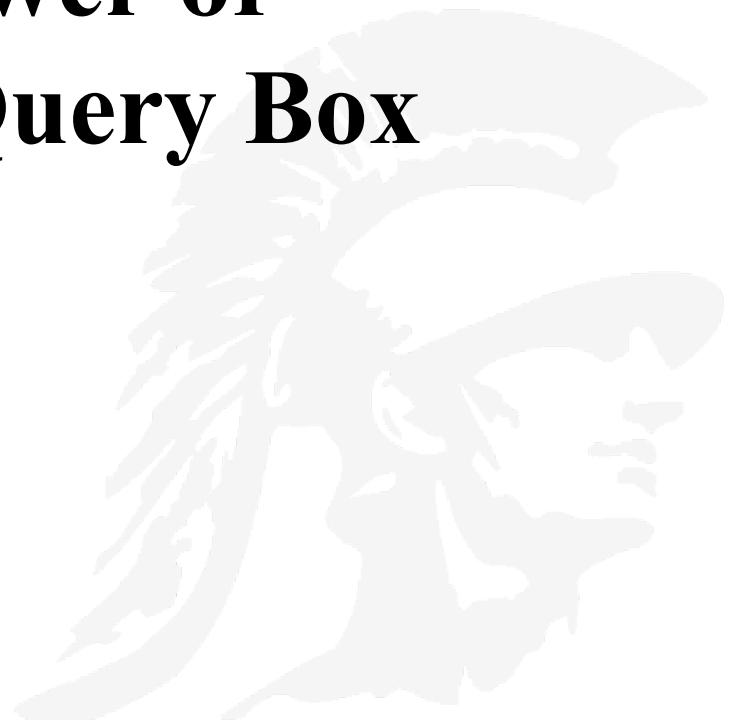
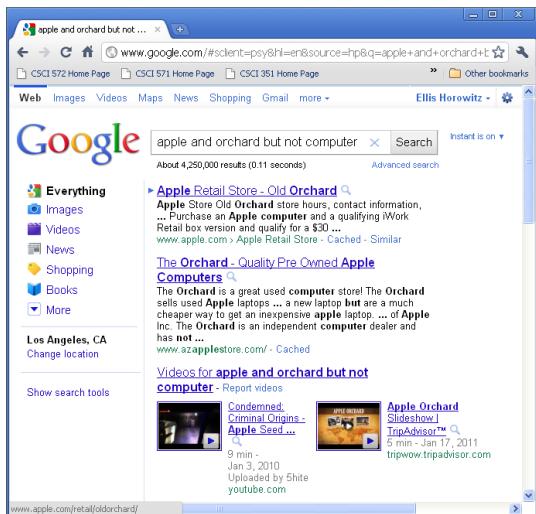


The Power of Google's Query Box



Traditional Boolean Queries in a Search Box Don't Work As Expected

Query: "apple AND orchard BUT NOT computer" still returns Apple Computer results



Google search results for "apple and orchard but not computer":

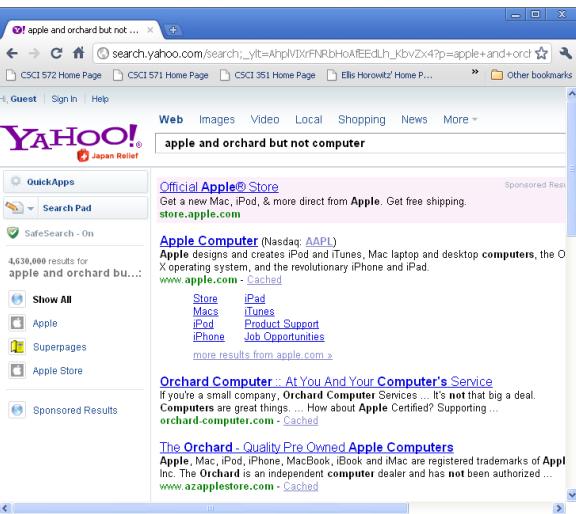
- Apple Retail Store - Old Orchard** (link)

Apple Store Old Orchard store hours, contact information, ... Purchase an Apple computer and a qualifying iWork Retail box version and qualify for a \$30 ... www.apple.com : Apple Retail Store - Cached - Similar
- The Orchard - Quality Pre Owned Apple Computers** (link)

The Orchard is a great used computer store! The Orchard sells used Apple laptops ... a new laptop but are a much cheaper way to get an inexpensive apple laptop ... of Apple Inc. The Orchard is an independent computer dealer and has not ... www.azapplestore.com/ - Cached
- Videos for apple and orchard but not computer** - Report video
 - Condemed: Criminal Origins - Apple Seed...** (link)

9 min - Jan 3, 2010 Uploaded by Shite youtube.com
 - Apple Orchard Slideshow | TripAdvisor™** (link)

5 min - Jan 17, 2011 tripwow.tripadvisor.com



Yahoo search results for "apple and orchard but not computer":

- Official Apple® Store** (link)

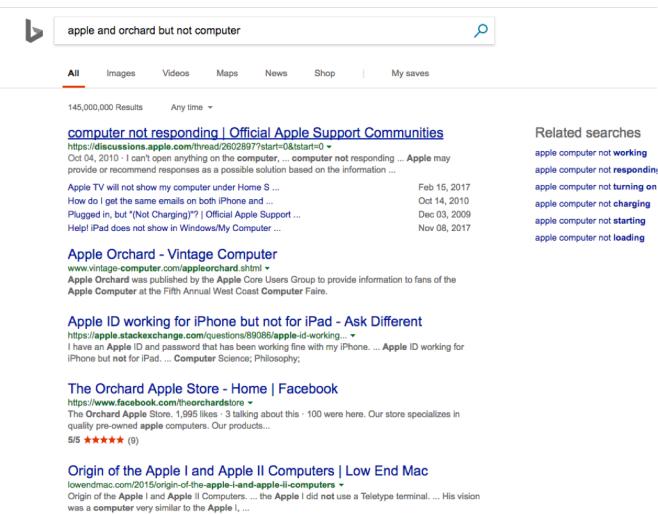
Get a new Mac, iPod, & more direct from Apple. Get free shipping. store.apple.com
- Apple Computer (Nasdaq: AAPL)** (link)

Apple designs and creates iPod and iTunes, Mac laptop and desktop computers, the OS X operating system, and the revolutionary iPhone and iPad. www.apple.com - Cached

 - Store**
 - iPad**
 - Macs**
 - iTunes**
 - iPod**
 - Product Support**
 - iPhone**
 - Job Opportunities**
- Orchard Computer :: At You And Your Computer's Service** (link)

If you're a small company, Orchard Computer Services ... It's not that big a deal. Computers are great things ... How about Apple Certified? Supporting ... orchardcomputer.com - Cached
- The Orchard - Quality Pre Owned Apple Computers** (link)

Apple, Mac, iPod, iPhone, MacBook, iBook and iMac are registered trademarks of Apple Inc. The Orchard is an independent computer dealer and has not been authorized ... www.azapplestore.com - Cached



Bing search results for "apple and orchard but not computer":

- computer not responding | Official Apple Support Communities** (link)

http://discussions.apple.com/thread/1000000000000000000 ... Oct 04, 2010 - I can't open anything on the computer, ... computer not responding ... Apple may provide or recommend responses as a possible solution based on the information ...
- Apple TV will not show my computer under Home S ...** (link)

How do I get the same emails on both iPhone and ... Plugged in, but "(Not Charging)" | Official Apple Support ... Help! iPad does not show in Windows My Computer ...
- Apple Orchard - Vintage Computer** (link)

www.vintage-computer.com/appleorchard.shtml - Orchard Orchard was published by the Apple Core Users Group to provide information to fans of the Apple Computer at the Fifth Annual West Coast Computer Fair.
- Apple ID working for iPhone but not for iPad - Ask Different** (link)

https://apple.stackexchange.com/questions/69008/apple-id-working... I have an Apple ID and password that has been working fine with my iPhone. ... Apple ID working for iPhone but not for iPad. ... Computer Science; Philosophy;
- The Orchard Apple Store - Home | Facebook** (link)

https://www.facebook.com/theorchardstore - The Orchard Apple Store, 1,995 likes · 3 talking about this · 100 were here. Our store specializes in quality pre-owned apple computers. Our products... 53 5 ★★★★ (9)
- Origin of the Apple I and Apple II Computers | Low End Mac** (link)

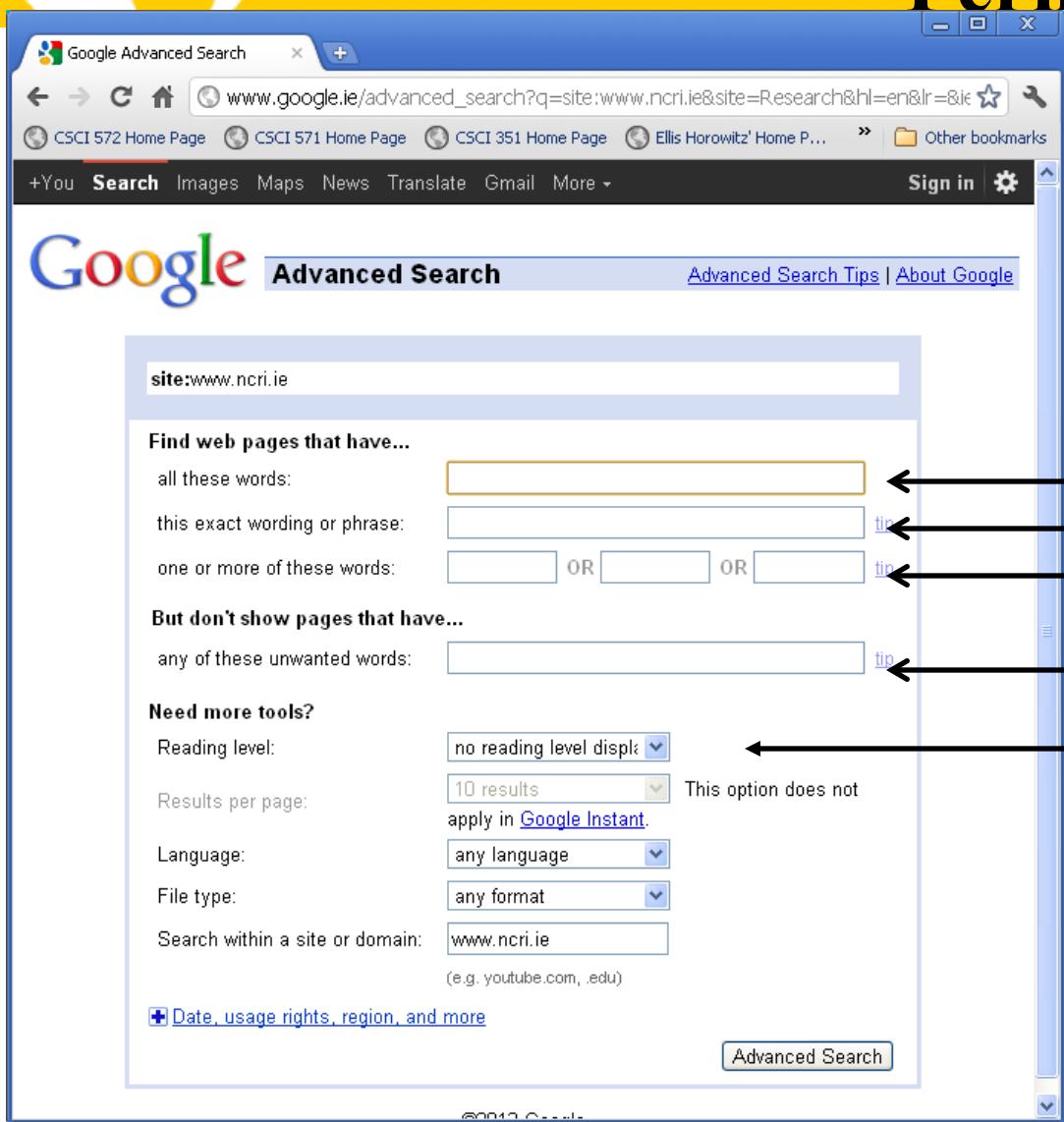
lowendmac.com/2010/09/origin-of-the-apple-i-apple-ii-computers ... Origin of the Apple I and Apple II Computers ... the Apple I did not use a Teletype terminal. ... His vision was a computer very similar to the Apple I, ...

Google

Yahoo

Bing

But Google Advanced Search Permits Boolean Queries



The screenshot shows the Google Advanced Search interface. At the top, there's a search bar with the query "site:www.ncri.ie". Below it, under "Find web pages that have...", there are three input fields: "all these words:" (containing "tip"), "this exact wording or phrase:" (containing "tip"), and "one or more of these words:" (containing "tip"). To the right of these fields are three descriptive arrows pointing to the text "ANDing a set of words", "Exact phrase", and "ORing a set of words". Further down, under "But don't show pages that have...", there's a field containing "tip" with an arrow pointing to the text "NOT words". On the left, under "Need more tools?", there are dropdown menus for "Reading level" (set to "no reading level displayed"), "Results per page" (set to "10 results"), "Language" (set to "any language"), "File type" (set to "any format"), and "Search within a site or domain" (set to "www.ncri.ie"). A note next to the results per page dropdown says "This option does not apply in Google Instant." At the bottom left is a link "+ Date, usage rights, region, and more" and at the bottom right is a "Advanced Search" button.

Search engines typically offer an “Advanced Search” page where users **can enter**, in effect, a Boolean query; e.g. Here is Google’s “advanced search” screen

ANDing a set of words

Exact phrase

ORing a set of words

NOT words

reading level

language
file type

etc

Query Term Default is AND

- If you search for more than one keyword at a time, Google/Bing will automatically search for pages that contain ALL of your keywords.

- A search for
disney fantasyland pirates
is the same as searching for
disney AND fantasyland AND pirates

Put Exact Phrases in Quotes

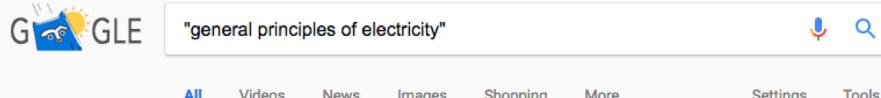
- To search for phrases, just put your phrase in quotes.
- For example,

disney fantasyland “pirates of the caribbean”

- This would show you all the pages in Google's index that contain the word **disney** AND the word **fantasyland** AND the phrase **“pirates of the Caribbean”** (of course, without the quotes)

Differences With/Without Quotes

Query: general principles of electricity



About 189,000 results (0.55 seconds)

[PDF] General principles of electricity supply systems

www.idc-online.com/.../pdfs/.../General_principles_of_electricity_supply_systems.pdf ▾
The generator consists of a prime mover and a magnetic field excitor. The magnetic field is produced electrically by passing a direct current (d.c.) through a winding on an iron core, which rotates inside three-phase windings on the stator of the machine. The magnetic field is rotated by means of a prime mover which may be ...

