

Search skills beyond Google

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Agenda

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



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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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Google commands

- Some commands discontinued but functionality remains
 - Machine learning replaces actual command
 - Personalization can affect this



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Commands that still work

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

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

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Google databases

- Scholar
 - Underlined authors indicate link
- Images
 - Added captions
 - View image button, Search image button
- YouTube
 - Many videos removed
- Finance
 - Redesign
- News
 - Total revamp, AI



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Google databases

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



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Where to find advanced search

- [Google.com/advanced_search](https://www.google.com/advanced_search)
- [Google.com/advanced_image_search](https://www.google.com/advanced_image_search)
- Settings at top of SERP
- No advanced search for news
- Hamburger icon on Scholar

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Google's latest announcement

- Google Duplex: Can you tell the difference between a human and a computer when you answer your phone?
- Artificial intelligence initiative using natural language
- Newsbreaks.infotoday.com article on Google I/O
 - 15 May 2018: "Here come the replicants"

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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?

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

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

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Bing

- Additional databases show up after you do search
- 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

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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

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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



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Oscobo

- Another privacy engine, originally targeted the U.K. (oscobo.co.uk), now goes beyond U.K. (oscobo.com)
- Uses Bing and Yahoo indexes
- Co-founders come from Blackberry and Yahoo



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Gigablast

- Making a comeback after years of stagnation
- Explicit advanced search
- Added country and language limits
- News database with search and browse options
- Shows results for defunct web pages
- One man's creation (Matt Wells)

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Shodan

- Shodan.io
- Searches Internet of Things (Io)
- Looks for servers, webcams, printers, routers, any device connected to the Internet
- CNN: "scariest search engine on the internet"
- Must register to use filters

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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

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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

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Omnity

- Omnity.io
- Uses associative semantic search technology to make connections among documents
- Public (requires registration) and enterprise versions

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Wiby Me

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

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Metasearch engines

- Still around but do you really want to use them?
- Very useful for travel sites

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Specific topics

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

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More specific topics

- Medicine
 - PubMed
- Science
 - ScienceDirect Topics
- Humanities
- Open Access
 - DOAJ
 - Major publishers

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Academic Search

- Google Scholar (scholar.google.com)
- Microsoft Academic (academic.microsoft.com)
- BASE (base-search.net)
- Semantic Scholar (semanticscholar.org)
- Metabus (metabus.org)
- 1Findr (1science.com/1findr)
- Dimensions (ai.dimensions.com)

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Academic Find

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

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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
- Misinterpreted research

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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
- Fake people on LinkedIn

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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](https://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

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Facebook

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

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LinkedIn

- Microsoft ownership is influencing how it works
- Search box can accommodate many possible search elements: Person, Place, Company, Keyword
- Premium account
- Harder to find contact details such as email/phone
- Publishing platform, not just user-generated CVs

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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

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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
- 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
- Quest for relevancy
- Open everything



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