## United States \& Co-Plaintiff States v. Google LLC

Plaintiffs' Closing Statement

## Power

## Privacy

## Google Rejected Incognito Search

Dr. Prabhakar
Raghavan
SVP, Knowledge \& Information Products
Q. ...[A]nd that proposal, had it been enacted, would have offered users an option for searching where Google would anonymize the user's data and never log it, right?
A. Correct.
Q. And Google never adopted that proposal, correct?
A. Correct.
Q. And one of the concerns was if Google adopted that proposal, users would pick it and Google would lose billions of dollars in revenue, correct?
A. That was only one of the concerns, yes.

## REDACTED FOR PUBLIC FILING

## Decisions Without Competitive Pressure

## C 2019

##  <br> 


Ben-
time, or will mherialy change the outtome Let me try gain





quality work?




teat other. It tink there werc tro



 Oierall. I Ithink we mostly agree the riviva, sensitive cearch spot is an in
 enviromment and what we should do form both a product and marketing erespective.

ben
ben
"I disagree with a methodology that consists of conflating 'people care increasingly about privacy'. . . then concluding that this needs a product change."

## "Google Does Not Respect Your Privacy"

## Apple's Take

"[T]he implication of recommending DuckDuckGo when customers choose private browsing is that Google does not respect your privacy, which while true would certainly be a public slap in the face."

## Monopoly Maintenance

## What Google Did...

## Google Has Monopoly Power In The U.S. General Search Services Market

A. Google Has Monopoly Power In General Search

## B. General Search Is A Relevant Market

## Monopoly Power: Direct Evidence

## Rivals Not Considered

" $[T]$ he company set the price of Windows without considering rivals' prices, . . . something a firm without a monopoly would have been unable to do."

United States v. Microsoft, 253 F.3d 34, 57-58 (D.C. Cir. 2001)
"In analyzing potential changes to its Search product, Google considers the needs of users. Google recognizes that it exists in a competitive landscape and if it does not satisfy users' information needs, users will access information from myriad other search providers (general or otherwise). Google does not, however, consider whether users will go to other specific search providers (general or otherwise) if it introduces a change to its Search product."

## Headroom Shows Monopoly Power

A. . . . So the idea that we can infer they had a precise estimate, I think is incorrect, because the deals they were doing weren't conditional on that number being exactly right or even close to right, right? In other words, there's a lot of headroom between those numbers and what the deal they were doing. . . .

## Users Lack Alternatives

## 2020

Connect Search Quality Improvements to Growth

Living doc, last updated in July, 2020

## "In other words, 1 IS point = of Search revenue exTAC (Traffic Acquisition Cost)."

## Users Preferences Ignored

2019

$$
\begin{aligned}
& \text { 70\% indefinite? } 30 \% \text { finite } \\
& \text { dete }
\end{aligned}
$$

$10 \%$ indefinite $90 \%$ finite


"How long do you want Google to store this data?"
Never: 17\%
1 day to 1 month: $32 \%$
2 months to 1 year: $25 \%$

Jennifer Fitzpatrick
SVP, Core System \& Experiences
A. ... And 18 months was greater than one year and kind of a round number. We played with 13 months, but it just felt like a really weird number. 18 months just felt a little -- you know, it felt a little better. And, so, that became the default . . . .

# Monopoly Power: <br> Indirect Evidence 

## Monopoly Market Share



## Monopoly Power Durable

StatCounter General Search Engine Shares, 2009-2020


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## Even Greater Mobile Dominance



## 98\%

Mobile Query Share
84\%
Desktop Query Share

# Monopoly Power: Barriers to Entry 

## Entry Not Fundable

## Redacted

"[T]he reason a better search engine has not appeared is that it's not a VC fundable proposition even though it's a lucrative business."

## John Giannandrea

Apple Chief, Machine Learning \& AI Strategy;
Former Google Head of Search \& AI
A. . . [A] startup could not raise enough money, in my opinion, to build a very good, large-scale search engine.
Q. You believed that in 2018 ?
A. I did.
Q. And you still believe that?
A. Ido.

## Market Participants Agree

## John Giannandrea

Apple Chief, Machine Learning \& AI Strategy; Former Google Head of Search \& AI
Q. And the "so few contenders" -- "serious contenders" is because of the cost and complexity of the general search engine problem?
A. In my opinion, to build a competitive project is very expensive.

