

Message

From: Surojit Chatterjee [Redacted@google.com]
Sent: 8/13/2014 2:42:33 PM
To: Joan Braddi [Redacted@google.com]
Subject: iOS8 overtriggering suggestions on spotlight search

Hi Joan,

A recent analysis shows how iOS8 is overtriggering and often giving irrelevant results in its spotlight search (Ex, showing Wikipedia entry for 'auto insurance') query. The attached deck shows more details.

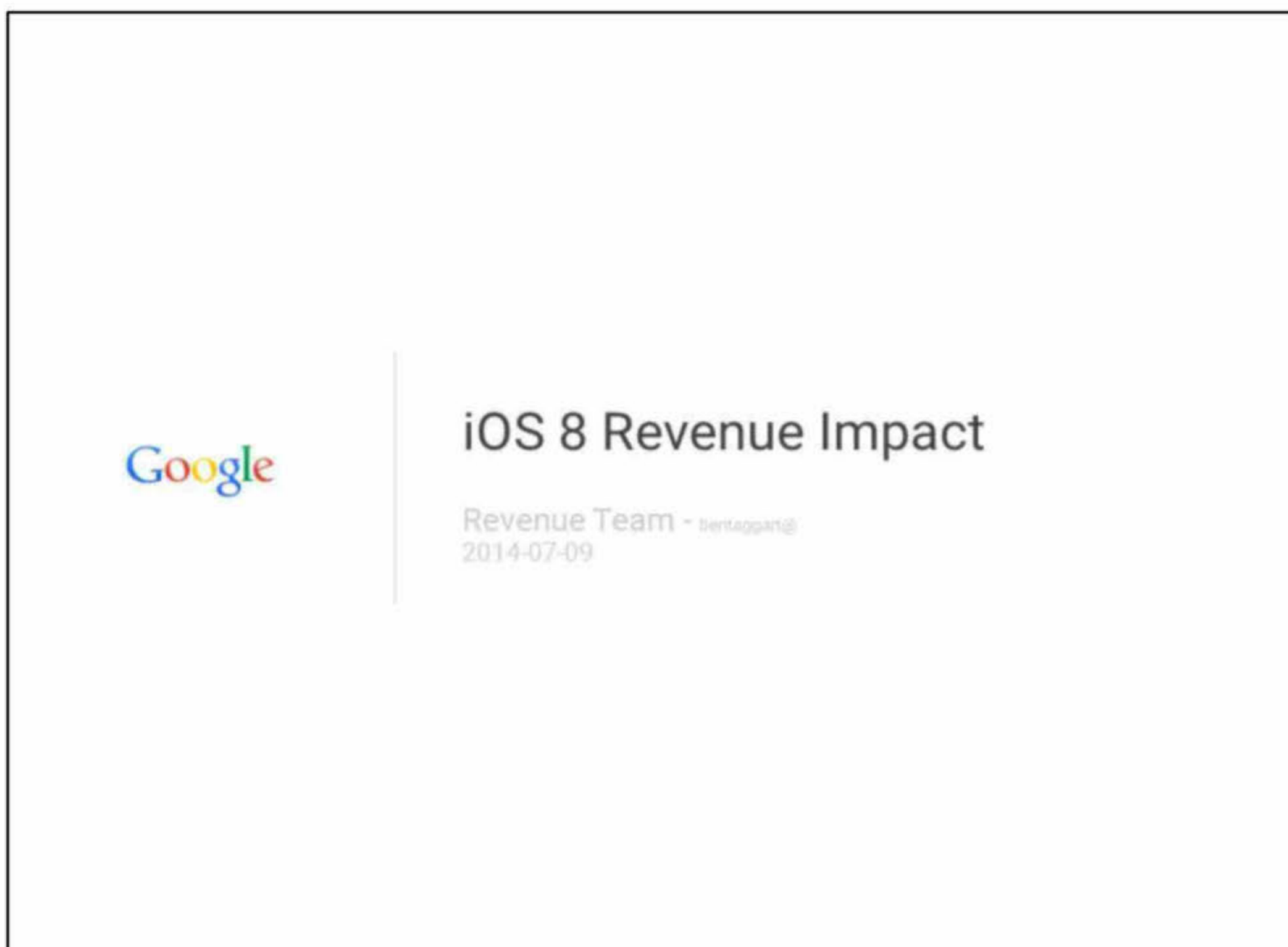
I was wondering if we've reached out to Apple about this since this is not good from user experience point of view.

