



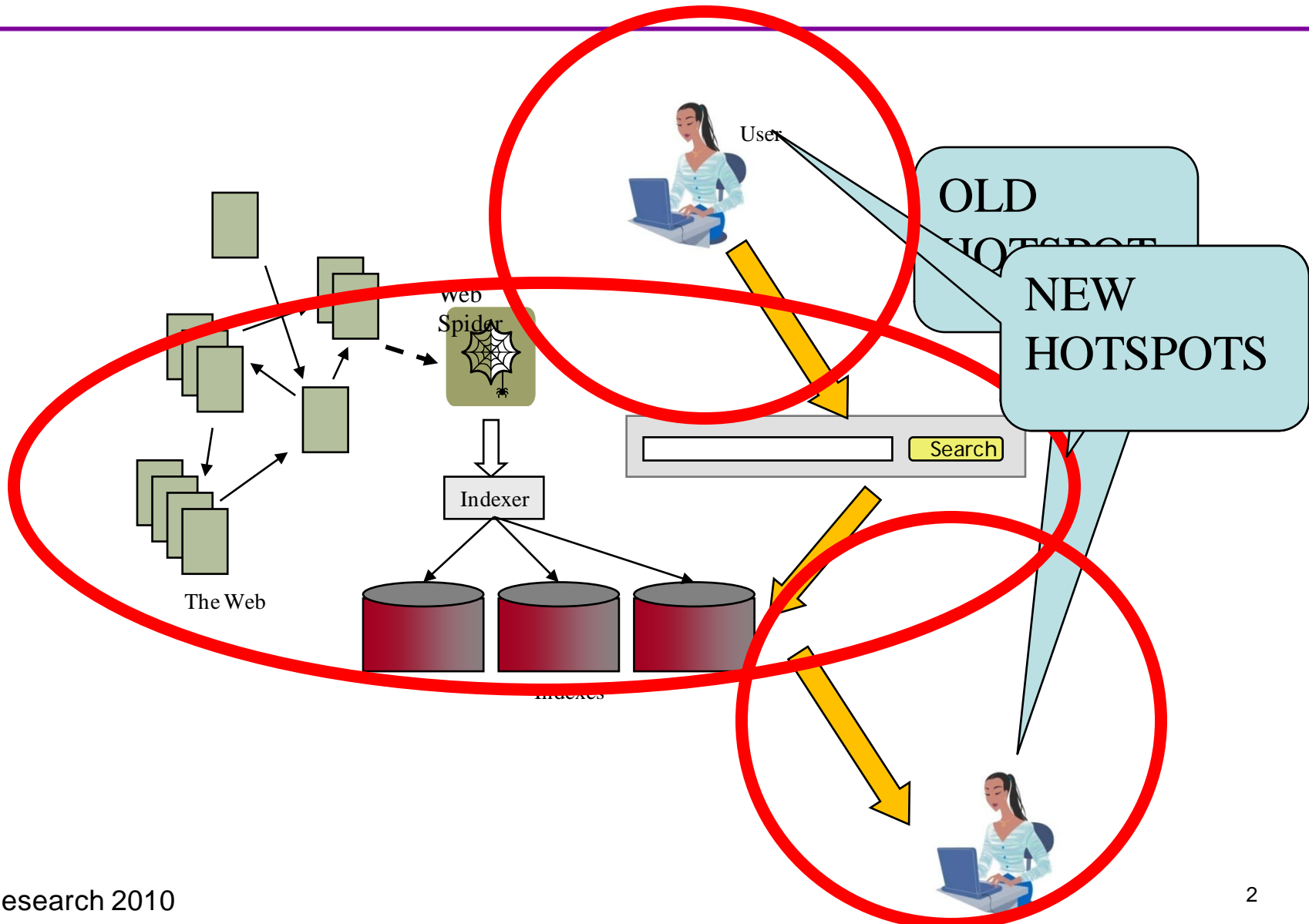
The new frontiers of Web search: going beyond the 10 blue links

Ricardo Baeza-Yates, Andrei Broder, Yoelle Maarek and Prabhakar Raghavan

Yahoo! Labs



Technology hot spot





The evolution of commercial web search engines

Syntactic

- **First generation – Syntactic match**

- Use only “on page”, text data, TF/IDF, etc

1994-1997 AV,
Excite, Lycos, etc

- **Second generation -- Use off-page, web-specific data**

- Link (or connectivity) analysis
 - Sophisticated mathematical methods
- Click-through data (What results people click on)
- Anchor-text (How people refer to this page)

From 1998. Made
popular by Google
but everyone now

- **Third generation – Semantic analysis, answer “the need behind the query”**

- Focus on user need, rather than on query
- Integrates multiple sources of data,
- Help the user

Still evolving

- UI, spell checking, query refinement, query suggestion, syntax driven feedback, context help, context transfer, etc