Presentation re: "Seven Deadly Sins of Tech" by Hal Varian

General purpose search is a tough business.

IG
Sridhar Ramaswamy
Former Neeva CEO \& Founder;
Former Google SVP, Ads \& Commerce
A. . . . We did our own crawl, we did our own search index. These are things that most even -- like I would say most good engineers would basically give up on before they start, because it is a Herculean problem.

Tr. Testimony

Dr. Mark Israel
Google Expert, Compass Lexecon
Q. Okay. And so -- and Google invests billions of dollars in building its index and crawling the web, right?
A. Right, and makes substantial revenue doing so on the queries that it monetizes.

## High Barriers To Entry

- Complexity and cost (crawling, indexing, ranking, serving)
- Acquiring necessary scale
- Brand recognition and consumer loyalty
- Google's control of search access points through exclusive distribution contracts
- Google's control of the default on Chrome


## Google Has Monopoly Power In The U.S. General Search Services Market

A. Google Has Monopoly Power In General Search
B. General Search Is A Relevant Market

## Search The Web

Q. Let's start with what a -- briefly what a general search engine is.
A. A general search engine is a tool that you use to search the worldwide web using queries.

## Giannandrea

Apple Chief, Machine
Learning \& Al Strategy;
Former Google Head of Search \& AI
Q. Okay. And general search engines help users find content on the web?
A. Yes, that's their main function.

# Google's Ordinary-Course Analyses Show That SVPs Are Not In The Market 

## SVPs Are Complements

## Executive Summary

- We have found no evidence of short-term negative per-user revenue impact (or a negative query volume user becoming an online retail loyalty programmember or being active on large onine retailers.
- In fact engagementon large online retailers and querying on G.com are positively correlated- we have observed that loyalty program members and regular shoppers at large online retailers have higher query onine retailers are known to be very strong in like Computers \& Consumer Electronics).
- Naturally these users are subsequently more active on large online retailers' stes, but our analysis evidence of a change in 6. .com query volume when users sign up for loyalty membership. and even see some evidence of an increase in expected $G . c o m$ revenue and engagement when users are active on the retaler's sites.
Keycereats:
 mitations section on Slice 7 .

Google
"We have found no evidence of shortterm negative per-user revenue impact (or a negative query volume impact or a meaningful shift in query volume of 'shoppy' queries away from Google) resulting from a user becoming an online retail loyalty program member or being active on large online retailers."

## SVPs Are Complements

## Executive Summary

- We have found no evidence of shor-t-erm negative per-user revenue impact (or a negative query volume impactor a meaningur shit in query volume or shoppy queres away from soogle) esurung from
In fact. engagement on large online retailers and querying on G.com are positively correlated-we have observed that loyalty program members and regular shoppers at large online retailers have higher query onine retailers are known to be very strong in like Computers \& Consumer Electronics).
- Naturally these users are subsequently more active on large online retailers' stes, but our analysis
 some evidence of an increase in expected $G$.com revenue and engagement when users are active on the retailer's sites.
Keycereats:



Google

Q. And so loyalty members, Amazon Prime members tend to do more searches, not fewer searches on Google.com, right?
A. That's correct.
Q. And that doesn't just apply to Amazon Prime or loyalty members, the same positive correlation exists for regular shoppers of large online marketplaces, right?
A. That's what it says here . . . .

## Project Charlotte

## Executive Summary

- We have found $n \boldsymbol{n}$ evidence of shor-term negative per-user revenve impact (or a negative query volum impact or a meaningtu shift in query volume of "shoppy" queries away from Google) resut ting from

In fact engagement on large online retailers and querying on G.com are positively correlated - we have obsenved that loyaty program members and regular shoppers at arge online retailers have higher query onine retailers are known to be very strong in like Computers \& Consumer Electronics).

- Naturally these users are subsequently more active on large online retailers' stes, but our analysis evidence of a change in 6. .com query volume when users sign up for loyalty membership. and even see some evidence of an increase in expected $G$.com revenue and engagement when users are active on the retailer's sites.
Keycaveats:
 Intations section on Slice 7 .

