

Welcome to the Internet SIG



Search Engines

**I don't need to
use a search
engine ..**

**My wife knows
everything .**

What We Will Discuss

- What is a Search Engine
- History of Web Searching
- How Search Engines Work
- Types of Searches
- Specialized Searches
- Future of Searching

What is a Search Engine?

- A computer program that is designed to search for information on the World Wide Web.
- The search results are generally presented in a line of results often referred to as search engine results pages.
- The information may be a mix of web pages, images, and other types of files.

1990

The first Internet Search Engine was created by Alan Emtage, a student at McGill University in Montreal.

Do you know it's name?

Archie

He originally want to call it

Archives

But the Unix operating system needed a smaller file name.

A legacy Archie server is still maintained active for historic purposes at the University of Warsaw in Poland.

Archie Query Form

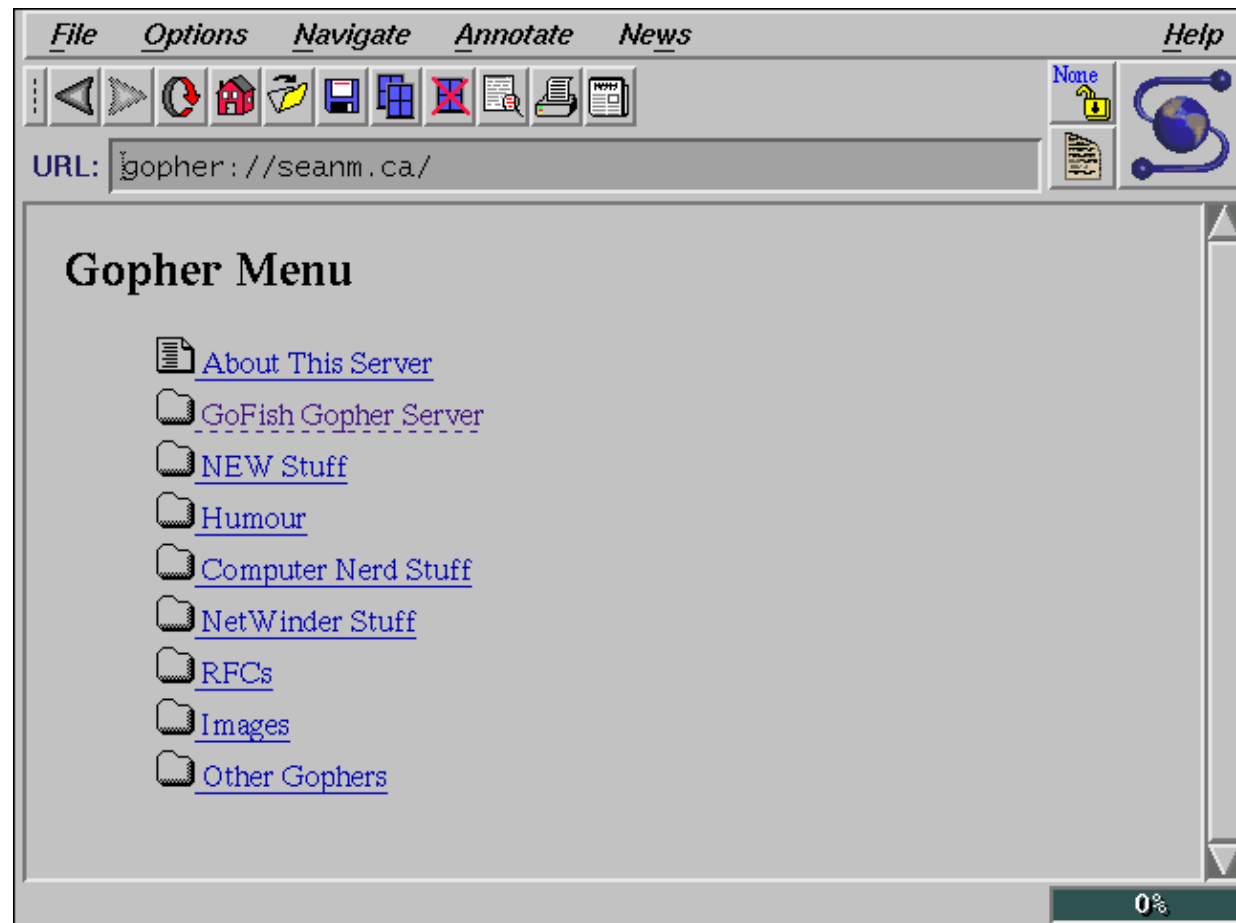
1991

Archie could only download a directory listing of all the files located on a public ftp server.

