POWER
SEARCHING
THE INTERNET

THE LIBRARIAN'S
QUICK GUIDE

Nicole Hennig

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Introduction

Everyone knows how to dash off a quick Google search, but do you know how to go deeper when searching the internet? This book will show you how to search for many types of information effectively: websites, news, images, videos, statistics, maps, books, definitions, translations, and more. With examples and how-to tips, you'll learn to effectively search Google, social media sites, Wolfram Alpha, and other internet search tools.

Many people aren't familiar with advanced features and filtering options of search tools on the internet. This book will show you where to find those options and how to use them effectively. We'll cover the following:

- Using Google effectively.
- Using other Google sites: Google News, Google Translate, Google Books, Google Scholar, and Google Maps.
- Searching for images and videos.
- Social media searching of Twitter, Facebook, Instagram, and Pinterest.
- Finding old websites using the Wayback Machine and Google's cache.
- Searching for data, statistics, and comparisons, using Wolfram Alpha.

I'll summarize with some guidelines that apply to any internet search tool, ideas for using this guide for library instruction, and a list of resources for learning more.

After reading this book you will:

- Know how to search Google and other search engines more effectively.
- Know how to protect your privacy when searching.
- Be familiar with some of the hidden features and filters offered by search tools covered in this book.
- Know about several different free search tools and when to use each.
- Have information you can use to teach your patrons about searching.

One thing to keep in mind while reading this book is that features of internet search tools change frequently, so it's likely that some of the options I discuss in this book will have changed by the time you read this. However, the main concepts stay the same. I'll summarize those concepts in the final chapter.

I hope that you'll find these methods useful in all of your own searching and also when helping library users. Enjoy reading this book and becoming a power searcher!

Chapter 1

Using Google Effectively

Special Features

Search Predictions

When you dash off a quick Google search, one of the first things you notice is that Google begins to add words to what you type in a menu that appears below the search box. This is handy when it suggests words that you were planning to type anyway, or when you need suggestions for how you might phrase your search. (If you don't see any predictions, it's possible that the word you are searching for is too new or not popular enough to generate predictions.)

For example, if you type "solar powered air conditioner," it shows these options (and more) in a menu below the search box:

- solar powered air conditioner for rv
- solar powered air conditioner for car
- solar powered air conditioner for camping
- solar powered air conditioner window unit
- solar powered air conditioner unit
- solar powered air conditioner diy
- solar powered air conditioner apartment

Google calls these "search predictions." You might wonder how it generates these. According to Google's documentation, they are based on three things:

- What other people are searching for, including trending stories
- The content of web pages indexed by Google

- Your search history (if you are signed in to a Google account with web and app activity turned on)[1]

It's not possible to turn the suggestions off,[2] but you can ignore them. Sometimes they can be helpful because they suggest something that's relevant to you. You could also use them to do keyword research and see what words people are including with certain terms. It's also possible to find reputation management problems for particular brands. For example, try typing "crayola colored bubbles," and you'll see predictions for "class action lawsuit." Since your own recent searches might show up in the menu, it's useful to know that you can remove those from the menu by clicking "remove" next to the search phrase.

Sometimes you may see options that are racist or inappropriate in other ways since it's showing what many people search for and is a reflection of the society we live in. There is a link under the suggestions where you can "report inappropriate predictions."

If you follow that link, Google asks you which predictions were inappropriate and lists all of them with checkboxes for selecting them. They then give you a choice of saying whether they were hateful, sexually explicit, violent, dangerous and harmful activity, or other.

You might remember that before mid-2017 these predictions were called "autocomplete" and were in the search box itself, and appeared dynamically as you typed. In mid-2017 Google decided to move them into a drop-down menu because their data shows that more people are searching on mobile devices than computers, and

Which predictions were inappropriate?

☐ portable solar powered air conditioner

☐ diy solar powered air conditioner

☐ solar powered air conditioner for rv

☐ portable solar powered air conditioner camping

☐ solar powered air conditioner for car

☐ small solar powered air conditioner

☐ solar powered air conditioner for camping

☐ lennox solar powered air conditioner

The predictions selected above are:

○ Hateful

○ Sexually explicit

○ Violent

○ Dangerous and harmful activity

○ Other

Additional comments (optional)

_____

Go to the **Legal Help page** to request content changes for legal reasons.

                                CANCEL   SEND

with a touchscreen, the menu works better than grayed-out letters in the search box.[3]

You can find many amusing instant predictions by entering a few words into the search box like these: "what is it called when," "what is the best," "what is the worst," "why do dogs," "why do cats," and so on.