Google

## Dr. Mark Israel

Google Expert, Compass Lexecon
Q. Were you aware [] of that, sir, that Google had actually done research and concluded that people who spent a lot of time on Amazon did not harm them?
A. I don't recall the full study, if I've studied it. I would have to look at the full study to see what's being compared to what. So I can't agree from what you're showing me on the "does not harm them," but I see the statement.

## Project Charlotte

No evidence of negative impact on G.com from app adoption
: App adopters are ecarelated with increresed revenue and queries on mobile.


- Lit ococurs inmediaiely ater adoppion and continues past 15 months.

Redacted Redacted

## "App adopters are correlated with increased revenue and queries on mobile."

## SVPs Are Complements

App users are more frequent Google Users
As expected, Amazon users are
also more likely to be regular and
frequent Google users. frequent Google users.

Redacted

- Redacted 2+days
nactive one onat monual megular a recouent
A. So I think I would say at that sort of broad level, of everything Amazon and Google do, there are elements of complementarity between them, and the existence of the app[] might help Google. They like that shopping apps[] are there.
"[I]t would be improper to group complementary goods into the same relevant market just because they occasionally substitute for one another. Substitution must be effective to hold the primary good to a price near its costs[.]"

```
FTC v. Sysco Corp., }113\mathrm{ F. Supp. 3d 1, 30-31 (D.D.C. 2015) (cleaned up)
```

"[A] product market is made up of substitute goods, not complements, even going so far as to say that [g]rouping complementary goods into the same market is 'economic nonsense."

## Dr. Israel: No Documents

Q. Okay. There's no documents from Google that validate this analysis; right? You don't have any example where Google themselves have actually looked at this analysis or considered this analysis; right?
A. This is not based on a Google document. It's based on my analysis of the data.
"[W]hile providers of all tax preparation methods may compete at some level, this does not necessarily require that [they] be included in the relevant product market for antitrust purposes."

United States v. $H$ \& R Block, Inc., 833 F. Supp. 2d 36, 54 (D.D.C. 2011)

# Market Definition: Brown Shoe Factors 

"These 'practical indicia' of market boundaries may be viewed as evidentiary proxies for proof of substitutability and cross-elasticities of supply and demand."

United States v. H \& R Block, Inc., 833 F. Supp. 2d 36, 51 (D.D.C. 2011)

## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Contracts Reveal Market Reality

Q. Google said to the OEMs and to the carriers in the agreements it's okay for you to put - we're not going to prohibit you from putting TikTok and Amazon and Facebook, we're not going to prohibit you from putting those on the devices; right?
A. That's what they say.
Q. Right. But they do prohibit and cite exclusivity regarding general search engines?
A. Yes. I mean, I have views on the why, but those aren't opinions I'm offering.

## Google Recognizes General Search



## 84\% 98\%

## Desktop Query Mobile Query Share in U.S. Share in U.S.

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## Industry And Public Recognition

WHY DOES SEARCH BEHAVIOR DIFFER?
MARKET SHARE FOR SEARCH ENGINES IN THE USA... IT ISN'T EVEN CLOSE

SEARCH ENGINE MARKET SHARE (USA) NOV 2018 - NOV 2019


## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Peculiar Characteristics And Uses

"We see no barrier to combining in a single market a number of different products or services where that combination reflects commercial realities."

United States v. Grinnell Corp., 384 U.S. 563, 572 (1966)
"The most distinguishing feature of broadline distribution is its product breadth and diversity. . . . The other distribution channels pale in comparison in terms of product breadth and diversity."
"The fact that a customer might buy a stick of gum at a supermarket or at a convenience store does not mean there is no definable groceries market."

> FTC v. Whole Foods Mkt., Inc., 548 F.3d 1028, 1040 (D.C. Cir. 2008)
"Based on the Court's observations, the Court finds that the unique combination of size, selection, depth and breadth of inventory offered by the superstores distinguishes them from other retailers."

FTC v. Sysco Corp.,
113 F. Supp. 3d 1, 27-28 (D.D.C. 2015)

$$
\begin{array}{r}
\text { FTC v. Staples, Inc., } \\
970 \text { F. Supp. 1066, } 1079 \text { (D.D.C. 1997) }
\end{array}
$$

## One-Stop Shop

A. ... [A] general search engine is a place that you go to for the vast majority of your information needs. . . . It's a little bit of a one-stop shop for all information needs. . . .

