

The New On-Line Search Fundamentals

1. Search Process

Natural language searches – Natural language searching is essentially the keyword searching we all know and love; the search results you get reflect algorithmic decision-making by the people who designed the search engine. Often the results you get will be based on the number of times your search terms appear in a document or on a web page.

Boolean searches – Boolean searches are also referred to as “terms and connectors” searches. These are the searches using quotation marks, minus signs, slashes, and other symbols to “tell” the search engine exactly what you are searching for. Boolean searching gives you a way to limit your searches by dates, run searches in specific fields, and overall return more precise results.

Natural Language v. Boolean searching compared

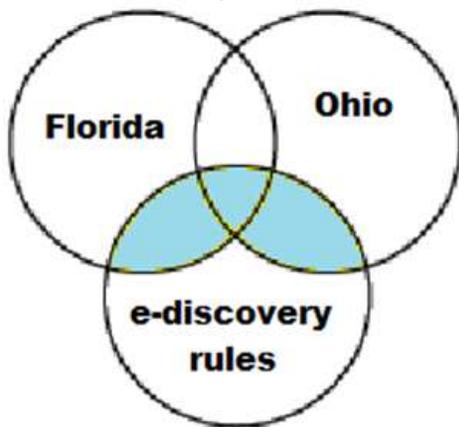
- Most search engines (including Google, Bing, Westlaw Next, and Lexis Advance) are designed for natural language searching.
- You can override natural language searching
 1. If you know the terms and connectors used by that search engine. (I often click on “help” or something similar to see what terms and connectors the search engine uses.); or
 2. If you can find the “advanced search” page for the search engine.
- Natural language searching provides the “best” search results when
 - You are not sure where to start and you need to figure out what search terms to use (i.e., you don’t know the words used on the webpages or in the documents you are looking for);
 - You want a large number of search results you can sift through to figure out what kinds of results to expect; or
 - You are researching a conceptual issue rather than a specific topic.
- Boolean searching will more likely get you what you are looking for when
 - Search results from a natural language search are just not on point. (This actually suggests you know what you are looking for, just not exactly how to find it.);
 - You have a known item you are trying to find (e.g., a specific case or article);
 - You know the kinds of results you are looking for (e.g., Word documents, information only from government websites, information only produced in the last three years); or
 - You are familiar with a website or know how it’s organized.

Natural Language Search	Boolean Search
<p>SEARCH: founding fathers first amendment begging</p> <p>The search engine may read this as your request for any webpages that mention the words founding <u>and</u> fathers <u>and</u> first <u>and</u> amendment <u>and</u> begging.</p> <p>Or it may read it as your request for any webpages that mention either founding <u>or</u> fathers <u>or</u> first <u>or</u> amendment <u>or</u> begging.</p>	<p>SEARCH: "first amendment" begging OR vagrancy OR homelessness OR transience "founding fathers" –"Thomas Jefferson"</p> <p>The search engine reads this as your request for any webpages that include both "first amendment" <u>and</u> "founding fathers" and also includes either begging <u>or</u> vagrancy <u>or</u> homelessness <u>or</u> transience. You will not get any results that include mention of Thomas Jefferson.</p>

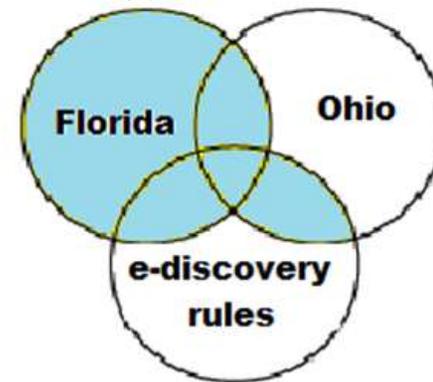
Note: With Boolean searches, you will occasionally need to be aware of the order in which the search engine will process your search terms based on the connectors you have used. For example, in some search engines, Boolean operators will be grouped or searched in the following order: AND, then NOT, then OR. In other words, an AND operation will be performed before an OR operation if both operations are included in your search. You can often use parentheses to override priority of search operators because terms and phrases in parentheses are processed first.

Example

(Florida OR Ohio) AND e-discovery rules
 The statement in parentheses –
 "Florida OR Ohio" – is processed first.



If parentheses were omitted:
 Florida OR Ohio AND e-discovery rules
 The AND operation – "Ohio AND e-discovery rules" – is processed first.



