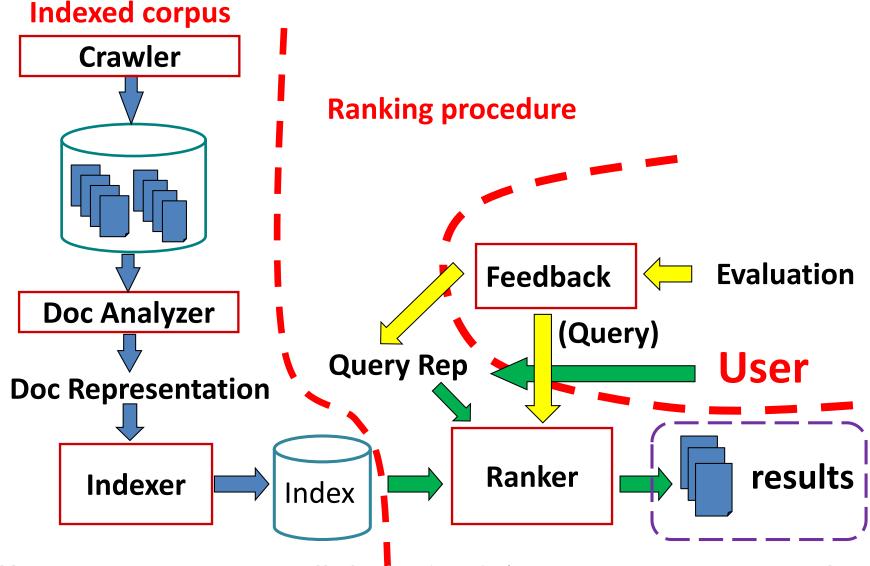
Search Result Interface

Hongning Wang CS@UVa

Abstraction of search engine architecture



CS@UVa CS 4501: Information Retrieval

Search interface

- Evolution of Google's result interface
 - http://www.seosmarty.com/google-interfaceevolution/

Google's



obama

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Search tools

About 151,000,000 results (0.46 seconds)

News for obama

News



Ted Cruz: Barack Obama using FAA in economic boycott of ...

Politico - 2 hours ago

The State Department and Sen. Ted Cruz sparred Wednesday over the Texas Republican's accusation that the Obama administration was

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TIME - by Michael Crowley - 15 minutes ago

More news for obama

Barack Obama

www.barackobama.com/ . Barack Obama .

Sign the petition to say it's time to give America a raise. Sign the petition. "You and I, as citizens, have the power to set this country's course." - President Obama.

Barack Obama - Wikipedia, the free encyclopedia

en.wikipedia.org/wiki/Barack Obama - Wikipedia -

Barack Hussein Obama II is the 44th and current President of the United States, and the first African American to hold the office. Born in Honolulu, Hawaii, ...

Michelle Obama - Barack Obama, Sr. - Early life and career of Barack - Ann Dunham

President Barack Obama | The White House

www.whitehouse.gov > The Administration - White House -

With a father from Kenya and a mother from Kansas, President Obama was born in Hawaii on August 4, 1961. He was raised with help from his grandfather, who ...

Barack Obama (Barack Obama) on Twitter

https://twitter.com/BarackObama *

The latest from Barack Obama (@BarackObama). This account is run by Organizing for Action staff. Tweets from the President are signed -bo. Washington, DC.



Barack Obama

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Barack Hussein Obama II is the 44th and current President of the United States, and the first African American to hold the office. Wikipedia

Born: August 4, 1961 (age 52), Honolulu, HI

Spouse: Michelle Obama (m. 1992)

Parents: Ann Dunham, Barack Obama Sr.

Children: Natasha Obama, Malia Ann Obama

Siblings: Maya Soetoro-Ng, Mark Okoth Obama Ndesandjo, More

Education: Harvard Law School (1988-1991), More

Recent posts

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On Obama's private L.A. schedule: a meeting with Father Boyle

Chicago Tribune · 21 minutes ago

President **Obama** met privately with Father Gregory Boyle of Los Angeles' Homeboy Industries and four former gang members Thursday as part of the White House's...

