

# Digital Media, Society, and Culture

Angus A.A. Mol



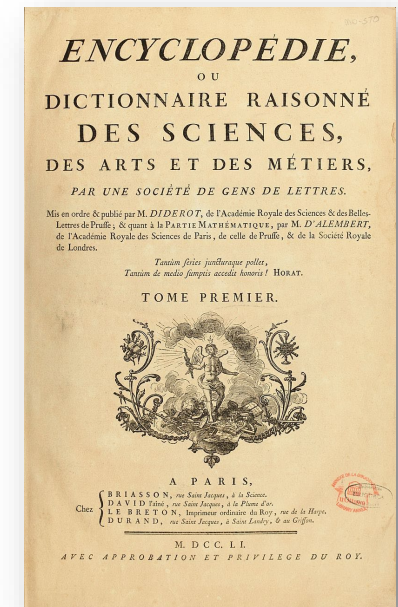
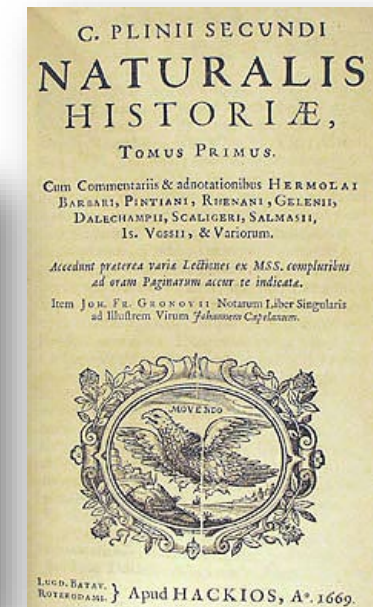
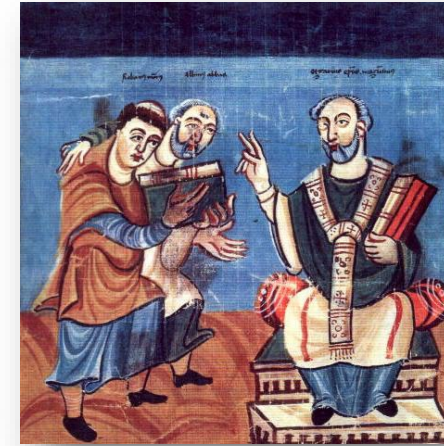
# The World Brain

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# Encyclopedias

- “General education” (ἐγκύκλιος παιδεία)
- Natural histories
- Roots in deontology (storytelling as sensemaking)
- Education, science, ideology, administration, politics
  - Renaissance
  - Enlightenment
  - Nation Building



# H.G. Wells' *The World Brain*

- Series of lectures by the “Father of SF”, futurist, social activist
- [World Brain](#): more than an encyclopedia
  - “The **encyclopaedias of the past** have sufficed for the needs of a cultivated minority.”
  - “Pull the mind of the world together”
  - “A world **synthesis** of bibliography and documentation with the **indexed** archives of the world.”
- “It can be **reproduced** exactly and fully, in Peru, China, Iceland, Central Africa, or wherever else.”
- “Its creation is a way to **world peace** that can be followed without any very grave risk of collision with the warring political forces and the vested institutional interests of today”
- “The **whole human memory** can be, and probably in a short time will be, made accessible to every individual”
- “This is **no remote dream**, no fantasy. It is a plain statement of a contemporary state of affairs. It is on the level of practicable fact.”



# The 'Spoils of War': An Issue of Information Indexing

“There is a **growing mountain of research**. But there is increased evidence that we are **being bogged down** today as specialization extends. The investigator is staggered by the findings and conclusions of thousands of other workers—conclusions which he cannot find time to grasp, much less to remember, as they appear.”

“Consider a future device for individual use, which is a sort of mechanized private file and library. It needs a name, and, to coin one at random, "memex" will do. A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility. It is **an enlarged intimate supplement to his memory.**”