Thanks,
Surojit

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Surojit Chatterjee | Product Management Director | Google Inc |

E: Redacted@google.com | M: Redacted



Title Slide Option 1

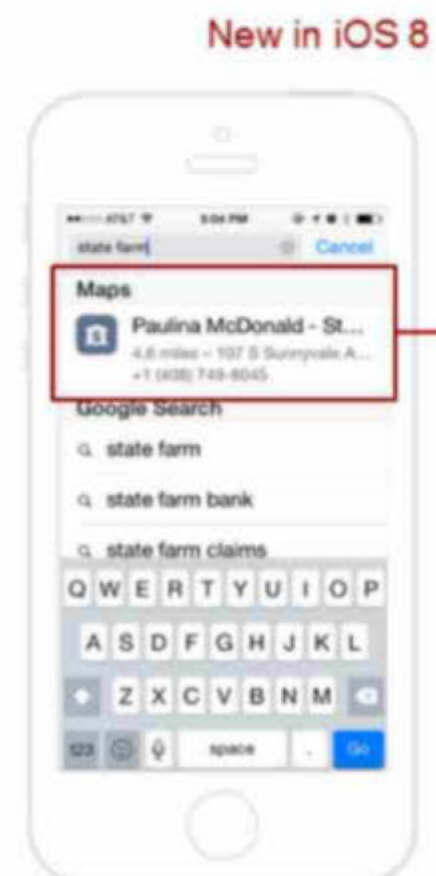
Bottom Line: It's bad

In iOS 8, Apple is introducing Spotlight suggestions into Safari search. We expect these suggestions to siphon queries away from Google in verticals where spotlight is triggered.

Search-team [estimates](#) put query loss from Apple's changes at **Redacted** of Safari traffic.

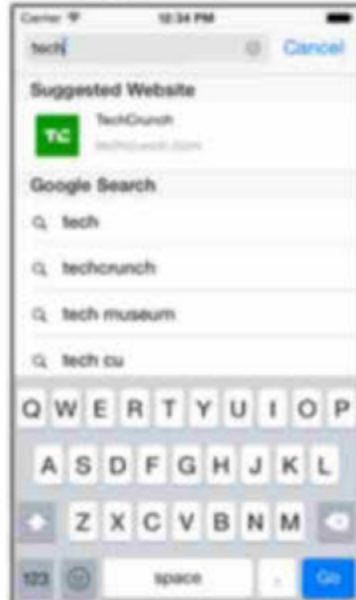
We estimate a smaller revenue loss of **Redacted** of iOS Safari revenue. This estimate depends greatly on several variables for which we do not currently have data.

More investigation and better data is needed to come up with more accurate expected revenue impacts ahead of the launch.