General principles of electricity supply systems | EEP | Transmission ...

<https://www.pinterest.com/pin/35888128254768417/>
Electric Power Substation ... Volts, alternating, amperage, blackout, built, cable, communications, connection, construction, current, danger, distribution, electrical, electricity, energies, equipment, factory, fuel, fuse, generation, generator, high, in, industry, insulation, insulators, iron, lines, link, metal, multi-generation, nobody, ...

articles - Mentor EBS

www.mentor-ebs.si/ARTICLES ▾
To give the answer to this question, we need knowledge of the **general principles of electricity** pricing in the electricity market. What we have in mind here is the market price of electricity, i.e. the price at which electricity is sold to suppliers by producers, not the rate in the end-user market. The latter, naturally, indirectly has to ...

Electricity - Guides.turnitin.com

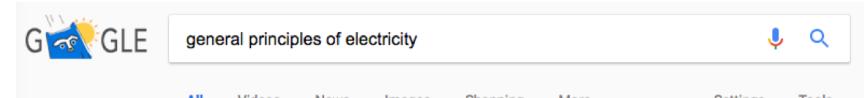
https://guides.turnitin.com/.../Prompt_Library/Secondary_Education ▾
Dec 19, 2017 - Prompt: Today you will research electricity and consider some of the methods used in science texts to support different purposes. First, you will read a passage that explains some **general principles of electricity**. Then you will read an article about what causes a short circuit. Finally, you will read an article ...

[PDF] C:\Physics Dept History\1965Curriculum.wpd

blogs.mtu.edu/physics/files/2000/01/Curriculum1965.pdf ▾
PH336. Electric and Magnetic Measurements. (0-3-3) s (alternate years) 4. A continuation of work begun in PH316-317, intended for those who wish to pursue further the theory and practice of precise electric and magnetic measurements. Types of all the principal instruments used in modern electrical methods are ...

With quotes

Copyright Ellis Horowitz 2011-2018



About 2,120,000 results (0.60 seconds)

Even materials that conduct **electricity** resist the flow of electrons. The unit of **electrical** resistance is an ohm. The pressure needed to make one coulomb per second (one ampere) flow through a conductor having a resistance of one ohm is one volt. ... The quantity of **electric** charge is measured in coulombs.

The Principles of Electricity - Energizer

www.energizer.com/science-center/the-principles-of-electricity

About this result Feedback

People also ask

What is the law of electricity?

▼

What is the basic principle of the electric generator?

▼

What is the basic principle of magnetism?

▼

What is the theory of electricity?

▼

[Feedback](#)

The Basic Principles of Electricity | Anixter

https://www.anixter.com/en_us/resources/.../the-basic-principles-of-electricity.html ▾
The Volt. The pressure that is put on free electrons that causes them to flow is known as electromotive force (EMF). The volt is the unit of pressure, i.e., the volt is the amount of electromotive force required to push a current of one ampere through a conductor with a resistance of one ohm.

The Principles of Electricity - Energizer

www.energizer.com/science-center/the-principles-of-electricity ▾

Even materials that conduct **electricity** resist the flow of electrons. The unit of **electrical** resistance is an ohm. The pressure needed to make one coulomb per second (one ampere) flow through a conductor having a resistance of one ohm is one volt. ... The quantity of **electric** charge is measured in coulombs.

Without quotes

Boolean OR

- The Boolean operator is acceptable in Google queries, placed between keywords, and **OR** is *always* in all caps
- For example,
disney fantasyland OR "pirates of the caribbean"
- This would show you all the pages in Google's index that contain the word **disney** AND the word **(fantasyland OR the phrase pirates of the caribbean)**
- OR has higher precedence than AND

How Google Treats Queries with Boolean Operators

- All query terms are implicitly ANDed
- OR has higher precedence than AND
- Three examples (a, b, c stand for query terms):
 1. a b OR c d is treated as a AND (b OR c) AND d
 2. a OR b c OR d is treated as (a OR b) AND (c OR d)
 3. a OR “b c” d is treated as (a OR (“b c”)) AND d
- and see
<https://support.google.com/websearch/answer/2466433?hl=en>

Capitalization Does NOT Matter

Google/Bing queries are *not* case sensitive.

The following searches all yield exactly the same results:

disney fantasyland pirates

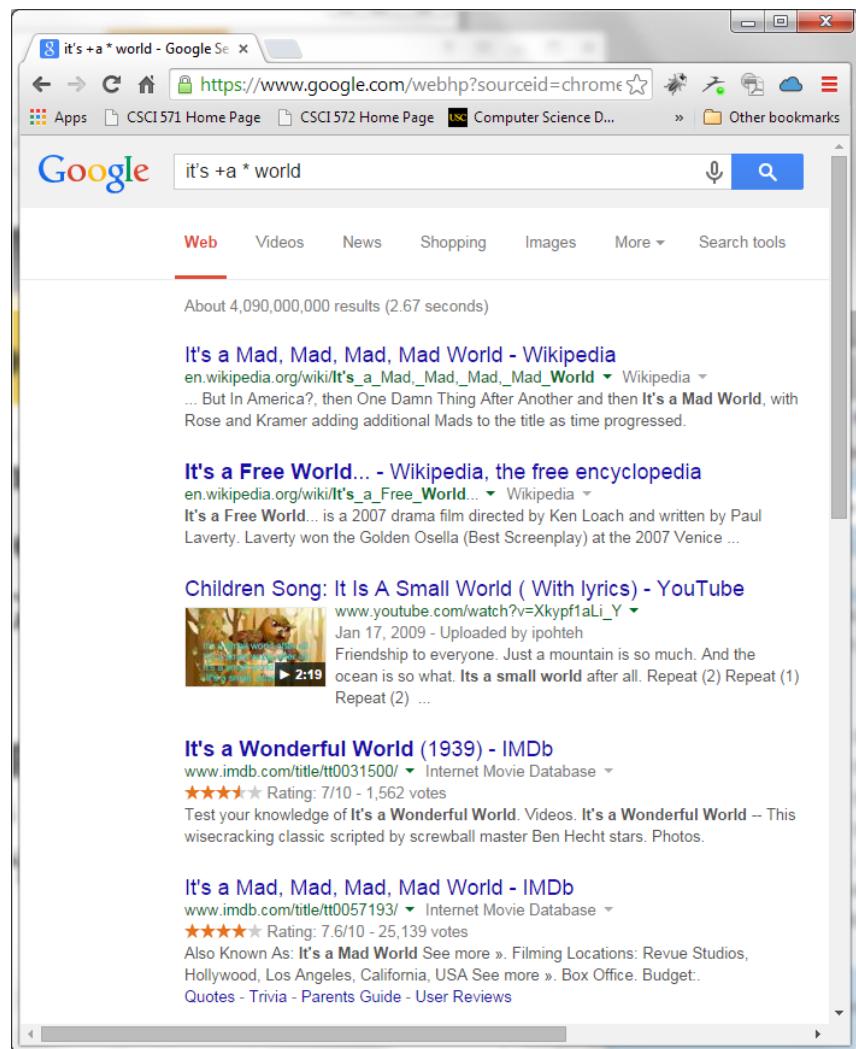
Disney Fantasyland Pirates

DISNEY FANTASYLAND PIRATES

DiSnEy FaNtAsYlAnD pIrAtEs

- Google doesn't support stemming.
- Rather, Google offers full-word wildcards.
- For example, if you search Google for **it's +a * world**,
- Google shows you all of the pages in its database that contain the phrase "it's a small world" ... and "it's a nano world" ... and "it's a Linux world" ... and so on
- The + before a is required because it is a stop word and would otherwise be ignored
- This query works the same in Bing
- There is a space after the +a

Google and Wildcards



Google Advanced Operators

Query modifiers

- **daterange:**
- **filetype:**
- **inanchor:**
- **intext:**
- **intitle:**
- **inurl:**
- **site:**

Alternative query types

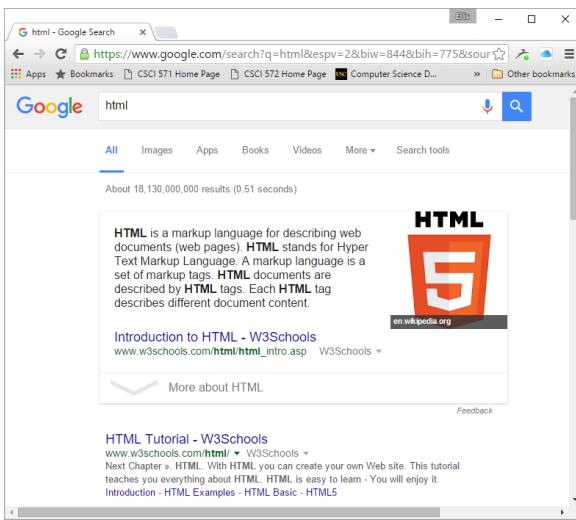
- **cache:**
- **link:**
- **related:**
- **info:**

Other information needs

- **stocks:**

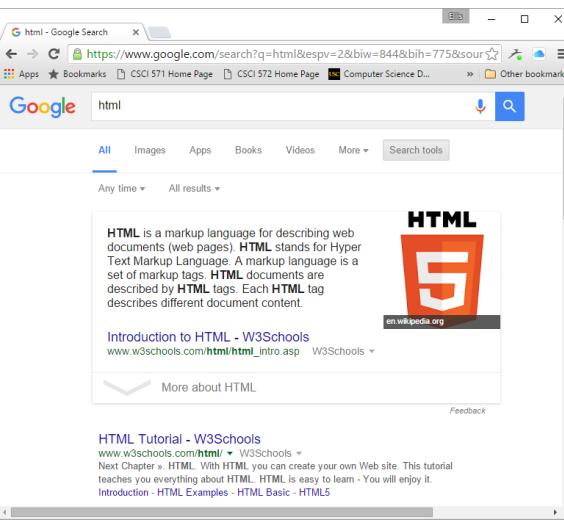
Search Service	Search Operators
Web Search	<u>allinanchor:</u> , <u>allintext:</u> , <u>allintitle:</u> , <u>allinurl:</u> , <u>cache:</u> , <u>define:</u> , <u>filetype:</u> , <u>id:</u> , <u>inanchor:</u> , <u>info:</u> , <u>intext:</u> , <u>intitle:</u> , <u>inurl:</u> , <u>link:</u> , <u>related:</u> , <u>site:</u>
Image Search	<u>allintitle:</u> , <u>allinurl:</u> , <u>filetype:</u> , <u>inurl:</u> , <u>intitle:</u> , <u>site:</u>
Groups	<u>allintext:</u> , <u>allintitle:</u> , <u>author:</u> , <u>group:</u> , <u>insubject:</u> , <u>intext:</u> , <u>intitle:</u>
Directory	<u>allintext:</u> , <u>allintitle:</u> , <u>allinurl:</u> , <u>ext:</u> , <u>filetype:</u> , <u>intext:</u> , <u>intitle:</u> , <u>inurl:</u>
News	<u>allintext:</u> , <u>allintitle:</u> , <u>allinurl:</u> , <u>intext:</u> , <u>intitle:</u> , <u>inurl:</u> , <u>location:</u> , <u>source:</u>
Product Search	<u>allintext:</u> , <u>allintitle:</u>

Searching by Date



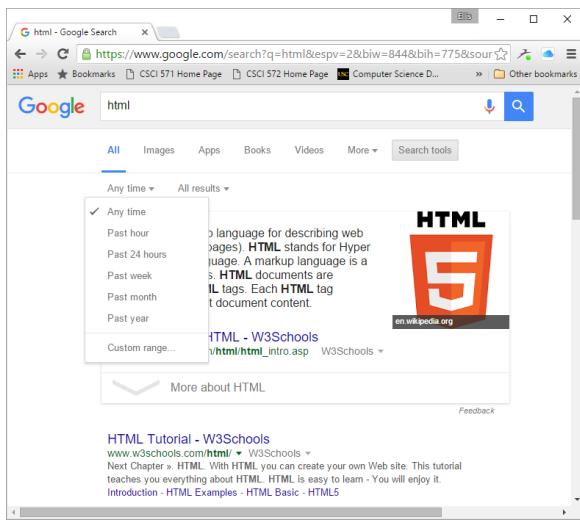
Google search results for "html". The first result is a link to "Introduction to HTML - W3Schools" (www.w3schools.com/html/html_intro.asp). The snippet describes HTML as a markup language for web documents.

1. Google search for "html"



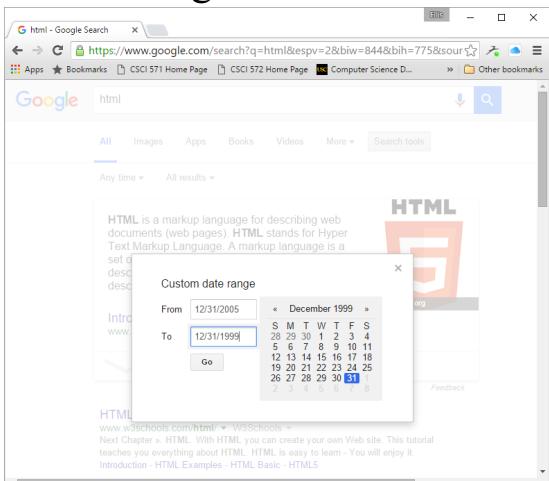
The "Search tools" dropdown is open, showing "All time" selected. The first result is the same W3Schools link as in the previous screenshot.

2. click on "Search Tools" and "Any Time" appears



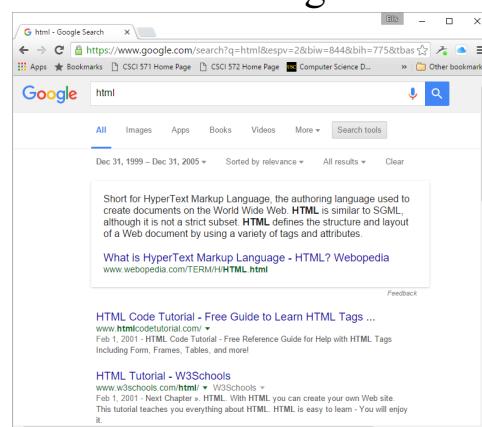
"Any Time" is selected from the dropdown. The first result is the W3Schools link. A sidebar on the right shows a timeline with options like "Past hour", "Past 24 hours", "Past week", "Past month", "Past year", and "Custom range...".

3. click on Any Time and select Custom Range



A "Custom date range" dialog is open, showing a calendar for December 1999. The "From" field is set to "12/31/2005" and the "To" field is set to "12/31/1999".