**1945**, As We May Think, V. Bush [in the Atlantic](#)

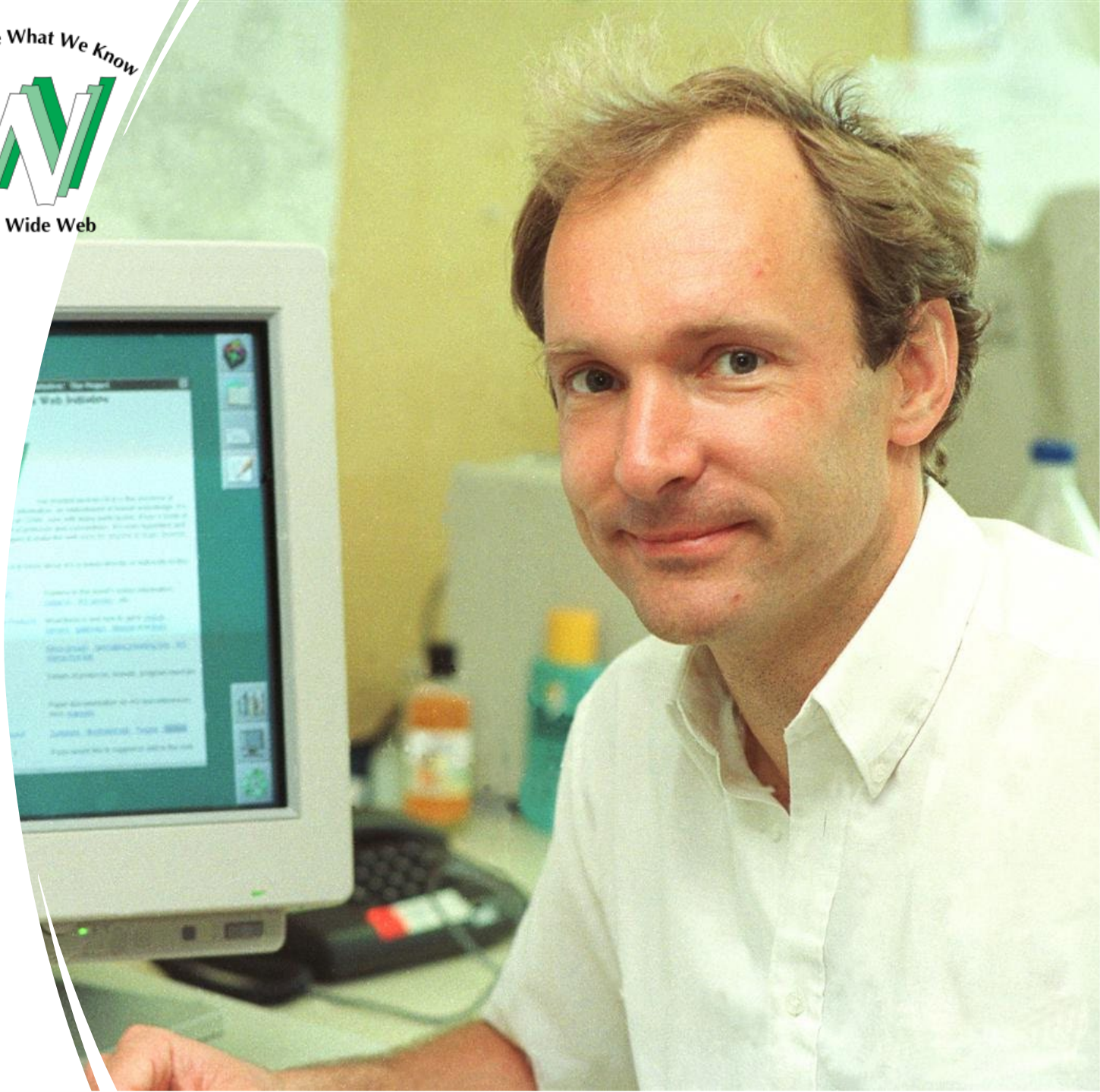


# The Invention of the World Wide Web

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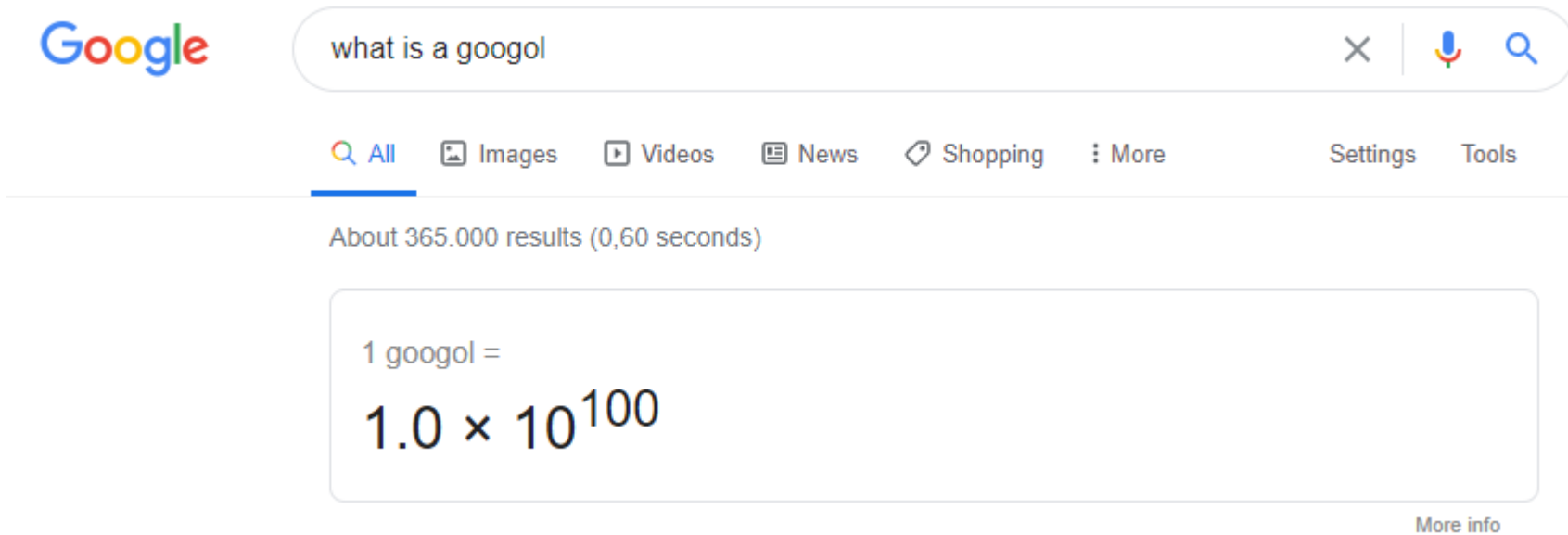
- Sir Tim Berners-Lee at CERN (1989)
- Colloquially and wrongly referred to as the 'Internet'
- Standards
  - HTML (Hyper Text Markup Language)
  - URL (Uniform Resource Locator): the link
  - World Wide Web hostname
  - HTTP (Hypertext Transfer Protocol)

More info at [CERN](https://www.cern.ch)



Google

# A Google Quiz: Name?



The image is a screenshot of a Google search interface. At the top left is the Google logo. To its right is a search bar containing the text "what is a googol". The search bar has a clear button (X) and a microphone icon. Below the search bar is a horizontal menu with links: "All" (highlighted with a blue underline), "Images", "Videos", "News", "Shopping", "More", "Settings", and "Tools". Below the menu, it