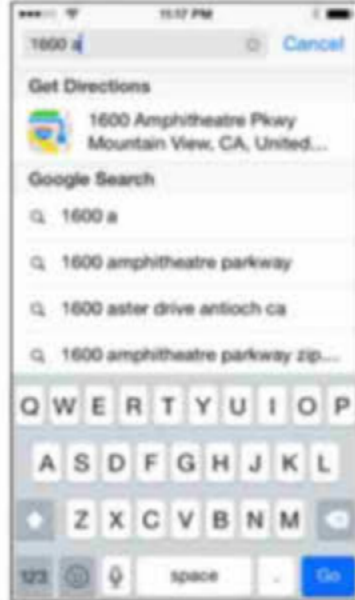
Query Loss: Spotlight triggering types

Navigational



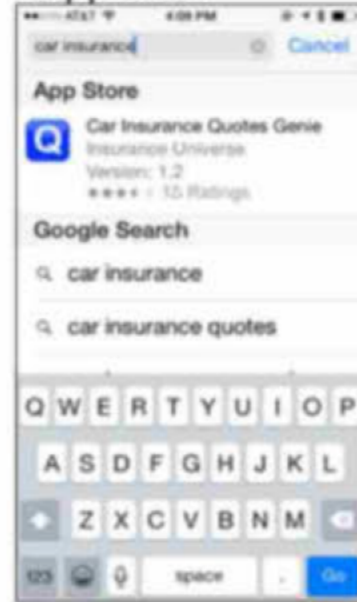
Now suggests sites never previously visited, has thumbnails.

Local / Maps



Sometimes triggers on national brand queries, eg. "State Farm" suggests a local state farm office.

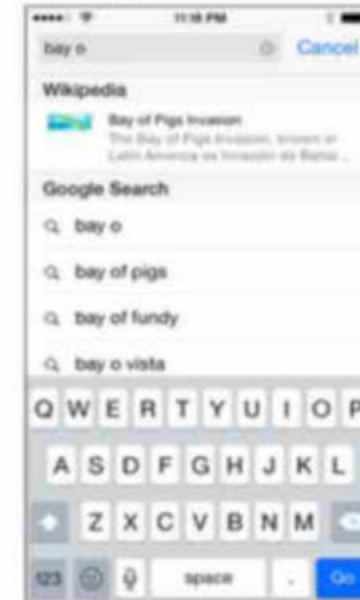
App Store



News



Wikipedia



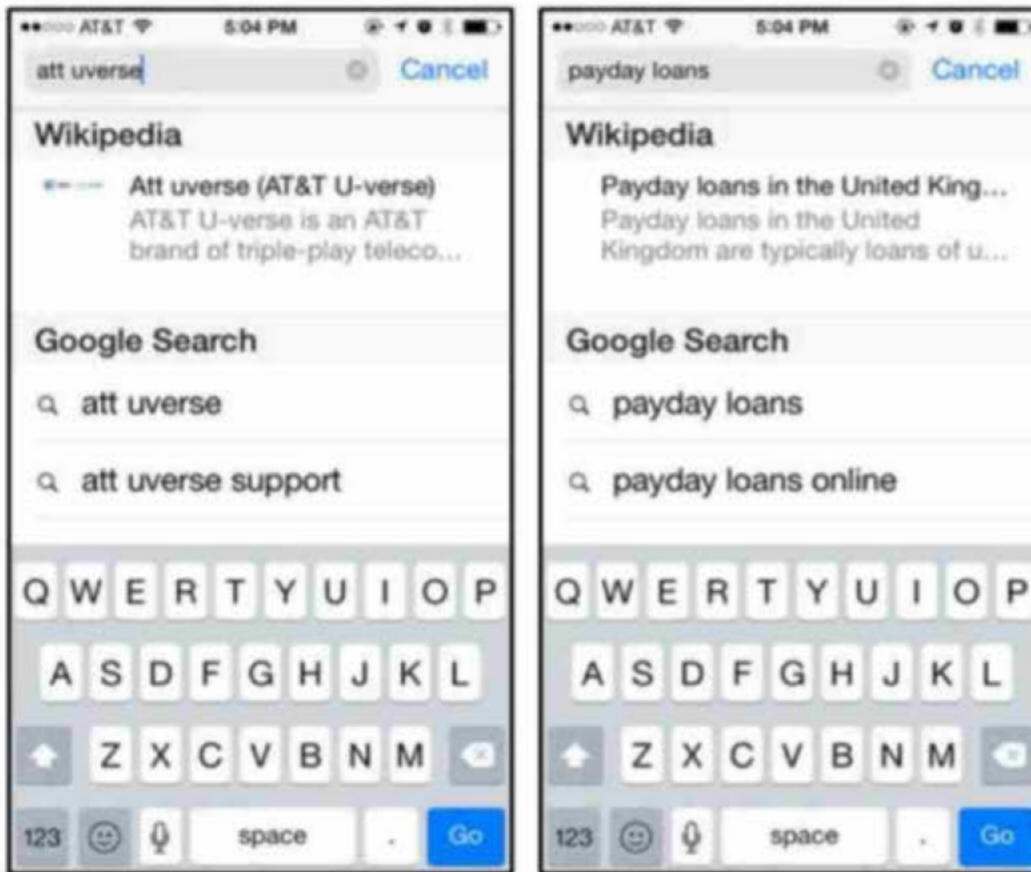
Triggers on many, many queries.

