

Project Tulip

Joint project from PPC, Meta and SEO

Booking.com

EXHIBIT
PSX00097

Executive summary.

Context

- Google has consistently introduced changes to the Search Results Page that give paid placements (PPC ads and Google Hotel Ads) more visually prominence and screen real estate, displacing organic (SEO) content
- Given Google's dominant position in search, this conduct is potentially anti-competitive

Data and Results

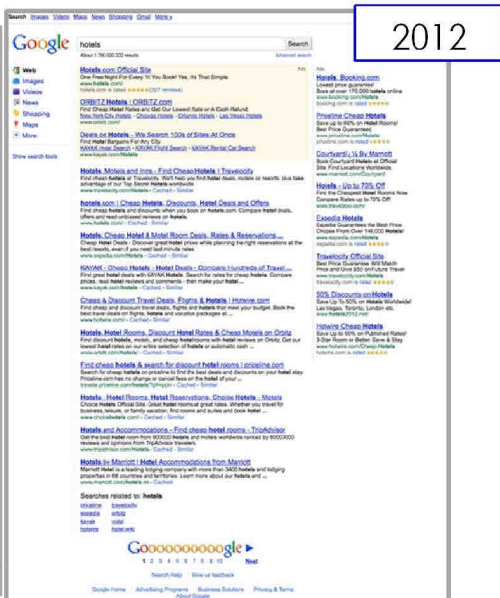
- Combined data from Google PPC ads, Google Hotel Ads and Google SEO
- From 2015-to-date, Google's optimization of the search results page towards paid placements costs Booking.com an estimated **REDACTED** in 2019
- When we account for our (relatively speaking) improved visibility within the organic ranking, our estimate increases by almost **REDACTED**
- The event study we conduct shows clear evidence of a strong mix shift from free to paid on the exact date of a recent change in the visual appearance of search ads.
 - ▶ We estimate Booking.com lost **REDACTED** commission in two months as a result of this one design change.

Introduction - Google's different types of traffic.

Contents of deck:

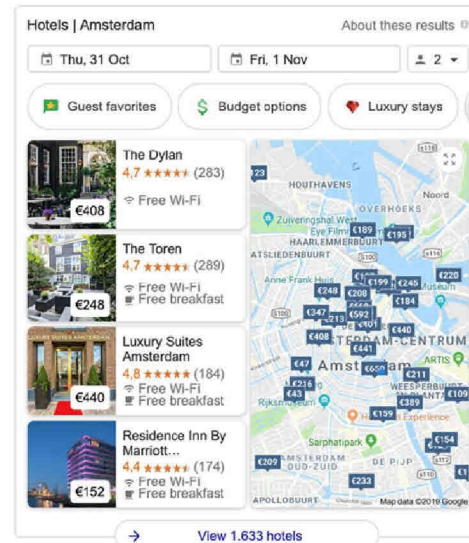
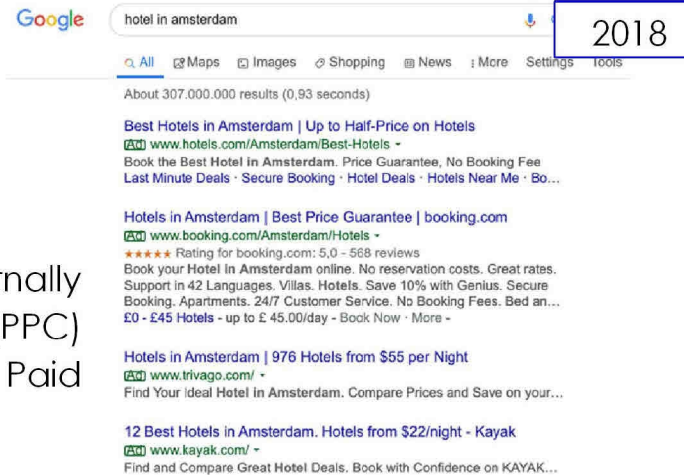
- Examples of Google update since 2000
- Method to test the hypothesis that advertising spend is increased
- Analysis results