says "About 365.000 results (0,60 seconds)". The main content area shows a snippet: "1 googol =" followed by the mathematical expression  $1.0 \times 10^{100}$ . At the bottom right of this snippet is a link that says "More info".

Google

what is a googol

[All](#) [Images](#) [Videos](#) [News](#) [Shopping](#) [More](#) [Settings](#) [Tools](#)

About 365.000 results (0,60 seconds)

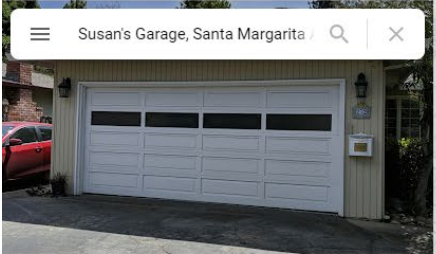
1 googol =  
 $1.0 \times 10^{100}$

[More info](#)

# A Google Quiz: Where?

google.com/maps/place/Susan's+Garage/@37.4576537,-122.1658173,17z/data=!3m1!1e3!1s0x808fbb4ff0b9a7f9:0x1b0228802812e014!8m2!3d37.4576505!4d-122.1636316

Susan's Garage, Santa Margarita



**Susan's Garage**  
4.9 ★★★★★ 34 reviews  
Museum

Directions Save Nearby Send to your phone Share

232 Santa Margarita Ave, Menlo Park, CA 94025, United States

Hours or services may differ

FR5P+3G Menlo Park, California, USA

Claim this business

Add a label

[Suggest an edit](#)