- **What's next? – Focus on task completion**

Semantic



Half-dozen challenges

1. Assisting the users in creating “better” queries
2. Integrating rich and complex data sources
3. Gathering and exposing Web derived knowledge → the “Web of Things.”
4. Creating tools that facilitate a superior post-search experience → “Direct answers”
5. Facilitating the integration of third party applications & social input
6. Implicit Search



Challenge #1: User assistance Make the search box “reactive”

- Today: Query suggestions appear as you type in the search box
 - From the 2.3 words query to the 2.3 letter query?? 😊 😊
- Tomorrow: Establish a dialog? Richer interaction? Voice?



inform

[Advanced Search](#)
[Language Tools](#)

- informative speech topics
- information technology
- informatica
- informal wedding dresses
- informationweek
- informed consent
- informatics
- information assurance
- information systems
- information

Google Search I'm Feeling Lucky

Web | [Images](#) | [Video](#) | [Local](#) | [Shopping](#) | [more](#) ▾

inform

- information
- informative speech topics
- informatics
- webmd health information
- information technology

Search Options ▾ YAHOO!

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Challenge #2: Data integration Bring data from various sources

- Today: from maps/news/videos/livefeeds...



geneva

Search

About 37,600,000 results (0.41 seconds)

[Advanced search](#)

Everything

Maps

News

Images

More

Any time

Latest

Past 2 days

All results

Sites with images

Fewer shopping sites

More shopping sites

More search tools

[Hotels in Geneva](#)

Sponsored links

www.FastBooking.com Charm, Design, Luxury or Family Up to 60% Discount! No prepayment
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[Visiting Geneva?](#)

Geneva.TripAdvisor.co.uk Geneva Hotel Deals and Geneva Hotel Reviews!

[Geneva Switzerland](#) maps.google.com



[Hotels](#) - [Restaurants](#) - [Jet D Eau](#) - [Lausanne](#) - [Lake Geneva](#) - [Annecy](#) - [League of Nations](#)



Challenge #3: Web derived knowledge “Fondue Palo Alto”

YAHOO! Web Images Video Local Shopping News More

fondue palo alto Search Options

144,000 results for **fondue palo alto:**

Show All
 Yahoo! Local
 Yelp
 TripAdvisor
 Local Business Sites
 Sponsor Results

Fondue Restaurants near Palo Alto, CA Sponsored Results

Hearby City
 All (50) [Santa Clara](#) (5) [San Mateo](#) (4) [Milpitas](#) (4)
[Palo Alto](#) (5) [Fremont](#) (5) [Mountain View](#) (4) [Sunnyvale](#) (3)

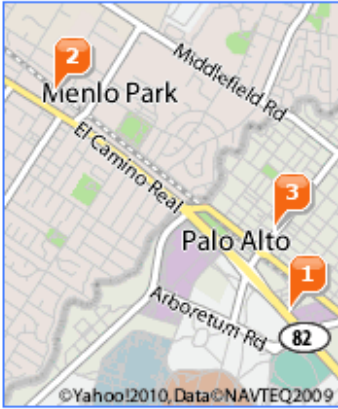
1 Cold Stone Creamery ★★★★★ (11)
[coldstonecreamery.com](#)
 (650) 323-2102 - 9 Town And Country Vlg, Palo Alto, CA
 Menu: **fondue**
[11 Reviews](#) | [Overview](#) | [Directions](#)

2 Crepes Cafe ★★★★★ (11)
[crepescafe.com](#)
 (650) 473-0506 - 1195 Merrill St, Menlo Park, CA
 Menu: **fondue**
[11 Reviews](#) | [Overview](#) | [Directions](#)

3 Haagen-Dazs Shop ★★★★★ (2)
[haagen-dazs.com](#)
 (650) 326-3886 - 203 University Ave, Palo Alto, CA
 Menu: **fondue**
[2 Reviews](#) | [Overview](#) | [2 Photos](#) | [Directions](#)

[47 More Local Results...](#)

[Fondue near 2455 El Camino Real, Palo Alto, CA 94306 on ...](#)



Fondue
 Buy **Fondue** Sets Online at Sur La Table® - Official Site.
[www.SurLaTable.com](#)

Fondue Sets for Less
 Find Sweet Savings on Fun **Fondue** Sets, Recipe Books & Accessories.
[www.NexTag.com/Fondue](#)

Fondue
 Find a quality selection of **fondue** pots & more at Williams-Sonoma.
[www.williams-sonoma.com](#)

Fondue Restaurants
Fondue & Melting Pots Near You. Search Our Restaurant Listings Now.
[yellowpages.com](#)

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In search of fondue: the good and the bad

Crêpes Café
Authentic and Fresh

BEST OF Menlo Park 2008
Across from the Cal Train Station .