Paid Search AKA internally as Pay per Click (PPC)
Paid



Google Hotel Ads (GHA)
Paid

Search Engine Optimization (SEO),
AKA Organic Search
Free



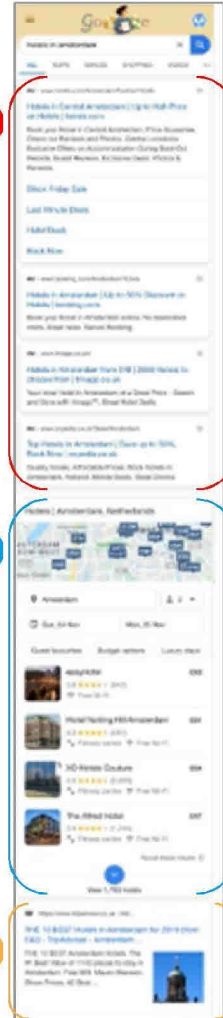
The 30 best hotels in Amsterdam, NL (from \$16) | Booking.com
<https://www.booking.com> | Netherlands | Noord-Holland | Visit Amsterdam
 Great savings on hotels in Amsterdam, Netherlands online. Good availability and great rates. Read hotel reviews and choose the best hotel deal for your stay.

Google Search Engine Results Page 2019.

Desktop.



Mobile.



1. Paid Search / Pay Per Click (PPC)

- Paid clicks
- Auction based

1. Comparison Search / Meta Search

- Paid clicks
- Auction based

1. Organic / Natural Search / Search Engine Optimisation (SEO)

- Free clicks

Google's different types of traffic.

Hypothesis: Google is optimizing their search result page (SERP) such that Booking.com gets a smaller fraction of free clicks over time and thus the advertising spend is increased.

Booking.com acquires clicks from Google in three different ways:

- Paid Search, aka Pay per Click (PPC) - Paid
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Google Hotel Ads (GHA) - Paid
 - [REDACTED]
 - [REDACTED]
 - [REDACTED]
- Search Engine Optimization (SEO) - Free
 - The results of Google's algorithm after the user searches for or a keyword or a set of keyword like "hotel in Paris"
 - The users clicks on a 'normal', i.e. not advertised link

Business via Google on all channels.

REDACTED

Channel mix at Booking.com.

REDACTED

Slide 7

- 1 +lucie.denooij@booking.com this is great, but i think what would be clearer is to make another graph that limits to just google, that way the SEO shift is more visible
Justin Rao, 11/20/2019
- 1 Agreed showing for just Google.
If possible would also be good to display Non-Brand PPC, Brand PPC, Non-Brand SEO and Brand SEO
Mark Potton, 11/20/2019

Channel mix at Booking.com Google vs all others.

REDACTED

Over time Google has pushed free (organic) results below the fold, thus deprioritizing providers in this space and reducing click potential/exposure in favour of Google product/solution.

Since 2015 the Free/Organic continues to be pushed further below the fold

Google search results for "hotels in amsterdam". The search bar shows "hotels in amsterdam" and the results page displays "About 301,000,000 results (0.39 seconds)".

Key results include:

- 1060 Hotels in Amsterdam - Best Price Guarantee** (www.booking.com/Amsterdam-Hotels) - 4.6 rating for booking.com
- 15 hotels in Amsterdam - Sofitel, Novotel, Mercure and Ibis** (www.acorhotels.com/Amsterdam) - Book now in one of our 15 hotels
- Hotels in Amsterdam, Netherlands on Google** (Sponsored) - Compare hotels based on reviews, prices, photos, Street View and more.
- Amsterdam Hotels from £15** (www.trivago.co.uk/Hotel-Cheap-Amsterdam) - Half-Price Hotels - Compare Now - Get 30%, 40%, even 60% Off Hotel!
- Hilton Amsterdam Hotels** (www.hiltonweekends.co.uk/Winter-Sale) - Book Amsterdam Hotels from £84 - Now in the Hilton Winter Sale!
- Best Hotels in Amsterdam** (www.expedia.co.uk/Amsterdam-Hotels) - 4.3 rating for expedia.co.uk - Book Now & Collect Nestlé Points. Cheap Hotels in Amsterdam, Holland
- NH Hotels in Amsterdam** (www.nh-hotels.com/Amsterdam) - Book your NH Hotel directly on the

A red box highlights the "Hotels in Amsterdam, Netherlands on Google" sponsored result and the "30 Best Amsterdam Hotels on TripAdvisor - Prices ..." result.

Google search results for "new york hotels". The search bar shows "new york hotels" and the results page displays "About 331,000,000 results (0.80 seconds)".

