Freshness in Web Search

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BCS IRSG Search Solutions 2010
Many queries require fresh results!
Some queries explicitly mention that they need recent results
Query: [this week's paris concerts]

Tickets Paris Concerts
www.Classictic.com/Paris-Concerts Complete Listings and Great Prices e-Tickets for Opera and Classics

Paris Concerts and Shows
Paris-Events-Online.wmo.at Opera, Shows, Moulin Rouge, Paradis Quick and Safe. Book Now Online!

Paris Concerts & Tour Dates

Monster Ball Tour - Lady Gaga Fri, Oct 22 Palais Omnisport de Bercy
Lady Gaga Monster Ball Tour Sat, Oct 23 Palais Omnisport de Bercy
Linkin Park - Linkin Park Mon, Oct 25 Palais Omnisport de Bercy

eventful.com/paris/events/categories/music - Cached

Paris Events & Concerts | Upcoming Events in Paris, France - Eventful
We've put together the most popular Paris concerts, festivals, kids events ...

Notre-Dame de Paris ... Tue, Oct 19 CATH. NOTRE-DAME DE PARIS ...
Christophe Maé Wed, Oct 20 Palais Omnisport de Bercy ...
Monster Ball Tour - Lady Gaga Fri, Oct 22 Palais Omnisport de Bercy ...

eventful.com/paris/events - Cached - Similar
Query: **latest news chilean miners**

**News for latest news chilean miners**

- **How the media in Chile helped focus the eyes of the world on the ...** - 10 minutes ago
  - "Chilean miner #33, is safe! Praise the Lord! Praise the Lord!" said a tweeter from Louisville, Kentucky. "Why has the Chilean miners' rescue left me this ...
  - The Guardian - 1281 related articles
  - Lessons from Chile miners' ordeal for maternal mortality -
  - Daily Monitor - 979 related articles
  - Cheating Chilean miner has a second mistress -
  - Sydney Morning Herald - 567 related articles

- **Chile miners: From world fame to humble homes - Yahoo! News**
  - 17 Oct 2010 ... Carlos Bugueno is out of the collapsed mine but still lives in close quarters, sharing his small wood-and-tin house with 16 relatives.
  - news.yahoo.com/s/ap/lt_chile_mine_collapse - Cached

- **Chile news, all the latest and breaking Chile news - Telegraph**
  - 17 Oct 2010 ... Chile news, all the latest and breaking Chile news from telegraph.co.uk. ... The Chilean miners' rescue will not be truly complete until ...
  - www.telegraph.co.uk/news/worldnews/.../chile/ - Similar - Add to iGoogle
Some queries are looking for recent news
Query: [Chile Miners]
Search Volume over time: [Chile Miners]

graphs are extracted from trends.google.com
Some queries have a recurrent nature
Query: [American Idol Winner]

American Idol Winner

About 82,600,000 results (0.16 seconds)

And this year's 'American Idol' winner is ... | Idol Tracker | Los ...
May 26, 2010 ... The ultimate 'American Idol' power ranking: 120 contestants on, Kelly Clarkson still reigns supreme | May 31, 2010, 11:49 am » ...
latimesblogs.latimes.com/americanidoltracker/.../and-this-years-american-idol-winner-is-.html - Cached

Official Site for Videos, Photos, Community - American Idol
Find out about every Season 9 American Idol Contestant, check out exclusive photos and videos and download their performances only on AmericanIdol.com.
Auditions - Recaps - Season 9 Contestants - Calendar
www.americanidol.com/ - Cached - Similar

American Idol 2011 | American Idol Season 10 Results & Spoilers
Sep 23, 2010 ... American Idol 2011 results, updates, spoilers, and links here updated every hour to get your American Idol Season 10 fix.
americanidolnet.com/ - Cached - Similar

News for American Idol Winner

'Idol' Winner Lee DeWyze Kicks Off Album Roll Out - 12 hours ago
By Brent Lang Regardless what path he takes, a lot is riding on "American Idol" Season 9 winner Lee DeWyze's major label debut album, "Live It Up." The ...
TheWrap - 32 related articles

Overnight review: Carrie Underwood - San Antonio Express - 5 related articles
David Archuleta on Steven Tyler: Who's That Lady? (VIDEO) - Celebuzz - 16 related articles
Search traffic over time: [American Idol Winner]
Query: [Aston Villa Chelsea result]
Search Volume over time: [Aston Villa Chelsea]
Not every recurrent query requires Freshness:

Query: [turkey recipe]
Some general queries sometimes need fresh results
Query [Danube] issued on October 7, 2010

Danube

About 6,470,000 results (0.26 seconds)

Danube - Wikipedia, the free encyclopedia ☆
The Danube is Europe's second longest river after the Volga. It is notable for being classified as an international waterway. The river originates in the ...
Name - Geography - Modern navigation - The Danube delta
en.wikipedia.org/wiki/Danube - Cached - Similar

Danube ☆
Feb 5, 2010 – Danube Technologies Offers New Version of ScrumWorks Pro for Scrum Project Management - Danube's Newsroom. © 2010 CollabNet, Inc. All Rights ...
danube.com/ - Cached

Toxic Hungarian sludge spill reaches River Danube | Reuters ☆
Oct 7, 2010 ... GYOR, Hungary (Reuters) - Toxic red sludge from a Hungarian alumina plant reached the Danube on Thursday and crews struggled to dilute it to ...
www.reuters.com/article/2010/10/07/...