Limiting and Sorting by Date

One of the most useful options of a Google search result is the ability to limit by date. Many people don't notice this feature because it's tucked away in a menu that's not apparent on the first screen. To find it, enter your search, and on the results screen look for a menu under the search box called "Tools," usually found on the far right of the screen. If you are on a mobile device, you will have to scroll the menu horizontally to see it.

When you select Tools, a submenu appears where the first choice is "Any Time," with a down arrow. Open that menu to see more choices like past hour, past 24 hours, past week, past month, past year, or a custom range.

Any time ▼

✓ **Any time**

   Past hour

   Past 24 hours

   Past week

   Past month

   Past year

   Custom range

This is very useful when the default results are a bit dated—such as when you are looking for help with a new technology. If you're finding pages that are too old, just limit to the current year or to a custom range, such as the past six months.
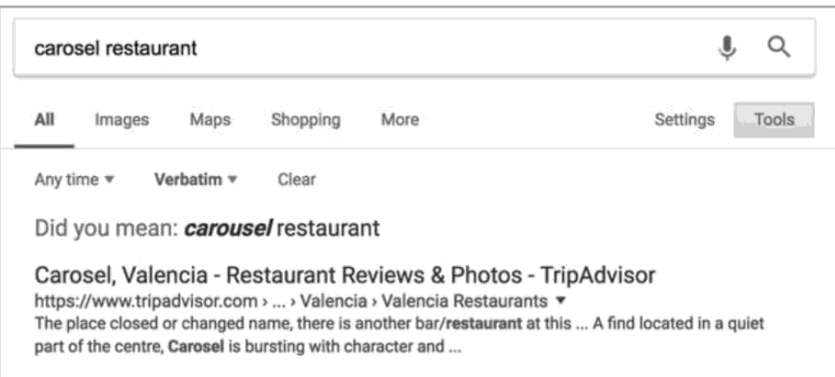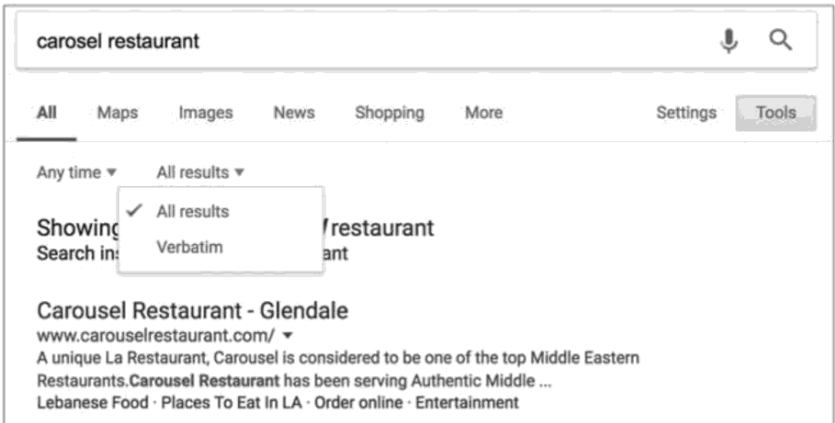
After you make your choice, such as "past month," you'll see another menu

option next to it, where you can sort by date instead of by relevance. It's worth trying both types of sorting to see which one gives you the most relevant information for your search.

Verbatim Search

If you've ever felt frustrated because Google's results aren't including all of the words you entered, here is why. Google does the following to your default searches:

- Makes spelling corrections
- Gives preference to sites you've visited before
- Includes synonyms of your terms (like "car" when you searched "automotive")
- Finds results that match similar terms (like "floral delivery" when you searched "flower shops")

carosel restaurant

All   Maps   Images   News   Shopping   More   Settings   Tools

Any time ▾   All results ▾

✓ All results

Showing   restaurant
Search in: Verbatim   ant

Carousel Restaurant - Glendale
www.carouselrestaurant.com/ ▾
A unique La Restaurant, Carousel is considered to be one of the top Middle Eastern Restaurants.**Carousel Restaurant** has been serving Authentic Middle ...
Lebanese Food · Places To Eat In LA · Order online · Entertainment

carosel restaurant

All   Images   Maps   Shopping   More   Settings   Tools

Any time ▾   Verbatim ▾   Clear

Did you mean: **carousel** restaurant

Carosel, Valencia - Restaurant Reviews & Photos - TripAdvisor
https://www.tripadvisor.com › ... › Valencia › Valencia Restaurants ▾
The place closed or changed name, there is another bar/**restaurant** at this ... A find located in a quiet part of the centre, **Carosel** is bursting with character and ...

Verbatim searching didn't change the spelling of my term, "Carosel" to "Carousel" leading me to the restaurant I was looking for.

- Finds words with the same stem (like "running" when you typed "run")
- Makes some of your search terms optional

Google does this in an attempt to make natural language searching work well for you. Often this gives you good results, but sometimes it doesn't. In those cases, you can use Google's "verbatim" search.