4. calendar appears, enter dates



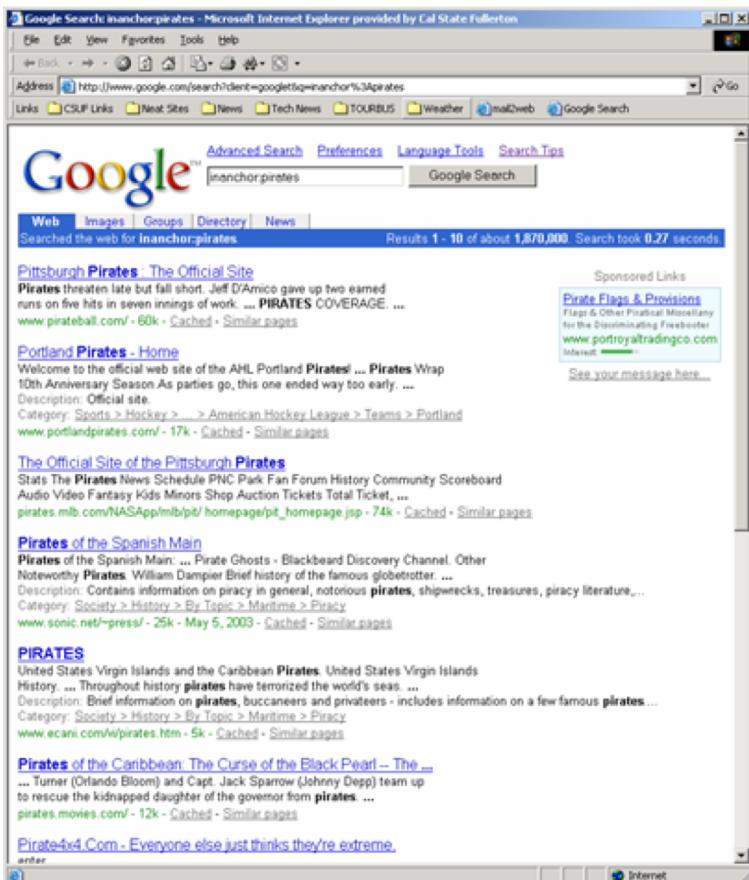
The search results are filtered for the date range from Dec 31, 1999 to Dec 31, 2005. The first result is a link to "What is HyperText Markup Language - HTML? Webopedia" (www.webopedia.com/TERM/H/HTML.html).

5. Final Result

filetype:



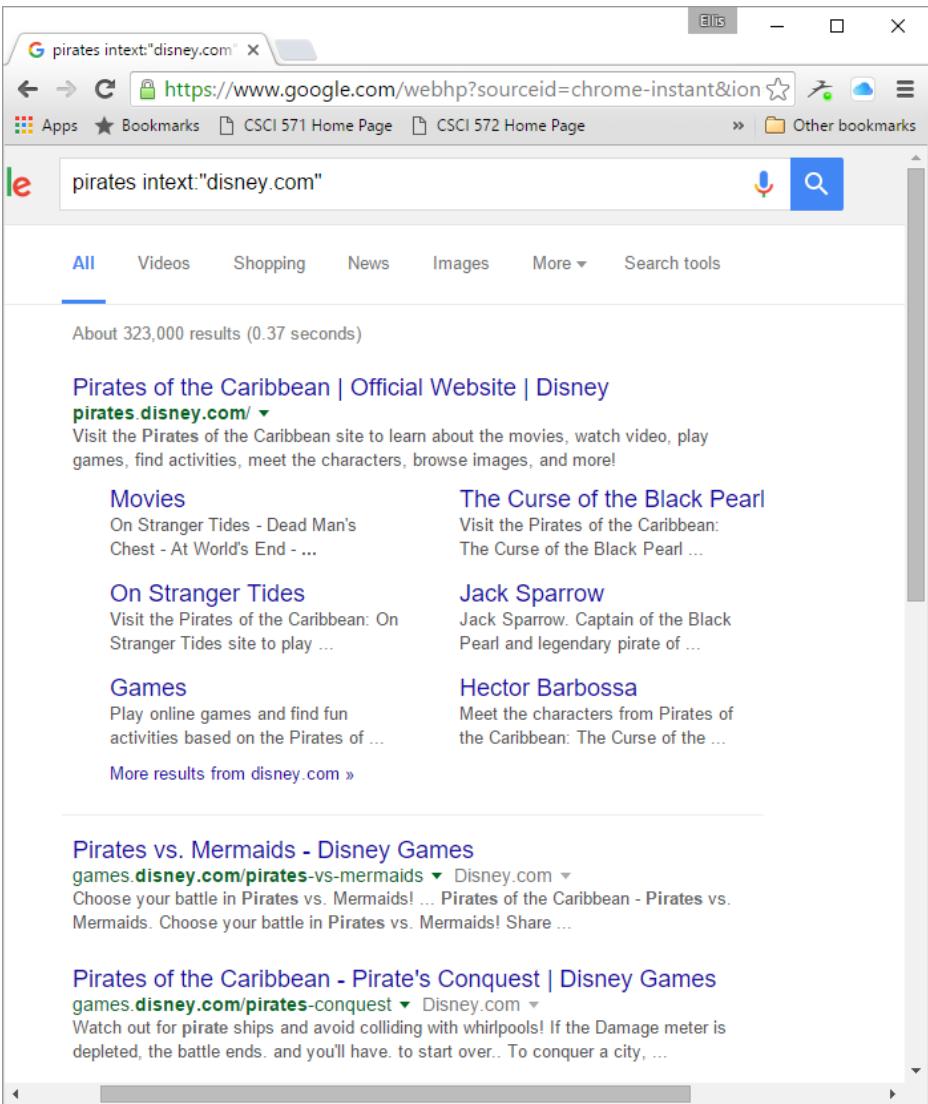
- **filetype:** restricts your results to files ending in ".doc" (or .xls, .ppt. etc.), and shows you only files created with the corresponding program
- There can be no space between **filetype:** and the file extension
- The “dot” in the file extension – .doc – is optional



inanchor:

- **inanchor:** will restrict the results to pages containing the query terms you specify in the anchor text or links to the page.
- For example,
 [**restaurants inanchor:gourmet**]
- will return pages in which the anchor text on links to the pages contain the word “gourmet” and the page contains the word “restaurants.”
- **allinanchor:** restricts results to pages containing all query terms you specify in the anchor text on links to the page.

For example, [**allinanchor: best museums sydney**] will return only pages in which the anchor text on links to the pages contain the words “best,” “museums,” and “sydney.”



A screenshot of a Google search results page. The search query is "pirates intext:"disney.com"". The results show various links related to the Pirates of the Caribbean franchise, including the official website, movies, games, and a Disney game.

Search results for "pirates intext:"disney.com"

- Pirates of the Caribbean | Official Website | Disney pirates.disney.com/ Visit the Pirates of the Caribbean site to learn about the movies, watch video, play games, find activities, meet the characters, browse images, and more!
- Movies
On Stranger Tides - Dead Man's Chest - At World's End - ...
- On Stranger Tides
Visit the Pirates of the Caribbean: On Stranger Tides site to play ...
- Games
Play online games and find fun activities based on the Pirates of ...
[More results from disney.com »](#)
- The Curse of the Black Pearl
Visit the Pirates of the Caribbean: The Curse of the Black Pearl ...
- Jack Sparrow
Jack Sparrow. Captain of the Black Pearl and legendary pirate of ...
- Hector Barbossa
Meet the characters from Pirates of the Caribbean: The Curse of the ...
- Pirates vs. Mermaids - Disney Games games.disney.com/pirates-vs-mermaids Disney.com Choose your battle in Pirates vs. Mermaids! ... Pirates of the Caribbean - Pirates vs. Mermaids. Choose your battle in Pirates vs. Mermaids! Share ...
- Pirates of the Caribbean - Pirate's Conquest | Disney Games games.disney.com/pirates-conquest Disney.com Watch out for pirate ships and avoid colliding with whirlpools! If the Damage meter is depleted, the battle ends. and you'll have. to start over.. To conquer a city, ...

intext:

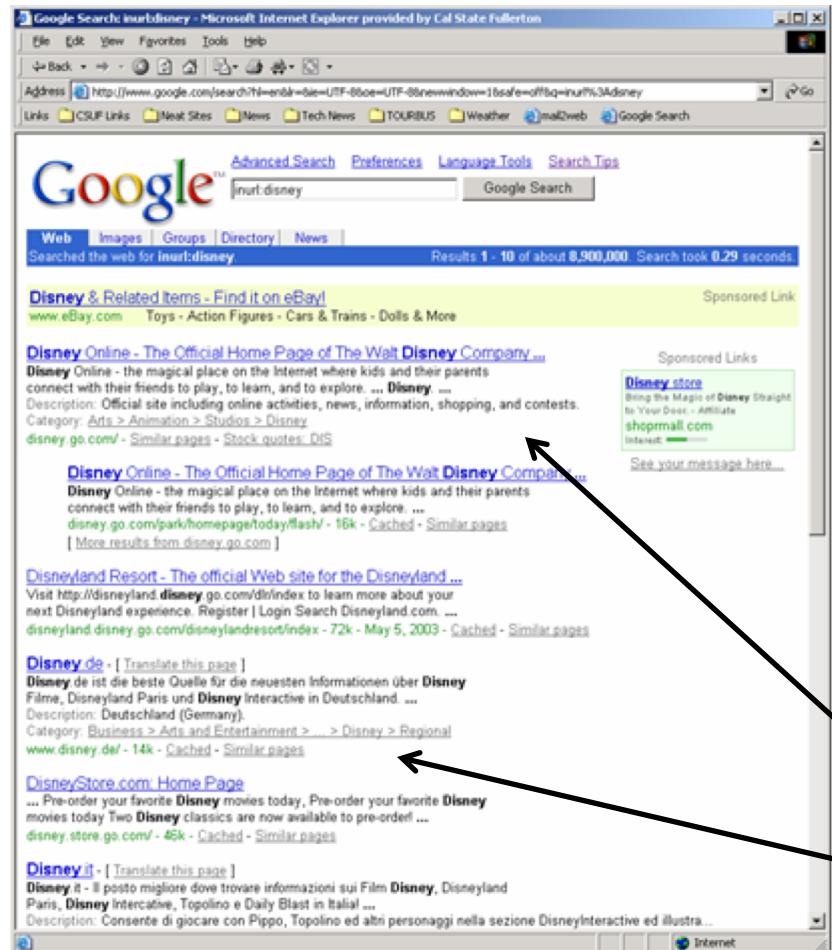
- **intext:** ignores link text, URLs, and titles, and only searches body text.
- **intext:** helps you find query words that are too common in URLs and links.
- **pirates intext:"Disney.com"**

intitle:

- **intitle:** restricts the results to documents containing a particular word in its title.
- You can also search for phrases. Just put your phrase in quotes
- **intitle:pirates**
- **Intitle:"pirates of the caribbean"**



inurl:



- **inurl:** restricts the results to documents containing a particular word in its URL.
- **inurl:disney**
 - Results include
 - **Disney.go.com**
 - **www.disney.de**

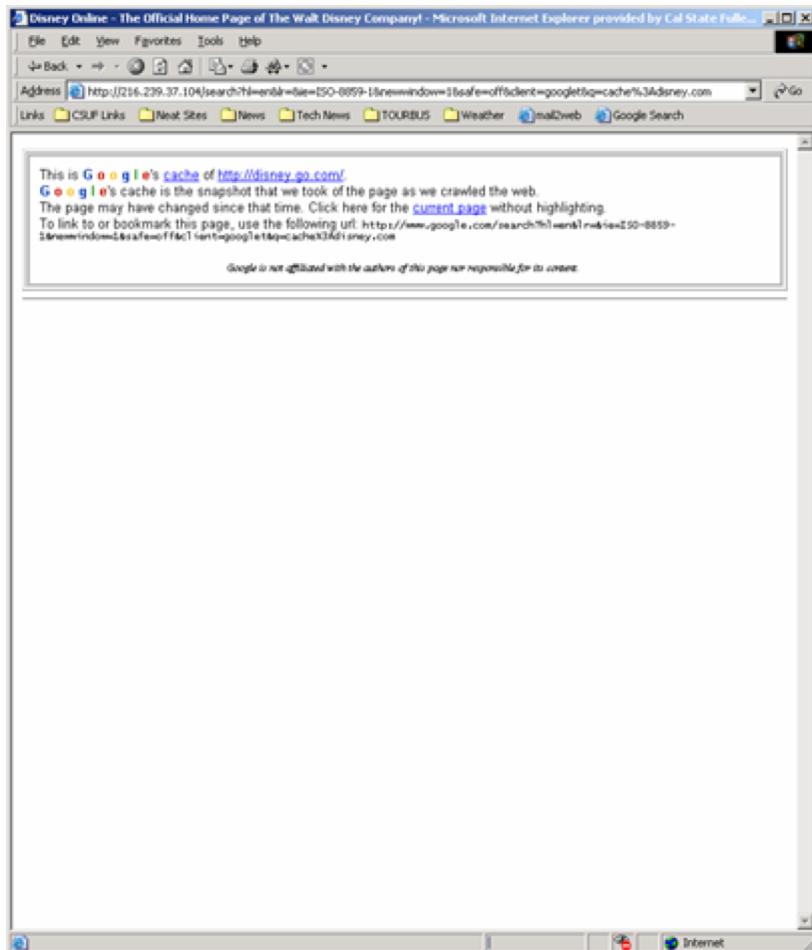
site:



- **site:** restricts the results to those websites in a domain.
- There can be no space between **site:** and the domain.
- Query is:
- pirates site:disney.com

Using site:

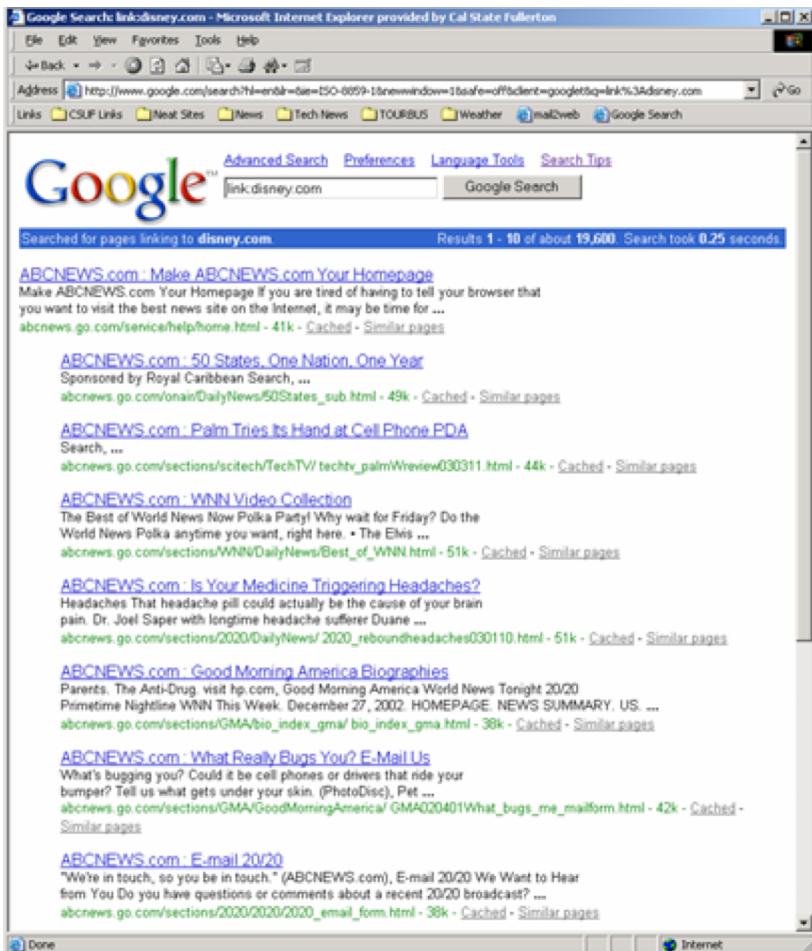
- You can use **site:** in conjunction with another search term or phrase.
pirates site:disney.com
- You can also use **site:** and negation to exclude sites.
pirates -site:disney.com
- You can use **site:** to exclude or include entire top level domains (and, like with filetype, the dot is optional).
pirates -site:com
pirates site:edu



cache:

- **cache:url** shows the version of a web page that Google has in its cache.
- There can be no space between **cache:** and the URL.

link:



- **link:** restricts the results to those web pages that have links to the specified URL.
- **link:Disney.com**
- Note: apparently the link operator only returns a sample of web pages pointing to the link

related:

- **related:** lists web pages that are "similar" to a specified web page.
- There can be no space between **related:** and the URL.

