

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, ET AL.,)
)
 Plaintiffs,)
)
 vs.) CV No. 20-3010
) Washington, D.C.
) September 8, 2022
) 9:30 a.m.
)
 GOOGLE LLC,)
)
 Defendant.)
)
 _____)

TRANSCRIPT OF
TUTORIAL PRESENTATION PROCEEDINGS
BEFORE THE HONORABLE AMIT P. MEHTA
UNITED STATES DISTRICT JUDGE

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1 PROCEEDINGS

2 COURTRROOM DEPUTY: All rise. Court is in session.
3 The Honorable Amit P. Mehta presiding.

4 THE COURT: Good morning, everyone. Please be
5 seated, everyone.

6 COURTRROOM DEPUTY: Good morning, Your Honor.
7 This is Civil Action 20-3010, the United States of America,
8 et al., versus Google LLC.

9 Kenneth Dintzer for the DOJ Plaintiffs.

10 Jonathan Sallet for the Colorado Plaintiffs.

11 John Schmidtlein on behalf of Google.

12 THE COURT: All right. Good morning, everyone.
13 I had no idea there would be so much interest in a search
14 engine tutorial. I was wrong.

15 All right. Welcome, everybody. It's nice to be
16 with all of you, looking forward to spending the day
17 together.

18 Before we get started, just quickly, have you all
19 discussed structure for the day? I assume the plaintiffs
20 will go first, but I didn't know whether you had discussed
21 amongst yourself the two issues that we had talked about.
22 I think I said I didn't need a rebuttal, but how you all
23 have discussed the day will unfold.

24 MR. SCHMIDTLEIN: I think, Your Honor, obviously
25 it's split. I think the way it's going to work is the

1 plaintiffs will go first. I know they have obviously
2 allocated time between the two groups of plaintiffs.
3 I think that should take us through lunch. And then after
4 lunch, Google would make its presentation, and I think we'll
5 hopefully wrap up at a reasonable hour is the plan.

6 THE COURT: Okay. Terrific.

7 And then does either side, particularly Google,
8 are we going to need to close the courtroom for any --

9 MR. SCHMIDTLEIN: No, Your Honor.

10 THE COURT: -- confidential information?

11 MR. SCHMIDTLEIN: No, I think both sides have met
12 and conferred, and I think -- as I indicated at the last
13 hearing, I think what we've done is we devised a plan
14 whereby certain aspects of slides have been redacted so that
15 the version that is appearing on screens like the one to the
16 gallery will have redacted information.

17 But you will have a version that is unredacted,
18 and counsel on both sides, I think, is going to do their
19 level best to talk you through those slides without
20 revealing or disclosing confidential information.

21 THE COURT: Okay.

22 Mr. Dintzer, good morning.

23 MR. DINTZER: On the former, Your Honor, we
24 understood that in the spirit of the tutorial, that the
25 Court might not give us a rebuttal. And we did have an ask,

1 though, for the Court so it's a level playing field, and
2 that is, since we're not going to be able to comment on
3 their presentation after they go, that their tutorial not
4 comment on our presentation simply because it comes first,
5 and so that would be a level playing field.

6 THE COURT: Okay. I mean, you know, we'll see how
7 it goes. I mean, you know, commenting on the tutorial,
8 they're going to have some disputes on your factual
9 characterizations. Is that a comment on your tutorial or
10 just a different view of the facts? I'm not sure what box
11 that falls in.

12 MR. DINTZER: Respectfully, Your Honor, if they're
13 going to comment on our tutorial, we would appreciate the
14 Court allowing us to set aside some time to comment on their
15 tutorial.

16 THE COURT: We'll see where we are at the end.

17 MR. DINTZER: We appreciate that, Your Honor.

18 And on the second one, the screen will go black
19 when we -- we've handed up the binder, so you should have a
20 binder and a timeline from us. Those are unredacted. Of
21 course, if the Court would like a copy of the redacted as
22 well, we have them.

23 When we get to a redacted slide, the screen will
24 be redacted -- of the redacted one, and we will direct you
25 to the paper slide that has all the information.