The Gopher protocol was designed for distributing, searching and retrieving documents.

(Although still in use, Gopher was largely been replaced by the HTTP protocol)

Gopher became popular for indexing libraries



1993

Search technology had advanced to where there were several search engines.

They mostly relied on web administrators to submit their sites for searching.

In June, MIT produced the
World Wide Web Wander.

The purpose was to measure the size of the World
Wide Web.

This is often considered to be the first “web robot”

1994

One of the first “all text” crawler-base search engines was

WebCrawler

It allowed users to search for any word in a web page

WebCrawler

- First full all text search
- Became the standard for all search engines
- First search engine widely known by public
- Originally stand alone with its own database
- It is now a metasearch engine

Other Search Engines Followed

- Magellan
- [Excite](#)
- Infoseek
- Inktomi
- Northern Light
- AltaVista
- [Lycos](#)
- and many others

1996 – BackRub Search Engine

- Created by two graduate students at Stanford University
- Named for its ability to analyze “back links” pointing to other websites

Has anyone ever used
this Search Engine?

BackRub was renamed.

It became the

Google Search Engine

How Do Search Engines Work?

- Web Crawling – information is retrieved from web pages by a web crawler (also known as a robot or spider)
- Indexing – each web page is analyzed to determine content
- Searching – allows the user to submit queries to the indexed data base

Crawling

- Crawling is the acquisition of data about a website.
- The automated bot (spider) visits each page and scans for the page title, images, keywords it contains, and any other pages it links to.
- The crawler then adds all the new links it found to a list of places to crawl next.
- Any site that is linked to from another site already indexed.
- Different search engines may scan, index and cache other information such as page layout, advertising info, etc.

Indexing

- The process of taking all of that data you have from a crawl, and placing it in a big database.
- Imagine going to the library and writing down the title and location of every book.
- Now copy the subject, author, publisher, number of pages, year, cost, etc.
- Now copy every page of every book.

If the library was the
World Wide Web,

You would be the web crawler.

The list you made would be the
search index.