Google related:www.cs.usc.edu

All Images Maps Shopping More Search tools

About 45 results (0.21 seconds)

CS | Computer Science
www.cs.ucla.edu/ ▾
General information about the department and contacts.

Department of Computer Science, Columbia University | Home
www.cs.columbia.edu/ ▾
Established in 1979, the Department of Computer Science is located within the tree-lined Morningside campus on the Upper West Side of Manhattan.

Donald Bren School of Information and Computer Sciences ...
www.ics.uci.edu/ ▾
Department of Information and Computer Science. Teaching and research information.

Computer Science - Computer Science
www.cs.ucdavis.edu/ ▾
Course descriptions, course schedules, job positions, events, newsletter, and contact information.

Stanford Computer Science
www-cs.stanford.edu/ ▾
Stanford, California.

Computer Science Department at Princeton University
https://www.cs.princeton.edu/ ▾
The official website for Princeton University's Computer Science Department. Information on programs offered, news, events, and more.

Computer Science and Engineering: Welcome to CSE @ UCR
www.cs.ucr.edu/ ▾
Department of Computer Science and Engineering (CSE)

UCSB Computer Science
https://www.cs.ucsb.edu/ ▾
General information about the department and contacts.

Google Search: related:disney.com - Microsoft Internet Explorer provided by Cal State Fullerton

File Edit View Favorites Tools Help

Address http://www.google.com/search?hl=en&rlz=1&sa=t&tbo=q&client=google&q=related%3Adisney.com

Links CSUF Links Net Sites News Tech News TOURBUS Weather mail2web Google Search

Google related:disney.com Google Search

Searched for pages similar to disney.com Results 1 - 10 of about 20 Search took 0.14 seconds

Disney Online - Where the Magic Comes to You!
Disney Online - the magical place on the Internet where kids and their parents connect with their friends to play, to learn, and to explore.
Description: Official site including online activities, news, information, shopping, and contests.
Category: Arts > Animation > Studios > Disney
disney.go.com/ - Similar pages - Stock quotes: DIS

Yahooligans!
Yahooligans! Thursday March 20, 2003. Games. Animals. E-Cards. Movies. Jokes. Science. Reference. Ask Earl. News. Sports. Astrology. Cool Sites... , Parents' Guide...
Description: Featuring comprehensive safe surfing, games, homework help, and many kid friendly activities.
Category: Kids & Teens > Directories
www.yahooligans.com/ - 20k - Cached - Similar pages

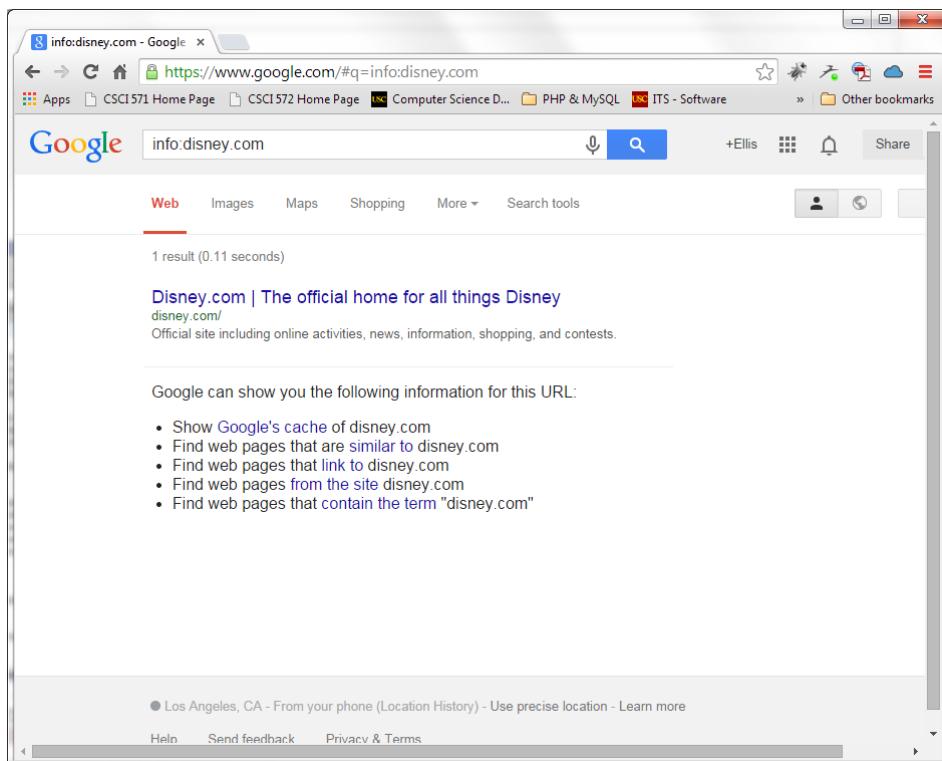
Nickelodeon Online at Nick.com
What should Brent and Candace do while wearing HUGE underwear? Deliver the mail. Photocopy their butts Ride the elevator. Got NickPoints? Get e-Collectibles! ...
Description: The official site. Nickelodeon TV stuff, hot games, cool jokes and celebrity gossip. Check out favorite...
Category: Arts > Television > Networks > Cable > Nickelodeon
www.nick.com/ - 43k - Cached - Similar pages

Paramount Pictures
-Pick a Show- ...
Description: Feature film production and distribution, video and DVD worldwide distribution, and production of...
Category: Arts > Movies > Studios
www.paramount.com/ - 12k - Cached - Similar pages

Welcome to Discovery.com
Discovery Channel Store Bestseller! TV Schedules | HD Theater | Newsletter / My Discovery | Discovery School | International Sites ...
Description: Discovery Online
Category: Arts > Television > Networks > Cable > Discovery Channel
www.discovery.com/ - 11k - Cached - Similar pages

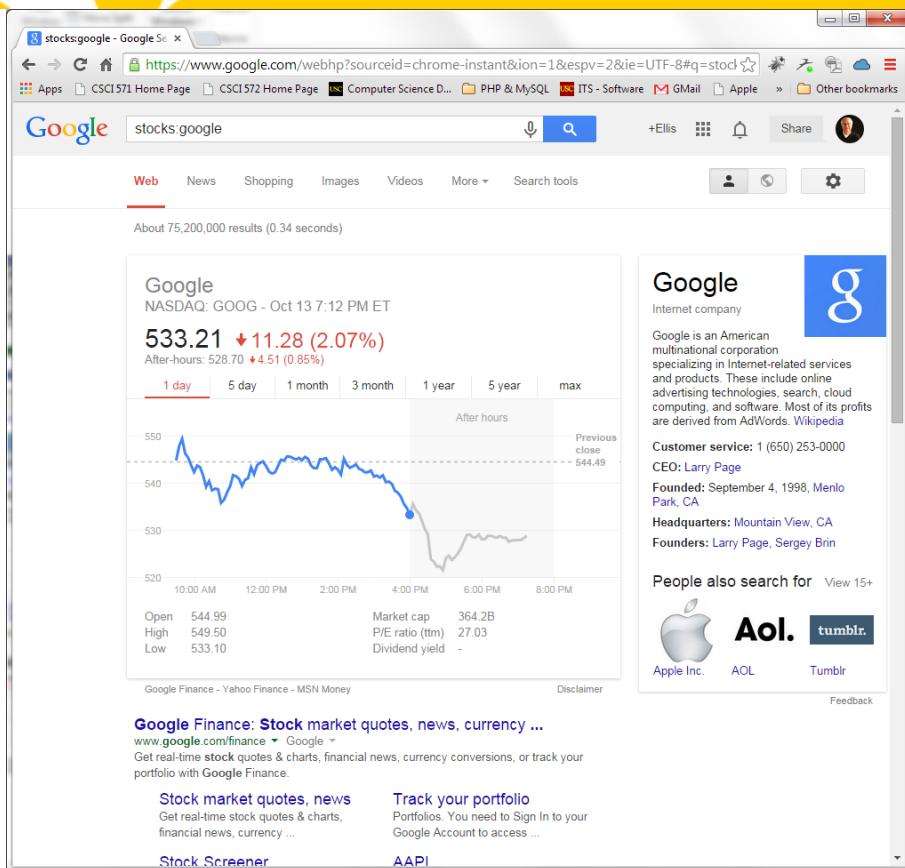
MGM New and Upcoming Movies, Trailers, and new DVD releases
...
Category: Business > Major Companies > Publicly Traded > M
www.mgm.com/ - 41k - Cached - Similar pages - Stock quotes: MGM

22



- **info:** presents some information that Google has about a particular web page.

stocks:

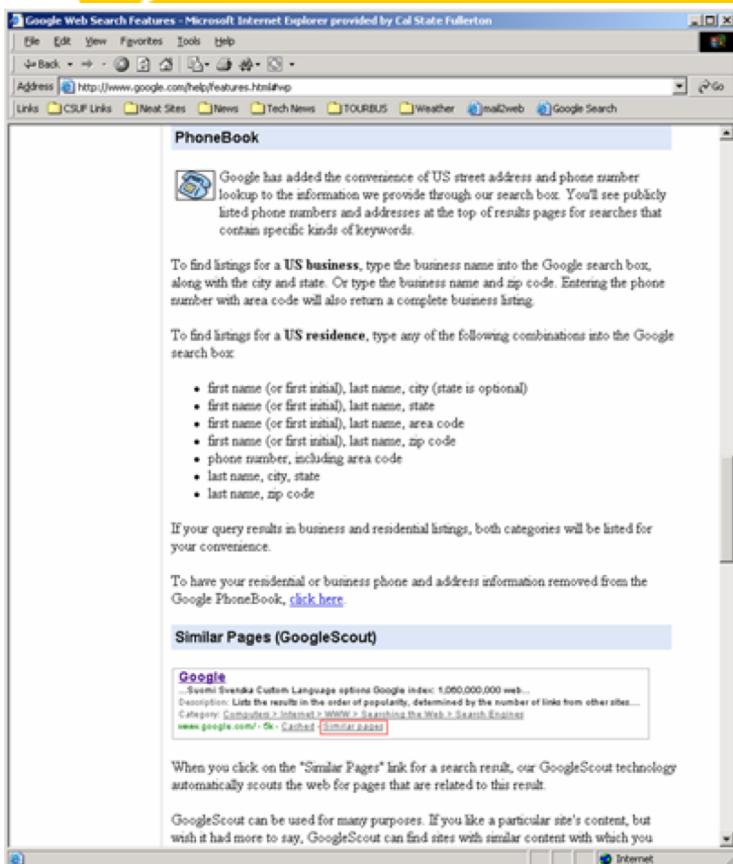


- If you begin a query with **stocks**:
Google will treat the rest of the query terms as stock ticker symbols, and will link to a finance page showing stock information for those symbols.

Even More Special Features of the Google Query Box

- **Math expressions are evaluated:** $12 + 34 + 10 * (150 / 7) = 260.285714$
- **Dictionary definitions:** define:antidisestablishmentarianism
- Put @ in front of a word to search social media. For example: @twitter.
- Put \$ in front of a number and search for a price. For example: camera \$400.
- Put .. between two numbers and search in a range.
For example, camera \$50..\$100.
- Put a valid tracking number from FedEx or UPS and it will take you to the tracking site
- Put a valid airline and flight number and it will give you its status
- Put a tilde, ~car repair and it queries on ALL synonyms of car, like auto
 - See the following links to further discussion of Google's operators
 - <http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=136861>
 - http://www.googleguide.com/advanced_operators_reference.html
 - <http://searchengineland.com/google-power-user-tips-query-operators-48126>

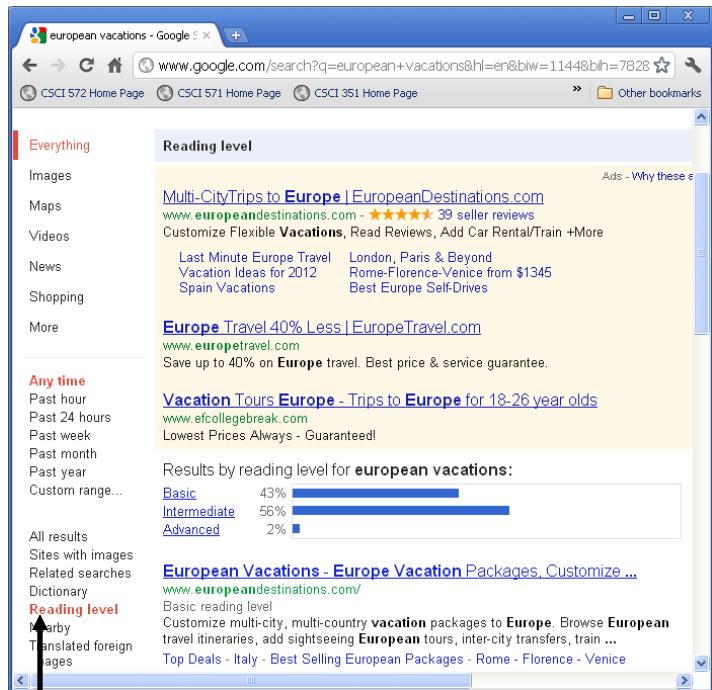
A Failed Google Experiment - phonebook: operator



