

Machine Learning Fairness



What is “Algorithmic Unfairness”

“***Algorithmic unfairness***” means unjust or prejudicial treatment of people based on race, income, sexual orientation, or gender via algorithmic systems or algorithmically aided decision-making.



Q: Can a fact be considered *algorithmic unfairness*?

Yes

A Google image search for “CEOs” might reveal mostly male faces. Even if males made up most CEO positions, **Google would still apply *algorithmic unfairness*** because that search result promotes a stereotype about women not being in leadership positions.





men can |



- men can **cook**
- men can **have periods**
- men can **have babies**
- men can **have babies now**
- men can **think about nothing**
- men can **get pregnant**

Google Search

I'm Feeling Lucky

[Report inappropriate predictions](#)



🔍 women can



🔍 women can **do anything**

🔍 women can **vote**

🔍 women can **do it**

🔍 women can fly

🔍 women can be drafted

Google Search

I'm Feeling Lucky

[Report inappropriate predictions](#)

Why is Google doing this?

**Training data are
collected and
classified**



**Training data are
collected and
classified**

**Algorithms are
programmed**



```
graph LR; A((Training data are collected and classified)) --> B((Algorithms are programmed)); B --> C((Media are filtered, ranked, aggregated, or generated));
```

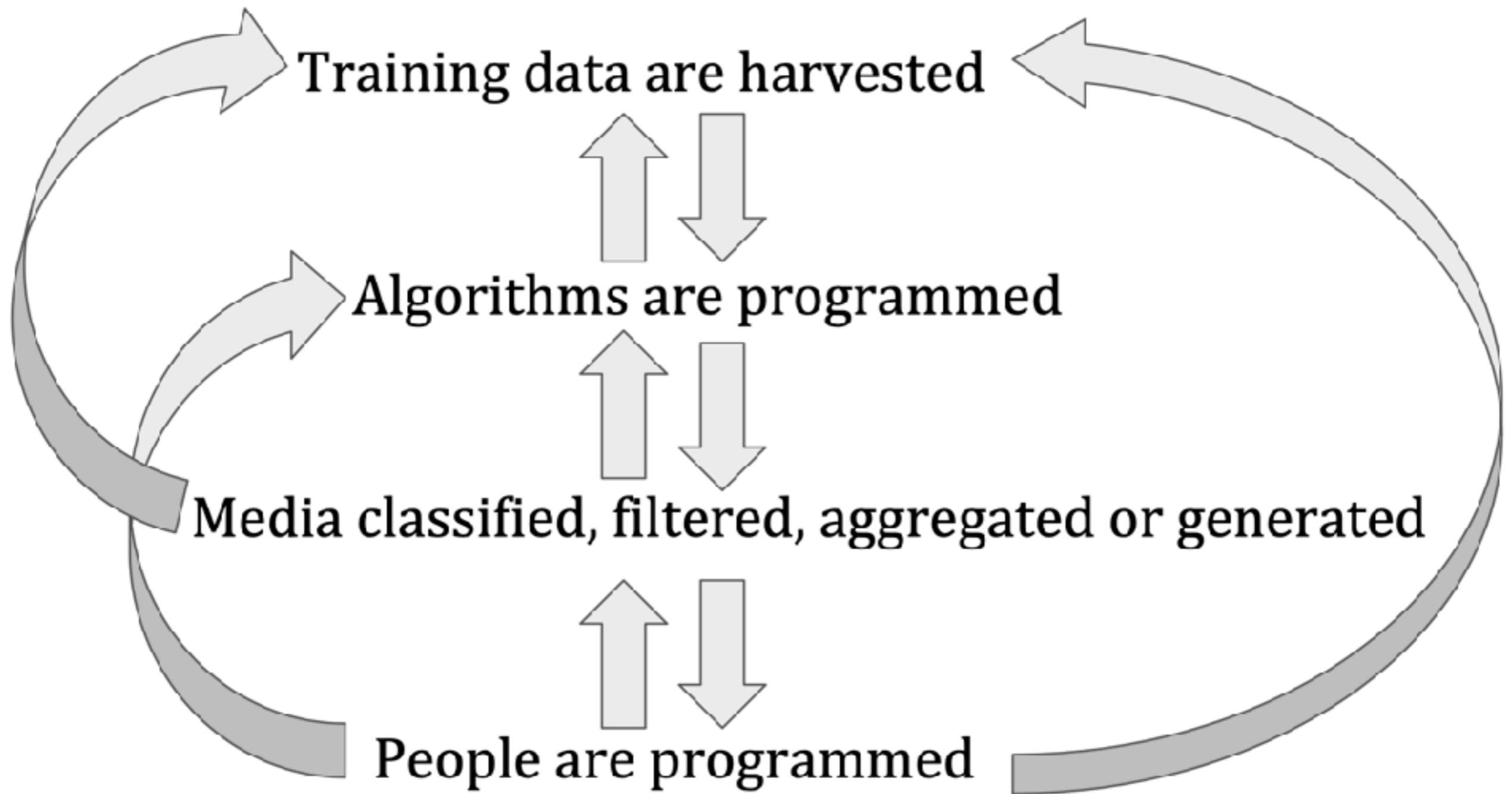
Training data are collected and classified