Dr. Hal Varian Chief Economist
Q. Google answers noncommercial queries because it hopes, at some point, the user will also type in a commercial query and Google can make money off of it?
A. Something of that sort, yes.
Q. Well, exactly, right?
A. Yeah. Okay.

## Peculiar Characteristics And Uses

## Google



People also ask
How far can an Apple AlitTag track?


Artrag is a tracking device developed by Apole Airtag is designed to act os a key finder, which helps people find personal objecte whipecia
Batter type: CR2032 batiely bmenematom no uk Connectivity: Bluetooth LE, UWB, NFC Curent fimmare: 20.36 (2A36) Developer: Apple Menvacturer: Foxconn Mass: 11 g (0.39 oz) Power Creos2 button cell

## Different Experiences Distinguished



Dr. Pandu
Nayak
VP, Search
Q. Do you know if there's been a latency test against Google and TikTok?
A. No, there wouldn't be a latency test because they're very different experiences. So there can't be a latency test --
Q. Do you do IS scores with TikTok?
A. We can't do IS because it's a different experience. . .

## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Unique Facilities

## All the critical elements of a GSE are unique:

- sophisticated crawler designed to build and maintain an index
- a constantly updated index of the entire web
- algorithms to receive unstructured queries and return the best results from the index
- search engine result page with the results from the entire web


## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Users Insensitive To Quality Changes

2021

##  <br> Redacted

WRT the value of our product, specifically search, if Google were to disappear, people would just switch to Bing. If all search engines were to disappear we look like Borge's universal library, but with no card catalog.

Dr. Hal Varian
Chief Economist
Q. This author considered a universal library that had all knowledge but no card catalog --
A. Yes.
Q. -- so there was no way to find anything?
A. Right.
Q. And so the comparison you're making here is if all generalpurpose search engines were to disappear, the world would look like Borges' Universal Library, but with no card catalog, right?
A. Right.

## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Browsers Distribute General Search

## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


# Market Definition: Brown Shoe Factors 

# Market Definition: Hypothetical Monopolist Test 

## Quantitative HMT Not Required

"And so, you know, for me, I looked at many, many alternatives, both when I was looking at the search services side and when I was looking at the ads side and came to the conclusion that those things would not prevent a hypothetical monopolist from exercising considerable market power."


## Dr. Mark Israel

Google Expert
Compass Lexecon
"[It is] more normal than not that [an expert] doesn't do a full quantitative hypothetical monopolist test."

## Agenda

## Google Has Monopoly Power In The U.S. General Search Services Market

## Google's Search Distribution Contracts Have Anticompetitive Effects

## Google Failed To Prove Procompetitive Benefits Outweighing The Anticompetitive Effects

4 Summation

## APPENDIX

## Distinct Customers And Prices



- Google argues that distinct customers and distinct prices undermine a general search services market
- These factors have no use in this action:
- Essentially everyone online uses a GSE
- Search is a zero-price market
- Not every Brown Shoe factor will suggest the right result in every case, and a relevant market can exist even if only some of the factors are present


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## Durable Monopoly Share Tracked

## G 2014



 exch share in Dec.
Iam happy to epport that a of Doc 2013 , we are alle to ere-intoducce Analyicis ss an internal datasosurce we can



Adding Mobilic cracking toour US online panel should begin in the next few weks, and I hope we will have
some pretiminary 4 Hto share with you by end of quanter
Thanks wery much to Remo Stomi and Maketo Udhida for costimuing to provide this data. Plessele te ss know if you haveany questions.
Peny

DEC 2013 INTERNAL US SEARCH SHARE METRICS (pet DIt deta fom NOV 2013)
US Onine Pane Search Session Stare (come-enly, doskhops, ind Mac OS)
年
aroo 6 Tis (no chane)



DEC 2013 INTERNAL US SEARCH SHARE METRICS (pct pts delta from NOV 2013)
US Online Panel Search Session Share (home-only, desktops, incl Mac OS)* Google 76.3\% (+0.3 pct pt)
Bing 13.3\% (+0.2 pct pt)
Yahoo 6.7\% (no change)
*Prior to 10 K expansion sample size. Observed -0.4 pct pt for AOL and -0.1 pot pt for Ask
Adsense U.S. Click Share
Google 78.6\% (-0.5 pct pt)
Bing 11.9\% (+0.7 pct pt)
Yahoo 7.1\% (no change)
Analytics US. Click Share [NEW in Dec!]
Google 80.6\%
Bing 10.6\%
Yahoo 6.6\%