HOME SAVORIES SWEET SANDWICHES BREAKFAST FONDUES

address: 1195 Merrill St. corner Oak Grove Ave. Menlo Park, CA 94025

phone : (650) 473-0506 fax (650) 249-0209

hours: Monday-Saturday: 8am - 9pm Sunday: 8am - 4pm

WELCOME TO CREPES CAFE ~ BIENVENUE A CREPES CAFE
BREAKFAST ~ LUNCH ~ DINNER ~ or ANY TIME Open 7 days a week
Mond.-Sat. 8 am - 9 pm, Sunday 8 am - 4 pm

CREPES CAFE - celebrating the best of life, food and friendship
Our house specialties include:

- Authentic Crêpes, both savory and sweet
- Baguette & hot sandwiches, homemade soups
- Fresh salads and specialty plates
- Fondues
- Ice cream treats, espresso, lattes, etc.
- Fine French wines, draft beer, imported French ciders

Good: Fondue is on the (non-explicit) menu

Good: Geo-knowledge: Menlo Park is near Palo Alto



Fondue search: the good and the bad (cont)

Search This Site | Franchise Information | International | Find a Store >>
Zip or City and State

Log In

My Cold Stone | About Us | Ice Cream | Cakes | Drinks | Novelties | To Go | Gift Cards | Best Jobs Ever | Own a Store

Made Fresh Daily
Over 3200 pans of ice cream made per day ...

Find A Cold Stone Near You
Find a Store >>
Zip or City and State

Join the Birthday Club!
Receive FREE Ice Cream on Your Birthday!
This is your opportunity to treat yourself or

What's Happening
Summer Picnic Ice Cream Flavors & Pies
Enjoy Summer with our New Fresh Fruit Flavors

Good: Local store associated to correct web site, although no list of stores available on site



Fondue search: the good and the bad (cont)

COLD STONE CREAMERY

Search This Site | Franchise Information | International | Find a Store >>
Zip or City and State

Log In

My Cold Stone | About Us | Ice Cream | Cakes | Drinks | Novelties | To Go | Gift Cards | Best Jobs Ever | Own a Store

About Our Ice Cream | Cold Stone Creations | Sundaes | Gold Cone | Healthy Indulgences | Awards & Kudos | Ice Cream FAQ

Tastemaster, Ray Karam

Tastemaster's Tips

TASTEMASTER'S TIPS AND RECIPES

Enjoy Cold Stone at home with ice cream recipes from the Cold Stone Tastemaster™.

Ice Cream Fondue

Makes: 8 to 12 servings

Ingredients/Tools:

- 1 quart of your favorite Cold Stone Creamery ice cream flavor
- 4 bottles SMUCKER'S® Magic Shell Topping
- Toppings to taste--nuts, chocolate chips, coconut, candy, sprinkles or crushed OREO® cookies
- Toothpicks to serve

Follow these steps:

1. Pre-chill a large cookie tray in the freezer for 20 to 30 minutes.
2. Working quickly, so the ice cream doesn't melt, use a melon ball scooper to make small round scoops of the ice cream and place them on the pre-chilled cookie tray. Insert a large

OUR TASTEMASTER

Bad: Fondue is not on the menu, it is a recipe using ColdStone ice cream



To blue links out of about 2,680,000 for Brett Favre



News results for Brett Favre

[NFC North: Vikes live by the Favre, die by the Favre](#) - 2 hours ago
By Tony Moss, Sports Network There were no late-game heroics this time, and **Brett Favre** proved to the world that he is not, in fact, a cyborg. ...
[Kansas City Star](#) - 384 related articles »
[Scoring change strips Favre of completion](#) - Philadelphia Inquirer - 1805 related articles »
[Favre's Interception, and 'Tackle,' Against the Steelers](#) - New York Times - 7 related articles »
[Fox11online.com](#)

Brett Favre - Wikipedia, the free encyclopedia

Brett Lorenzo Favre (pronounced /fɑvri/) (born October 10, 1969, in Gulfport, Mississippi) is an American football quarterback for the Minnesota Vikings. ...
[Early years](#) - [College career](#) - [Professional career](#)
[en.wikipedia.org/wiki/Brett_Favre](#) - Cached - Similar -

Official Website of Brett Favre

Official Website of **Brett Favre**, Quarterback for the Minnesota Vikings - The Ultimate #4 Fan Store - Signed Prints - Signed Memorabilia.
[Brett Favre Message Board](#) - [Favre-O-Meter](#) - [Bio](#) - [News](#)
[www.officialbrettfavre.com/](#) - Cached - Similar -

Brett Favre

Brett Favre | #4 | QB. Minnesota Vikings | Official Team Site. Height: 6-2 Weight: 222 Age: 40. Born: 10/10/1969 Gulfport, MS ...
[www.nfl.com/players/brettfavre/profile?id=FAV540222](#) - Cached - Similar -