- There were actually three different Google phonebook operators.
- **phonebook:** searches the entire Google phonebook.
- **rphonebook:** searches residential listings only.
- **bphonebook:** searches business listings only

As of 2010, Google's phone book feature has been officially retired. Both the phonebook: and the rphonebook: search operator have both been dropped due to many complaints about privacy violations

A Failed Google Experiment - Reading Level Examples



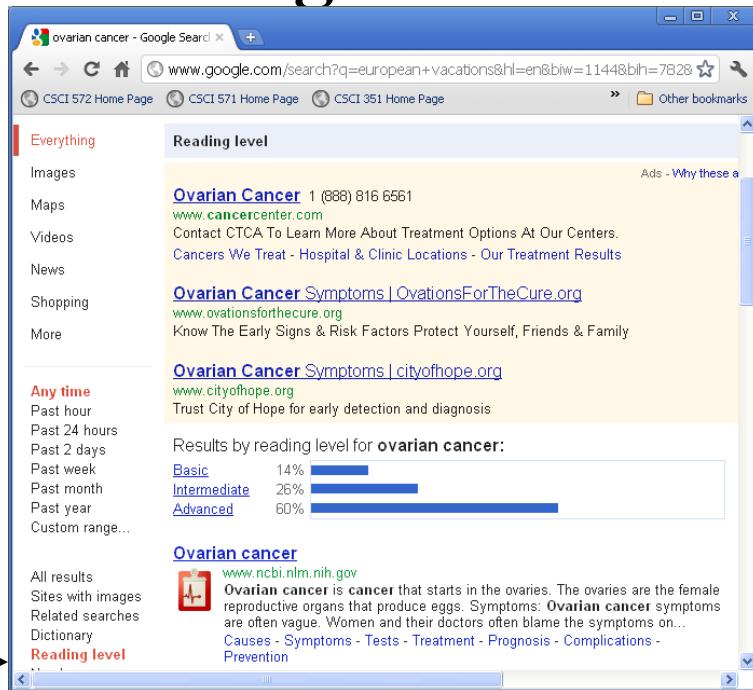
This screenshot shows a Google search results page for the query "european vacations". The results are filtered by "Reading level". The interface includes a sidebar with filters for "Everything", "Images", "Maps", "Videos", "News", "Shopping", and "More". Below these are filters for time ("Any time", "Past hour", "Past 24 hours", "Past week", "Past month", "Custom range...") and other options ("All results", "Sites with images", "Related searches", "Dictionary", "Reading level"). The main content area displays search results with their respective reading levels indicated by colored bars.

Reading Level	Percentage
Basic	43%
Intermediate	56%
Advanced	2%

Query: European vacations

The feature is based primarily on statistical models built with the help of teachers. Google paid teachers to classify pages for different reading levels, and then took their classifications to build a statistical model. With this model, they can compare the words on any webpage with the words in the model to classify reading levels.

Google dropped this feature in 2015.

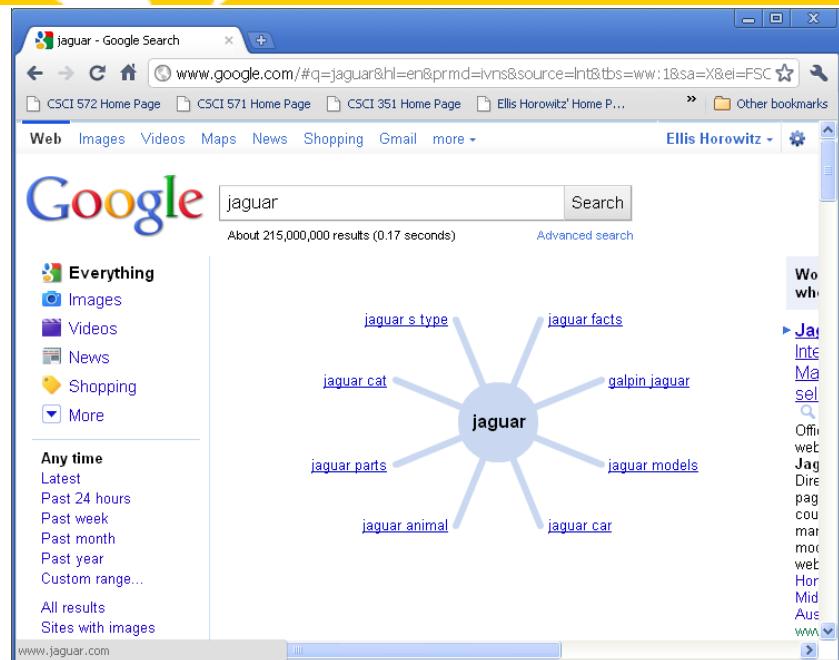


This screenshot shows a Google search results page for the query "ovarian cancer". The results are filtered by "Reading level". The interface is identical to the first screenshot, with a sidebar for filtering and a main content area displaying search results with reading level bars. A large black arrow points from the left screenshot to this one.

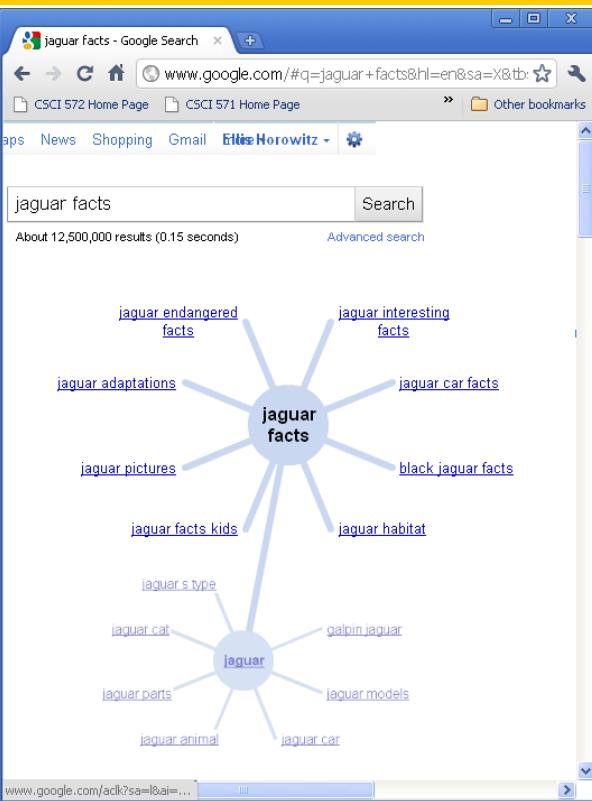
Reading Level	Percentage
Basic	14%
Intermediate	26%
Advanced	60%

Query: ovarian cancer

A Failed Google Experiment - The Wonder Wheel



Google puts up a wheel of possible interpretations including the jaguar car and the animal; clicking on the spokes of the wheel bring up a refined wheel which eventually lead to a modified query



In 2011 Google removed the Wonder Wheel

In 2009 Google introduced the Wonder Wheel, a flash-based interface

In 2011 Google removed the Wonder Wheel but provided no concrete explanation for why it did so;

In 2012 Google restored the wonder wheel, renaming it the Contextual Targeting Tool

In 2014 it was re-focused to help advertisers chose their keywords

A Failed Google Experiment - Google Code Search

Google Code Search

From Wikipedia, the free encyclopedia

Not to be confused with [Google Code](#).

Google Code Search was a free [beta](#) product from [Google](#) which debuted in [Google Labs](#) on October 5, 2006, allowing web users to search for open-source code on the Internet. Features included the ability to search using operators, namely `lang:`, `package:`, `license:` and `file:`.

The code available for searching was in various formats including `.tar.gz`, `.tar.bz2`, `.tar`, and `.zip`, [CVS](#), [Subversion](#), [git](#) and [Mercurial](#) repositories.

Contents [hide]

- 1 Regular expression engine
- 2 Discontinuation
- 3 See also
- 4 References
- 5 External links

Google Code Search

	labs
Developer(s)	Google
Initial release	October 5, 2006
Development status	Discontinued
Operating system	Any (web-based application)
Type	Code search engine
Website	www.google.com/codesearch

Regular expression engine [edit]

The site allowed the use of [regular expressions](#) in queries, which at the time was not offered by any other search engine for code.^[citation needed] This makes it resemble [grep](#), but over the world's public code. The methodology employed combines a [trigram index](#) with a custom-built, [denial-of-service](#) resistant [regular expression engine](#).^[1]

In March 2010, the code of [RE2](#), the regular expression engine used in Google Code Search, was made open source.^[2]

Google Code Search supported POSIX extended regular expression syntax, excluding back-references, collating elements, and collation classes.

Languages not officially supported could be searched for using the `file:` operator to match the common file extensions for the language.

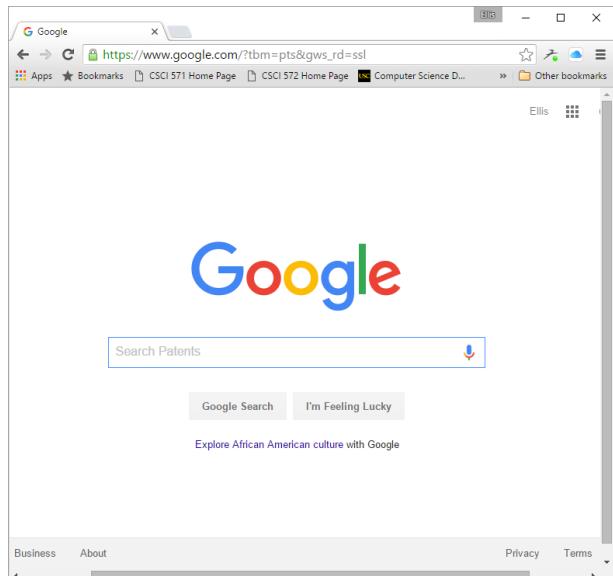
Discontinuation [edit]

In October 2011, Google announced that Code Search was to be shut down along with the Code Search API.^[3] The service remained online until March 2013,^[4] and it now returns a [404](#).

In January 2012, Russ Cox published an overview of history and the technical aspects of the tool, and open-sourced a basic implementation of a similar functionality as a set of standalone programs that can run fast indexed regular expression searches over local code.^[5]

Special Content Search Engines

Google Patents



Initial Google Patents Page

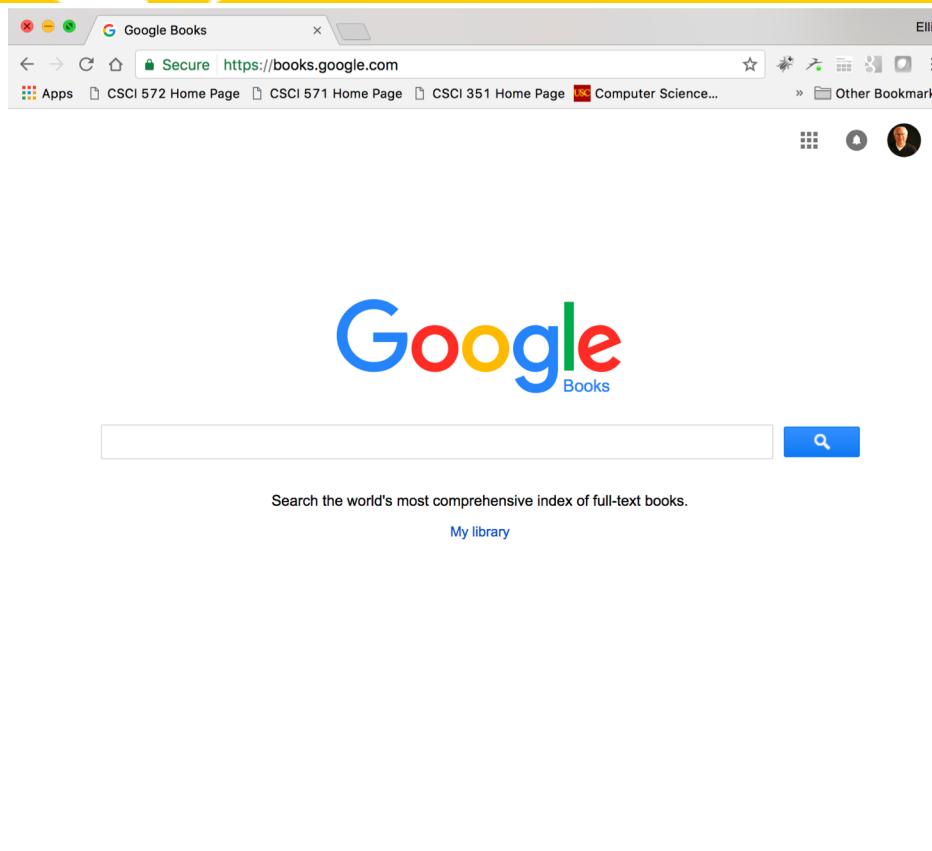
patent query
using patent
number

Publication number	US79
Publication type	Grant
Application number	US 1C
Publication date	Mar 2
Filing date	Aug 1
Priority date	Aug 1
Fee status	Paid
Also published as	US83, US20
Inventors	Jeffre
Original Assignee	Googl
Export Citation	BIBTeX
Patent Citations	(11) Non-Patent

Sample patent results
page;
Note download

Special Content Search Engines

Google Books



Google Books is a service that searches the full text of books and magazines that Google has scanned, converted to text using optical character recognition (OCR), and stored in its digital database.

Books are provided either by

- publishers and authors, through the Google Books Partner Program, or by
- Google's library partners, through the Library Project.

Controversy:

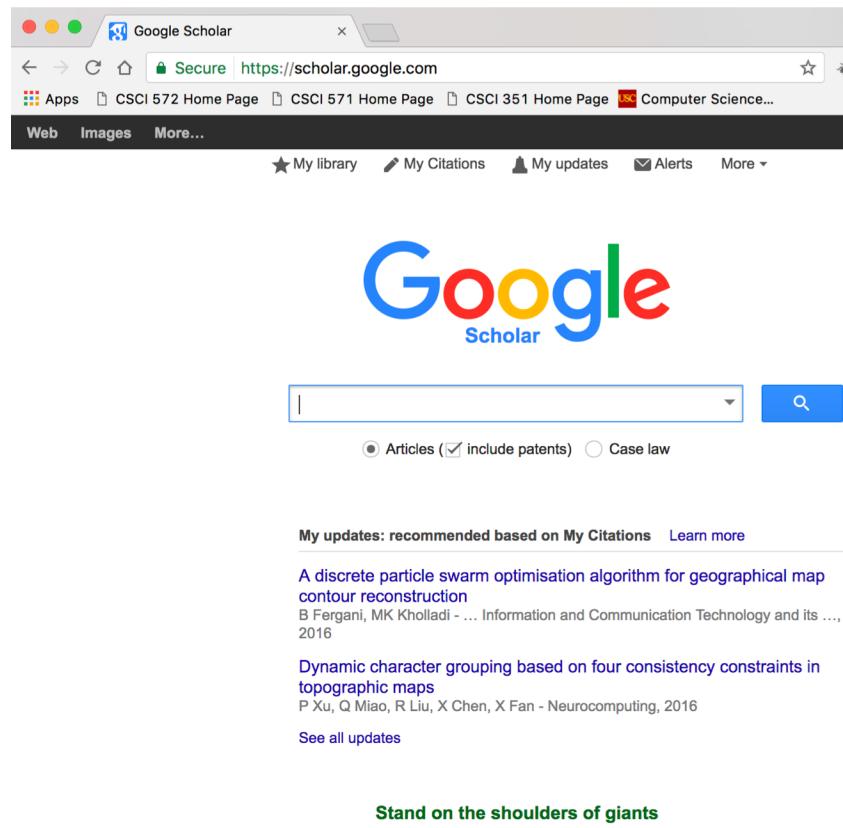
Google has been criticized for potential copyright violations, and lack of editing to correct the many errors introduced into the scanned texts by the OCR process.