**Add missing information**

Add place's phone number

Add hours

Add website

Restaurants Hotels Attractions Transit Parking Pharmacies ATMs

St. Patrick's Seminary & University

Seminari Oaks Park

Susan's Garage

De Marta Michelle DMD

Willow Park

San Francisco Creek Graffiti Tunnel

San Francisco Creek Trailhead

# A Google Quiz: Owner?

Market Summary > Alphabet Inc Class A

97,50 USD

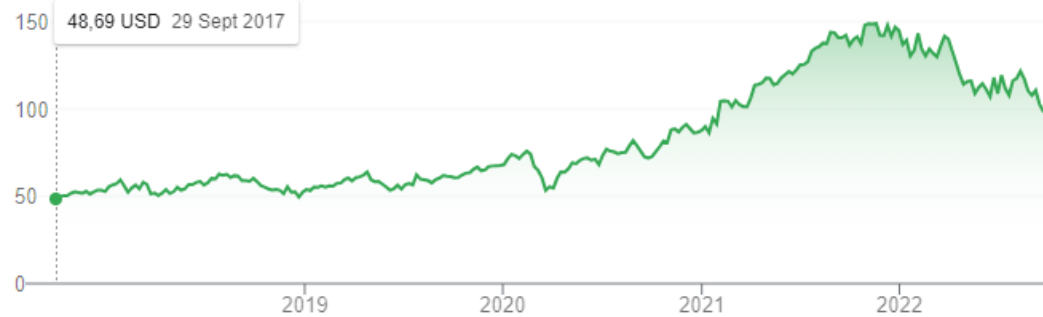
+48.81 (100.25%) ↑ past 5 years

Closed: 28 Sept, 05:15 GMT-4 • Disclaimer

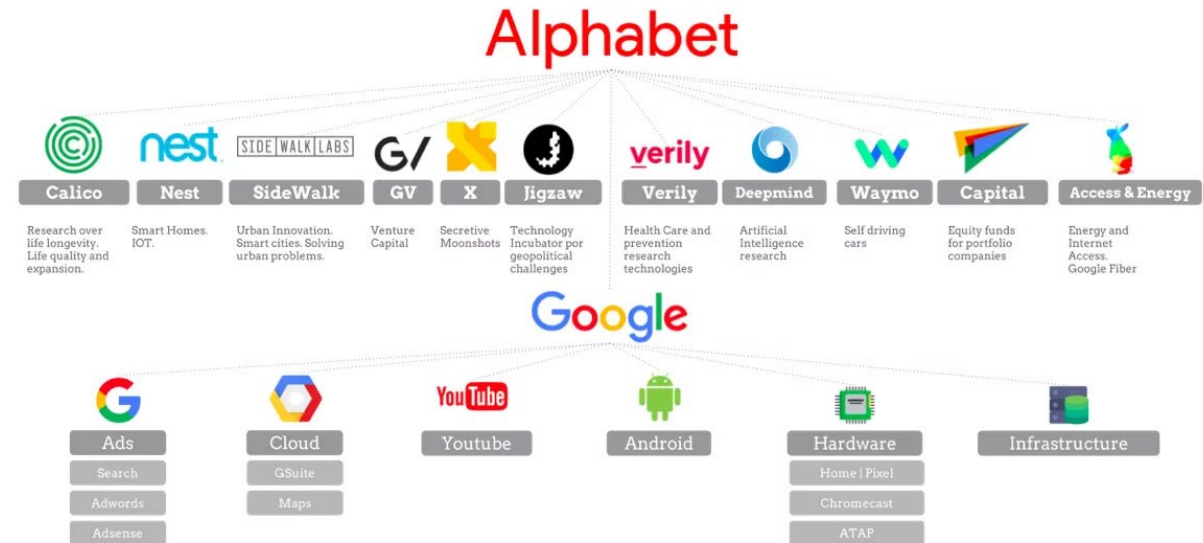
Pre-market 96,00 -1,50 (1,54%)

