Search skills beyond Google

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- Data Summit (dbta.com/datasummit)

- Writer
 - Dollar Sign (column in Online Searcher) KMWorld (kmworld.com)



Agenda

- Google
- Not Google
- Sites for specific topics
- Social search
- Search tips and techniques
- Trends affecting search



Google

- Almost synonymous with search
- Where most people start their searching
- Even librarians start there
- Subscription databases are challenged to look like Google
- But is Google information professional/librarian fit for purpose?



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Changes in Google that affect us

- No more searching by country
 - Try changing region settings
 - Limit to language
 - Use VPN to fool Google into thinking you're a native
- NCR no longer works
- Size of snippets increased then decreased
- Mobile first
 - Indexing favors mobile sites
 - Different results depending on device
- Quick answers: Multifaceted featured snippets

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

Commands that still work

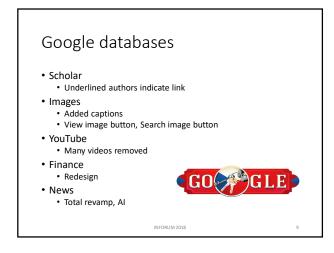
- Phrase searching
 - "term1 term2"
 - Verbatim
- Site:
- Intitle: Allintitle:
- Filetype:
- Number ranging: 1930..1935
- Asterisk
- AROUND?

Google enhancements

- AMP indexes mobile friendly sites first
 - If you're on your phone, you want a destination If you're on your desktop, you're doing research

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- Voice search interface
- Multifaceted Featured Snippets
 - Interpretation of search query
 - Guidance queries



Google databases Books Talk to books (books.google.com/talktobooks) Not traditional search, uses AI Alerts Alerts Compare terms Maps

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Where to find advanced search

- Google.com/advanced_search
- Google.com/advanced_image_search
- Settings at top of SERP
- No advanced search for news
- Hamburger icon on Scholar

Google's latest announcement

• Google Duplex: Can you tell the difference between a human and a computer when you answer your phone?

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- Artificial intelligence initiative using natural language
- Newsbreaks.infotoday.com article on Google I/O
 15 May 2018: "Here come the replicants"

Transition to XXVI

- Alphabet, Inc. formed holding company called XXVI Holding Inc.
- Legally separates Google from other Alphabet units
- Google is LLC (limited liability company)
- Why XXVI?



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Google not Google

- Alphabet is not a search company
- Alphabet is interested in
 - Autonomous cars
 - Controlled home
 - Smart cities
 - Space travel
 - Health care
 - Longevity
 - Cloud storage

 Alphabet companies besides Google: DeepMind, Waymo, Calico, SidewalkLabs, Verily, X

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Really not Google

- Bing, Yandex
- Oath
- Baidu
- DuckDuckGo, Peekier, Oscobo
- GigaBlast, Shodan, Million Short
- Carrot
- Specific topics
- Academic search

Bing

- Microsoft's challenge to Google
- Very visual interface
- "Trending now" appears under search box
- Intelligent search (multiple perspectives answers) • Relies on AI and sentiment analysis

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- Plus sign works for AND (it doesn't in Google)
- Problems with NOT command
- Search within image

Bing

• Additional databases show up after you do search

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- Images
- Videos
- Maps
- News
 - Personalized categories

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Yandex

- Two versions: Russian and English
- Option to run search in Bing, Google at bottom of SERP
- Slider icon for advance search
- Machine learning (MatrixNet) and deep learning (DaNet)
- Images and speech recognition
- Yandex Zen (zen.Yandex.com) personalized news feed

Yandex

- Not just a search company
- Email client
- Cloud storage (Yandex Disk)
- Yandex.Taxi ride sharing
- Yandex.Money online payments
- Autonomous cars
- Yandex Browser and Yandex Launcher

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Oath

- Subsidiary company of Verizon, formed after it acquired Yahoo
- Joins AOL, tumblr
- Yahoo search still exists, still uses Bing results
- Yahoo mail
- Yahoo Finance
- Yahoo Sports
- My Yahoo
- Sold Flickr to Smugmug in April

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Baidu

- Chinese search engine (baidu.com)
- Limited market because of language
- Uses artificial intelligence to define Chinese-English language pairs

- Solving the "Tchaikovsky problem"
 - Spelling
 - Pronunciation
- Wants a bigger market

DuckDuckGo

- Main claim to fame is privacy It doesn't track you, doesn't save your searches, ads won't follow you around
- !Bang commands
- SecureDrop (duckduckgo.com/securedrop) • Journalists are using to share sensitive information
 - Freedom of the Press Foundation maintains it

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Peekier

- Another privacy engine
- Uses Bing
- Has cloaked itself in privacy we don't know who owns it or why it's there
- Hamburger icon for settings
- Shows image preview rather than list of links





Gigablast

- Making a comeback after years of stagnation
- Explicit advanced search
- Added country and language limits
- News database with search and browse options

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- Shows results for defunct web pages
- One man's creation (Matt Wells)

Shodan

- Shodan.io
- Searches Internet of Things (Io)
- Looks for servers, webcams, printers, routers, any device connected to the Internet