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"Obama" redirects here. For other uses, see Obama (disambiguation). This article is about the 44th president of the United States. For his father, see Barack Obama, Sr. Early life and career · Legislative career ... · Presidential campaigns

Barack Obama - Official Site

www.barackobama.com *

OFA works to ensure the voices of ordinary Americans are heard in Washington, while training the next generation of grassroots organizers who will keep fighting for ...

The White House

www.whitehouse.gov >

Day in the Life. President **Obama** is traveling over the course of the summer to speak directly with the people he's working for every day.

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President Barack Obama | The White House

www.whitehouse.gov/administration/president-obama >

Barack H. **Obama** is the 44th President of the United States. His story is the American story — values from the heartland, a middle-class upbringing in a strong ...



Barack Obama

Barack Hussein Obama II is the 44th and current President of the United States, and the first African American to hold the office. Born in Honolulu, Hawaii, Obama is a graduate of Columbia University and Harvard Law School, where he served as president of the Harvard Law Review. He was a community organizer in Chicago before earning ... +

en.wikipedia.org





Born: Aug 04, 1961 (age 52) · Honolulu, Hawaii

Height: 6' 1" (1.85 m)

Spouse: Michelle Obama (1992)

Children: Malia Ann Obama · Natasha Obama Parents: Barack Obama Sr. · Ann Dunham

Office: President of the United States (2009 - present)

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lacksquare	Obama signs Health Insurance Reform Bill	1:25
•	President Obama on Osama Bin Laden's death	1:37

Yahoo's



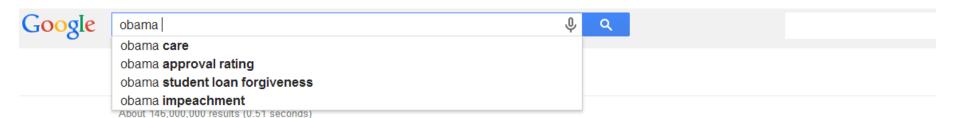
What are there

It has been there since the search engine was born

- A <u>list</u> of links to the search result page
 - Text summarization of the retrieved document
 - Title + text snippet
- Search suggestions
 - Related search
 - Spelling correction
 - Query auto-completion
- Vertical search
 - Image, shopping, news
- Knowledge graph
 - As a result of NLP techniques

Simple Q&A

Query auto-completion



News for obama



'Unchecked' Putin puts pressure on **Obama** to take 'decisive ...

Fox News - 27 minutes ago

The **Obama** administration has taken a decidedly tougher tone than Europe against Putin since the start of the Ukraine crisis, but a failure to act

Obama to Urge Central American Leaders to Slow Wave of ...

New York Times - 3 hours ago

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USA TODAY - 6 minutes ago

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www.barackobama.com/ ▼ Barack Obama ▼

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Barack Obama

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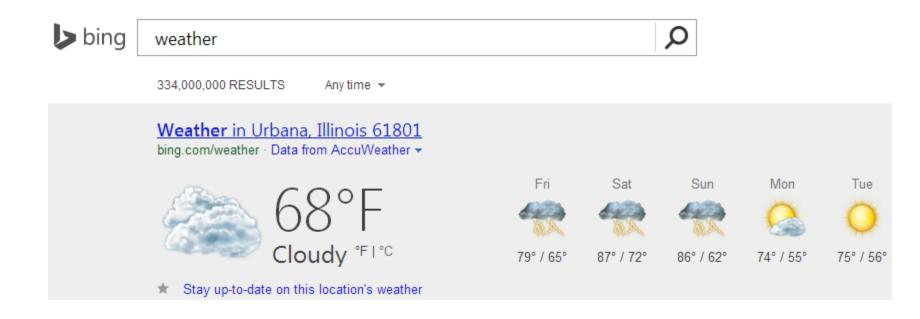
Born: August 4, 1961 (age 52), Honolulu, HI

Spouse: Michelle Obama (m. 1992)

Parents: Ann Dunham, Barack Obama Sr.