As of October 2015, the number of scanned book titles was over 25 million.

Google estimated in 2010 that there were about 130 million distinct titles in the world, and stated that it intended to scan all of them.

Special Content Search Engines

Google Scholar



The screenshot shows the Google Scholar homepage. At the top, there is a navigation bar with links for "Web", "Images", and "More...". Below the navigation bar, there are links for "My library", "My Citations", "My updates", "Alerts", and "More". The main search interface features a search bar with a dropdown menu, a search button, and filter options for "Articles" (checked) and "Case law". Below the search bar, there is a section titled "My updates: recommended based on My Citations" with a "Learn more" link. This section lists two academic papers:

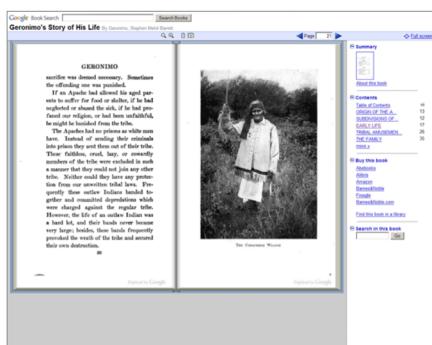
- "A discrete particle swarm optimisation algorithm for geographical map contour reconstruction" by B Fergani, MK Kholladi - ... Information and Communication Technology and its ..., 2016
- "Dynamic character grouping based on four consistency constraints in topographic maps" by P Xu, Q Miao, R Liu, X Chen, X Fan - Neurocomputing, 2016

At the bottom of the page, there is a link to "See all updates" and a footer with the text "Stand on the shoulders of giants".

- **Google Scholar** is a freely accessible search engine that indexes the full text or metadata of scholarly literature across an array of publishing formats and disciplines.
- The Google Scholar index includes most peer-reviewed online academic journals and books, conference papers, theses, dissertations, etc

Full View

You can see books in Full View if the book is out of copyright, or if the publisher or author has asked to make the book fully viewable. The Full View allows you to view any page from the book, and if the book is in the public domain, you can download, save and print a PDF version to read at your own pace.


Full View**Limited Preview**

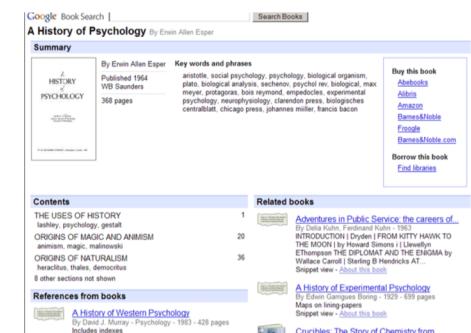
If the publisher or author has given us permission, you can see a limited number of pages from the book as a preview.


Limited View

What You See on Google Books

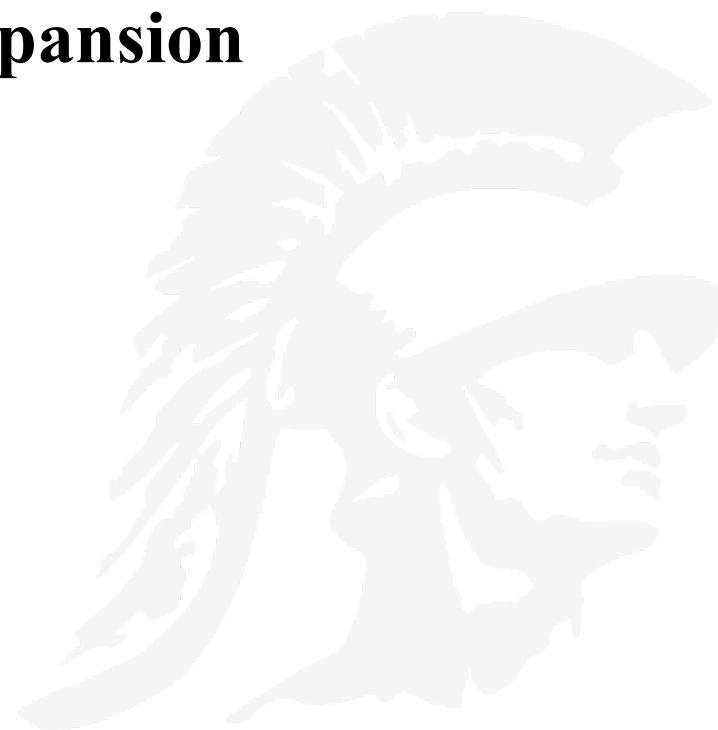
Snippet View

The Snippet View, like a card catalog, shows information about the book plus a few snippets – a few sentences to display your search term in context.


Snippet View

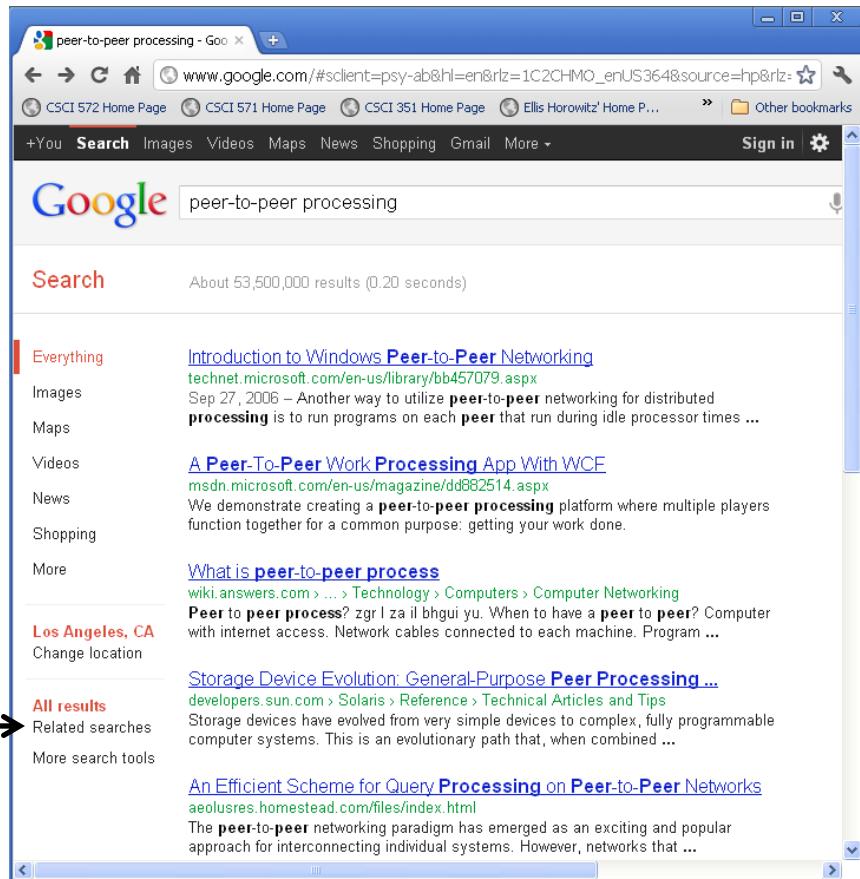
<https://www.google.com/googlebooks/library/screenshots.html#books-fullview>

Relevance Feedback & Query Expansion



Relevance Feedback

- After initial retrieval results are presented, allow the user to provide feedback on the relevance of one or more of the retrieved documents
 - Google offers this but not very prominently (see 10 related searches below)



Google search results for "peer-to-peer processing". The results are displayed under the "Search" section, showing approximately 53,500,000 results. The results include links to various Microsoft articles and a general introduction to peer-to-peer networking.

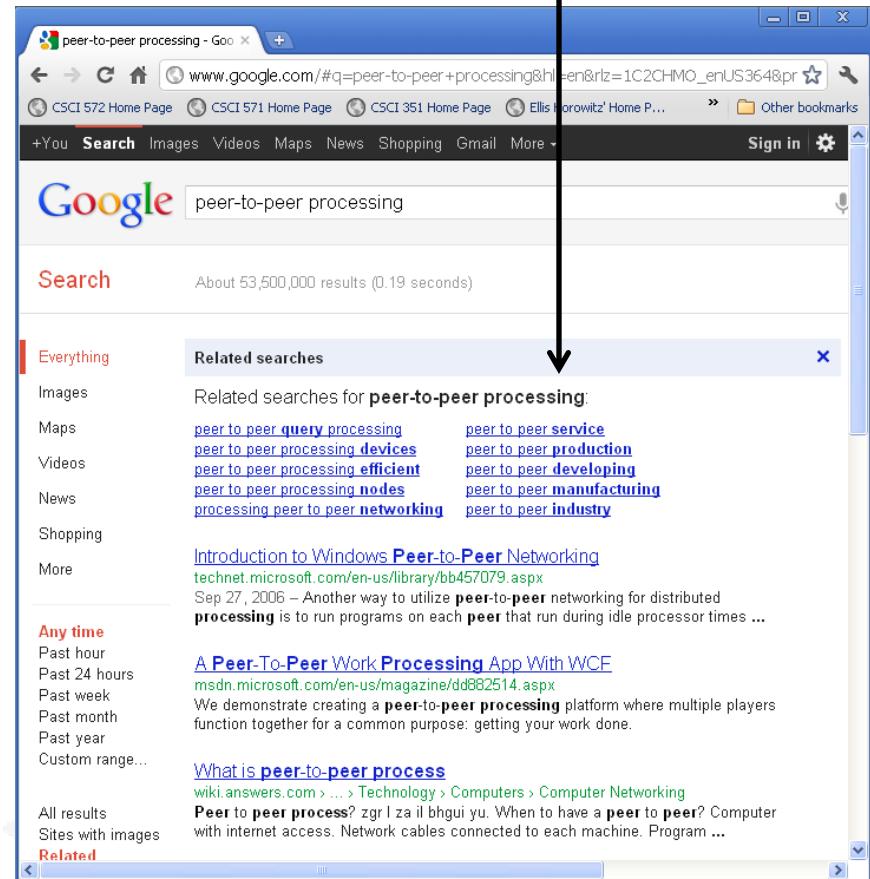
Search About 53,500,000 results (0.20 seconds)

Everything

- [Introduction to Windows Peer-to-Peer Networking](#)
technet.microsoft.com/en-us/library/bb457079.aspx
- [A Peer-To-Peer Work Processing App With WCF](#)
msdn.microsoft.com/en-us/magazine/dd882514.aspx
- [What is peer-to-peer process](#)
wiki.answers.com ... > Technology > Computers > Computer Networking
- [Storage Device Evolution: General-Purpose Peer Processing ...](#)
developers.sun.com > Solaris > Reference > Technical Articles and Tips
- [An Efficient Scheme for Query Processing on Peer-to-Peer Networks](#)
aeolusres.homestead.com/files/index.html

Related searches

- peer-to-peer processing
- peer-to-peer networking
- peer-to-peer architecture
- peer-to-peer system
- peer-to-peer technology
- peer-to-peer file sharing
- peer-to-peer computing
- peer-to-peer network
- peer-to-peer protocol
- peer-to-peer application



Google search results for "peer-to-peer processing". The results are displayed under the "Search" section, showing approximately 53,500,000 results. A "Related searches" section is visible on the right side of the page, listing 10 related search terms.

Search About 53,500,000 results (0.19 seconds)

Related searches

Related searches for **peer-to-peer processing**:

peer to peer query processing	peer to peer service
peer to peer processing devices	peer to peer production
peer to peer processing efficient	peer to peer developing
peer to peer processing nodes	peer to peer manufacturing
processing peer to peer networking	peer to peer industry

Anything

- Past hour
- Past 24 hours
- Past week
- Past month
- Past year
- Custom range...

Related

- All results
- Sites with images

Google Related Searches



The figure consists of three vertically stacked screenshots of Google search results, each with a large black arrow pointing from the right towards the text in the bullet points below it.