## Past Monopolists Instructive

Global Crude Oil Production
(millions of barrels per year), 1900 to 1909


Global PC Shipments (millions of PCs per year), 1977 to 2000


Long-Distance Calls for US Common Carriers
(millions of calls per year), 1935 to 1982


Exploding Output In User Search Belies Plaintiffs'
Claims of Monopoly Power
User search
output has more than doubled since 2011 .
Output
Output
expansion
expansion
refutes a claim
refutes a claim
power unless
Plaintiffs show
output would have grown even
faster in the butfor world.
Plaintiffs have not done so.


## Brown Shoe Factors

- Industry or public recognition of the market
- The product's peculiar characteristics and uses
- Unique production facilities
- Sensitivity to price or quality changes
- Specialized vendors
- Distinct customers
- Distinct prices


## Industry And Public Recognition

## "[E]vidence of industry or public recognition of the submarket as a separate economic unit matters because we assume that economic actors usually have accurate perceptions of economic realities."

## Gabriel Weinberg

CEO \& Founder
Q. And who does DuckDuckGo consider to be its search engine competitors?
A. Really most of our users switch from Google. So like far and away, we consider Google just our competitor. Other search engines that compete with us are Bing, Yahoo!, Ecosia, and Brave are probably the main ones in the U.S.
Q. Does DuckDuckGo consider vertical search engines such as Amazon to be competitors that users are likely to switch to or from?

## Jon Tinter <br> Corporate VP, Business Development

Q. And thinking about the market today, who are Bing's search competitors?
A. . . . Candidly, when we talk about competition, it's one company, it's Google.
A. No, not really.

## Peculiar Characteristics And Uses

## C 2019



## EU Android Choice Screen

 Criteria"To ensure a good user experience, search providers that wish to participate in the choice screen must satisfy the following requirements:
. . . The search provider must operate a 'general search service.'"

## Unique Facilities



Ramesh
Ramalingam
Former Senior Director, Product Management yahoo!
Q. Okay. How do general search engines differ from vertical search providers?
A. So [a] general search engine would provide answers without any specific restriction to a domain. So it can be anywhere in the Worldwide Web the data is available, it'll show. The vertical one is going to be either focused on a particular domain or particular aspect of vertical, whether it's a travel or restaurants related, yeah.

## Specialized Vendors

## verizon <br> Brian Higgins

Chief Customer Experience Officer

## John Giannandrea

Apple Chief, Machine Learning \& AI Strategy; Former Google Head of Search \& AI
Q. And users, when they put something in the URL bar of Safari, they have an expectation that it's going to go to a general search engine?
A. Yes.

Tr. Testimony
Q. During your time in device marketing, has Verizon ever set a vertical search provider as the default search engine on a device?
A. ... I am not aware of that happening.

## Mitchell Baker

Founder \& Chairwoman
Q. For the Firefox default search engine, is Mozilla looking for a general search engine that responds to all different types of user queries?
A. That is -- yes, that is what we have done.

## REDACTED FOR PUBLIC FILING

## Project Charlotte


"There is a slight correlation of higher Amazon App use to higher G.com frequency. But in general all Amazon App users see high G.com usage."

## Dr. Israel: No Documents

## Dr. Mark Israel

Google Expert,
Compass Lexecon


Professor Whinston's "Gateway" Evidence Fails
Prof. Whinston's Users "one-stop shop" by using GSEs as a "gateway to the general : 77 percent of

0/5/23 (PM) Irial Ir. 4614::11, 23-25 (Whinston)

Bank of America estimated that 25 percent of shopping visits start on Google and 58 percent start on Amazon.

[^0]- 44 slides in his demonstrative that address the user-side market definition
- Only 1 slide references any documents at all
- The 1 document cited is a Bank of America Report that says nothing about search queries


[^0]:    DXD-15.002 (depicting BofA Global Research, Internet/e-Commerce Internet 2020 Year-Ahead Industry Overview, Chart 31)