Algorithms are programmed

Media are filtered, ranked, aggregated, or generated







"Generalized filter bubble"



Fake News Is A Real Problem

Facebook engagement of the top five fake election stories*



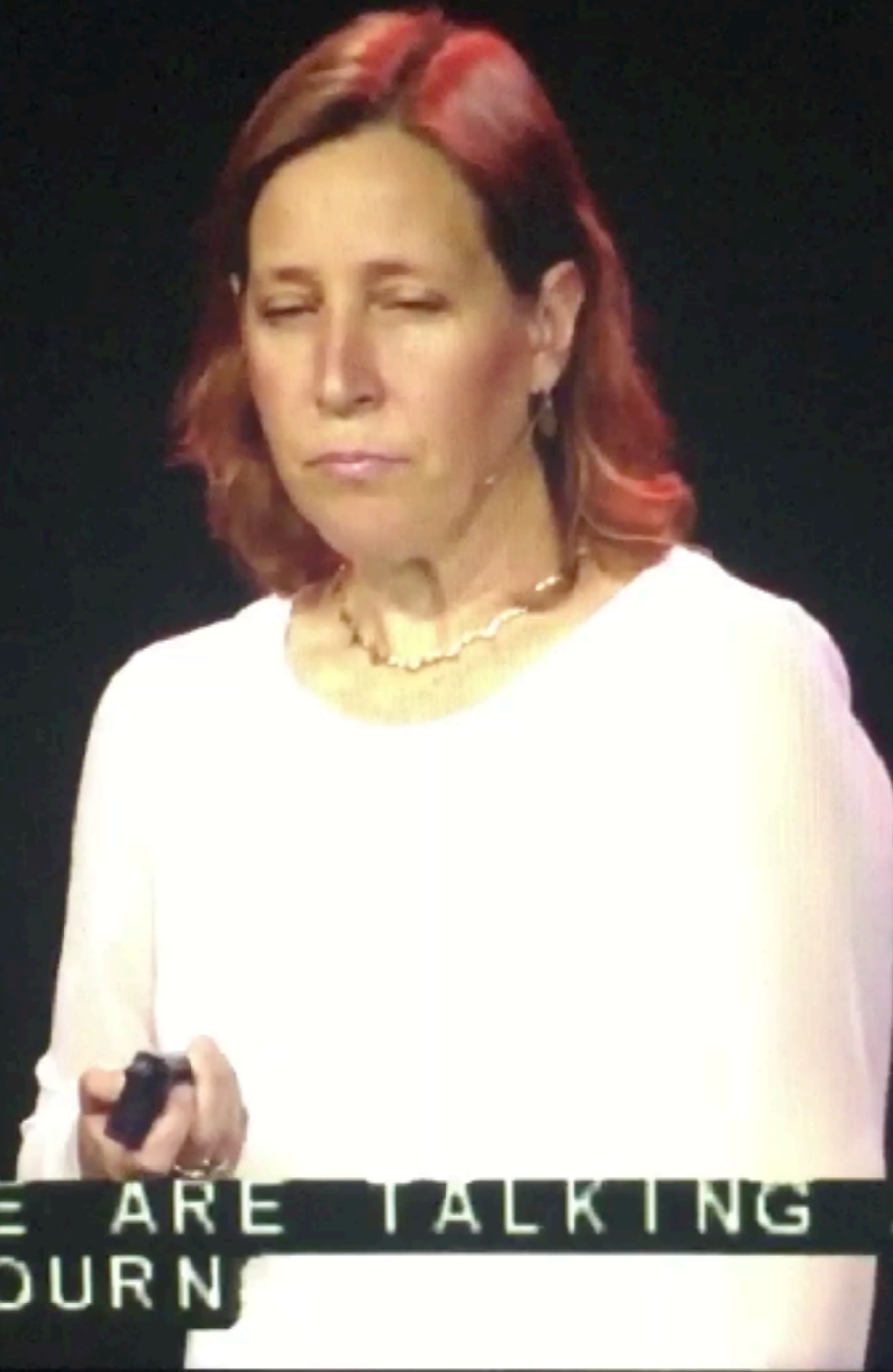
Total Facebook engagement for top 20 election stories (August-election day)