News for Danube

Toxic sludge fails to damage Danube ☆ - 10 minutes ago
The Danube river has suffered no damage so far from a toxic sludge spill in Hungary, officials said today. The announcement eased fears of an environmental ...
The Guardian - 1633 related articles
Contamination levels fall in Danube ☆ - MSN Philippines News
Mortgage rates drop...Jobless claims lower...Danube waters tested ☆ - 9&10 News - 410 related articles

Similar Examples: [Earthquake], [apple], [sludge],
Query: [Danube] issued on October 17, 2010

Danube - Wikipedia, the free encyclopedia
The Danube is Europe's second longest river after the Volga. It is notable for being classified as an international waterway. The river originates in the...
Name - Geography - Navigation - Danube delta
en.wikipedia.org/wiki/Danube - Cached - Similar

Image for Danube - Report images

Danube
Feb 5, 2010 -- Danube Technologies Offers New Version of ScrumWorks Pro for Scrum Project Management - Danube's Newsroom. © 2010 CollabNet, Inc. All Rights ...
danube.com/ - Cached

DANUBE - Much More Than A Building Material Company.
Danube awarded 'Dubai Quality Appreciation Programme' (DQAP). More.. DANUBE BUILDSMART Retail complex in Mumbai ... DANUBE BUILDSMART in Bawadi Mall Al Ain ...
www.aldanube.com/ - Cached - Similar
traffic over time: [Danube]
For some queries, old results may give the wrong information to users.

Examples:
[Linux Webcam driver],
[Bus 912 timetable],
[necessary documents for a China visa]
Freshness Ranking is hard!
Challenge 1

Queries have different freshness granularity needs.
What is Fresh/Stale?
"Freshness granularity"

type of queries | granularity | sample queries
--- | --- | ---
traffic | minutes | [101 road cond]
hot news | hours | [french hostage]
news | days | [obama la visit]
celebs | weeks | [paris hilton tattoo]
politics | months | [liverpool chelsea]
sport events | years | [best lcd]
technology | | [sigir registration]
recurring events | | [tax form 941]
Challenge 2

Age of a page?
It is hard to determine age of a document.

- First Crawl Date?
- Last Crawl Date?

- Last modified Date?
  - significant update?

- What if the content of page is old and copied from older pages?

- What is the main content of the page?
Matt Cutts: Gadgets, Google, and SEO

FROM THE CATEGORY ARCHIVES:
Food

Perfect Italian Hoagie?
DECEMBER 12, 2009

When I was a kid and we visited family in New Jersey, I loved getting hoagie sandwiches. I've been looking for the best recipe of Italian hoagie for years. Here's one that's very good:

3 slices Provolone
4 slices Genoa salami
4 slices cooked salami
4 slices pepperoni
4 slices Capicola ham
Lettuce, tomato, onion
Salt, pepper, and oregano
Olive and vinegar
Sweet peppers (or hot peppers)

Anybody want to chime in with their formula for the perfect Italian hoagie?

{ 112 comments }

Best Yogurt in Silicon Valley?
SEPTEMBER 14, 2008

Hi, my name is Matt, and I have a yogurt problem. It started last month when I discovered the joys of Pinkberry yogurt on my trip down to Los Angeles for SIGGRAPH.
Challenge 3

Lots of Fresh results?
Which ones are good?
Challenge 4

Fight with Ranking?
General Ranking favours old results over new results.
Arsenal 3 - 1 Birmingham

By Ian Hughes

Arsenal were not quite at their clinical best but still proved too strong for Birmingham at the Emirates.

Robin van Persie opened the scoring with a precise, low drive across goal after Alex Song had played him in.

Abou Diaby doubled the lead when he smashed in a rising shot before Lee Bowyer volleyed in after Vito Mannone's mistake to halve Birmingham's deficit.

Substitute Andrey Arshavin shot wide and Robin van Persie hit the bar before Arshavin curled in to seal the points.

Arshavin's strike came at a time when Birmingham were threatening to get an equaliser but overall, the Gunners were good value for the three points that moves them up to fourth in the Premier League table.
**Arsenal 2 - 1 Birmingham**

By Sam Sheringham

*Arsenal came from behind to beat Birmingham and go second in the table but the victory was tarnished by a late red card for teenager Jack Wilshere.*

The visitors went ahead against the run of play when striker Nikola Zigic headed home Keith Fahey's cross.

Samir Nasri levelled from the spot after a foul on Marouane Chamakh before Chamakh rounded Ben Foster to put Arsenal ahead early in the second half.

