or a combination of fields, including Author, Title, Subject Terms, Company Entity, and ISBN/ISSN. Many options for limiting your search are available such as publication type, language, and number of pages.

Logical (Boolean) operators can also be employed to refine the search.

Boolean Operators	Description	Examples	Notes
AND	Finds all search terms in the searched text.	Keats AND Romanticism	<ul style="list-style-type: none"> Combines search words and makes results more specific. Generally speaking, AND is not needed between search terms as the search engine automatically looks for all search terms in proximity to one another. However, AND can be used to find terms anywhere in the searched text, and not just in proximity to one another. The AND operator is most effective when doing an Advanced Search.

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OR	Finds one, some, or all of the search terms in the searched text.	Surgical OR Scrub	<ul style="list-style-type: none"> • Searches terms separately and gives the user more results. • OR is good to use when searching for variant spellings or synonymous terms. • Note: this will increase the search results.
NOT	Use before a term that must not be found in the searched text.	Ranching NOT Farming	<ul style="list-style-type: none"> • Eliminates a specific topic from the results. • Generally, entering the desired search term rather than terms not being sought is a better strategy. • Using the example of searching for ranching but not farming, search for specific aspects of ranching, such as beef cattle ranching, pasture management, cattle feedlots, or animal food manufacturing.

Search History

The Search History function retrieves searches or alerts previously performed during the current session.

Quotation Marks

Quotation marks should be placed around search terms when seeking words in a specific order with no intervening words. This is also useful for phrases that contain “and,” “or,” or “not” that should not be treated as logical operators.

For example: “black and white photographs”

Wildcard Characters

Wildcards allow users to substitute symbols for one or more letters. This is beneficial when exact spellings are unknown.

Wildcard	Description	Example	Notes
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*	The asterisk stands for any number of characters or none.	A search for carib* finds Carib, Caribs, Carribbean, caribe, or caribou	Many databases require a minimum number of characters (usually three) before you can use the asterisk wildcard, so “ma*” would not be allowed.
?	The question mark stands for exactly one character.	A search on psych????y finds psychiatry and psychology, but not psychotherapy.	
!	The exclamation point stands for a maximum of one character.	A search with colo!r finds color and colour.	

Other Search Tips

Search engines typically ignore:

<ul style="list-style-type: none"> Capitalization 	<ul style="list-style-type: none"> A search for “bill gates” will produce the same results as “Bill Gates.”
<ul style="list-style-type: none"> Stop words 	<ul style="list-style-type: none"> These are small, common words that are ignored in search queries and in the text of documents. This includes words such as “a,” “an,” “as,” “at,” “in,” “is,” “on,” “that,” “the,” and “which.” For example, a search for “secretary of state” will produce the same results as “secretary state.” The list of stop words varies by database collection.
<ul style="list-style-type: none"> Symbols and punctuation 	<ul style="list-style-type: none"> Most are ignored. However, “&,” “&sol.,” and “&apos” are generally recognized. Use periods when searching for initials.

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| | <ul style="list-style-type: none">• Use apostrophes when your search terms include contractions or names that have an apostrophe. |
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