1 THE COURT: Okay.

2 MR. DINTZER: And, of course, for those slides,
3 our comments will be a little more cryptic in keeping with
4 that.

5 THE COURT: Okay.

6 MR. DINTZER: With that, Your Honor, we don't have
7 any other preliminary matters.

8 THE COURT: All right. Well, let's get started.

9 So who will be presenting first on behalf of the
10 plaintiffs? Mr. Dintzer.

11 MR. DINTZER: Thank you, Your Honor.

12 And may it please the Court.

13 Your Honor, this case is about defaults on phones,
14 tablets, and computers, and the billions of dollars Google
15 pays to capture those defaults. The phones in our pockets,
16 the laptops in our briefcases, reflect many decisions that
17 are made for us, decisions on how the phone will look and
18 work when we take it out of the box, and those decisions
19 have an enormous effect on which search engines we will use
20 to make our searches.

21 When you buy an Apple phone and take it out of the
22 box, you're looking at a Safari browser. When you type in a
23 search query into Safari, the browser's default will take
24 you directly to Google, and it will send the search there.

25 Google pays billions to be the only search on

1 Apple devices.

2 If your new phone happens to be an Android like
3 the one on the right here, you'll have a Chrome browser, and
4 maybe a Samsung browser on, too. Both of those browsers
5 will default and send your queries to Google.

6 Your Android phone will also come with a search
7 widget, which is that line at the top that looks like a
8 little search line. That's what it's called. It's a
9 widget.

10 And that will be on the Android's home page. If
11 you enter a question there, that will also be sent to
12 Google.

13 Now, perhaps you prefer to search with a search
14 app, which is -- will be on the phone, and the only search
15 app on your new Android phone will be Google's.

16 Google pays more than a billion dollars every year
17 to own all the preset defaults on Android phones.

18 Now, to secure these defaults, Google enters into
19 a series of agreements. On the Apple side, it's called the
20 ISA. And Apple -- and this agreement gives Apple a piece of
21 Google's profits from those defaults. In return, Google
22 gets default exclusivity.

23 On the Android side, there are three interlocking
24 agreements. There's the AFA, which gives Google control of
25 the phone's design, and they recently renamed it the ACC,

1 but for simplicity, I'm just going to refer to it as the
2 AFA, which I know at least some of them are still out there.

3 THE COURT: That's the anti-forking agreements?

4 MR. DINTZER: It is, Your Honor.

5 The second one is the MADA, which ensures that
6 Google has apps and the widget on the phone and good
7 placement for those.

8 And, finally, the RSA, where Google pays for
9 default exclusivity.

10 Google's partners on the Android side are phone
11 makers, who are called OEMs, and cell phone companies who
12 are called MNOs, although I just may refer to them as phone
13 companies, but those are the cell phone companies.

14 Now, we're here because search defaults matter.

15 THE COURT: Can I ask a quick question?

16 MR. DINTZER: Sure.

17 THE COURT: In terms of the search engine app that
18 you said that comes on Android devices that's only Google on
19 the home screen, is there -- I assume there's a Google Play
20 app on the Android devices as well.

21 MR. DINTZER: The Play Store, yes, Your Honor.

22 THE COURT: And are other search engine apps
23 available through the Google Play Store like Bing and
24 DuckDuckGo?

25 MR. DINTZER: They are, Your Honor.

1 THE COURT: Okay.

2 MR. DINTZER: So search defaults matter because
3 most people stick with defaults. Search defaults are
4 important because it protects Google's search monopoly from
5 rivals. And search defaults are valuable because every
6 search is an opportunity for Google to obtain user data and
7 show the users ads.

8 Now, on the data side, the data is the secret
9 ingredient that makes reliable search possible. Google has
10 more data than any rival, and this data gives Google an
11 insurmountable strategic advantage, both on the search side
12 and on the ad side.

13 Now, on the search seed, search advertising is
14 uniquely useful and profitable type of advertising. Search
15 ad profits make Google one of the wealthiest, most
16 profitable companies in the world. Google uses a portion of
17 those profits through the RSAs to lock in default
18 exclusivity so the circle continues.

