

Google for Academic Research

What we will cover today:

- Using Google, Google Scholar, and Google Patents to find quality information on the Web
- Using Google Book Search to locate relevant published resources
- Evaluating information found using Google

After the class you will be able to:

- Find quality information faster
- Get better results
- And, of course, impress your friends

Google

Cons:

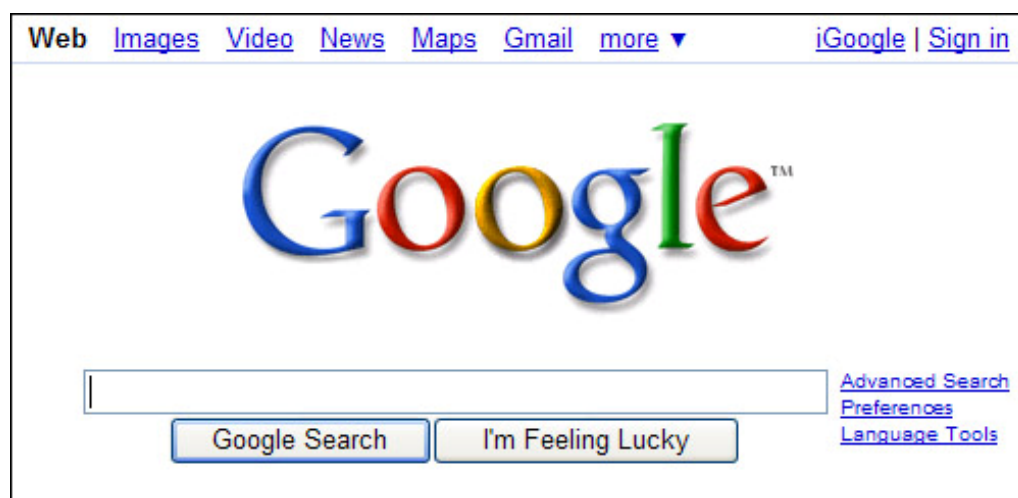
- Anyone can publish a Web site
- Ranking issues

Pros:

- Current information and opinion pieces
- Reports by and about non-profit organizations (Pew Center, UNICEF, etc.)
- Government documents and reports (Center for Disease Control, Homeland Security)

Navigating Google from the front page

- Images – allows one to search the web for images
- Video – search the Internet for videos or browse by category
- News – search the web for news stories (also has an alert service)
- Maps – several types of map: standard, satellite, street view, traffic, and hybrid
- G-Mail – Google's email service
- more ▼ -- brings you to a page listing further Google services and tools including:
 - Google Scholar and Google Book Search (which we'll cover in depth in this workshop)
 - Google Patents
 - Google Blog Search, and more
- iGoogle – allows you to customize a Google portal should you wish to make it your home page



- Advanced – not really advanced, but guided (more control). Don't be frightened!
 - Advanced Search Tips <http://www.google.com/help/refinerearch.html>
- Preferences – tailors Google to your style (# of results per page, etc)
- Language Tools – search in specific languages or countries (also has a translator)



Hands-on Search / Subject of their Choice

(suggestions: Martin Luther King, television violence, genetically-modified crops)

Basic Searching

- Choosing terms
 - Word order matters (internet addiction vs. addiction internet)
 - The more relevant terms one adds the better – as long as you know the terms will be on the page (“michael jordan biography” is better than “jordan”)
 - Be aware how words are used (warrantless domestic wiretapping vs. terrorist surveillance)
- “and” is assumed between search terms (including it will change your results)
- Not case-sensitive
- Common words omitted from search (the, to, an, where, etc.)
- Word variant searching is automatic (“education” will also search “educational” “educated” etc.)
- Use quotation marks to retrieve an exact phrase, name, or quotation (“birth order,” “john dewey”)
- Basic search strategy is to limit by domain: site:

[OPTIONAL]



Hands-on Search / Subject of their Choice / Limited by phrase & domain

(suggestions: Martin Luther King, television violence, genetically-modified crops)

Interpreting Search Results

Pros:

- Almost always retrieve something
- Spell checker
- Relevancy ranked

Cons:

- Link popularity
 - Popular not necessarily the best (martinlutherking.org)
 - Relevant not necessarily recent
- Sponsored Links = Paid Advertising
- Cached – recent snapshot of page – highlighted search terms

