

# Ranking for Research

Access to this document is restricted to specific people in Research who are working actively to improve search, not people with a general interest in the topic.

Ex. No.  
UPX0204

1:20-cv-03010-APM

## Purpose

- People in Research are now making major contributions to Google search, delivering benefit to hundreds of millions of people around the world.
- Deepening this collaboration would be awesome for everyone! This talk provides some context around work on web ranking to further that goal.
- Work on we ranking has involved hundreds of people over 20 years, so this presentation is far from comprehensive. Please add comments on confusing points or areas where more information would be useful.

## Outline

- Be careful in discussing search
- Get a feel for search
- Great search, not great metrics
- The structure of ranking
- Approaches to relevance

## Be careful in discussing search.

Having a big, positive impact on the world is a joy of working on search.  
But this impact makes our words and actions carry heavy consequences.

So we must tread carefully...

## Be careful in discussing search.

- Attempts to manipulate search results are continuous, sophisticated, and well-funded. Information about how search works should remain need-to-know.
- We are sued often. All emails involving people in Search are likely to be retained in connection with multiple, ongoing lawsuits.
- Internal communications have been repeatedly leaked to the press and cast in a bad light. Around the world, we endure multiple negative press cycles weekly.

Email threads involving search product counsel in my inbox this month.

Nov 25
Nov 21
Nov 12
Nov 7
Nov 6
Nov 3
Nov 1

## Legal Hold Obligations

This dashboard contains information about active legal hold notices you have received and our duty to preserve corporate data. Preservation obligations are pursuant to U.S. and other laws and help our legal team vigorously defend Google against any potential claims. If you would like further information about a specific hold listed below, please reach out to the case contact or the [@google.com](mailto: @google.com) alias for more general inquiries.

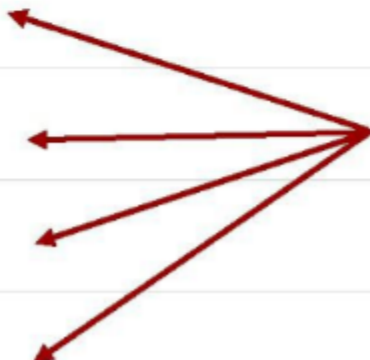
[LEARN MORE](#)



### Active legal holds

My email and docs are currently retained in connection with four different lawsuits.



FOX NEWS FOX BUSINESS FOX NEWS GO FOX NEWS RADIO FOX NATION FOX NEWS insider

FOX NEWS insider LATEST ▾ PRIMETIME HIGHLIGHTS ▾ TRENDING ▾ 5 THINGS ▾ MORE ▾

Fox Nation is now LIVE! Sign up for a free trial to watch exclusive content and shows.

# Tucker EXCLUSIVE: Google Employees Discussed Manipulation of Search Results After Trump Travel Ban

share this email



Grab your ticket before it flies away  
Book now  
Royal Dutch Airlines KLM

### Recommended Stories

Judd Defends Use of Tear Gas at Border: Agents Got Control of 'Very Dangerous Situation'

Report: PETA Urges England Village to Change Name to 'Vegan Wool'

Tammy Bruce: Women's March Became All About Identity Politics, Not Women's Rights

"Liberals Don't Understand the History"

Dershowitz Urges Trump Team to 'Be Hannity: 'Demonization' of Judge Nap on Mueller Accusing Manafort Ingraham: GOP Must Unite to Pass

"Tucker Carlson raised the question Thursday night, reporting exclusively on internal Google emails in which employees discussed potentially manipulating the search engine's results to undermine President Trump's travel ban..."

## Be careful in discussing search.

- The EU fined Google 2.2 billion Euros in connection with an aspect of search. People you work with were involved.
- Search issues can inflame world leaders who have power over Google, demand Congressional hearings, etc.
- We never know when the next regulatory action or subpoena will hit.

Tweet from the US house majority leader.





## Facebook documents seized by MPs investigating privacy breach

25 November 2018

f     Share

Facebook-Cambridge Analytica data breach



A cache of Facebook documents has been seized by MPs investigating the Cambridge Analytica data scandal.

Rarely used parliamentary powers were used to demand that the boss of a US software firm hand over the details.

Facebook turned over some internal communications as part of a lawsuit.

Those communications were then seized from the opposing party by the serjeant-at-arms of the House of Commons.

Never saw that coming!

## Particularly Sensitive Topics

- Keep talk about how search works on a need-to-know basis. Everything we leak will be used against us by SEOs, patent trolls, competitors, etc.
- Discuss social fairness in search results with great caution. This is an important topic that we must all take very seriously. But how will your email read to reporters, regulators, and litigants?
- Avoid statements that might be perceived as anticompetitive, e.g. why aren't we ranking this Alphabet-related product higher? How can we knock down such-and-such site? We do not do such things.

## Sensitive Topics

- Do not discuss political bias in search in writing. This is another important topic that we take seriously, but is just too volatile for email.



Postscript: Two weeks after this talk was initially given, Google's CEO was called to testify on this topic before Congress.

- Do not discuss the use of clicks in search, except on a need-to-know basis with people who understand not to talk about this topic externally. Google has a public position. It is debatable. But please don't craft your own.

## Search Quality Has Many Aspects

- Relevance
- Page quality
- Popularity
- Freshness
- Localization
- Language
- Centrality
- Topical diversity
- Personalization
- Web ecosystem
- Mobile friendly
- Social fairness
- Optionalization
- Porn demotion
- Spam
- Authority
- Privacy
- User control of spell correction

Capturing everything in a metric is tough!

## Some Known Shortcomings of Live Traffic Eval

- The association between observed user behavior and search result quality is tenuous. We need lots of traffic to draw conclusions, and individual examples are difficult to interpret.