+ Follow

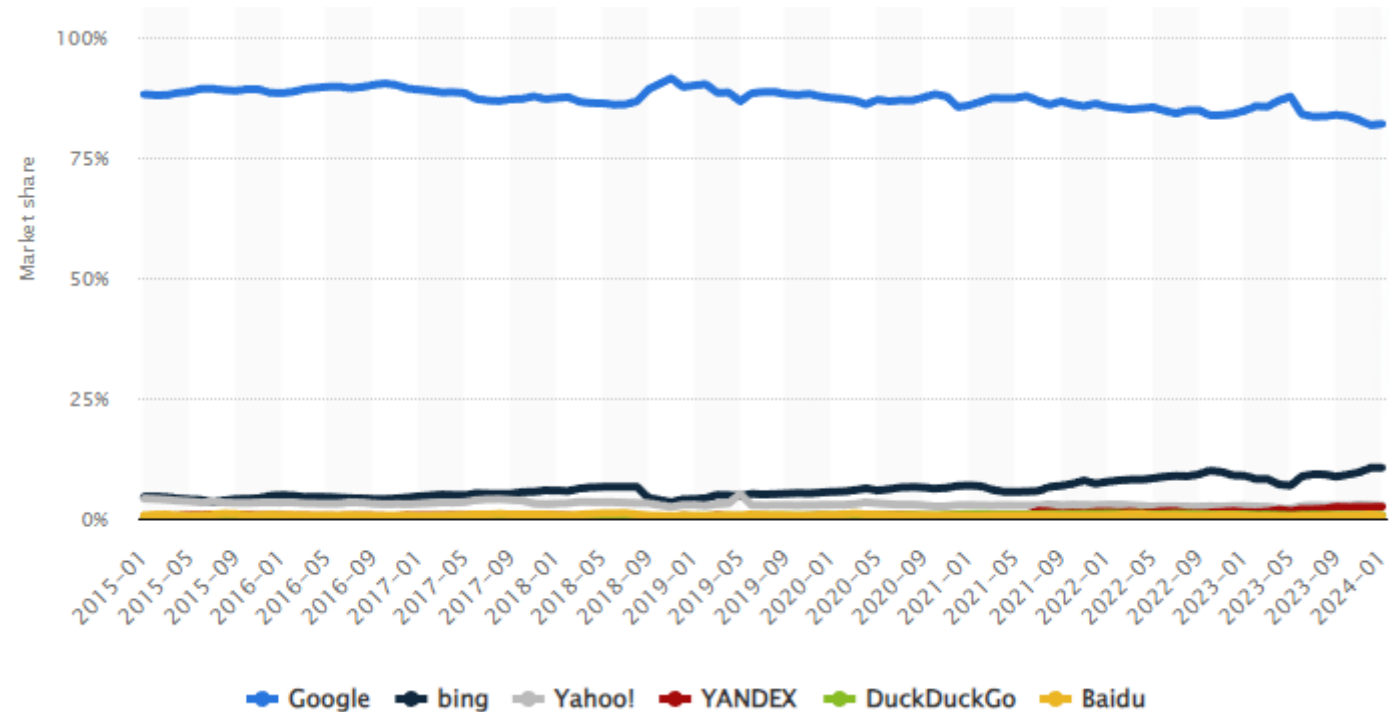
1D | 5D | 1M | 6M | YTD | 1Y | 5Y | Max



Open	99,43	Mkt cap	1,27T	CDP score	A-
High	100,00	P/E ratio	18,47	52-wk high	151,55
Low	96,87	Div yield	-	52-wk low	96,87



# A Google Quiz: Market share?\*



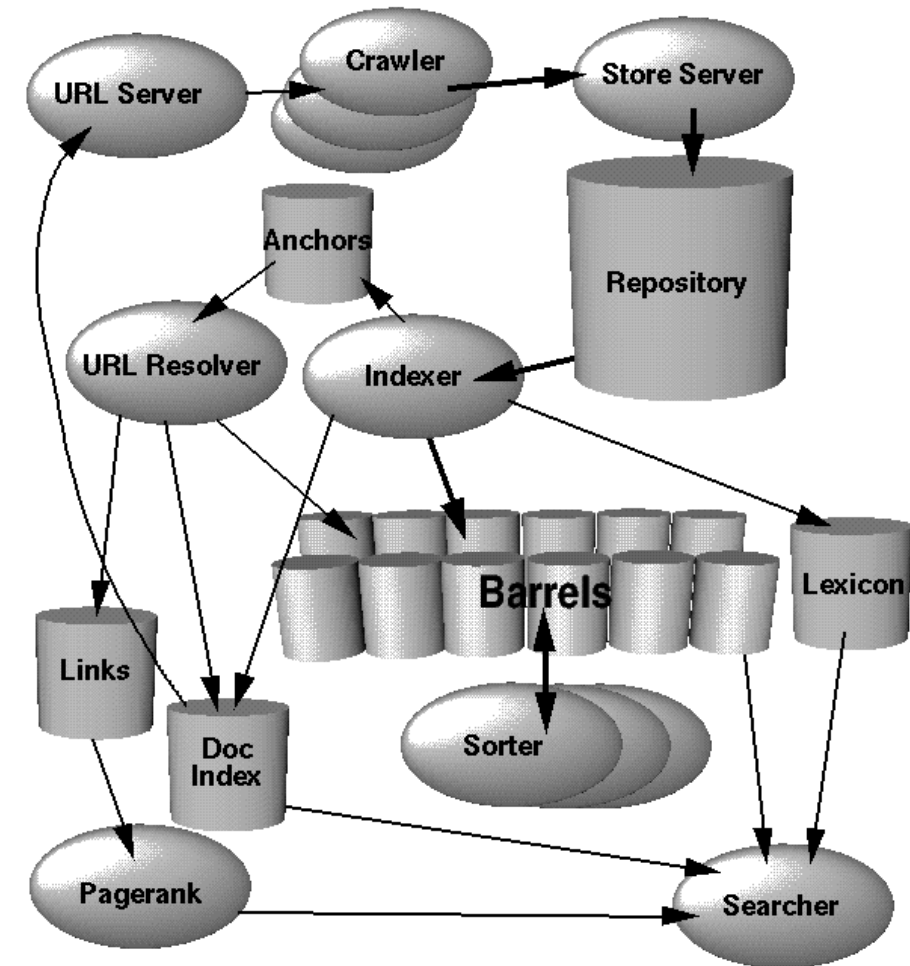
(source: [Statista](#))