* Engagement is measured as total number of shares, reactions and comments



Fighting “*Fake News*”



AND PEOPLE ARE TALKING ABOUT
CITIZEN JOURN



How Google rewrote it's algorithms to target Trump





Realtime Boost

felipeg@google.com

<http://go/realtime-boost>

<http://go/realtime-boost-demo>

<http://go/realtime-boost-howto>



Event detection

Document

New Publication

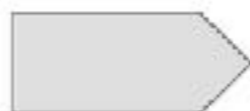
Freshdocs



Spike

Group of Documents
Time Structure

RealtmeBoost /
Hivemind



Cluster

Group of Spikes

Clusterizer-Service



Event

Structured Metadata
Checkpoints
Timelines

Serving to UI/Clients

Model-T

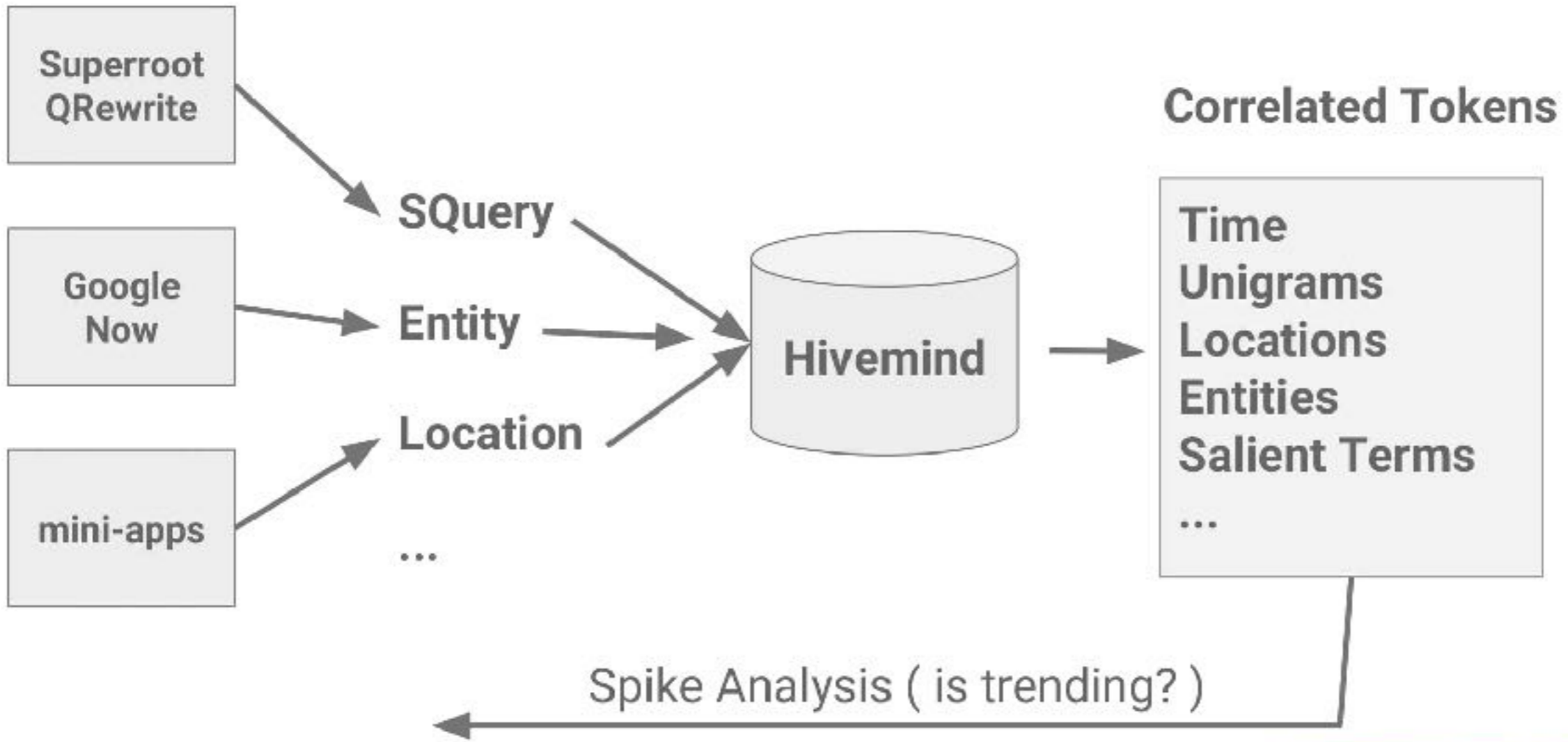


Every step in Realtime



Realtime Boost - Serving

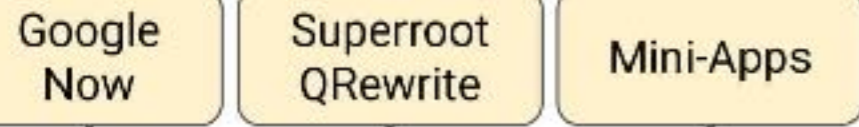
Proprietary + Confidential