To find it, enter your search terms, and on the results screen look for the "Tools" menu on the far right. Select it and you'll see a sub-menu that includes the date filters discussed previously. Next to that is a menu that says, "All Results." Select that to switch to "Verbatim." Now your results won't be influenced by the items mentioned above.[4]

Advanced Search Features

Google Advanced Search has several features worth knowing about. You can find the advanced screen by looking in the Settings menu for "Advanced Search," either on Google's home page or on your results screen.

The first few choices are "Find pages with. . ."

- All of these words
- This exact word or phrase
- Any of these words
- None of these words

One thing to keep in mind is that even when you use these features, Google still follows its practices mentioned in the previous section, such as making some of your search terms optional or finding words with the same stem. For example, if you were to enter the following terms into the box marked "all of these words,"—**amazon echo public library**—you would get some results that don't include every word, such as a story about Amazon Echo in a school library (missing "public") or a book on Amazon about public libraries (missing "echo").

To make sure all of your terms are included, use the verbatim search, described in the previous section. You can also use quotes around a single term to make sure it is included in your results. If you ever see "**missing:term | must include:term**" under a result, you can click the link on the term itself, after "must include." This will put pages containing that word back into your results set.

Different Motivations for Different Generations of Workers: Boomers ...
https://www.inc.com/.../different-motivations-for-different-generations-of-workers-boo...
Oct 17, 2017 - Different Motivations for Different **Generations** of Workers: Boomers, Gen X, **Millennials**, and Gen Z.
Missing: ~~perennials~~ | Must include: **perennials**

New Perspectives: Forget Millennials, target Perennials – Zenith
https://www.zenithmedia.com/new-perspectives-forget-millennials-target-perennials/ ▼
Dec 14, 2017 - **Perennials** are not defined by age but by mindset. Yet although Pell is clear that this group crosses **generations** and is more categorized by attitude than age, the ...

That said, it can still be useful to use these fields, especially since they remind you of which operators you can use on the main Google screen. You can type the minus sign to exclude words, the Boolean operator "OR" to show any of the words, and use quotes around your terms to find exact phrases. The plus sign as a way to indicate required terms was discontinued in 2011,[5] but you can use quotes around a single term to make sure it is included in your results.

For example, if you're searching for information about the safety of Elon Musk's invention called the Hyperloop, you could use the advanced screen. Enter **hyperloop** in "all of these words" and enter **safety crash terrorism** in "any of these words." On the results screen Google enters your search in the box like this: **hyperloop safety OR crash OR terrorism**.

This is helpful for reminding you how Google works, so you can use these operators on the main screen. What's more helpful is to realize that Google doesn't act like library databases and isn't designed for this type of precision searching. Google instead is focused on natural language searching. It often works best to enter your query as a question that you might ask aloud during a conversation. For example, you could enter phrases like "**how high is the tokyo sky tree**" or "**what is the tallest building in the world**." (Question marks aren't needed). Since many people search on mobile devices these days, and many use the microphone to speak their search into their phone, Google aims to provide answers quickly and directly to these queries.[6] And now with the rise of smart digital assistants like Amazon Alexa, Google Home, and Siri, we see even more effort to improve natural language searching by Google. Google does this in its Google Assistant app, designed for voice searching on mobile phones or with the Google Home smart speaker.[7]

Advanced Search: Narrowing Options

The most useful parts of the advanced search screen are the narrowing options. With these, you can limit by geographic region, limit by language, limit by site or domain, limit by file type, and

search for terms that appear in specific parts of a page, such as in the title or in links to a page.

Then narrow your results by...

language:	any language
region:	any region
last update:	anytime
site or domain:	
terms appearing:	anywhere in the page
SafeSearch:	Show most relevant results
file type:	any format
usage rights:	not filtered by license

Limit by Language

Let's look at some examples of how limits work. Limiting by language is useful when you want to read content in a language other than your first language. Search for "Frida Kahlo" and limit to Spanish to read articles about her in Spanish. If you want to use Google entirely in Spanish, you can visit the Settings screen and select Language, then select Español from the choices there. Be sure to save your selection. Google reminds you that saved choices are available whenever you are signed in to Google.

Be sure to select "show more" to see all of the languages available. Google is adding more languages all the time. For fun, try changing your settings to one of the silly language choices that Google has added as jokes, such as Elmer Fudd, or Hacker. Don't worry, it's easy to change it back to English or whatever language you prefer.

Limit by Region

Another useful feature is the "limit by region" choice. Let's say you are searching for information about a place called the Riverside Bridge. That is a very common name, found in places all over the

Search Settings

Search results

Languages

Help

Which language should Google products use?