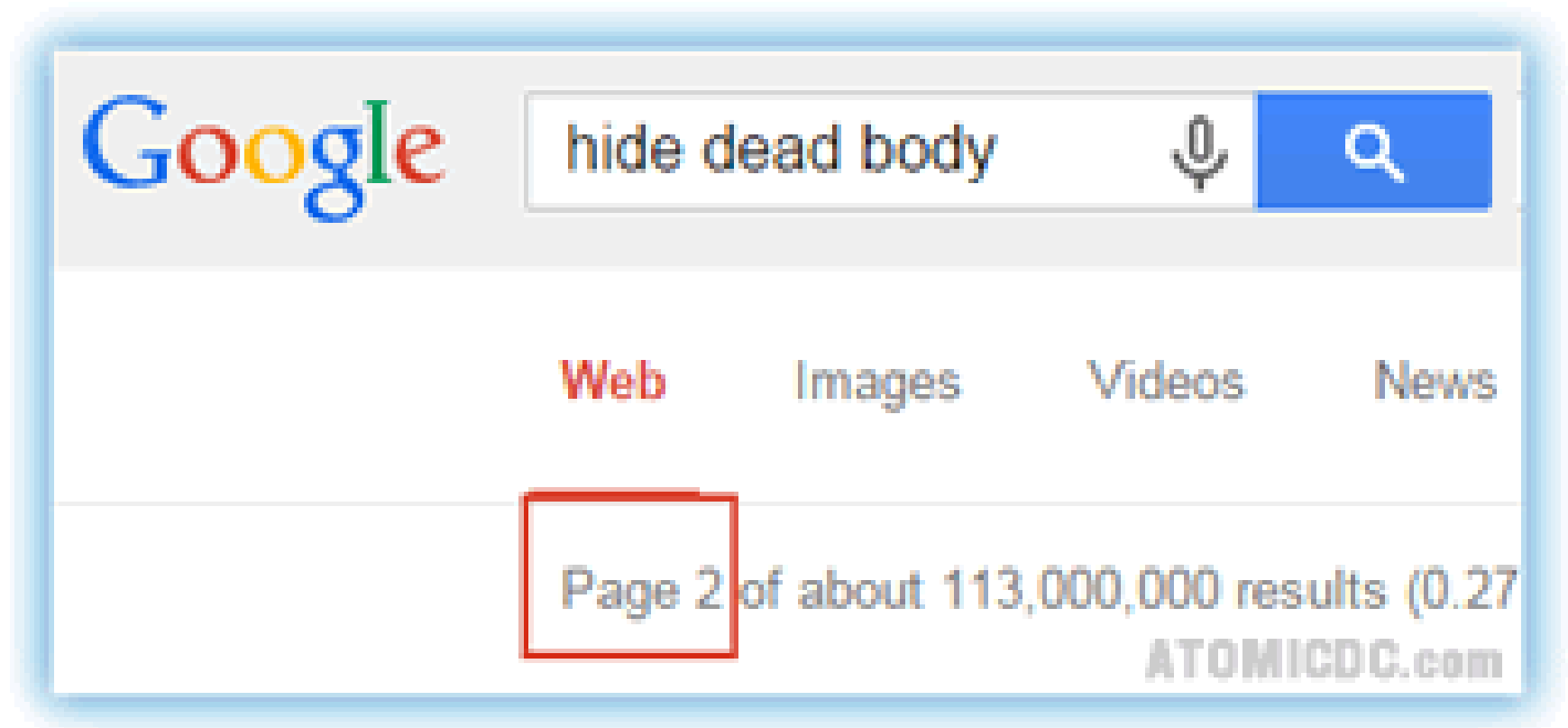
Searching

- Is the most important part.
- It is the ranking and retrieval of stored data.
- It is the most complicated step, an attempt to display the most relevant documents.
- Each search engines algorithm is different and a closely guarded secret, usually patented.

Why Algorithms are Patented

- Competitive advantage – when they are giving you the best search results, the company can stay on top of the market and sell more advertising.
- Prevents exploiting of the system and giving an unfair advantage to one site over another.
- Search ranking is important to sites because most searchers click on the one of the first four links.

WHERE IS THE BEST PLACE TO HIDE A DEAD BODY? PAGE 2 OF GOOGLE SEARCH RESULTS



(NOBODY EVER LOOKS THERE)

Everyone knows what the most popular search engine is!



Do you know why?

This is why Google is the most popular search engine...



Web Shopping Images Videos News More Search tools

About 29,200,000 results (0.65 seconds)

Showing results for **where to buy liquor at night**

Search instead for **wheetw ot byu kiquor at nihgt**

[where i can i buy alcohol late at night? | Yahoo Answers](#)

<https://answers.yahoo.com/question/index?qid...>

Jan 6, 2009 - it is now 1 am here in phoenix az. know any places where i can get some'

[Late night liquor stores? \(Newark, Jersey City: sale, house, b...](#)

[www.city-data.com](#) › [City-Data Forum](#) › [US Forums](#) › [New Jersey](#)

Sep 9, 2009 - 10 posts - 7 authors

Originally Posted by twista6002 Essex/Morris county. Just looking for a place I can buy a 6-pack when I get off usually between 11-1. Only at a ...

[Late Night Wine & Liquor](#)

<https://plus.google.com/108531386830397219898/about?gl=us&hl=en>

Google+ page · Be the first to review

1633 Atlantic Ave, Atlantic City, NJ 08401
(609) 347-3900



Late Night Wine & Liquor

Directions

Liquor Store

Address: 1633 Atlantic Ave, Atlantic City, NJ 08401

Phone: (609) 347-3900

Reviews

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french military victories

Google S

Search: the web

Web

Images

Groups

Directory

News

Did you mean: [french military *defeats*](#)

No standard web pages containing all your search terms were found.