- Top references for german cars - Feedback**

 - Audi
 - BMW
 - Mercedes Benz
 - Volkswagen
 - Porsche
 - Opel
 - Smart
 - Mini
 - Bentley

Related searches for rock bands:

- punk rock bands
- list of rock bands
- classic rock bands
- new rock bands
- 80's rock bands
- metal bands
- emo bands
- heavy metal bands
- screamo bands
- pop bands
- rock lyrics
- rock music
- rock songs
- rock artists
- rock groups
- billboard
- mtv
- metallica
- led zeppelin
- aerosmith

Artwork searches for Pablo Picasso

- Guernica
- Les Demoiselles d'Avignon
- The Old Guitarist
- Three Musicians
- Dora Maar au Chat

Searches related to pablo picasso

- pablo picasso biography
- pablo picasso cubism
- pablo picasso facts
- pablo picasso pictures
- pablo picasso quotes
- pablo picasso guernica
- pablo picasso's life
- salvador dali

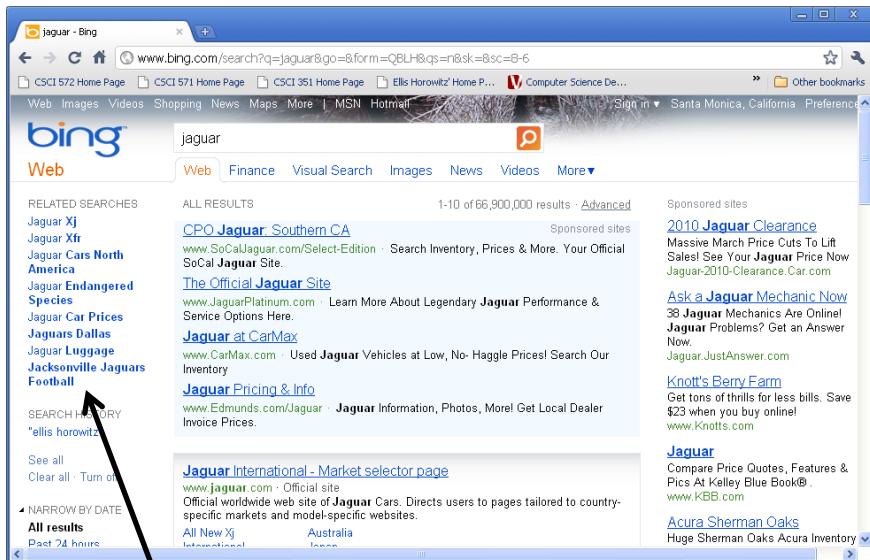
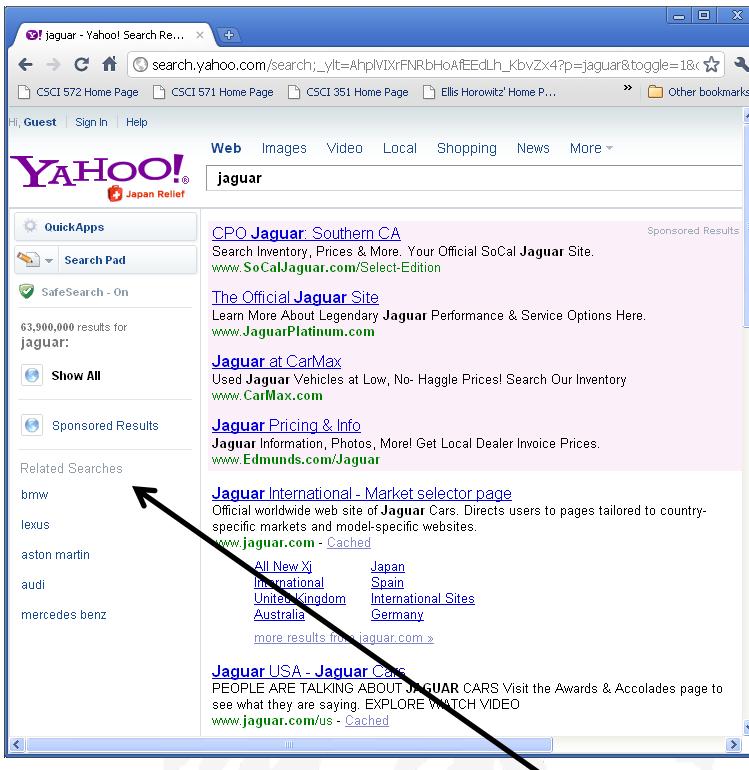
- Google has enhanced their related searches, e.g.

- If you search for the name of a category, Google will show the most popular members, e.g. “german cars”

- If you search for a category like “rock bands” You get related searches including a few top rock bands such as metallica and led zeppelin

- If you search for famous people you get photos of their work, e.g. Pablo Picasso returns photos of his famous painting

Search Engines and Relevance Feedback

A comparison of search results for the query "jaguar" on Bing and Yahoo. Both engines show a mix of sponsored ads and organic search results. Bing's results include "CPO Jaguar Southern CA" and "The Official Jaguar Site". Yahoo's results include "CPO Jaguar Southern CA" and "The Official Jaguar Site". Both engines also provide "Related Searches" on the right side of the results page.

On the query “jaguar” yahoo’s 3rd result is the animal; Bing’s 2nd result is the animal; all have extensive ads for the car at the top and side indicating that the query for the animal is far rarer; Bing, on the left, puts up alternatives, e.g. Jaguar Luggage, Jacksonville Jaguars; Yahoo also provides related searches but only for the car: bmw, lexus, etc

Bing and Yahoo clearly mark Related Searches

Auto-Completion



Auto-Completion

- ***Auto-completion* is the process of predicting a word or phrase that the user wants to type in without the user actually typing it in completely**
- **Auto-completion is a form of relevance feedback**
 - This feature is effective when it is easy to predict the word being typed, e.g. when a browser fills in your name, address and/or email in a form;
 - Search engines may use past history, phonetic Soundex algorithms, and spelling corrections algorithms to assist in making guesses;
 - The challenge is to search a large index or a long list of popular queries in a very short amount of time so the results pop up while the user is typing

Google Auto-Completion

Google Search

Everything Images Maps Videos News Shopping More

amazon
amazon
apple
aol
american airlines

[Amazon.com® Official Site](#)
www.amazon.com
amazon.com is rated ★★★★☆ 8,669 reviews
Huge Selection and Amazing Prices. Free Shipping on Orders Over \$25
12,679 people +1'd this page

[Amazon.com: Online Shopping for Electronics, Apparel, Computers ...](#)
www.amazon.com/
Online retailer of books, movies, music and games along with electronics, toys, apparel, sports, tools, groceries and general home and garden items. Region 1 ...
+ Show stock quote for AMZN
177 people in Los Angeles, CA, USA +1'd this

- Google has been offering auto-completion since 2008, though it was an experimental feature as far back as 2004.
- Google does automatic completion even after the user enters just the first character
- When the second character is entered a totally different set of possibilities may be offered

+Ellis Search Images Videos Maps News Shopping Gmail More Ellis Horowitz | 1 Share...  

Google Search

Everything Images Maps Videos News Shopping More

anniversary gifts
anniversary gifts Remove
anthropologie
angry birds
android market

[Anniversary Gifts](#) 1 (877) 530 9512
www.bluenile.com - ★★★★☆ 3,437 seller reviews
Find the perfect gift for her. Free FedEx & 30-Day Returns.

[Anniversary Gifts | PersonalizationMall.com](#)
www.personalizationmall.com - ★★★★☆ 2,157 seller reviews
Unique Romantic Anniversary Gifts Engraved Free & Ship in 1-2 Days!
Bridesmaid Gifts - Wedding Favors - Wedding Gifts - Groomsmen Gifts

[MY M&M'S® - Anniversary | MyMMs.com](#)
www.mymms.com
Personalized MY M&M'S® Candies Make the Perfect Anniversary Gift!

Google Search Images Videos Maps News Shopping Gmail More Ellis Horowitz 1 Share...  

Search

Everything

Images
Maps
Videos
News
Shopping
More

anaheim ducks

anaheim ducks

anaheim

analytics

anagram

[Anaheim Ducks Tickets - Buy Ducks Hockey Tickets Today.](#)
www.ticketmaster.com/Ducks
Prices Starting at Only \$25!

[714Tickets Ducks Tickets - Across from Honda Center](#)
www.714tickets.com/
No hidden handling fees

[Anaheim Ducks](#)
ducks.nhl.com/
Official site. News, statistics, players, coaches, schedule, and arena information.
Regular season record: 19-24-7 Division standing: 5 Points: 45

Google Search Images Videos Maps News Shopping Gmail More Ellis Horowitz 1 Share...  

Search

Everything

Images
Maps
Videos
News
Shopping
More

anaz

amazon

amazon promo code

amazon kindle

amazon prime

[Amazon.com® Official Site](#)
www.amazon.com
amazon.com is rated ★★★★☆ 8,669 reviews
Huge Selection and Amazing Prices. Free Shipping on Orders Over \$25
12,679 people +1'd this page

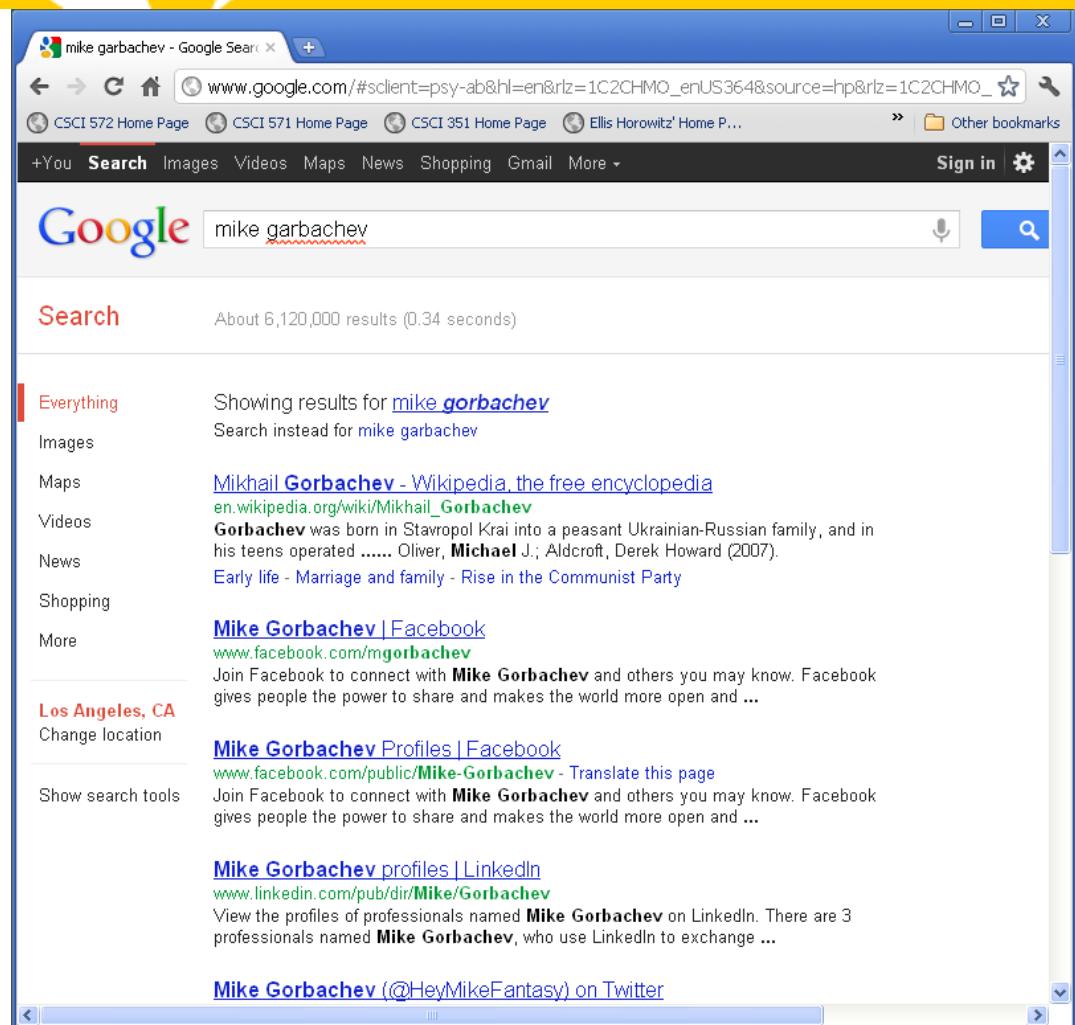
Showing results for [amazon](#)
Search instead for anaz

[Amazon.com: Online Shopping for Electronics, Apparel, Computers ...](#)
www.amazon.com/
Online retailer of books, movies, music and games along with electronics, toys, apparel.

Google Auto-Completion

- By the time the fourth character is entered Google has already guessed that the word has been misspelled, and shows this by the squiggly red line; so auto-completion and spelling correction are intertwined

Google Combines Spelling Correction and Auto Completion



mike garbachev - Google Search

www.google.com/#sclient=psy-ab&hl=en&rlz=1C2CHMO_enUS364&source=hp&rlz=1C2CHMO_*

CSCI 572 Home Page CSCI 571 Home Page CSCI 351 Home Page Ellis Horowitz' Home Page Other bookmarks

+You Search Images Videos Maps News Shopping Gmail More Sign in

Google mike garbachev

Search About 6,120,000 results (0.34 seconds)

Everything Showing results for [mike gorbachev](#)
Search instead for [mike garbachev](#)

Maps [Mikhail Gorbachev - Wikipedia, the free encyclopedia](#)
[en.wikipedia.org/wiki/Mikhail_Gorbachev](#)
Gorbachev was born in Stavropol Krai into a peasant Ukrainian-Russian family, and in his teens operated Oliver, Michael J.; Aldcroft, Derek Howard (2007). Early life - Marriage and family - Rise in the Communist Party

Videos [Mike Gorbachev | Facebook](#)
[www.facebook.com/mgorbachev](#)
Join Facebook to connect with **Mike Gorbachev** and others you may know. Facebook gives people the power to share and makes the world more open and ...

News [Mike Gorbachev Profiles | Facebook](#)
[www.facebook.com/public/Mike-Gorbachev - Translate this page](#)
Join Facebook to connect with **Mike Gorbachev** and others you may know. Facebook gives people the power to share and makes the world more open and ...

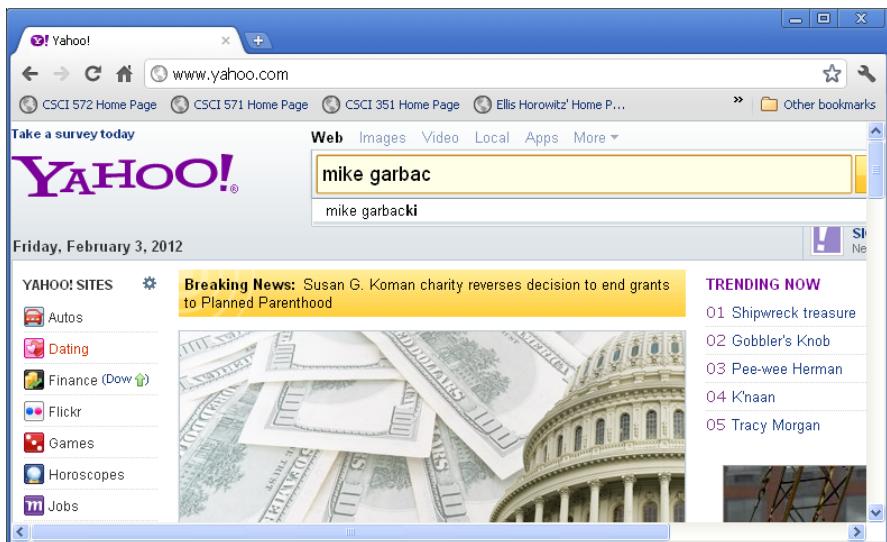
Shopping [Mike Gorbachev profiles | LinkedIn](#)
[www.linkedin.com/pub/dir/Mike/Gorbachev](#)
View the profiles of professionals named **Mike Gorbachev** on LinkedIn. There are 3 professionals named **Mike Gorbachev**, who use LinkedIn to exchange ...