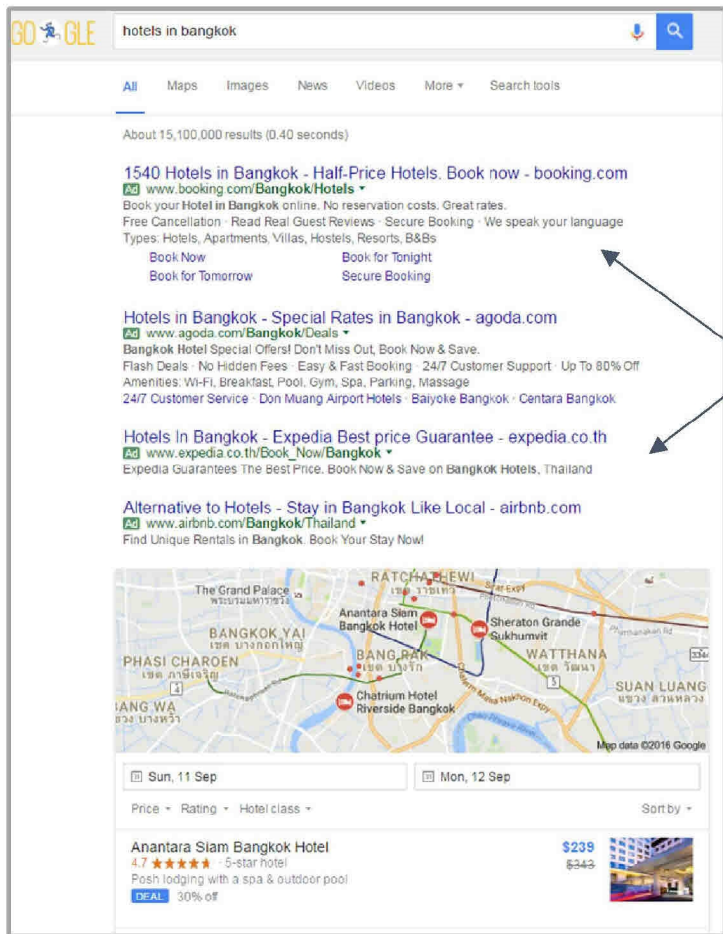
Key results include:

- New York Hotels - Expedia - Best Hotel Price Guaranteed** (www.expedia.com/New_York_Hotels) - Book Now & Save on New York Hotels! - Expedia has 3,049,035 followers on Google+
- 540 Hotels in New York NY - Half-Price Hotels** (www.booking.com/New-York-Hotels) - 4.6 rating for booking.com - Book your Hotel in New York NY - Ratings: Ease of booking 9/10 - Service 8/10 - Booking.com has 2,766,957 followers on Google+ - Hotels near Times Square - Affordable Hotels in NY - Hotels near Central Park
- New York City Hotel Deals - Hilton.com** (www.hilton.com/New_York_City_Hotels) - (866) 299-5432 - 5.0 rating for hilton.com - Hilton Guarantees the Lowest Price. Book Now & Save on New York Hotels! Bed & Breakfast Package - Make A Reservation - AAA Member 5% Discount - 9 851 Eighth Avenue, New York, NY
- Hotels near new york** (Filtered by Sun, Nov 23 and Mon, Nov 24) - Price, Rating, Hotel class.
- Sheraton New York Times Square Hotel** - \$199 - 3.3 rating - 156 reviews - 4-star hotel - 811 7th Avenue 53rd Street - Contemporary rooms boast vast city views on the high floors, plus meeting space & a fitness center.
- New York Hilton Midtown** - \$199 - 3.8 rating - 199 reviews - 4-star hotel - Avenue of the Americas - A sky-fit fitness center & convention facilities keep things active at this Midtown chain hotel.
- The Plaza Hotel** - \$818 - 4.5 rating - 265 reviews - 5-star hotel - 6th Ave - Jet-set hotel legendary for elegant lodging (with in-room iPads) & afternoon tea in the Palm Court.
- Marriott New York Hotels** (www.marriott.com/New-York) - Book at Marriott's Official Site. Get Our Lowest Rates + Earn Rewards
- 3365 Hotels in New York** (www.trivago.com/Hotel-NewYork) - Never Pay Full Price on Hotels. Compare over 200 Booking Sites!
- Last Minute Hotel Deals** (www.kayak.com/Last-Minute-Hotels) - 4.3 rating for kayak.com - Find Cheap Last Minute Hotels by Comparing 100s of Sites at Once.
- Top NYC hotels** (www.zagat.com/NYC) - Cut through the clutter to find the perfect spot.
- Hotels near Times Square** (www.gogobot.com/times-square) - 4.9 rating for gogobot.com - Find hotels, restaurants, and more near Times Square in New York.
- New York Hotels** (www.arbitz.com/NewYork) - 4.4 rating for arbitz.com - Low Price Guarantee + 3% Offcuts. Book Hotel Rooms in New York City.
- New York Hotel Deals** (www.momondo.com/Hotels) - Searching For A Great Hotel Deal? Check Out Our Hotel Price Guarantee
- 70% Off Last Min Hotels?** (www.bookingbuddy.com/lastminutehotels) - 4.1 rating for bookingbuddy.com - Book the Best Current Deals Online!