Your search - **french military victories** - did not match any documents.

Suggestions:

- Make sure all words are spelled correctly.
- Try different keywords.
- Try more general keywords.
- Try fewer keywords.

Google – is the most popular search engine in the world

Bing – is the second

Which is the Third?

I'll be surprised if anyone knows.

Here's a hint.

The answer is.

Advanced & Specialized Searches

- Focus on a specific item
- Search a geographic area
- Limit search to domain types
- Often gives more relevant results

There are three general methods for advanced searching.

1. Regular Search Engine

Nearly every search engine has some type of advanced searching techniques.

(I will use [Google](#) for example purposes)

Advanced Searching Tips

- Use quotation marks for exact phrases
- Use the (-) to omit a term from a search
- Use the (+) to add a term to a search
- Use the (~) to return synonyms
- Use site search (site:***.com searchterm)
- Search for other tips

advanced searching (insert browser name)

2. Aggregate Search Engines

There are several search sites that combine results from more than one search engine.

Advantages:

- Less effort required to access more material.
- Efficient – generates a large amount of data.

Disadvantages:

- More irrelevant documents.
- More spam/junk sites.
- Results are often only links with inadequate descriptions.
- May not translate search query the same to each engine.

List of Aggregate Search Engines

This is by no means a complete list.

- Dogpile
- Metasearch
- Web Crawler
- Excite
- HotBot
- Info

3. Item Specific Searches

A specialized web search engine is a web search engine that focuses on searching for web pages in a certain area. This area could be format, subject area, geographic region, or domain(s).

I'm willing to bet that everyone here has used a Specialized Search Engine.

A Few “Special” Examples

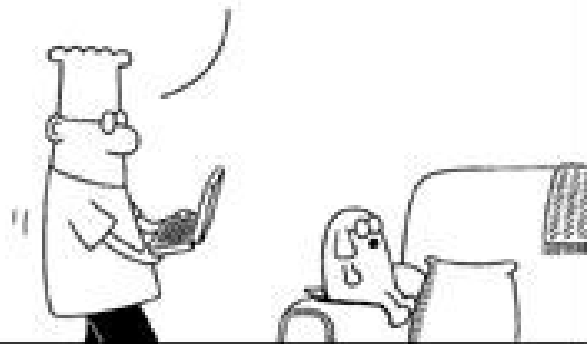
- [Priceline](#) – Where Captain Kirk saves money.
- [Trip Advisor](#) – read reviews, compare and book.
- [Board Reader](#) – search Internet forums.
- [OMG lol](#) - search for funny pictures.
- [IceRocket](#) - search blogs.
- [PicSearch](#) - search for images.
- [Icon Seeker](#) - search for icons.
- [TinEye](#) - reverse image search.

There are many many more. Search for them.

The Future of Internet Searching

Do I look like Jeane Dixon?

I INVENTED A SEARCH ENGINE THAT'S ALSO A SINGLES MATCHING SERVICE.



www.dilbert.com scottadams@aol.com

IT AUTOMATICALLY MATCHES SINGLES WHO SEARCH FOR THE SAME KEYWORDS.



5-9-06 © 2006 Scott Adams, Inc./Dist. by UFS, Inc.

AND THEN IT THREATENS TO E-MAIL THOSE KEYWORDS TO THEIR MOTHERS IF THEY DON'T AGREE TO DATE.



I HAVE TAUGHT YOU WELL.

I'll Make Some Predictions

- Engines will get better at knowing what we want to search for.
- Voice search will be integrated.
- More startups will bring us more specialized searches.
- Context will become more important (location, device, time of day, etc.)
- Search engines will be more device specific.
- Best results will be on the second page. The first page will be mostly paid results.

All Presentations Available for Download

PDF Format

<http://ghostmilitarys.com/clickerstempfiles/>

Tutorials are in a sub-directory

What's The Next SIG Topic



**Have you got a topic idea? Want to learn about something special?
Tell me anytime you see me or contact me online.**

clickers@tinys-bs.com

Clickers - General Discussion Google Group