More [Mike Gorbachev \(@HeyMikeFantasy\) on Twitter](#)

After hitting Enter, Google will display results for “**Mikhail Gorbachev**”, but also provide a link if instead the user actually wanted to search for “**mike garbachev**”



Yahoo Auto-Completion



- **Yahoo does auto-completion though it starts after typing the *third* character, whereas Google starts on the *first* character**
- **As the user types more characters in this example Yahoo runs out of alternatives and when one more character is added there will be no more auto-complete suggestions**

Yahoo Also Offers Spelling Correction

mike garbachev - Yahoo! Search Results

Hi, Guest | Sign In | Help

YAHOO!

mike garbachev

WEB IMAGES VIDEO SHOPPING APPS BLOGS MORE

We have included [michael gorbachev](#) results - Show only [mike garbachev](#)

Mikhail Gorbachev - Wikipedia, the free encyclopedia
[Early life](#) | [Marriage and...](#) | [Rise in the...](#) | [General Secretary...](#)
 Archie Brown, in The **Gorbachev** Factor, uses the memoirs of many people around ...
 Retrieved 2 April 2009. ^ Oliver, Michael J.; Aldcroft, Derek Howard (2007).
[en.wikipedia.org/wiki/Mikhail_Gorbachev](#) - Cached
[More results from en.wikipedia.org »](#)

Mikhail Gorbachev: Biography from Answers.com
 McFaul, Michael. (2001). Russia's Unfinished Revolution: Political Change from Gorbachev to Putin. Ithaca, NY: Cornell University Press. Matlock, Jack F., Jr. (1995).
[www.answers.com/topic/mikhail-gorbachev](#) - Cached
[More results from answers.com »](#)

Mike Gorbachev - Image Results


Michael Gorbachev | Facebook
 Michael Gorbachev is on Facebook. Join Facebook to connect with Michael Gorbachev and others you may know. Facebook gives people the power to share and makes the ...
[www.facebook.com/people/Michael-Gorbachev/100002373955597](#) - Cached
[More results from facebook.com »](#)

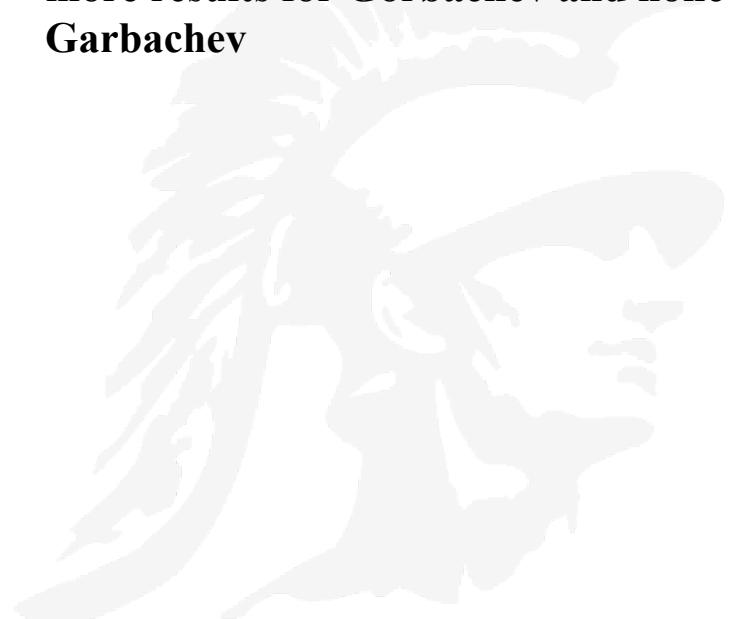
My Country and the World, by Michael Gorbachev
 A two-page summary of Gorbachev's evaluation of Russian and Soviet history dating back to 1917.
[www.fsmitha.com/review/r-gorb.htm](#) - Cached

Mikhail Gorbachev - Biography - Nobelprize.org
 Why **Gorbachev** Happened: His Triumphs and his Failures. New York: Simon & Schuster, 1991. Miller, John. Mikhail **Gorbachev** and the End of Soviet Power ...
[www.nobelprize.org/.../laureates/1990/gorbachev-bio.html](#) - Cached

michael gorbachev | crazymonk.org
 Part II of Errol Morris day. (Re-)watch this Morris short, which played during the 2002

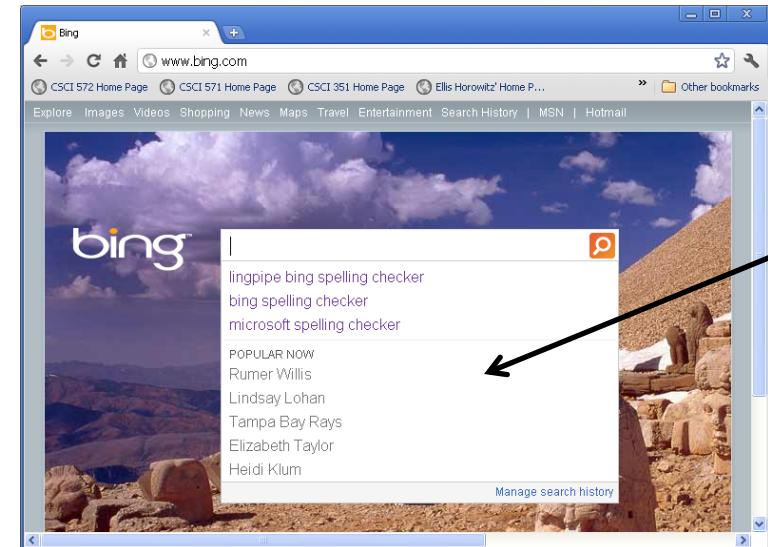
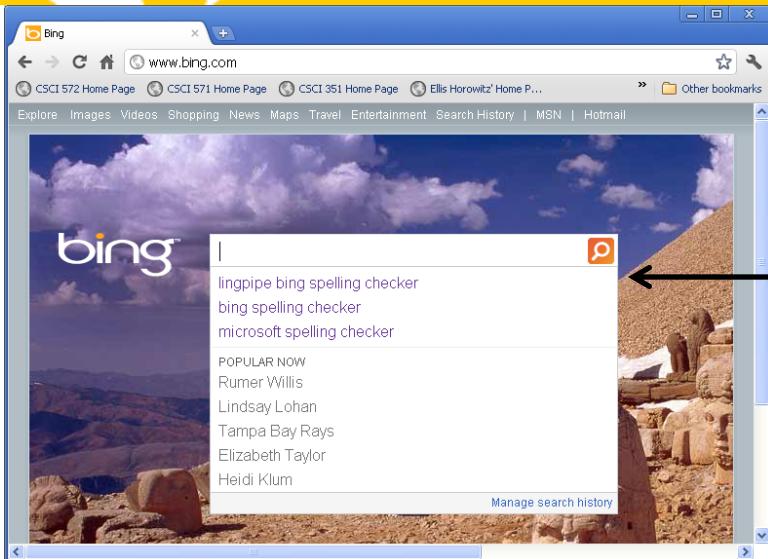
<http://shopping.yahoo.com/search;...rbachev&fr=yfp-t-701&fr2=piv-web>

After hitting Enter, Yahoo does offer the correct spelling of “Gorbachev” and returns many results; in case the user actually wanted to search for “garbachev” it provides a link to produce those results, but after clicking Yahoo delivers more results for Gorbachev and none for Garbachev



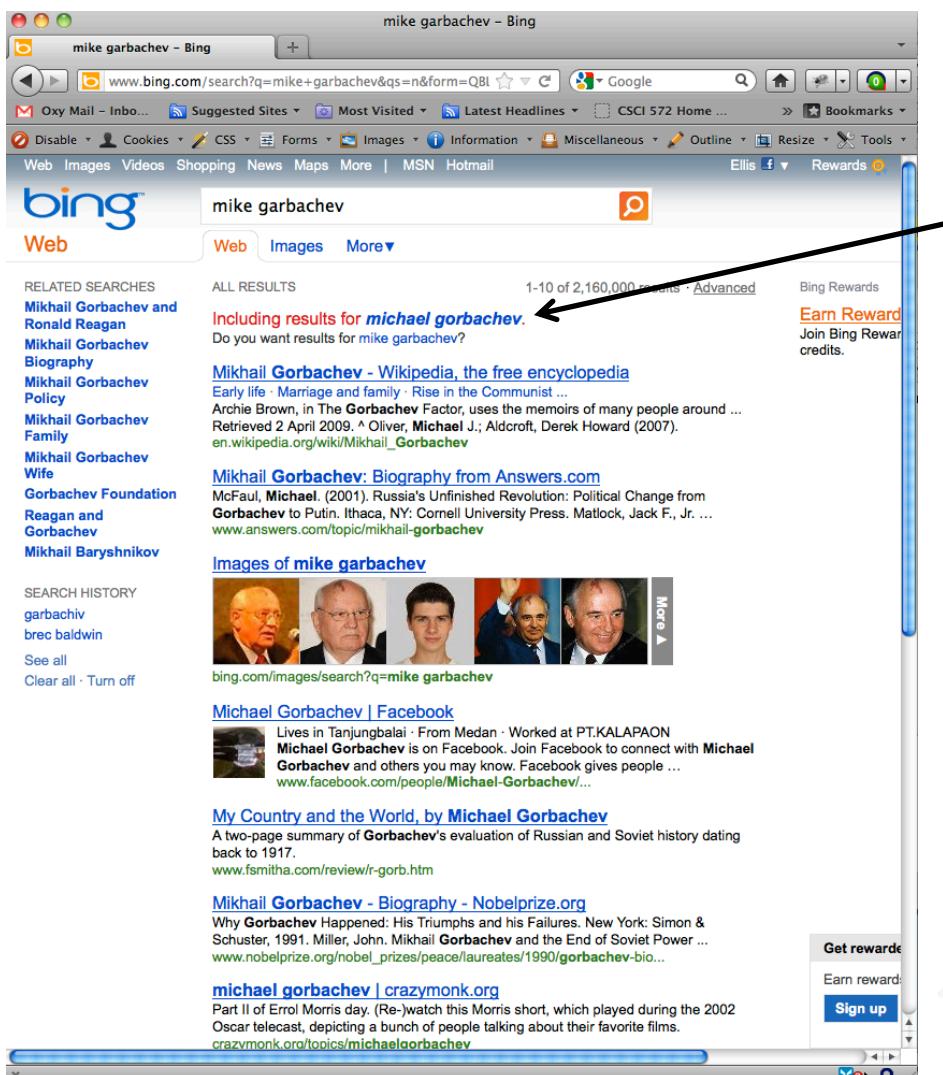
Bing Auto-Completion

- On the other hand, Bing does not even wait for the first character to be entered, as seen on the left they make use of previous queries and enter some possibilities before the user even types a single character
- After entering “mike garbac” bing finally comes up with the correct spelling, see below



Bing Final Result with Spelling Corrected

As with Google and Yahoo, Bing will offer results using the corrected spelling and include a link for the user spelling



mike garbachev - Bing

www.bing.com/search?q=mike+garbachev&qs=n&form=QBL

Related Searches:

- Mikhail Gorbachev and Ronald Reagan
- Mikhail Gorbachev Biography
- Mikhail Gorbachev Policy
- Mikhail Gorbachev Family
- Mikhail Gorbachev Wife
- Gorbachev Foundation
- Reagan and Gorbachev
- Mikhail Baryshnikov

Search History:

- garbachi
- brec baldwin
- See all
- Clear all - Turn off

Search Bar: mike garbachev

Results: ALL RESULTS 1-10 of 2,160,000 results · Advanced

Including results for *michael gorbachev*. ←

Do you want results for [mike garbachev](#)?

Mikhail Gorbachev - Wikipedia, the free encyclopedia

Early life · Marriage and family · Rise in the Communist ...
 Archie Brown, in The **Gorbachev Factor**, uses the memoirs of many people around ...
 Retrieved 2 April 2009. ^ Oliver, Michael J.; Aldcroft, Derek Howard (2007). en.wikipedia.org/wiki/Mikhail_Gorbachev

Mikhail Gorbachev: Biography from Answers.com

McFaul, Michael. (2001). Russia's Unfinished Revolution: Political Change from Gorbachev to Putin. Ithaca, NY: Cornell University Press. Matlock, Jack F., Jr. ... www.answers.com/topic/mikhail-gorbachev

Images of mike garbachev

[bing.com/images/search?q=mike garbachev](#)

Michael Gorbachev | Facebook

Lives in Tanjungbalai · From Medan · Worked at PT.KALAPAON

Michael Gorbachev is on Facebook. Join Facebook to connect with Michael Gorbachev and others you may know. Facebook gives people ... www.facebook.com/people/Michael-Gorbachev/...

My Country and the World, by Michael Gorbachev

A two-page summary of Gorbachev's evaluation of Russian and Soviet history dating back to 1917. www.fsmitha.com/review/r-gorb.htm

Mikhail Gorbachev - Biography - Nobelprize.org

Why Gorbachev Happened: His Triumphs and his Failures. New York: Simon & Schuster, 1991. Miller, John. **Mikhail Gorbachev and the End of Soviet Power** ... www.nobelprize.org/nobel_prizes/peace/laurates/1990/gorbachev-bio...

michael gorbachev | crazymonk.org

Part II of Errol Morris day. (Re-)watch this Morris short, which played during the 2002 Oscar telecast, depicting a bunch of people talking about their favorite films. crazymonk.org/topics/michaelgorbachev



Judging the Quality of Answers: Mean Reciprocal Rank (MRR) Scoring

- The mean reciprocal rank is a statistical measure for evaluating any process that produces a list of possible responses to a sample of queries, ordered by probability of correctness.
The **reciprocal rank** of a query response is the multiplicative inverse of the **rank** of the first correct answer
- The mean reciprocal rank is the average of the reciprocal ranks of results for a sample of queries
- For example, suppose we have the following three sample queries for a system that tries to translate English words to their plurals. In each case, the system makes three guesses, with the first one being the one it thinks is most likely correct:

$$\text{MRR} = \frac{1}{|Q|} \sum_{i=1}^{|Q|} \frac{1}{\text{rank}_i}.$$

Query	Results	Correct response	Rank	Reciprocal rank
cat	catten, cati, cats	cats	3	1/3
tori	torii, tori , toruses	tori	2	1/2
virus	viruses , virii, viri	viruses	1	1

the mean reciprocal rank as $(1/3 + 1/2 + 1)/3 = 11/18$ or about 0.61.

Context-Sensitive Query Auto-Completion – Bar-Yossef, Kraus

- For the first few keystrokes the search engine has little information about the real intent of the user; this leads to the following algorithm
- ***MostPopularCompletion algorithm*** makes suggestions based on the most popular user queries in the past
 - E.g. the prefix “am” produces “amazon” and “american express”
- **Modification: use the user’s context (previous queries), some query sequences re-occur often, but others do not**
 - There is a long-tail distribution of query frequencies
- ***NearestCompletionAlgorithm***
 - Given a user input x and a context y , the algorithm suggests to the user the completions of x that are most similar to y
 - The context y is used to produce a tree of relevant query completions, where nodes are represented as n-grams
- They determined the value of their method by computing the Mean Reciprocal Rank (MRR) of the ***NearestCompletionAlgorithm*** over relevant queries is 48% higher than ***MostPopularCompletion Algorithm***
- See <http://www-scf.usc.edu/~csci572/papers/AutoCompletion.pdf>