Brett Favre Profile - Minnesota Vikings - ESPN

Coming off back-to-back victories, the Green Bay Packers are a more confident team heading into Sunday's rematch with **Brett Favre** and the Minnesota Vikings ...
[sports.espn.go.com/nfl/players/profile?playerid=112](#) - Cached - Similar -

Brett Favre signs with Minnesota Vikings - ESPN

Aug 19, 2009 ... **Brett Favre's** latest retirement lasted all of three weeks. The three-time MVP has done an about-face for the second time in as many years ...
[sports.espn.go.com/nfl/news/story?id=4406963](#) - Cached - Similar -

[Show more results from sports.espn.go.com](#)

Brett Favre | Green Bay Packers

Offers biography, game statistics, photo gallery, and news articles.
[www.brettfavre.com/](#) - Cached - Similar -

Packers.com » History » Brett Favre Tribute » Bio

honored him in May 2004 by renaming its field, 'Brett Favre Field,' and unveiling a life-sized statue of the quarterback at the stadium's entrance. ...
[www.packers.com/history/brett_favre/](#) - Cached - Similar -

Brett Favre - Minnesota Vikings - NFL - Yahoo! Sports

The latest stats, facts, news and notes on **Brett Favre** of the Minnesota Vikings.
[sports.yahoo.com/nfl/players/1025](#) - Cached - Similar -

Brett Favre NFL & AFL Football Statistics | Pro-Football-Reference.com

Brett Lorenzo Favre. Position: QB Height: 6-2 Weight: 225 lbs. Born: October 10, 1969 in Gulfport, MS College: Southern Miss ...
[www.pro-football-reference.com/players/F/FavBr00.htm](#) - Cached - Similar -

Sponsored Links

[Brett Favre Collectibles](#)
Autographs, Jerseys, Shirts, Helmets, Magazines, Books
[www.allfavre.com](#)

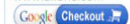
[Brett Favre Merchandise](#)
Find Your **Brett Favre** Products; Ships Same Day for Only \$4.99!
[FansEdge.com/Brett_Favre](#)

[GGUM Cards - Brett Favre](#)
Find Everything You Need For Fitness & Exercise At Target!
[www.Target.com](#)

[Brett Favre](#)
Shirts, Polos & Sweatshirts of Your Star. Prices Starting at \$10.99!
[CafePress.com](#)

[Brett Favre](#)
Brett Favre available.
Brett Favre. Bid now!
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[See your ad here »](#)



Searching for Brett Favre

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Make Yahoo! your homepage | Mail

Web Images Video Local Shopping News More ▾

brett favre

Search

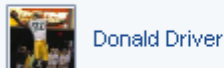
Options ▾

Search Pad

SafeSearch - On

21,901,419 results for **brett favre**

Related People



Donald Driver



Aaron Rodgers



Nick Barnett



Mike Holmgren



Javon Walker



William Henders...

Also try: [brett favre vikings](#), [brett favre retirement](#), [more...](#)



View Profile

Brett Favre - #4

Quarterback - [Minnesota Vikings](#)

[sports.yahoo.com](#)

[News](#) | [Game Log](#) | [Scores & Schedule](#) | [Photos](#)

2010-11 Stats

Y! Fantasy Rank

Pass Yds	Yds/Game	TD	QB Rating	Season
-	-	-	-	-

[More Stats...](#)

Sponsored Results

Brett Favre Memorabilia

Save on **Brett Favre** Memorabilia. Autographed Photos, Jerseys & More.

[www.NexTag.com](#)

Brett Favre

Find Sport and Outdoor Deals

[www.supsale.com](#)

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[www.Fathead.com](#)

Favre Brett at Amazon

Buy books at Amazon.com and save. Qualified orders over \$25 ship free.

[Amazon.com/books](#)

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[brett favre](#)

Brett Favre - News Results



[Brett Favre, Minnesota Vikings coach Brad Childress didn't discuss deadline](#) ESPN - Jul 20 05:40pm

[Brett Favre and Vikings apparently not under deadline pressure](#)

Boston Herald - Jul 21 02:32am

[Brett Favre: No deadline for decision on playing next season](#)

SportingNews - Jul 20 05:44pm

[More Brett Favre Headlines](#)

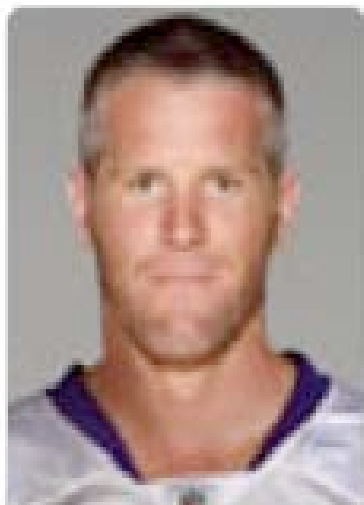
Brett Favre

Official site of NFL quarterback **Brett Favre**. Features news, career stats, photos, and more.