A red box highlights the "Hotels near new york" section, specifically the Sheraton New York Times Square Hotel listing.

3

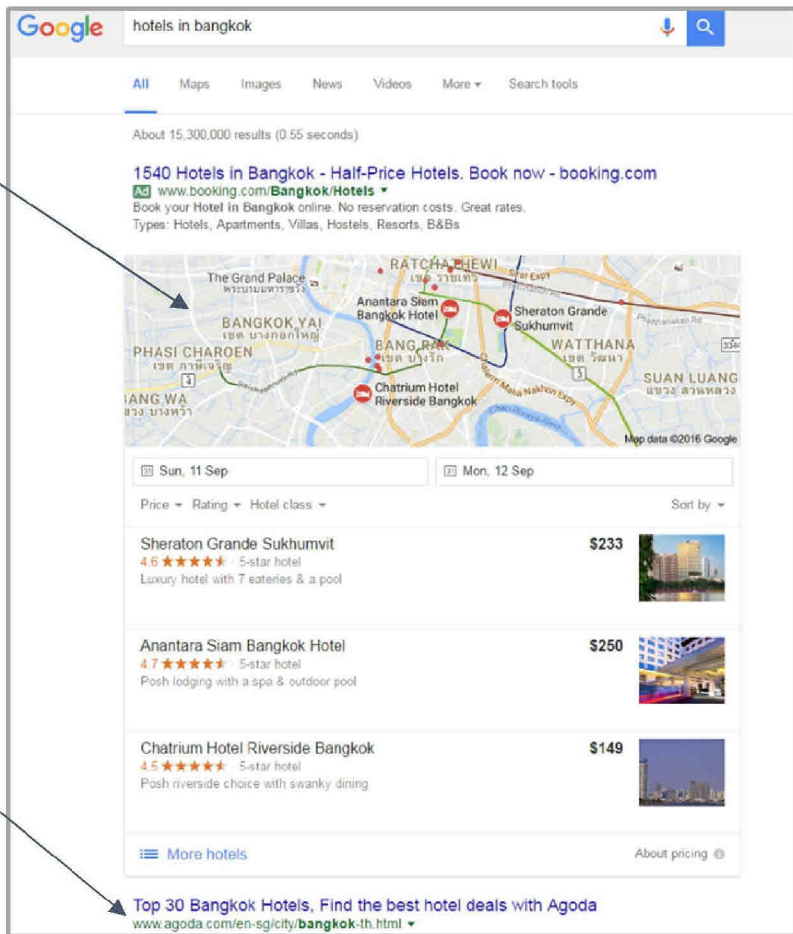
The map module has largely given way to paid hotel ads.