Using Advanced Search

The screenshot shows the Google Advanced Search interface. At the top, it says "Google Advanced Search" with links for "Advanced Search Tips" and "About Google". Below this, there are several sections for refining search results:

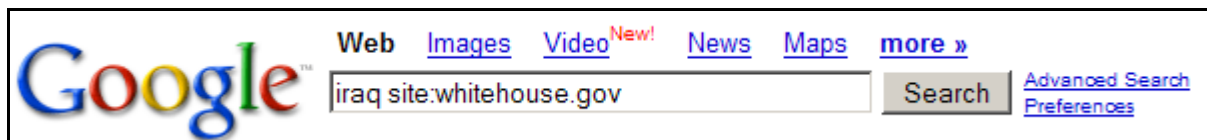
- Find results:** A section with radio buttons for "with all of the words", "with the exact phrase", "with at least one of the words", and "without the words". A search box contains "television violence", and a dropdown shows "10 results". A "Google Search" button is present.
- Language:** "Return pages written in" with a dropdown menu set to "any language".
- File Format:** "Return results of the file format" with a dropdown menu set to "any format".
- Date:** "Return web pages updated in the" with a dropdown menu set to "anytime".
- Numeric Range:** "Return web pages containing numbers between" with two empty input boxes and "and" between them.
- Occurrences:** "Return results where my terms occur" with a dropdown menu set to "anywhere in the page".
- Domain:** "Return results from the site or domain" with a dropdown menu set to ".org .edu .gov" and a "More info" link.
- Usage Rights:** "Return results that are" with a dropdown menu set to "not filtered by license" and a "More info" link.
- Safe Search:** Radio buttons for "No filtering" (selected) and "Filter using SafeSearch".
- Page-Specific Search:** Two sections: "Similar" (Find pages similar to the page) and "Links" (Find pages that link to the page). Each has an input box with "e.g. www.google.com/help.html" and a "Search" button.

Advanced Techniques

- File Format
- Occurrences (title, text, URL, anywhere, etc.)
- Language tools
 - Language
 - search in many languages
 - translate
 - Country
 - Get specific perspectives

Advanced operators (use these to make your regular searches better)

- **site:** restricts the search to a specific domain (put in the search term first)
 - site:whitehouse.gov
- **define:** allows the user to quickly find a definition for a word
 - define:differentiated instruction
- **link:** let's you know which pages are linking to a specific site
 - link:http://www.eduref.org/
- **essential terms (+)**
 - star wars +lucas (retrieves sites about the films instead of the defense program)
- **negative terms (-)**
 - bass -music (retrieves "fishy" results)
- **synonyms (~)**
 - ~school ~reform
- * Use for fill in the blank searches (searches with gaps between terms)
 - wisconsin is the * capitol of the world



Hands-on Search / Subject of their Choice / Limit with Advanced Operator(s) of their Choice

Google Scholar

- Scholarly focus
- Academic publishers
- Professional papers and conference proceedings
- Online journals and reprinted articles
- Use the **Advanced Search** to get more control of your search

Setting Your Preferences for Google Scholar

- Before you search use **Preferences** to turn on "Find It" functions. These actions create "cookies" and are limited to a specific machine (not an account)
 - Search UW Madison in the **Library Links** box
 - Make sure the UW Madison box is checked
 - WorldCat – set default for off-campus access to "Library Search"
 - Select preferred citation manager
 - If you use RefWorks or EndNote, choose your option in the bibliography section
 - Then **Save Preferences**

Google Scholar BETA Preferences

Save your preferences when finished and return to search. [About Google Scholar](#) [Save Preferences](#)

Scholar Preferences

Interface Language Display Google tips and messages in:

Search Language Search for pages written in any language (Recommended).
 Search only for pages written in these language(s):
 Chinese (Simplified) English German Portuguese
 Chinese (Traditional) French Japanese Spanish

Library Links [\(what's this?\)](#)
 [Find Library](#)
e.g., Harvard
 Show library access links for (choose up to three libraries):
 Open WorldCat (Library Search)
 University of Wisconsin - Madison (Find It at UW Madison)
Only access to library subscriptions is usually restricted to patrons of that library. You may need to login with your library password, use a campus computer, or configure your browser to use a library proxy. Please visit your library's website or ask a local librarian for assistance.

Number of Results Google's default (10 results) provides the fastest results.
 Display results per page.

Results Window Open search results in a new browser window.