<table>
<thead>
<tr>
<th>Team</th>
<th>P</th>
<th>GD</th>
<th>PTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chelsea</td>
<td>8</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Arsenal</td>
<td>8</td>
<td>8</td>
<td>14</td>
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<tr>
<td>Man Utd</td>
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<td>7</td>
<td>14</td>
</tr>
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<td>6</td>
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<td>7</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>West Brom</td>
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<td>-3</td>
<td>12</td>
</tr>
<tr>
<td>Bolton</td>
<td>8</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Aston Villa</td>
<td>8</td>
<td>-3</td>
<td>11</td>
</tr>
<tr>
<td>Stoke</td>
<td>8</td>
<td>-2</td>
<td>10</td>
</tr>
</tbody>
</table>
1. Both Page A and Page B are from the BBC website.
2. [Arsenal Birmingham] has very similar hits on both pages.

Without considering recency, Page A will be ranked better.
Challenge 5

Reacting Fast!
React faster = Helping more users

Most of the users saw fresh results

Most of the users did NOT see fresh results
Challenge 6

Different results for the same query in different times.

Example query: [Chamakh]
Query: [Chamakh] before last week's game
Query: [Chamakh] during the game, 1 minute after Chamakh scored a goal.
Query: [Chamakh] 1 day after the game
Freshness is critical. Freshness is Challenging. What does Google do?
Google & Timeliness

- More Fresh Web Results when necessary
- Date in snippet
- Date restrict tools
- News Universal
- Latest results mode
- Real-time search
Date in search snippets

accident in 101 highway

Two people killed in multivehicle wreck on Highway 101 - San Jose ...
12 Sep 2010 ... SAN MATEO -- A driver traveling in the wrong direction on Highway 101 early Sunday morning touched off a multivehicle accident that killed ...
www.mercurynews.com/ci_16059519?source=most... - Cached

Male victim dies in crash on Hwy 101 in East Palo Alto | abc7news.com
18 Dec 2009 ... A male victim died in a multi-vehicle crash on southbound Highway 101 in East Palo Alto Friday morning.
abclocal.go.com/kgo/story?section=resources/... - Cached - Similar

Accident shuts down northbound 101 Freeway at Universal City ...
23 Sep 2010 ... A multi-vehicle accident on the 101 Freeway has shut down all the northbound lanes in the Universal City area, snarling traffic on the busy ...

SF Bay Area Accidents, Highway Accident Timeline, 21st Century
Timeline of the Accidents, Highway Accident stories from different sources linked to the news ... Sep.12, Highway 101, Two fatalities in wrong-way collision ...
www.mapreport.com/na/west/la/news/subtopics/d/c.html - Cached - Similar

Tractor Trailer Truck Accident on Oregon 101 Highway - Truck ...
27 Aug 2010 ... FLORENCE, OR - A semi trailer truck accident Wednesday morning, August 18, shut down a highway near a scenic area in Lane County, Oregon.
www.truckaccidentlaw.org/.../tractor-trailer-truck-accident-on-oregon-101-highway/ - Cached

SigAlert Car Accident Injury 101 Freeway | Injury Lawyer LA
29 Sep 2010 ... Accident Injury? Free Legal Advice (800) 232-7070 Car Accident Injury SigAlert on 101 Freeway in Van Nuys. 2 Vehicle Collision Closes ...
Restricting results to a given date range

Google search for "danube" with date range from 10/12/2010 to 10/13/2010.
Query: [Chile Miners]

[Toxic Sludge in Danube], [Italy earthquake], [101 highway accident]
No more H1N1 vaccine at Arundel High. Vaccine still available at North County and Southern High for target groups until 7 pm

In order to show you the most relevant results, we have omitted some entries very similar to the 1 already displayed. If you like, you can repeat the search with the omitted results included.
Latest results for twilight review
Twilight New Moon Actress Ashley Greene Dating Jared Followill
CMR - 1 minute ago
Bella: I agree with this review. It didn’t really flow that well and I was very disappointed with the reunion... Lola: I totally agree with this review. ...

@ttyyogurtian3 I loved the Twilight book series and the movies are ok, but Bob Grimm’s review of New Moon is hilarious. http://tinyurl.com/v8besff

@theBelleRose99 - twitter.com - 3 minutes ago

@parkmore1633 Glad you liked the #twilight review. Still worth seeing for the “fun” of it.

righttwins33030 - twitter.com - 10 minutes ago

Twilight Movie Reviews, Pictures - Rotten Tomatoes
Twilight movie reviews, trailers - Check out Rotten Tomatoes Twilight clips, pictures, critic and user reviews, forums and the Tomatometer!
www.rottentomatoes.com/m/twilight/ - Cached - Similar - Open

Twilight Review - Screen Rant
Thank you!

Questions?

behshad@google.com
How?

- Language Model
- Topicality
- Query volume
  - Fluctuation
- Query Hotness
- Query intent
- Author Quality
- Tweet Quality
- Probability of Relevance
- Semantics
- Main Content Detection
- Fast Indexing
- Spam Detection
- Age of Page
- Copy detection
- Lots of Algorithms...