For more information on forming search queries, Boolean searching, and how search engines work, read the following:

- Basic Boolean Search Operators and Query Modifiers Explained:
<http://booleanblackbelt.com/2008/12/basic-boolean-search-operators-and-query-modifiers-explained/>
- Advanced Searching Techniques:
<http://library.duke.edu/services/instruction/libraryguide/advsearch.html>
 - o This site illustrates Boolean searching as one might use it in the Duke library catalog. The specific search terms and symbols Duke uses are common to most search engines, though there may be a few variations. For example, sometimes w/10 is used to indicate one word within 10 words of another; sometimes the search engine uses /10 instead.
- Boolify: <http://www.boolify.org/>
 - o Boolify is a website that helps you visually construct sophisticated searches without knowing all of the symbols (&, %, *) that may be needed to
- How Internet Search Engines Work:
<http://computer.howstuffworks.com/internet/basics/search-engine1.htm>

2. Online Research Resources: Recommended Websites

Legal Research

- Google Scholar: <http://scholar.google.com/>
- Law Library of Congress: <http://www.loc.gov/law/>
- The Public Library of Law: <http://www.plol.org/Pages/Search.aspx>
- Franklin County Law Library: <http://fclawlib.org/>
- Supreme Court Law Library:
<http://www.sconet.state.oh.us/LegalResources/LawLibrary/default.asp>
- Moritz College of Law Library: <http://moritzlaw.osu.edu/library/>
- Casetext: <https://www.casetext.com/>
- Ravel: A New View on Legal Search: <https://www.ravellaw.com/>
- National Center for State Courts: <http://www.ncsc.org/>
- National Conference of State Legislatures: <http://www.ncsl.org/>
- The Government Printing Office (GPO): <http://www.gpo.gov/>
- Globalex: <http://www.nyulawglobal.org/globalex/>
- The Oyez Project: www.oyez.org
- Duke Law: Legal Research on the Web:
<https://law.duke.edu/lib/researchguides/intresearch/>
- Georgetown Law Library: Free and Low Cost Legal Research Guide:
<http://www.law.georgetown.edu/library/research/guides/freelowcost.cfm>

For more information concerning online legal research databases, read the following:

- Are all Citator Services Created Equal? A Comparison of Google Scholar, Fastcase, Casemaker, LexisNexis, Westlaw Next, and Bloomberg:
<http://liblog.law.stanford.edu/wp-content/uploads/2013/01/Are-all-Citators-Created-Equal.pdf>
- YC-Backed Casetext Takes a New Angle on Value Added Legal Research With Wikipedia-Style User Annotations: <http://techcrunch.com/2013/08/12/yc-backed-casetext-takes-a-new-angle-on-value-added-legal-research/>
- Google Scholar: How Will it Change the Legal Research Landscape?:
http://www.americanbar.org/publications/bar_leader/2009_10/march_april/google.html
- Westlaw Product at a Google Scholar Price:
<http://www.nhbar.org/publications/casemakerreview.asp>

General Research

- DuckDuckGo: <https://duckduckgo.com/>
- Internet Archive: www.archive.org
- WolframAlpha: <http://www.wolframalpha.com/>
- Case Sensitive Search: <http://casesensitivesearch.com/>
- DeepDyve: <http://www.deepdyve.com/>
- Social Science Research Network (SSRN): www.ssrn.com
- Social Mention: <http://www.socialmention.com>
- Like Button: <http://likebutton.com/>
- GPlusData: <http://www.gplusdata.com/>
- Bing: www.bing.com
- Google: www.google.com
- Facebook: www.facebook.com
- Twitter: www.twitter.com
- LinkedIn: www.linkedin.com
- Boolean Strings: <http://booleanstrings.com/> (a great way to keep up to date)

For more tips and tricks related to online searching, read the following:

- How to Search Craigslist Site At Once:
http://howto.wired.com/wiki/Search_Every_Craigslist_Site_at_Once
- Are You Being Catfished? Simple Steps to Research Someone:
<http://knowem.com/blog/2013/02/07/are-you-being-catfished-simple-steps-to-research-someone/>
- Connect with Prospective Clients Using Twitter's Advanced Search:
<http://www.jameseducationcenter.com/connect-prospective-clients-using-twitthers-advanced-search/>