[www.officialbrettfavre.com](#) - [Cached](#)



Brett Favre stats



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Quarterback - [Minnesota Vikings](#)

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Probable - Foot/ankle/knee

2009-10 Stats

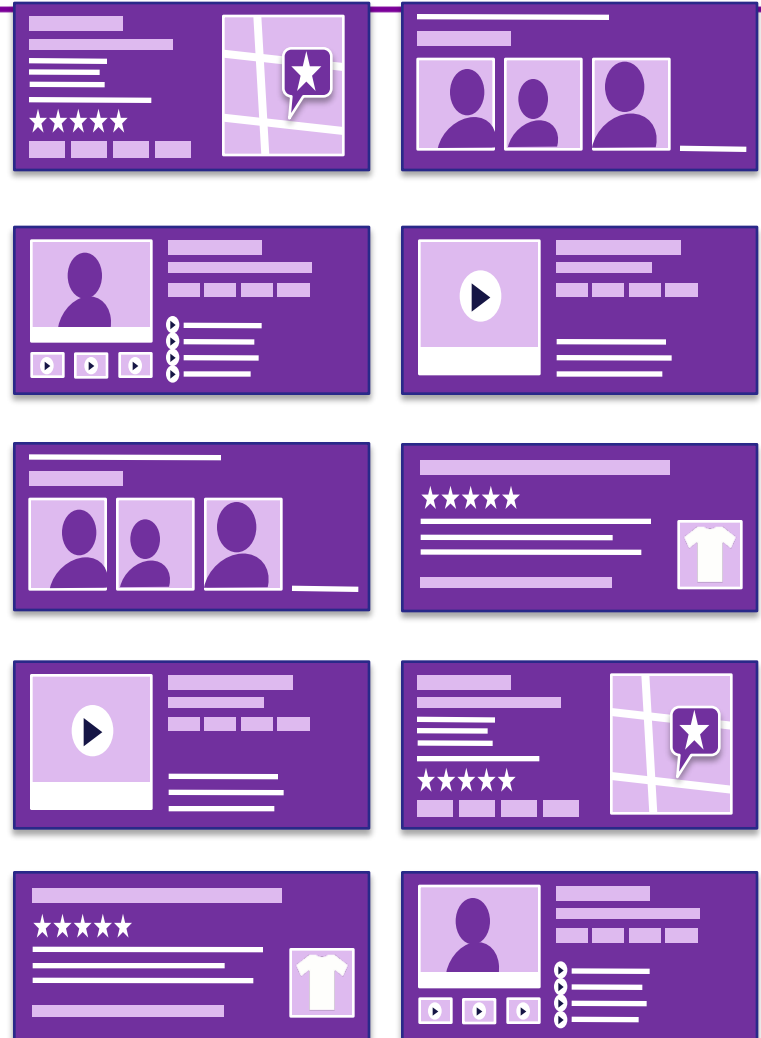
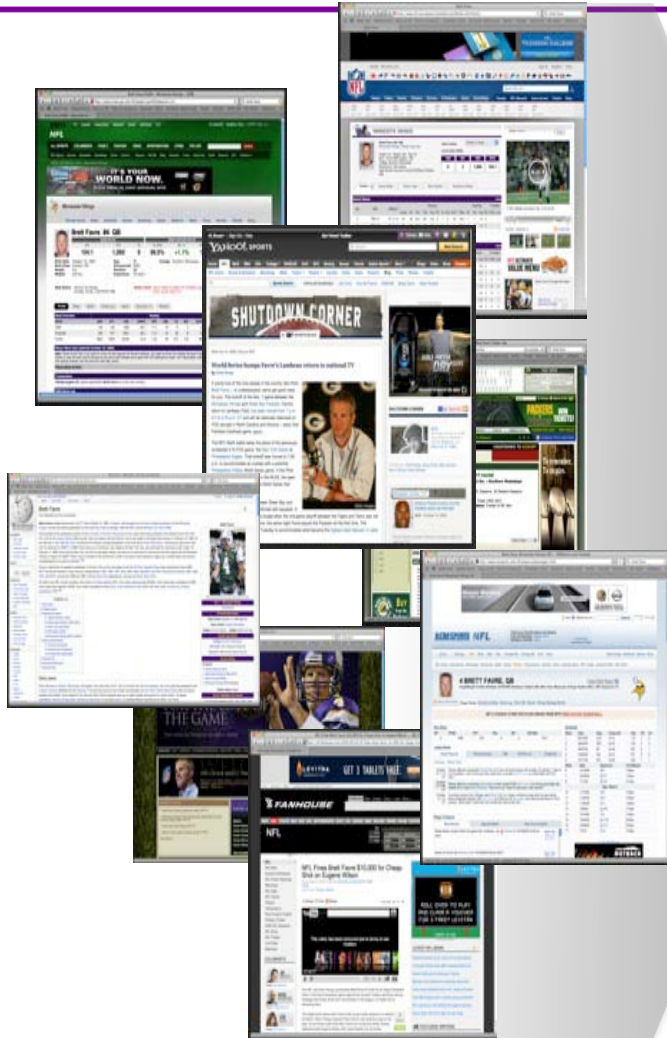
Y! Fantasy Rank