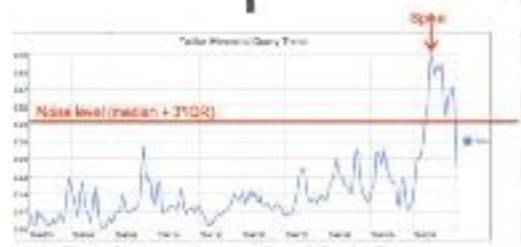


RealtimeBoost overview

Clients



Entity, SQuery, Location



RealtimeBoost Library/Node

Serving, Indexing



Pubsub CDoc



MDUs



Tokenize



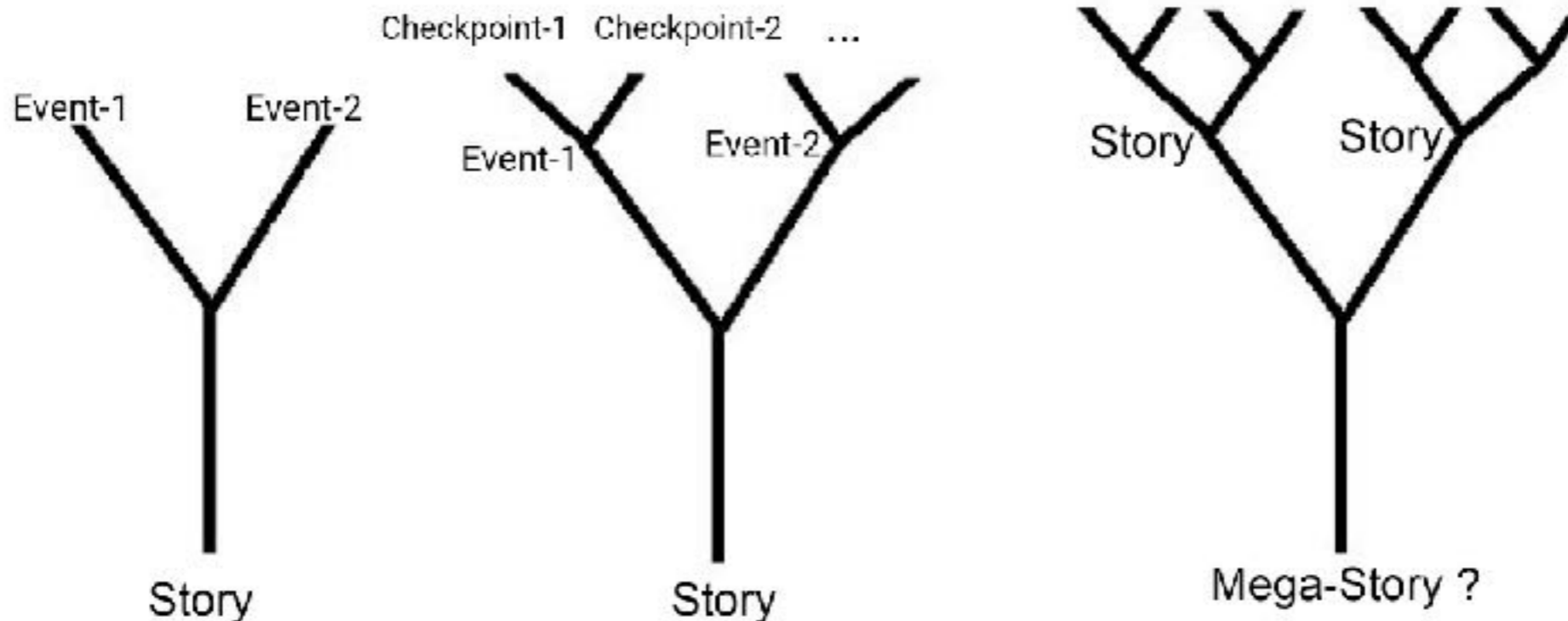
Tokenized muppet doc

```
Global ExtendedDocId: 10529037701726682924::0:0
LocalDocId: 1029292, Global ExtendedDocId: 10529037701726682924::0:0
Section body (Pos 131749376 -> 131749492)
TokenPos  TokenId  [
131749376  2983  [ <global_delimi
131749378  6362733 [ rthh=81
131749379  4023159 [ rthh=81
131749380  3138  [ rtl
131749381  77581  [ rtw=vo
131749382  4097  [ rtw=
131749383  4025558 [ rtw=domini
131749384  140670 [ rtw=hai
131749385  100855 [ rtw=des
131749386  108206 [ rtw=t
131749387  240848 [ rtw=
131749388  86357  [ rtw=mar
```