Bibliography Manager Don't show any citation import links.
 Show links to import citations into
 BibTeX
 EndNote
 RefMan
 RefWorks
 WenXianWang


Save your preferences when finished and return to search. [Save Preferences](#)



Hands-on Search / Solicit Subject from Class

(suggestions: stem cells, intelligent design, role-playing computer games, etc.)

Pros:

- Relevancy (relevant hits at the top of the list – tend to be older)
- Web-based materials not in other databases
- **Find It**  enabled (linked to UW library resources)
- Searches a broad cross-section of subjects and disciplines
- “Cited by” links to works that cite a particular book or article
- Strong in the Sciences (Engineering, Chemistry, Biology etc)
- Convenience
- Improving all the time

Cons:

- Secrecy
 - Frequency of updates
 - Coverage
- Gaps in coverage
- Incomplete Citations (often omit years, issue numbers or journal titles)
 - Use library databases to find reliable citation information
 - Use library databases to determine peer-reviewed research
- Doesn't handle variant spellings of author names or journal titles
- No automatic mapping of synonyms (use ~)

- No saved searches like many library databases and searches can be difficult to replicate
- Bias towards older literature – much of which is not full text
- Exporting citations
 - Only one at a time
 - Sometimes incomplete citation information
- Beta Version
 - Still needs **a lot** of work
 - Many search features uneven (date limits, operators and connectors)

Advanced Google Scholar Search Tips: <http://scholar.google.com/scholar/refinesearch.html>

Interpreting your Google Scholar Results

- **Cited by** – provides links to works that cite the item (sometimes more than in “Web of Knowledge)
- Use **Find It at UW Madison** to locate materials on campus
- **Related Articles** – Finds other articles with a similar subject matter
- **Web Search** – Searches for information about this work in Google
- **Library Search** – Finds libraries near you that have a book

[BOOK] Introduction to the **history of science**
 G Sarton - 1947 - Williams & Wilkins
[Cited by 54](#) - [Related Articles](#) - [Web Search](#) - [Find It at UW Madison](#) - [Library Search](#)



Hands-on – Download Citation into RefWorks
 (results may be untidy)

Google Patents

Available as of December 2006.

Pros:

- Keyword searchable in entire patent history.
- You can search for words within patents.

Cons:

- Details that are included vary from patent to patent depending upon what information Google has available.
- Doesn't currently include patent applications, international patents, or very recent U.S. patents.



Hands-on Search / Subject of their Choice
 (suggestions: iPod, girdles, Nintendo, hairspray)

Show a patent record:

- Patent Summary – key citation information about the patent
- Claims – lists the specific claims made by the patent
- Drawings – displays thumbnail links of drawings in the body of the patent
- Citations – lists other patents cited by the patent
- Referenced by – links you to all the patents that reference the one you're viewing

www.pat2pdf.org also provides full text access to patents. Search by the patent number found in Google.

Google Books

Background:

- Google Books Library Project
- Google working to scan the full text of books
- Materials provided in collaboration with library partners (for a full list of library partners, see: <http://books.google.com/googlebooks/partners.html>)
- Google Book Search allows you to download PDF files of entire books if they are out of copyright (or if the publisher has opted to allow it).

Pros:

- Another way to find books
 - Search the full text of books to find ones that interest you and download a PDF or learn where to borrow or buy them
 - Search using phrases, keywords or characters that won't appear in an online catalog

Cons:

- Inability to re-sort results
- Cannot save searches
- Not helpful for accessing current/popular books (copyright issues)
- Quality control in digitization can be inconsistent

Advanced Search Strategies

- Find Results Options
- Limits
 - date
 - author
 - publisher
 - full text



Hands-on Search / Solicit Subject from Class

(suggestions: algebra, Goethe, vampires, Halley's comet)

Interpreting your Google Books Search Results

- No Preview – Not allowed to see any part of the book, but you still get citation information
- Snippets – sentences with your search term in context
- Limited Preview – You often get to see the table of contents and/or index and title page and a page or two featuring your search term
- Full Book View

- Use “Search in this Book” to narrow or focus your search on more specific terms
- Find it in a Library – similar to the Library Search function in Google Scholar. Google Books links to WorldCat where one can search by zip code to locate a copy in the nearest library.
- Search in this book – allows the user to search within the book they have selected
- About this book – provides citation information (complete title, ISBN and subject headings)

Google Book Search Help: <http://books.google.com/intl/en/googlebooks/help.html>

Questions?