Pass Yds	Yds/Game	TD	QB Rating	Season	Last Week
1069	213.8	9	104.1	31	118

[More Stats...](#)

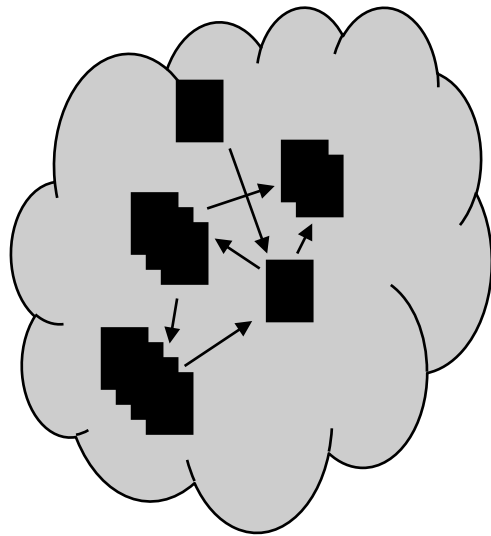


Old: Find relevant pages → “web of pages”

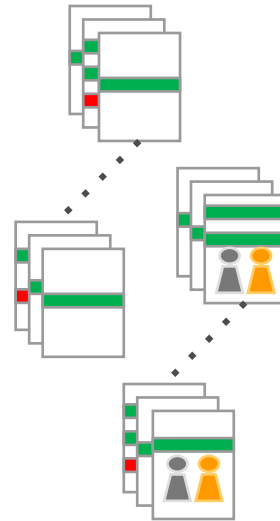
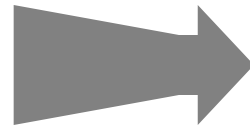




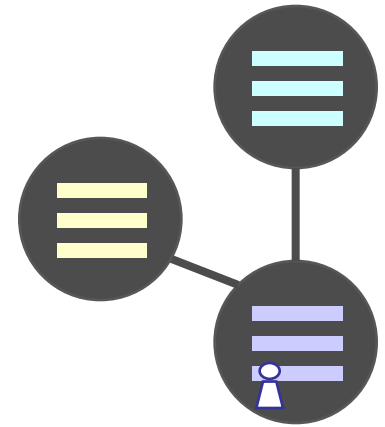
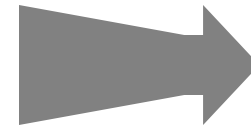
Deconstructing the Web & creating a web of objects



Crawls, feeds: extract content/data



Identify potential objects, their attributes & possible relationships



Normalize to structured objects with relationships



Find relevant facts/entities & combine → “web of things”

Brett Favre - #4 🏈
Quarterback - Minnesota Vikings
sports.yahoo.com
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Probable - Foot/ankle/knee

2009-10 Stats				Y! Fantasy Rank	
Pass Yds	Yds/Game	TD	QB Rating	Season	Last Week
1069	213.8	9	104.1	31	118

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Tomorrow: dynamically generate content: madonna

YAHOO!

Web | Images | Video | Local | Shopping | More

Web Search

Overview

Discussions

Images

News

Search Pad

SearchScan - On

312,000,000 results for **madonna:**

Show All

Wikipedia

YouTube

MySpace

MTV

IMDb

... lyrics

... music

... inn

... of the rocks

... university

Madonna Become a fan



Video Premiere: "4 Minutes"
Play Video

Video Premiere: "4 Minutes"


Tour Dates, Showtimes & Tickets

Yahoo! News: Divorce "imminent"

Top Albums from LastFM

Up to the [Madonna haunted by Ritchie's ex](#) [» more on Yahoo! News](#)

 **Modonna haunted by Ritchie's ex** - entertainment news - 2 minutes ago
Madonna believes Guy Ritchie secretly lusted after his ex-girlfriend. [more»](#)

 [lizettducut](#) - twitter - 6 minutes ago
check out the behind the scenes video of madonna's louis vuitton shoot w/ marc jacobs - <http://tinyurl.com/c2w9u3>

 [FranciscoIV](#) - twitter - 15 minutes ago
FranciscoIV is Scrobbling Madonna - Amazing on www.Last.fm/user/FranciscoIV.com/

 **'4 Minutes' To Invade MySpace** - myspace madonna blog - 30 minutes ago
If you live on planet earth, you've most certainly heard of Madonna's new album, Hard Candy, which will hit the stores on April 29. This is all very exciting; but to wait is sometimes the hardest