Story vs Event vs Checkpoint: Granularity

- Story can develop over many days, even months
- Event is a new development inside a Story
 - Takes place over a few hours, not more
- Checkpoints are intra-Event “snapshots”
 - Can be used to track the user’s state in the Event/Story on a minute level



Trump Fires Comey - News Cluster

[\(news cluster link\)](#)

The Original Cluster has been transformed into everything Comey/Russia/Trump

Mishmash of new developments:

- Comey Memo / Russia probe
- FBI next pick
- Russia Leaks / Classified info

News Cluster is active for 8 days

- 18,549 articles so far

Realtime Coverage

Chaffetz: I'm ready to subpoena for Comey memo

Published: 7:54 a.m. EDT

House oversight committee chairman Jason Chaffetz said Tuesday that if a memo FBI Director James Comey wrote detailing President Donald Trump's request to end an investigation exists, then his committee is willing to issue subpoenas to get it.



If the president isn't hiding anything, what is the need for his secrecy?

Last updated: 7:57 a.m. EDT

Trump: FBI job hunt on fast track

WASH. POST - May 14, 2017

Americans Deserve To Know About Russian US Election Meddling | Senator Casey

Newsweek - May 15, 2017

Most important editorial of the weekend: It's time to consider impeachment

The Progressive Post - May 15, 2017

Democrats continue to pressure Trump over FBI boss' axing

USA TODAY - May 14, 2017

Show recently hidden articles

In Depth

Key Moments of Trump-Comey Clash and What's Come After

THE NEW YORK TIMES - 9 hours ago

WASHINGTON — The standoff between President Donald Trump and his former FBI director intensified with the news of James Comey's sworn saying that Trump asked him to shut down the agency's investigation into ousted national security advisor Michael ...

Will Firing Comey Cost Trump?

THE NEW YORK TIMES - May 14, 2017

While supporters of the president are arguing that he was within his legal right to fire Comey, there could be other repercussions. Michael Waldman: 05/13/17 11:29 PM ET. In the frenzied days since Donald Trump fired James Comey, all the original ...

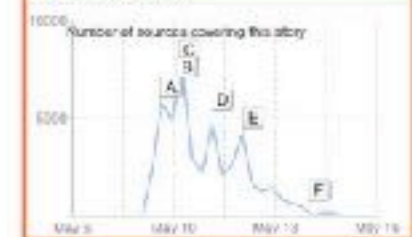
Trump, GOP control FBI chief pick despite Democrats' calls

WASHINGTON POST - May 13, 2017

WASHINGTON — While Democrats may tout any number of demands or maneuvers to influence the selection of the next director of the FBI, here's a reality check: Republican President Donald Trump fired James Comey, and he and his party will decide ...