More prominent hotel ad unit

More PPC ads, less prominent hotel ads

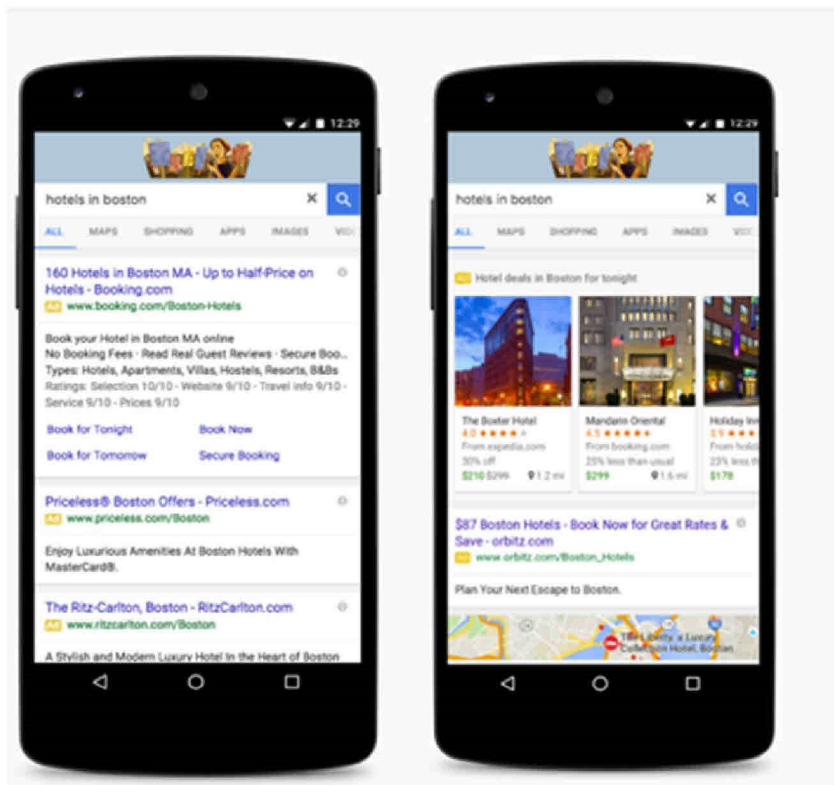
SEO further down the page



Slide 10

- 2 **Insert date**
Mark Potton, 11/12/2019
- 1 +jason.paget@booking.com, do you know from when these screenshots are?
Lucie de Nooij, 11/5/2019
- 1 not from just looking at them, there's time stamps in the platform, although these look preplatform. Who grabbed them? are they from the wayback?
Jason Paget, 11/6/2019
- 2 +justin.rao@booking.com, I got these from your presentation, do you know where the screenshots are from?
Lucie de Nooij, 11/7/2019
- 2 **I don't know... can we get new ones from the internet archive?**
Justin Rao, 11/11/2019
- 2  **REDACTED**
- 3 couldn't figure out how far back this goes... would have to be 3-4 years to get the hotel finder major rollouts
Justin Rao, 11/12/2019

Mobile search has evolved to become leading device.



We observe similar dynamics as on desktop, but often with larger impact due to the reduced screen size.

By pushing the organic results below the first visible page, most users don't even bother swiping until they get there.

Testing the hypothesis.

Observation

- Google is optimizing their SERP
- The effects of that probably differ between mobile and desktop

Assumed measurable effects

- The number of clicks Booking.com can acquire via organic/free search decreases or grows less fast than paid clicks
- Specific Google updates changes are observed in Booking.com performance for organic

Assessment

- Compare the fraction of free and paid clicks over time
- Correct for our performance, so for click coverage or visibility
- Monitor organic performance over time and identify Google's updates
- Estimate growth rates if change(s) had not happened and calculate monetary effect

Input

- Total spend on Google in 2019 (using best estimate for Nov and Dec)
 - PPC: REDACTED
 - GHA: REDACTED
 - Total Google spend = REDACTED

Paid and free clicks over time - all traffic.

REDACTED

Paid and free clicks over time - desktop.

REDACTED

Slide 14

3

+lucie.denooij@booking.com - do we have the same for mobile? Mobile is where Google made big changes in the Paid Search ad design in May, so would be interesting to see the impact

Assigned to Lucie de Nooij

Mark Potton, 11/20/2019

Financial impact of channel mix change.

REDACTED

Indexed paid and free clicks.

REDACTED

Slide 16

4 +lucie.denooij@booking.com - is it possible to break out SEO brand and SEO Non-Brand? I think this will so a more like for like comparison with PPC

Reassigned to Lucie de Nooij

Mark Potton, 11/21/2019

3 I don't know, but I'll get back to you

Lucie de Nooij, 11/20/2019

4  **REDACTED**

SEO visibility and PPC click coverage.

REDACTED

REDACTED

Clicks corrected for coverage or visibility.

REDACTED

Estimate of financial impact if SEO had grown proportional to visibility.

REDACTED

Event study.