Related Topics & Pages

Related Topics:

concert tickets	madison square garden
organic gardening	raising malawi
madonna music	new york city

LastFM Top Tracks [» more on LastFM](#)

- Hung Up** [Play](#)
- Give It 2 Me** [Play](#)
- Candy Shop** [Play](#)
- Sorry** [Play](#)
- Like a Prayer** [Play](#)
- Miles Away** [Play](#)
- Heartbeat** [Play](#)
- 4 Minutes** [Play](#)
- Frozen** [Play](#)
- She's Not Me** [Play](#)

ADVERTISEMENT





Tomorrow: dynamically generate content: Bank of America

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YAHOO! Bank of America Search Options

Search pad (2) SearchScan - ON

Related Concepts

- Investment
- Mortgage
- Credit Cards
- Home Equity
- Loans

Bank of America Official Site - www.bankofamerica.com

Latest News

Bank of America settles Parmalat suit for \$100M - AP via Yahoo! News
36 mins ago - Bank of America Corp. said Tuesday it will pay nearly \$100 million to Parmalat SpA and its affiliates to settle lawsuits surrounding the Italian dairy company's.... [Details >>](#)

Bank of America to close some branches - Yahoo! News
3 hours ago - Bank of America Corp said it plans to shrink its 6,109-branch U.S. network modestly over the next three to five years, ... [Details >>](#)

Deutsche Post Shares Upgraded to 'Buy' at Bank of America - Bloomberg
6 hours ago - Deutsche Post AG was raised to "buy" at Bank of America Corp., saying "we think the investment case is now more attractive"... [Details >>](#)

Quote for Bank of America (BAC)

Last Trade: **13.34** ↑ 0.25 (1.91%)
Open: **12.95**
Day's Range: **12.91 - 13.43**
52 wk Range: **2.53 - 39.50**

Financial Blogs

Deal Journal Video: An SEC Trial of the Heart
[Wall Street Journal](#) by Stephen Grocer
July 28, 2009 - How did a love affair lead to convictions in an insider-trading case? In his column today, Deal Journal's Dennis K. Berman tackles the story of an Ernst & Young partner, who went in search of an affair and ended up in with six counts of securities fraud...

Five U.S. Banks Are Too Big to Exist - [SeekingAlpha](#) by Jeff Neison
July 27, 2009 - Fitch Ratings released a stunning report a few days ago which disclosed that just five banks (all U.S. banks) hold 80% of all derivatives risk: Bank of America (BAC), Goldman Sachs (GS), JP Morgan (JPM), Morgan Stanley (MS), and Citigroup (C)...

Overview
Bank of America Corporation, a financial holding company, provides a range of banking and nonbanking financial services and products in the United States and internationally. Its Global Consumer and Small Business Banking segment offers savings accounts, money market savings accounts, certificate of deposits... [More on Wikipedia...](#)

Index Membership: Dow Jones Composite Dow Industrials, S&P 100, S&P 500 S&P 1500 Super Comp
Sector: Financial
Industry: Money Center Banks
Full Time Employees: 285,000

ADVERTISMENT

Pairing strength and precision to power you forward

Bank of America

Search Result Page Flip Back



Challenge #4: Process search results

Scenario:

A user is planning a trip to Barcelona and issues a few related queries: "Barcelona cheap flights", "Barcelona airport", clicking each time on a few results.

When issuing the query "Barcelona airport transfer", he might see...

The screenshot shows a Yahoo! search results page for the query "barcelona airport transfers". At the top, the Yahoo! logo is visible, along with navigation links for Web, Images, Video, Local, Shopping, and More. The search bar contains the text "barcelona airport transfers". Below the search bar, there is a blue banner with the text "Take notes on barcelona cheap flights?" and two buttons labeled "Yes" and "No". To the left of this banner, there is a "View Notes (9)" button and a "SearchScan - On" indicator. The search results are displayed in a list format. The first result is a sponsored result from Viator, titled "Airport Transfer Barcelona", with a description: "Book Barcelona airport and cruise port transfers on Viator. www.viator.com". The second result is titled "Barcelona Airport Transfers | Transportation from Barcelona ..." and includes a description: "After a long and tiring day of travelling, relax, kick off your shoes and enjoy comfortable transportation from Barcelona airport in our private chauffeured minibus ... www.barcelona-airport-transfers.com - Cached". The third result is titled "Barcelona Airport Transfers" and includes a description: "Barcelona Airport Transfers. Home. Reservations. Services. Prices. Conditions. Children/Babies ... Hotel to your convenient airport (Barcelona o Girona) or the ... barcelona-airport-transfers.com/en/home_eng_barcelona.html - Cached". The fourth result is titled "Barcelona Airport Transfer" and includes a description: "Review of Barcelona airport transfer options to Barcelona city centre, Girona, Salou, Sitges, Blanes and Reus ... to Transfers from Barcelona Airport to ... barcelona-tourist-guide.com/en/airport/... - Cached". The fifth result is titled "Barcelona Airport Transport" and includes a description: "Guide to Barcelona airport transport. Transfer from Barcelona airport to the city centre. ... Barcelona Airport Transport to city centre - transfer options ... barcelona-tourist-guide.com/en/airport/... - Cached". The sixth result is titled "Barcelona airport shuttle, airport shuttle transfer and ..." and includes a description: "Barcelona airport shuttle, airport shuttle transfer and private shuttle or limousine service in Barcelona. ... Barcelona.Airport-Shuttle.com specializes in ...".



