Search Result Interface

Hongning Wang

CS@UVa
Abstraction of search engine architecture

Indexed corpus

Crawler

Doc Analyzer

Doc Representation

Indexer

Index

Ranker

Feedback

Evaluation

User

(results)

Indexed corpus

Ranking procedure

Query Rep

(QUERY)
Search interface

• Evolution of Google’s result interface
  – http://www.seosmarty.com/google-interface-evolution/
Google’s
News about Obama

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...

See also, More stories - Top stories

Barack Obama - Wikipedia, the free encyclopedia
en.wikipedia.org/wiki/Barack_Obama
"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.
Contact - Live Streams - Tours & Events - President's Schedule

President Barack Obama | The White House
www.whitehouse.gov/administration/president-obama
Barack 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...
Yahoo’s
What are there

- A list 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

It has been there since the search engine was born

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
Obama could be impeached, White House aide says
USA TODAY - 6 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.
Direct answers

• Advanced version of “I’m feeling lucky”
Experimental features

• Search result feedback
Experimental features

- Collaborative ranking
Experimental features

• Social panel
Instant search

Google search interface with highlighted terms:
- start of our search: redownload
- Google-suggested search terms: itunes purchases, itunes, amazon mp3, itunes music, redownload

Search results:
- Yes, You Can Download All of Your iTunes Purchases Again - The...
- How to re-download iTunes purchased music? - Mac Forums
- Redownload an iTunes Store Purchase - Replacement iTunes Store...
- How to redownload itunes purchases | eHow.com
Carrot2’s folder display

Organized results
Carrot2’s circle display
Carrot2’s foam tree display
Considerations in result display

• Relevance
  – Order the results by relevance

• Diversity
  – Maximize the topical coverage of the displayed results

• Navigation
  – Help users easily explore the related search space
    • Query suggestion
    • Search by example
Research progress

- In Human-Computer Interaction
  - Eye-Mouse tracking study of interaction between users and search result page
  - Psychology of user behaviors
- Facet categories, text summaries, colors, positions
- In Information Retrieval
  - Less attention has been put in this aspect in history
  - Attracting more and more research focus now
Search result display in mobile device

• Unique characteristics of mobile device
  – Small screen size, limited bandwidth, input, data-access 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