Yes, Trump Thinks He Can Defeat The Russia Probe

Timeline of articles



F Comey: US govt leader assist by trump after Comey firing

WASH. POST - May 14, 2017

E The Daily 202: Trump's warning to Comey deepens doubts about his respect for the rule of law

WASHINGTON POST - May 12, 2017

D Comey firing could spur new review of Clinton case, immunity deals, ex-ops, says

THE NEWS - May 31, 2017

C Late night comes for President Trump over James Comey firing

USA TODAY - May 16, 2017

B The Latest: Pence says firing unrelated to Russia probe

NEW YORK Daily News - May 16, 2017

A Trump ax told on FBI's Comey in midst of Russia probe

Atlanta Journal-Constitution - May 9, 2017



Trump Fires Comey - RTB Event

- **Original Event is only about Trump firing Comey**
 - Precise in time and in topic
 - Trump leaking confidential information to Russia is a different story
- **Timeline brings new developments**
 - Still very related to Trump firing Comey

(query)

Trump Fires FBI Director Comey

7 days 16 hours ago Score: 1632.0

 Director of the Federal Bureau of Investigation
Government Office of Title

President Donald Trump Fires FBI Director James Comey

President Donald Trump abruptly fired FBI Director James Comey Tuesday, dramatically ousting the nation's top law enforcement official in the midst of an FBI investigation into whether Trump's campaign had ties to Russia's meddling in the election that sent him to the White House.

Frequently Asked:

- Why did trump fire the fbi director?
- Why did james comey get fired?
- Why was james comey fired?

News/Other ID: 00020000066796 - Search Google News
10020000066796 - See it on Google News
00020000066796 - See it on Google News

Queries: 7043423610000000
Trump fires fbi director
Trump fires james comey

CV Documents: 00020000066796
10020000066796
10020000066796

RI Documents: 3461320000000
10020000066796
10020000066796

Inspect Event Data - Search Similar Events

Story Timeline

1 day 13 hours ago
Chris Pratt Ellen DeGeneres
 Spicer: Comey "lacked judgment" for the job.
Inspect Event Data - Search Similar Events
Story Similarity Score: 1548.0

2 days 18 hours ago
David Frum
 Conservative Media In Denial Over Comey News
 Outspoken Trump critic Bruce Bartlett and David Frum tackle the mixed messages coming from conservative media outlets.
Inspect Event Data - Search Similar Events
Story Similarity Score: 2172.7

4 days 2 hours ago
Alice Fisher FBI
 Trump Say It's Possible He Could Pick FBI Head By Next Week
 President Donald Trump said Saturday that he could announce his pick for FBI director by late next week, before he leaves on his first foreign trip since taking office.
Inspect Event Data - Search Similar Events
Story Similarity Score: 2135.7

4 days 16 hours ago
Trump Warns Comey
 Hinting At Secret Tapes Trump Warns Ousted FBI Director
 Raging against a political firestorm, President Donald Trump on Friday shot a sharp warning at his ousted FBI director about possible "tapes" of their disputed private conversations, raising the provocative possibility that recording devices have been installed in the White House.
Inspect Event Data - Search Similar Events
Story Similarity Score: 2108.6

6 days 8 hours ago
Trump Supporters Comfy
 Americans Split Along Party Lines On Firing Of FBI Director
 Opinions on President Donald Trump's firing of FBI Director James Comey are dividing along familiar partisan lines. Republicans and Trump supporters see it as necessary, while Democrats view it with suspicion.
Inspect Event Data - Search Similar Events
Story Similarity Score: 5992.7

7 days 16 hours ago
Who Appointed Comey As FBI Chief
 Some Names Trump Might Consider In Picking New FBI Chief
 With James Comey ousted as FBI director, President Donald Trump will have an opportunity to select a replacement for a new 10-year term.
Inspect Event Data - Search Similar Events
Story Similarity Score: 4981.0

7 days 19 hours ago
FBI Director James Comey
 FBI Corrects Comey Testimony On Clinton Aide Huma Abedin
 The FBI has sent a letter to Congress correcting the record on Director James Comey's testimony on Huma Abedin, a top aide to Hillary Clinton.
Inspect Event Data - Search Similar Events
Story Similarity Score: 15140.0



Trump pulling out of Paris agreement

(query)

Trump Paris Climate Accord

3 hours 30 min ago Score: 196.5

Paris Agreement

White House Official Says Trump Expected To Withdraw Us From Paris Climate Accord

President Donald Trump is expected to withdraw the United States from the Paris climate accord, a White House official said Wednesday, confirming a move certain to anger allies that spent years negotiating the landmark agreement to reduce carbon emissions.