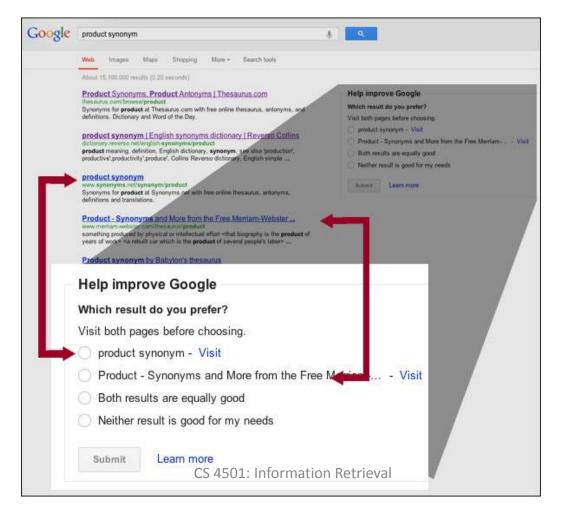
Direct answers

Advanced version of "I'm feeling lucky"



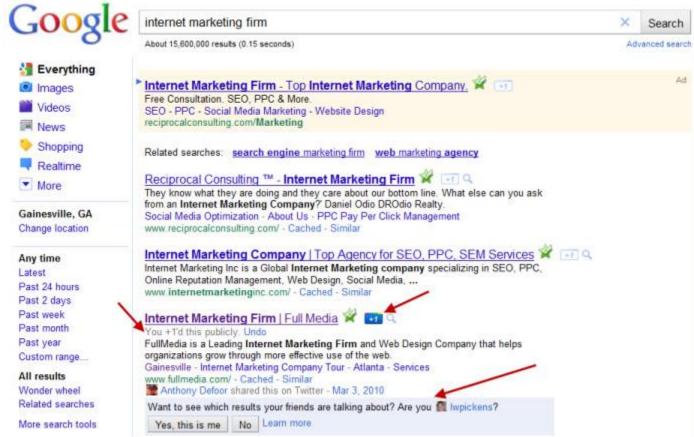
Experimental features

Search result feedback



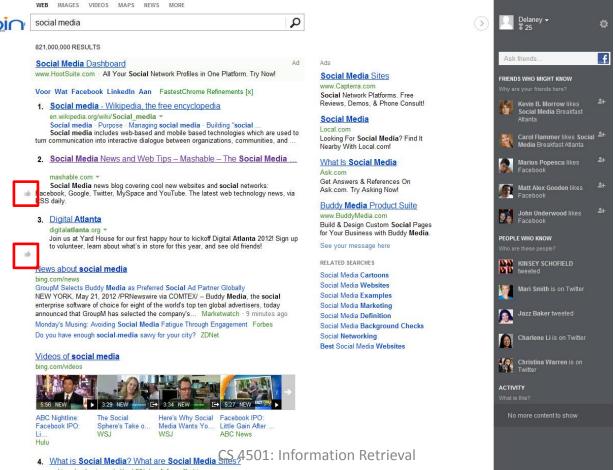
Experimental features

Collaborative ranking

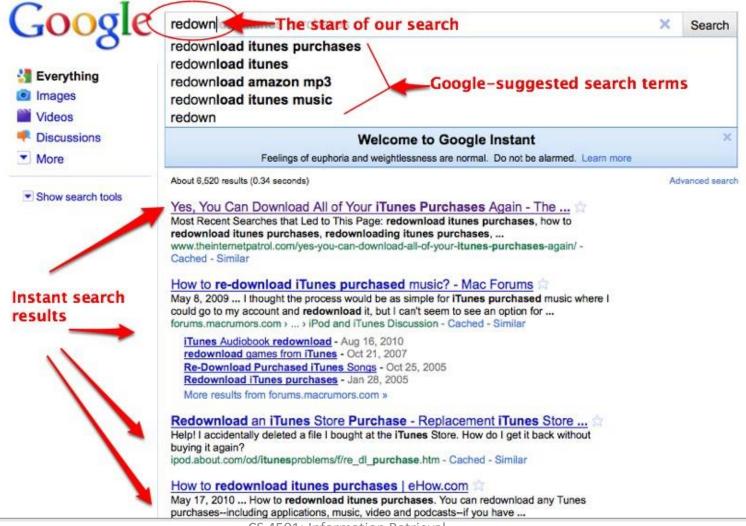


Experimental features

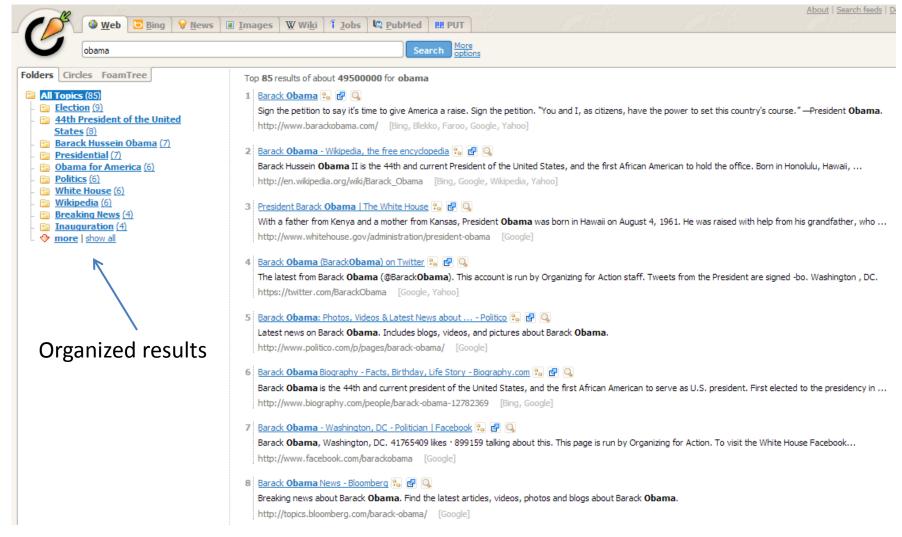
Social panel



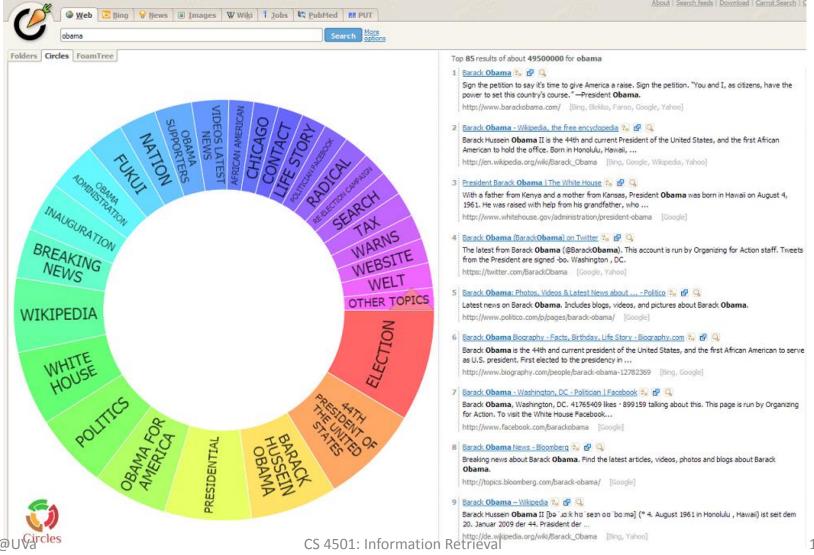
Instant search