\*for searches on the World Wide Web

# A Google Quiz (answer in 1999!; [leaked partial answer from 2024](#)):



Links are used to map sites ([link](#))



[Brin and Page Original "Backrub" Schema](#)

# Old Search Engines: Archie and WebCrawler

Welcome to archie.icm.edu.pl

Archie Query Form 

Search for:

Database: ☒ Worldwide Anonymous FTP ☐ Polish Web Index  
Search Type: ☒ Sub String ☐ Exact ☐ Regular Expression  
Case: ☒ Insensitive ☐ Sensitive

Do you want to look up strings only (no sites returned):  
☒ NO ☐ YES

Output Format For Web Index Search: ☐ Keywords Only  
☒ Excerpts Only  
☐ Links Only

**Optional Search Parameters**

You can use as many terms as you like in your query, as long as you separate them by spaces. By default, **Archie** inserts "OR" operators between all of the terms of your query. If you prefer, you can change the operator to "AND" by choosing these radio buttons:

☐ OR ☐ AND

You can also limit the search results to match a directory path (this is optional):

Or to exclude search results that match a directory path you don't want (this is also optional):

If you want to limit the search so that it only looks in certain domains (such as ca, edu or com), enter one or more in the following boxes:

Maximum Hits:

Maximum hits per string matched (valid for non-exact searches):