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- CNN: "scariest search engine on the internet"
- Must register to use filters

MillionShort

- Finding long tail sites
- Settings: filter by adult content, country, language

- Choose to eliminate million or fewer sites
- Works by filtering out most popular sites

Carrot search

- Carrot2.org
- View results as list, as circle or as foam tree
- Restrict search to Wikipedia, Jobs, PubMed
- Cluster options



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SimilarSites

- Similarsites.com
- Enter URL and it finds similar sites

Omnity

- Omnity.io
- Uses associative semantic search technology to make connections among documents

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• Public (requires registration) and enterprise versions

Wiby Me

- Wiby.me
- Finds "older-style pages"
- These are often non-commercial

Metasearch engines

• Still around but do you really want to use them?

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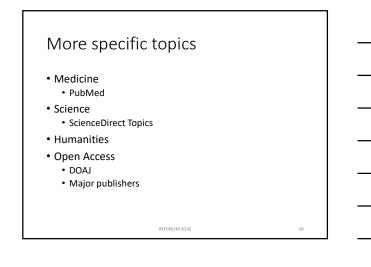
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• Very useful for travel sites

Specific topics

- Company information • Opencorporates.com
- General business
- Biznar.com
- Copyright
 - Ccsearch.om
- Art museums
 - guggenheim.org/collection-online

- Archived sites
- Archive.org



Academic Search

- Google Scholar (scholar.google.com)
- Microsoft Academic (academic.Microsoft.com)

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- BASE (base-search.net)
- Semantic Scholar (semanticscholar.org)
- Metabus (metabus.org)
- 1Findr (1science.com/1findr)
- Dimensions (ai.dimensions.com)

Academic Find

- ResearchGate.org
- Academia.edu
- Sci-Hub piracy
- Unpaywall from ImpactStory
- Kopernio now owned by Clarivate

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• #ICanHazPDF

Fake research

- Retraction Watch (retractionwatch.com)
- Bealls List (beallslist.weebly.com)
- Cabells Blacklist (cabells.com)
- Ethics of spoof papers, sting operations
- Contributes to post-truth world, lack of trust in expertise

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Misinterpreted research

News

- News is aggregated on Google, Bing, Yandex, DuckDuckGo
- Dedicated news aggregator sites
 News Now (newsnow.co.uk)
 - World News (wn.com)
 - Newsmap (newsmap.jp) requires Flash
- Traditional news sources have web equivalents: TV, newspapers, radio
- Online news outlets: Huffpost, The Verge
- Legal news: Lexisweb.com (free!)
- Technology news: TechCrunch.com

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Not the news

- Fake news, Alternative facts
- Yellow journalism, Tabloids
- Satire The Onion
- Twitter bot traffic
- Fake Facebook accounts influencing news

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• Fake people on LinkedIn

Fake news

- Allsides (allsides.com) powered by Google, enhanced by Allsides
- Hoaxy (hoaxy.iuni.iu.edu) in beta
- Snopes to catch rumors, financial troubles
- Is all news biased?
- Is traditional media left leaning?
- Do reporters pick and choose facts?
- Confirmation bias
- Where is the free press free?

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Social search

- Twitter
- Facebook
- LinkedIn
- Search capabilities versus how your library uses social media for marketing

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Twitter

- Expanded from 140 to 280 characters
- Advanced search commands
 Twitter.com/search-advanced
- And some they don't show you
 - Filter:follows (search tweets of people you follow)

- Min_faves:n
- Min_retweets:n

Facebook

- Large number of people get their news from Facebook
- Removal of fake accounts
- Advanced search options

LinkedIn

- Microsoft ownership is influencing how it works
- Search box can accommodate many possible search elements: Person, Place, Company, Keyword

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- Premium account
- Harder to find contact details such as email/phone

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• Publishing platform, not just user-generated CVs

Search tips and techniques

- Try multiple versions, different placement of search terms
- Context words
 - Tutorial or help or "how to" or "how do I"
 - Figure or chart or graph or photo
- Asterisks
- General terms versus technical terms
- Word variants
- Use image databases for charts and graphs
- Change search engines, browsers, devices

More tips and techniques

- Natural language or Boolean?
- How would people say this?
- Use advanced search capabilities
- Look for missing
- Try autosuggest
- Search anonymously
- Printfriendly.com configures web page for printing

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Trends in search

- Artificial (Augmented) Intelligence (AI)
- Augmented reality; Virtual reality
- XR (eXtended Reality)
- Machine learning
- Predictive analytics
- Mobile, voice search
 - Virtual assistants
 - At the reference desk?

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Trends in search

- Algorithms determining answers
- Answers instead of links
 Knowledge graphs
- Image searching and reverse image searching
- Videos as information source
- How to screen out fake, distorted, incorrect information

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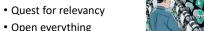
Not all topics have two sides
The earth is not flat

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Trends in search

- Death of Boolean
- Legal limitations/Privacy
 - Right to be forgotten • GDPR
- Lack of transparency

Open everything



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