Deutsch	hrvatski	português (Portugal)	ไทย
English	italiano	Tiếng Việt	한국어
español	Nederlands	Türkçe	中文 (简体)
español (Latinoamérica)	polski	русский	中文 (繁體)
français	português (Brasil)	العربية	日本語
Acoli	Ichibemba	Occitan	татар
Afrikaans	Igbo	Oromoo	точики
Akan	Ikirundi	Pirate	українська
azərbaycan	Indonesia	română	ქართული
Balinese	Interlingua	rumantsch	Հայերեն
Bork, bork, bork!	isiZulu	Runasimi	ייִדיש
bosanski	íslenska	Runyankore	עברית
brezhoneg	Javanese	Seychellois Creole	تۆرکجه
català	Kinyarwanda	shqip	اردو
Cebuano	Kiswahili	Sindhi	پښتو
čeština	Klingon	slovenčina	فارسی
chiShona	Kongo	slovenščina	کوردیی ناوەندی
Corsican	kreol morisien	Soomaali	ትግርኛ
Cymraeg	Krio (Sierra Leone)	Southern Sotho	አማርኛ
dansk	Latin	srpski (Crna Gora)	नेपाली
Èdè Yorùbá	latviešu	srpski (latinica)	मराठी
eesti	lea fakatonga	Sundanese	हिन्दी
Elmer Fudd	lietuvių	suomi	বাংলা
esperanto	lingála	svenska	ਪੰਜਾਬੀ
euskara	Lozi	Tswana	ગુજરાતી
Eʋegbe	Luba-Lulua	Tumbuka	ଓଡ଼ିଆ

Google

Google Seawch   I'm Feewing Wucky

Google offered in: English

Google with language settings changed to "Elmer Fudd"

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world. Often Google will use your current location and find places close to you with that name. But if you're searching for a place that's not nearby, it's useful to limit by region. If you are in the United States but looking for a Riverside Bridge in the United Kingdom, you can limit by that region and quickly find the one you are looking for.

Limit by Site or Domain

Let's begin with an example in order to see the usefulness of this next option. Suppose you are looking for varying opinions of the "UnCollege movement." As a basic Google search, you might simply type **opinions of the uncollege movement**. When I tried this search, the results on the first screen were mostly from ".com" sites, with a few ".org" sites.

If you switch to the advanced search screen and limit your search to site or domain:edu, you will get results only from pages hosted by educational institutions. Results from those institutions might have very different opinions of the UnCollege movement than what you found in your initial search. It will also help bring those sites to the first few screens of results, instead of buried deep within your initial result set.

If the difference between a site and a domain is not fresh in your mind, here is a reminder. For example, "stanford.edu" is the *domain* for Stanford University, and "explorecourses.stanford.edu," is a *site* at Stanford. Sites can also take this form, "stanford.edu/news." This is a useful feature to use when a particular site doesn't have a useful or easily findable search engine of its own.

It's useful to know the most common top-level domain extensions and what they are used for. In the 1980s, seven top-level domain extensions were created.[8] These first three are unrestricted (anyone can use them), but were originally intended for commercial businesses, internet service providers, and noncommercial organizations respectively.

- .com (commercial)
- .net (network)
- .org (noncommercial organization)

These next four are restricted to particular types of groups.[9]

- .int (international)
- .mil (military)
- .edu (education)
- .gov (government)

In addition, there are two-letter country code domain extensions for websites from particular countries. It's not required to use these, so many places use .com, .edu, or .org instead, but many governmental organizations use them. So they can be a handy way to

search for information on government websites from a particular country.

Here are a few examples:

- .ca (Canada)
- .cn (mainland China)
- .fr (France)
- .ch (Switzerland)
- .au (Australia)
- .in (India)
- .de (Germany)
- .jp (Japan)

You can find a complete list of these on the wiki of ICANN (Internet Corporation for Assigned Names and Numbers), https://icannwiki.org/Country_code_top-level_domain. ICANN was formed in 1998 and is a nonprofit partnership of people from around the world who work to coordinate unique identifiers for the internet.

Since the 1980s, many more domain extensions have been added, such as the following:

- .biz
- .info
- .jobs
- .mobi
- .name

You can view a huge list of all of these on the website of IANA (Internet Assigned Numbers Authority), https://www.iana.org/domains/root/db.

Some domain extensions aren't actually used for what they were originally designed for. One example is the .co country code for Colombia. Some companies use it since it can also stand for "company." For an example, see the digital agency Two Words (https://twowords.co). Others use two-letter country codes as part of creative domain names like about.me, bit.ly, last.fm, postach.io, or thanksforteaching.us.

So when you are filtering by domain, you'll probably get the best results for *most* queries using the seven original domain extensions mentioned above, since that's what most sites use.