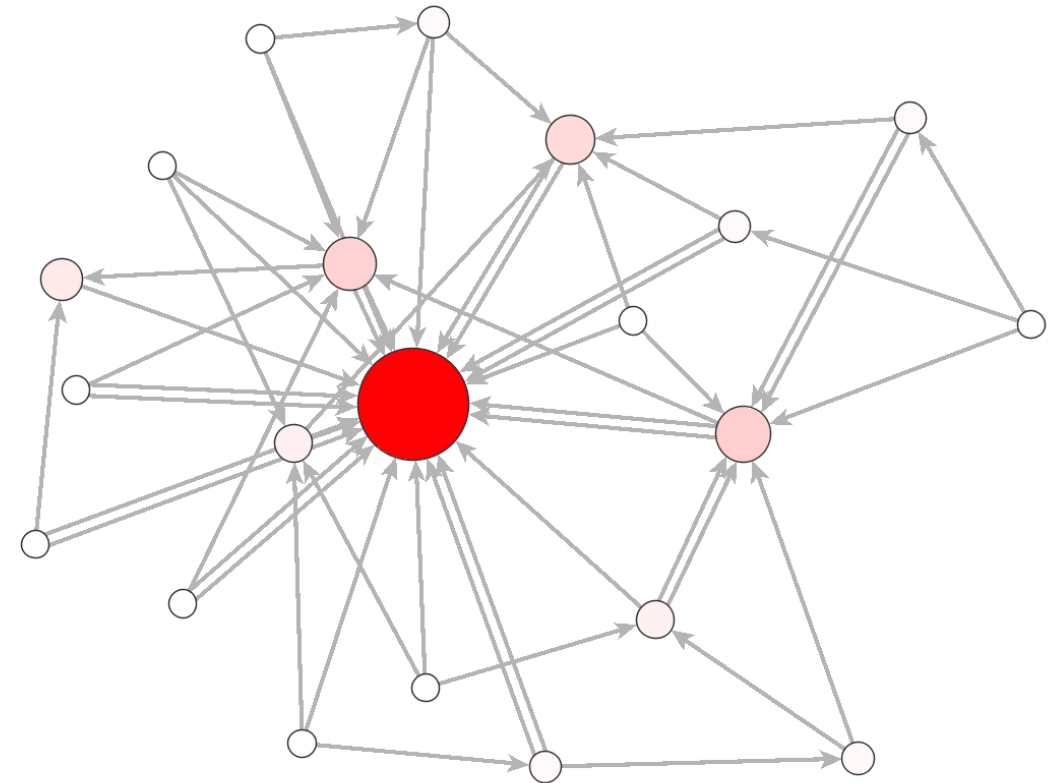
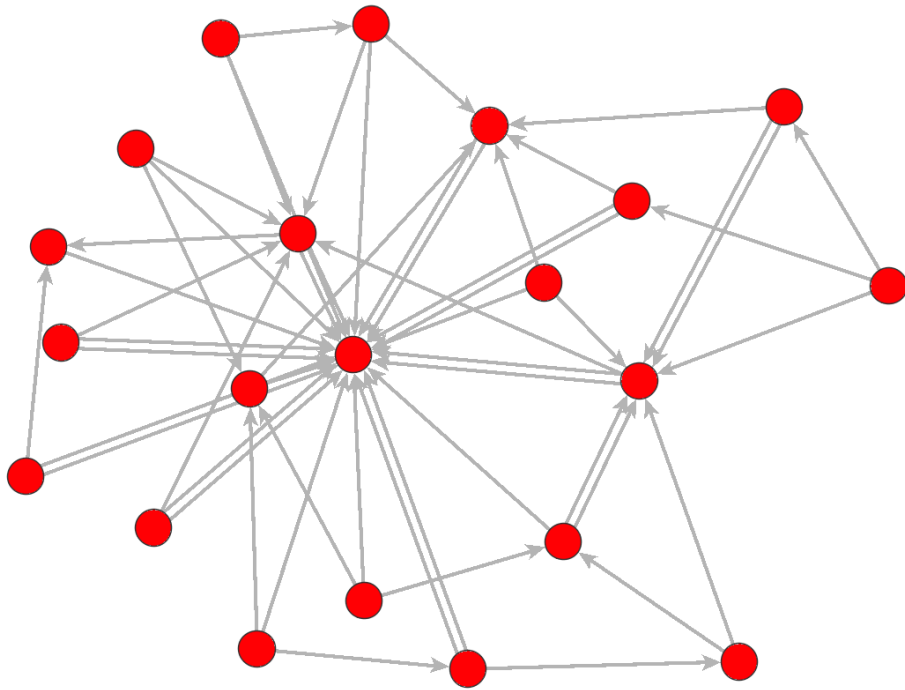
Maximum string matched (valid for non-exact searches):

[Wersja polska](#) | [Help](#) | [Simple Search](#)

 **WebCRAWLER**

[Web](#) [Images](#) [Videos](#) [News](#)