iOS 8: Device differences

There are important differences in Spotlight suggestion appearance between devices. On iPad, the suggestions occupy less of the screen. On the iPhone 4S, the suggestions can almost completely crowd out Google search suggestions. Spotlight CTR may vary significantly between devices as a result of this.



Wikipedia: The Wildcard



Spotlight triggers Wikipedia links on many top revenue generic queries, as well as some brand ones (See next slide).

Wikipedia could be the biggest source of spotlight-related revenue loss if coverage and CTR are both high.

Many wikipedia links of questionable utility, Apple may dial-back trigger rate for final release.

Unknowns (Need real data):

- Understanding of wikipedia triggering behavior.
- Exact % of revenue from queries where Wikipedia is triggered
- CTR on wikipedia entries for high-RPM commercial queries (eg. "Credit Cards")

Spotlight Triggers on 23 of the top 25 English Mobile/Tablet revenue queries - iOS 8 Beta 2

Query	Category	Monthly Queries	Monthly Revenue	RPM	Spotlight Triggered?	Spotlight Type
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Redacted

Spotlight types in top 25 Queries:
Wikipedia: 14
Nav: 7
Local: 2

Variations on popular queries (eg. **Redacted** instead of **Redacted**) affect spotlight triggering. Needs more data.

Unknown: Language differences in triggering, especially Japanese.

= **Redacted** of mobile/tablet revenue

Global Impact Estimates

Variables differing between scenarios:

- Wikipedia spotlight Coverage
- Spotlight CTRs (Query Loss)

Key Assumptions:

- Revenue loss proportional to query loss within spotlight category
- Wikipedia coverage values not based on empirical data
- Spotlight CTR higher on iPhone due to smaller screen real-estate for suggestions
- High (>20%) spotlight CTR for Nav and Local queries

Methods for Estimating Spotlight Coverage:

- Navigational: Revenue from queries with 1 or more nav ad
- Local: Revenue from queries with Area of Interest at metro or lower level
- News: Revenue from queries categorized as News & Media
- Wikipedia: No data - range of guesses

Optimistic Scenario

iPhone - Mobile				
Revenue Type	Monthly Revenue	Revenue Loss	Loss % (Of iPhone or iPad)	Loss % (of total Mobile or Tablet)
Redacted				
iPad - Tablet				
Revenue Type	Monthly Revenue	Revenue Loss	Loss % (Of iPhone or iPad)	Loss % (of total Mobile or Tablet)
Redacted				

Pessimistic Scenario

iPhone - Mobile				
Revenue Type	Monthly Revenue	Revenue Loss	Loss % (Of iPhone or iPad)	Loss % (of total Mobile or Tablet)
Redacted				
iPad - Tablet				
Revenue Type	Monthly Revenue	Revenue Loss	Loss % (Of iPhone or iPad)	Loss % (of total Mobile or Tablet)
Redacted				

Source:

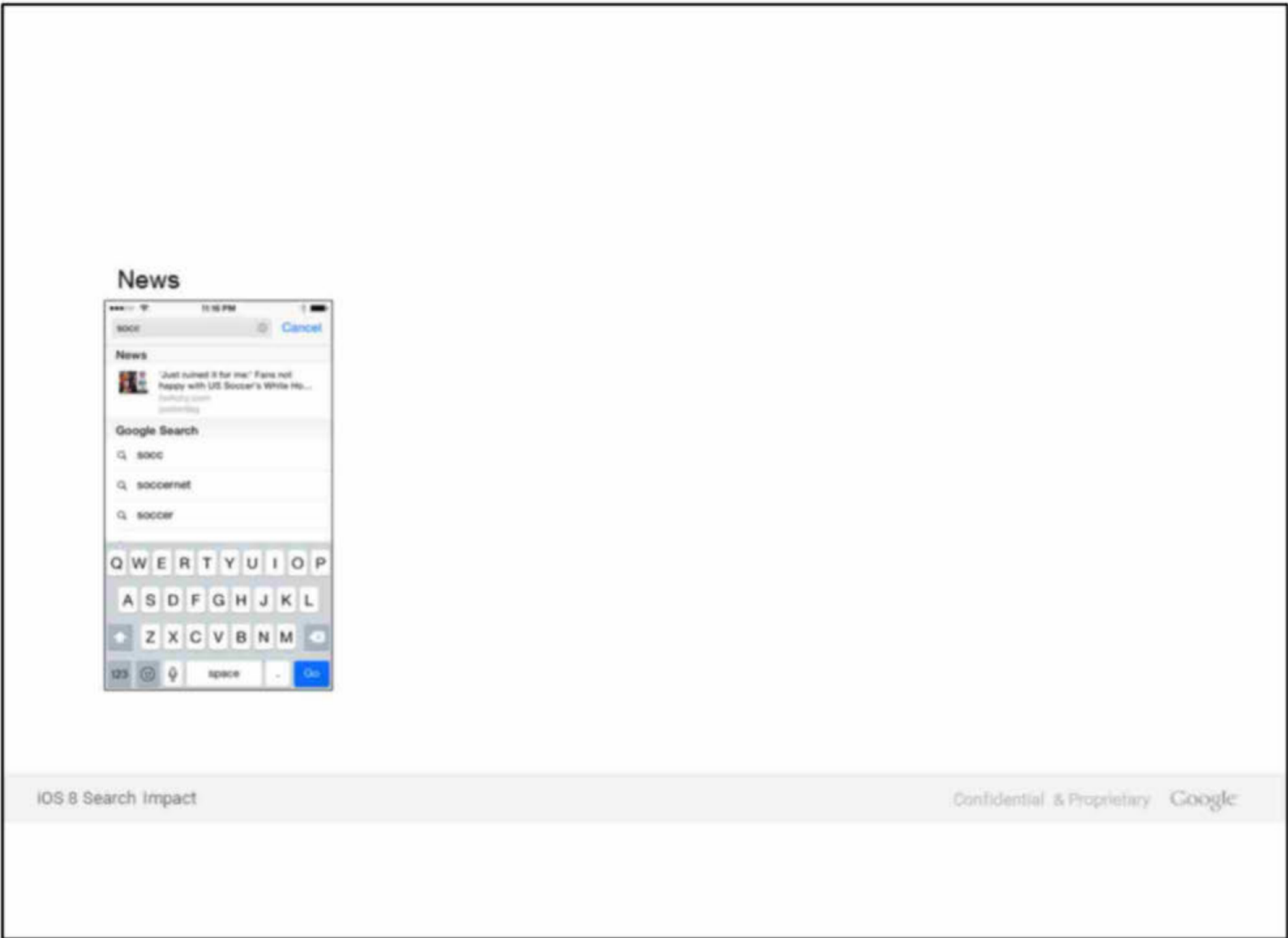
https://docs.google.com/a/google.com/spreadsheets/d/13iGqRPXo_JtJ0vjndj4Smt217NHZTmjoKvel_BCuQY4/edit#gid=0

Id	Date	Text
1	09/04/2014 06:48:39	Add "next steps". Get more data on Triggering Rates, Human eval on CTR
1	09/04/2014 06:48:39	Ben are these estimates (e.g. Redacted) only for Safari or the entire device?

Next Steps

1. Understand and measure spotlight triggering rates in each vertical. Google data (eg. knowledge panel trigger rate) may not be a good proxy for actual iOS 8 triggering rates.
1. Measure or improve estimated CTR on spotlight suggestions to further improve query/revenue loss estimates.
1. Scope the potential impact of iOS 8 for non-English users (especially JP)

Appendix



IOS 8 Search Impact

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