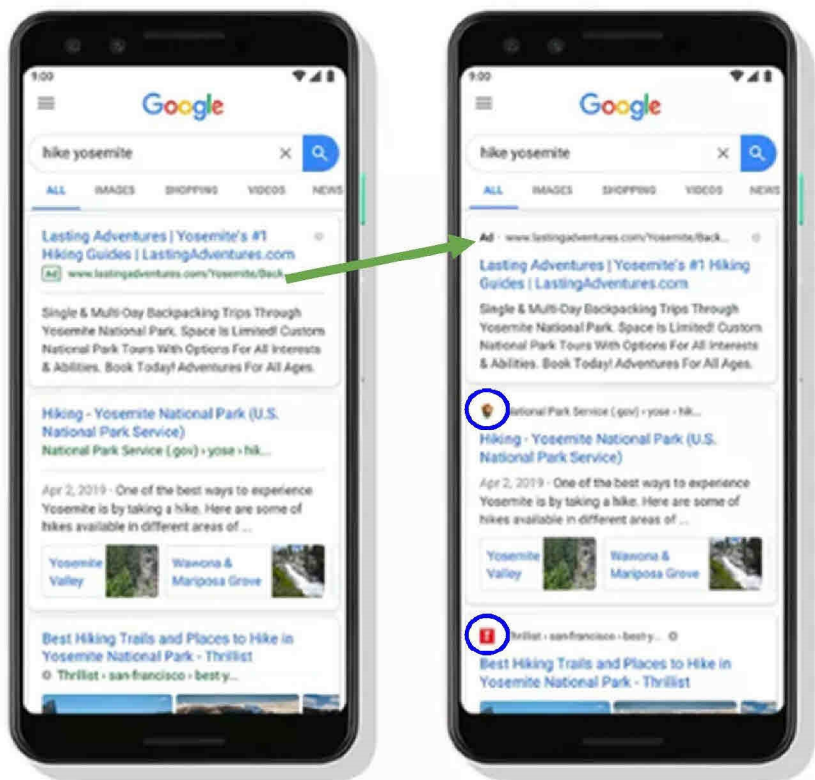
Context

- On May 22nd 2019 Google introduced a mayor design update on mobile
- Booking.com noticed a considerable increase in click through rate on PPC and a decrease for free clicks as a result

Data and Results

- The drop in SEO Year on Year growth is visible by eye
- The fraction of free clicks Booking.com acquires from Google decreased by **REDACTED** almost over night
- The SEO Year on Year growth rate decreased by **REDACTED**
- Effect is not seen when examining desktop only

Deep dive into one of Google's design updates: May 22, 2019.



Google updated the mobile search design:

- Color of the adword marker changed from green
- Included a **favicon** to highlight to the advertiser's brand

REDACTED

Slide 22

5

+lucie.denooij@booking.com - is it possible to have SEO brand and SEO Non-brand broken out here as well?

Assigned to Lucie de Nooij

Mark Potton, 11/20/2019

REDACTED

4
REDACTED

6

[REDACTED]

■

[REDACTED]

Fraction of free Google clicks - all traffic.

REDACTED

Fraction of free Google clicks - mobile traffic.

REDACTED

Fraction of free Google clicks - desktop traffic.

REDACTED

Paid Search (PPC) Mobile Click-Through Rate.

REDACTED

Slide 28

- 7 Should this be non-brand? Or all CTR not just for one language?
Not sure Booking Name is the best account ton use
Mark Potton, 11/25/2019
- 5 +rafael.mourao@booking.com, can you have a look at Mark's comment?
Lucie de Nooij, 11/4/2019
- 1 On it. The ideal would be to have
keywords that are always on top, that's why I used Booking Name. I'll check aggregated CTR and other keywords.
Rafael Mourao, 11/5/2019
- 2 I replaced it with our top position CTR (for exact keywords in the first position for the day). Let me know if that's better? +justin.rao@booking.com
Rafael Mourao, 11/18/2019
- 8 Looks much better. It may also be good to show YoY plots as well to really highlight the change
Mark Potton, 11/20/2019
- 1 Hi Mark, we only have data device stats dating back from 2018-01, so YoY will start in 2019-01, like here:

<https://paste.booking.com/data/images/4/4iabqu.png>

If this is fine we can add it as another slide.
Jeroen Hofman, 11/25/2019

Financial impact of May 22nd update.

REDACTED

Conclusion.

Context

- Google has consistently introduced changes to the Search Results Page that give paid placements (PPC ads and Google Hotel Ads) more visually prominence and screen real estate, displacing organic (SEO) content
- Given Google's dominant position in search, this conduct is potentially anti-competitive

Analysis

- Using combined data from Google PPC ads, Google Hotel Ads and Google SEO, we estimated the financial impact of the overall trend and of one specific update

Conclusion

- From 2015-to-date, Google's optimization of the search results page towards paid placements costs Booking.com an estimated **REDACTED** in 2019
- When we account for our (relatively speaking) improved visibility within the organic ranking, our estimate increases by almost **REDACTED**
- The event study we conduct shows clear evidence of a strong mix shift from free to paid on the exact date of a recent change in the visual appearance of search ads
 - ▶ We estimate Booking.com lost **REDACTED** commission in two months as a result of this one design change.



Thank you

For questions reach out to meta-insights@booking.com

Booking.com