# Backlinks and the PageRank Algorithm

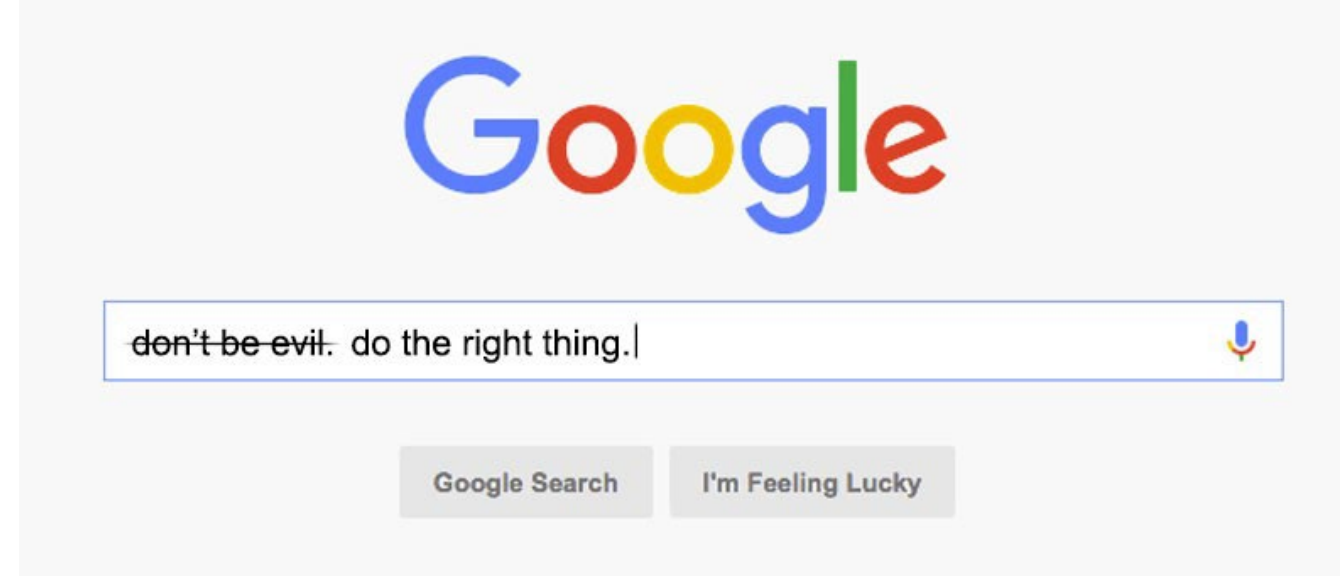


# What else does Google look for?

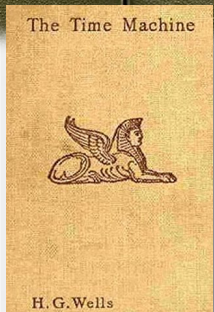
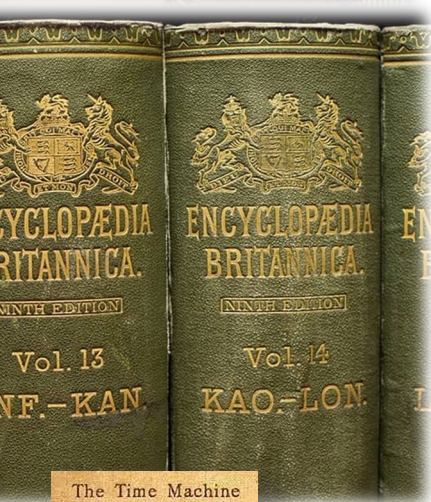
- Robot.txt file
- Website security
- Keywords, tags, headers, content relations, existence of a site map
- Parsing of content:
  - Text
  - Images
  - Videos
  - HTML, CSS, JavaScript and other code
- The 'Dark' Arts of **SEO**: Search Engine Optimization



# Geevil?



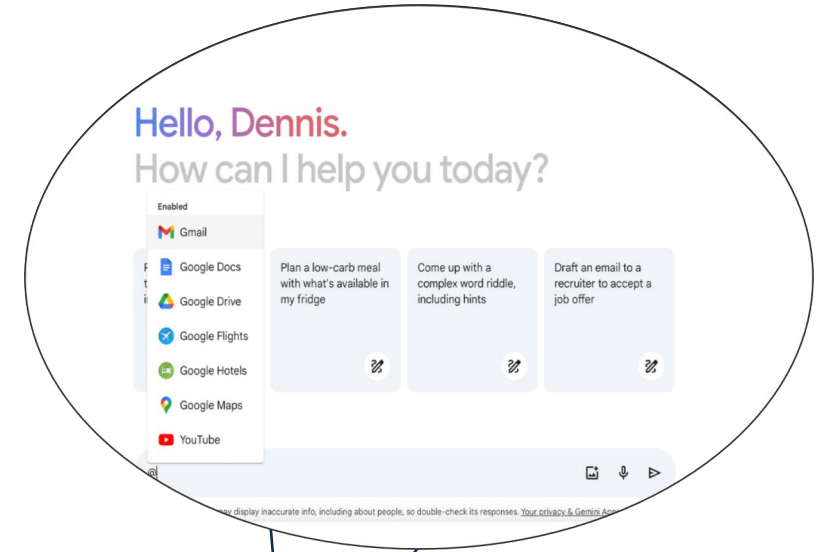
- Google and Copyright
  - Books: [Google and the World Brain](#)
- Google and Privacy:
  - Try [Google Take-out](#) (thanks GDPR!)
- Google and the [Military](#)
- Google and [Censorship](#)
- Google is an ultra-pervasive, profit-driven, secretive company



Printed media,  
curated knowledge



Online, linked (textual) data,  
Indexing & communication protocols



Google Gemini (LLM-based, AI Chatbot)

Underlying message:  
Knowledge is scaffolded by enduring media of power

# Use your brain & Stay Critical! of the world brain

“We're not a truth engine. ... We can give you  
information, but we can't tell you the truth of a thing.”

-Danny Sullivan, Google search liaison in [CNBC interview](#)

Content Cue:

How has the World Brain failed or helped you?

Alternative: How do we rely on the World Brain?