Searchpad: auto notes, shareable, etc

The screenshot shows a Yahoo! search page for "barcelona airport transfers". The search results are displayed in a "Search Pad" window. The window has a title bar "barcelona cheap flights - Search Pad" and a menu bar with "File", "Searches", and "Help". Below the menu bar are icons for "New", "Open", "Save", "Email", "Share", and "Print". The search results are listed as follows:

- Barcelona Airport Transport**
www.barcelona-tourist-guide.../en/airport/barcelona-airport-transport.html
type or paste new note
- Hotel to Airport Transfer - Barcelona - Expedia**
www.expedia.com/pubspec/scripts/eap.asp...
type or paste new note
- How to Get From Barcelona Airport To City Center | eHow.com**
www.ehow.com/how_2245123_barcelona-airport-barcelona-city-c...
type or paste new note

On the right side of the Search Pad, there are three small thumbnail images of the search results. At the bottom of the Search Pad, there is a callout box with the text:

Take notes on sites you find.
Learn more about Search Pad



Challenge #5: Integrate third party applications & social input

Hi, **azbroder** | Sign Out | Help Make Yahoo! y

Web Images Video Local Shopping News More ▾

YAHOO!

Search Pad | SafeSearch - On


1,482,141 results for Nicolae Ceausescu:

- Show All
- Wikipedia
- Answers.com
- Daylife
- Washington Post
- FOX News

Nicolae Ceausescu - Latest News

News | Photos | Videos | Twitter

Ceausescu remains exhumed to check identity
- AFP via Yahoo! News - Jul 20 11:31pm
Romanian dictator **Nicolae Ceausescu** and his wife Elena's remains were being exhumed Wednesday from a Bucharest graveyard in order to check their identity, their... [full story](#)




Nicolae Ceausescu And Wife Exhumed To Solve Burial Mystery
- The Huffington Post - Jul 21 08:00am

Ceausescu remains exhumed for DNA tests in Romania
- AFP via Yahoo! News - Jul 21 10:41am

Ceausescu's remains to be exhumed
- Sydney Morning Herald - Jul 20 11:18pm

[more Nicolae Ceausescu news...](#)

Nicolae Ceaușescu - Wikipedia, the free encyclopedia
[Early life...](#) | [Leadership of...](#) | [Revolution](#) | [Personality...](#)
Nicolae Ceaușescu was a Romanian politician who was the Secretary General of the Romanian Communist Party from 1965 to 1989, President of the Council of State from 1967, and President...
en.wikipedia.org/wiki/Nicolae_Ceau%C5%9Fescu - 201k - [Cached](#)



Note source selection



Direct social input → e.g. twitter

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Nicolae Ceausescu - Latest News

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Ceausescu remains exhumed to check identity
- AFP via Yahoo! News - Jul 20 11:31pm
Romanian dictator **Nicolae Ceausescu** and his wife Elena's remains were being exhumed Wednesday from a Bucharest graveyard in order to check their identity, their... [full story](#)




Nicolae Ceausescu And Wife Exhumed To Solve Burial Mystery
- The Huffington Post - Jul 21 08:00am

Ceausescu remains exhumed for DNA tests in Romania
- AFP via Yahoo! News - Jul 21 10:41am

Ceausescu's remains to be exhumed
- Sydney Morning Herald - Jul 20 11:18pm


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Beastie Boys recording "political" album



By John Benson – Fri Oct 24, 4:13 am ET

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Reuters – Michael 'Mike D' Diamond (L) and Adam 'MCA' Yauch of the Beastie Boys perform on the main stage during ...

CLEVELAND (Billboard) – Adam Yauch of the Beastie Boys is on the "Get Out and Vote" tour, the group's 2007 instrumental album "The ...

"We're actually in the middle of recording a new album sometime next year. It's a lot of fun. And it's political, depending on what you want to hear. Toilet talk and fart jokes are yeah, very."

Any chance of new material on the "08" tour? "I don't think so," he says. "If you play the new songs that we're recording, it always seems like ...



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Summary

- Web search is now 15+ years old → becoming a mature technology
- Focus of innovation moving towards the “before” and “after” web search
- Numerous challenges → lots of research and technology development opportunities



Thank you!

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