Frequently Asked:

- Why withdraw paris climate agreement?
- What is the paris climate accord?
- What is the paris climate deal?

Inspect Event Data - Search Similar Events

And 21 days earlier, he said he would decide on the agreement after the G7 summit, which he just did.

(also from the timeline)

21 days 21 hours ago Paris Climate Accord

13.8

Trump Will Make Decision On Paris Climate Pact After G7 Summit

On Tuesday, the White House has said that US President Donald Trump will not make a decision on whether the US should remain in the Paris climate agreement until after he returns from the G7 summit.

Inspect Event Data - Search Similar Events
Story Similarity Score: 1760.5

Story Timeline

4 days 4 hours ago Paris Climate Agreement: Trump Rally

G-7 Source: US Gets More Time On In Out Climate Pact: Answer

Seven wealthy democracies ended their summit Saturday in Italy without a unanimous agreement on climate change, as the Trump administration claims to take more time to say whether the U.S. is going to remain in the landmark Paris accord that fights climate change.

Inspect Event Data - Search Similar Events
Story Similarity Score: 2554.2

4 days 4 hours ago Paris Climate Agreement: Trump

Trump Says He'll Decide On Paris Climate Deal Next Week

President Donald Trump faced new controversies over his team's possible ties to Russia as he closed out his first trip abroad Saturday, agreeing five-to-one that ended with the promise of an imminent decision on the much-discussed Paris climate accord.

Inspect Event Data - Search Similar Events
Story Similarity Score: 1191.4

5 days 3 hours ago What Is The Paris Climate Accord

Europeans Making Sales Pitch To Trump On Climate Accord

White House Correspondent Julie Pace reports that President Donald Trump's views on climate change are "evolving" following discussions with European leaders who are pushing for him to stay in the Paris climate accord.

Inspect Event Data - Search Similar Events
Story Similarity Score: 401.7

5 days 5 hours ago Trump At G7 Meeting

Migration Crisis Loe Meeting | Dn News

Talks between U.S. President Donald Trump and other leaders of the G7 at the summit on Wednesday were "robust" and "challenging," according to a White House official, as the president lambasted NATO allies at a German trade policies meeting.

Inspect Event Data - Search Similar Events
Story Similarity Score: 1000.0



Alternative Health Censorship



supplements are|

supplements are

supplements are **bad**

supplements are **useless**

supplements are **not regulated**

supplements are **bad for you**

supplements are **dangerous**

supplements are **scams**

supplements are **good for you**

supplements are **garbage**

supplements are **not regulated by the fda**

vegas victims crisis actors security
what is intentional crisis
xswitch de cronk fall 2017

cancer cure
cure cancer



new york
new york bombing
port authority
new york explosion
new york city
nyc
new york bomb
port authority bus terminal
bomb
explosion
nyc bombing
new york port authority
explosion in new york
pipe bomb
explosion new york
new york explosion today

uεμ λoυκ εxδoγoγou zοq9λ
εxδoγoγou uεμ λoυκ

Home - SelfHacked

selfhacked.com ▼

Ahrefs Rank ⁱ

68,518

UR ⁱ

45

DR ⁱ

72

Backlinks ⁱ

101K ^{+2K}

Recent 152K
Historical 382K

Referring domains ⁱ

3.8K

Recent 4.45K
Historical 7.17K

Organic keywords ⁱ

214K ⁻²⁶

PPC 0

Backlink profile

Organic search

Paid search

All countries ▼

Organic traffic ⁱ 116,487 /month

All time

One year

Last 30 days



articles.mercola.com ▼

Ahrefs Rank ⁱ

2,345

UR ⁱ

48

DR ⁱ

88

Backlinks ⁱ

5.91M -3K

Referring domains ⁱ

53K

Organic keywords ⁱ

64.0K +67

PPC 0

Backlink profile

Organic search

Paid search

All countries ▼

Organic traffic ⁱ 12,103 /month

All time

One year

Last 30 days





**I AM ALTERING THE
SEARCH RESULTS.**

**PRAY I DON'T ALTER
THEM ANY FURTHER.**

"Zach Vorhies is an American hero."

—Robert F. Kennedy Jr.

Google LEAKS

A WHISTLEBLOWER'S
EXPOSÉ OF BIG TECH
CENSORSHIP

ZACH VORHIES AND
KENT HECKENLIVELY, JD



GoogleLeaksBook.com