Carrot2's folder display



Carrot2's circle display



Carrot2's foam tree display



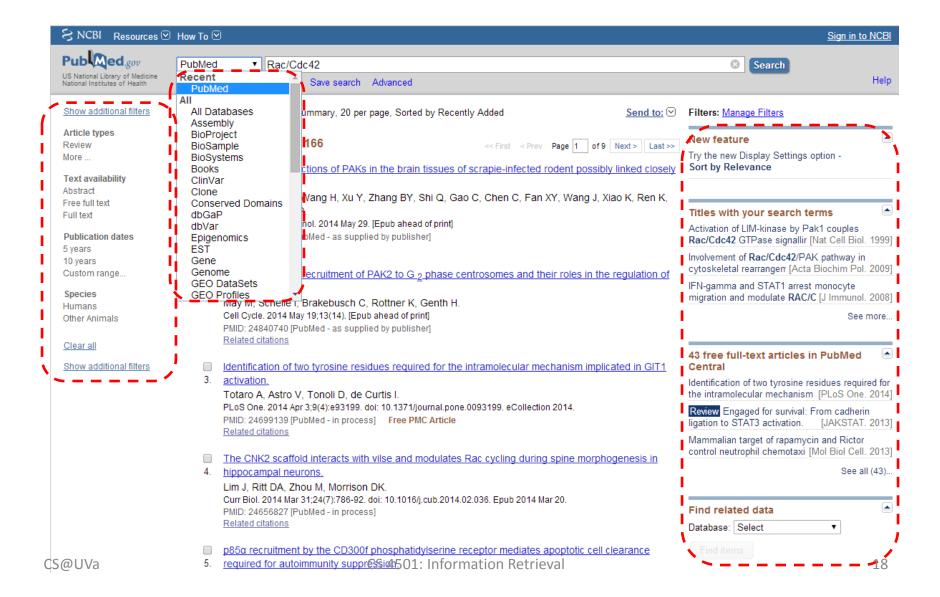
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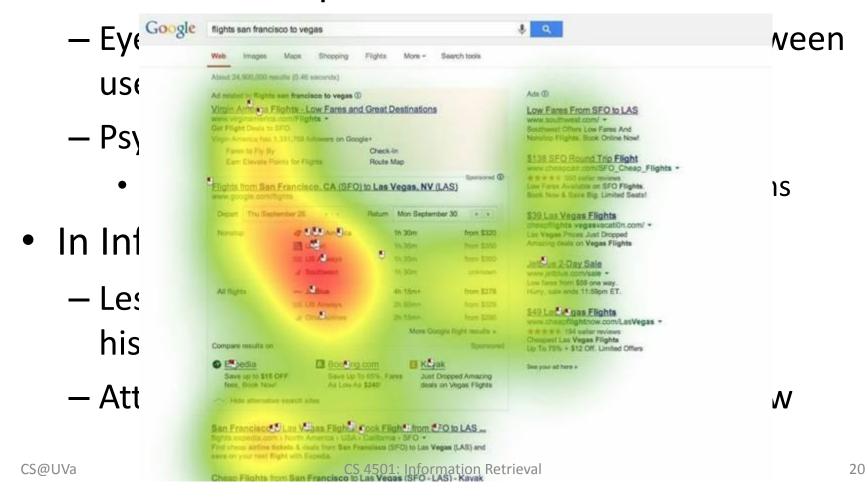
- Relevance
 - Order the results by relevance
- Diversity
 - Maximize the topical coverage of the displayed results
- Navigation
 - Help users easily explore the related search space

19

- Query suggestion
- Search by example

Research progress

In Human-Computer Interaction



Search result display in mobile device

- Unique characteristics of mobile device
 - Small screen size, limited bandwidth, input, dataaccess and computation power
 - Multi-touch screen
 - Rich search context
 - Opportunities?





What you should know

- General considerations in search result display
- Challenges and opportunities in mobile device search result display

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