19 Today we will provide the factual and technical
20 underpinnings for these boxes and how they relate to each
21 other.

22 So turning to our presentation, Your Honor,
23 we will discuss the search industry generally before turning
24 to how search engines work and explain why data is crucial
25 to search engines.

1 Next I'll discuss Google's distribution and
2 contracting practices and how their contracts provide
3 exclusivity, which is at the center of our complaint.

4 Then I'll hand the podium to my colleague,
5 Mr. Severt. He'll discuss how the advertising works on
6 search engines like Google and how Google makes money on
7 search products.

8 To frame our presentation, I'll take just a minute
9 to remind the Court of what we've alleged in our complaint.
10 We allege three antitrust markets with Google's monopoly
11 power in each. The markets are general search, general
12 search text advertising, and search advertising. We allege
13 that the U.S. is the relevant geographic market so
14 everything I say today will be about Google's efforts in the
15 United States unless I indicate otherwise.

16 We allege that Google locks up distribution
17 markets for these services with a series of contracts and we
18 alleged and explained how those contracts have harmed users
19 and advertisers where they do this in competition.

20 And with that, I'll begin an overview of the
21 general search industry. Now, we've organized this tutorial
22 presentation, respectfully, Your Honor, in the hopes of
23 predicting some of the Court's questions. But, of course,
24 we welcome any of the Court's questions as we go along.

25 So we start with a timeline to begin at the

1 beginning. Worldwide web was created in the late '80s. The
2 first browser showed up in 1990. Yahoo!, AltaVista, and Ask
3 Jeeves in the mid-90s. And these are at least the most
4 significant of the general search engines, there were
5 others.

6 By 1998, Google and Microsoft had entered the
7 field, and by 2003, Google had greater than 30 percent
8 search market -- of the search market.

9 I'll fill this out a bit more as we go along, but
10 with that beginning, we turn to the first question, which
11 is, What is general search?

12 And sometimes, Your Honor, it seems like magic,
13 you type in words and hit the enter key and you get links
14 from documents and websites from all over the world. And
15 everyone in this courtroom knows how to search on the
16 Internet, we all do it as a matter of habit.

17 So we start with this question, What is general
18 search, to define the terms and use it as a jumping off
19 point to discuss how it works and find that the magic often
20 comes from user data.

21 So what is general search? Broadly speaking,
22 general search is a gateway, web pages and other content on
23 the Internet, and technically, general search is a process
24 of retrieving information facilitated by hardware and
25 software.

1 Now, general search engines like Google and Bing
2 and DuckDuckGo, they're one-stop shops. They're capable of
3 answering all types of queries. And I'll contrast that with
4 specialized search engines, which are also known as
5 verticals, which are generally focused on one field, sort of
6 stovepipe.

7 The general search engines reduce the mental cost
8 and time of selecting and accessing information trying to
9 figure out where to ask your query.

10 Starting searches on a general search engine opens
11 us up to a huge range of answers from a huge range of
12 sources. And I'm not speaking hypothetically. We all do
13 this for a wide variety of research. We all start most of
14 that on general search engines.

15 And one reason is that they're habit forming to
16 start there. They're easy to access on phones, tablets and
17 computer browsers, and that feeds the habit, which is why
18 one-stop aspect of general search engines make them unique.

19 Now, a few years back, my wife and I were planning
20 a trip to Japan and I'd never been and we needed a great
21 deal of information. We knew we wanted to stay at hotels
22 and inns, see some sports, visit lots of temples and maybe
23 even climb Mount Fuji. We also wanted to hit less touristy
24 spots, some out-of-the-way locations.

25 So I researched all of those items and more when

1 planning the trip, and the search journey for each of them
2 began on a general search engine. Most of those efforts led
3 to websites with information or blogs, for example, learning
4 about ryokans or whether we needed a Japan rail pass. Some
5 of the searches led to search verticals; sites where I could
6 do more searching.

7 THE COURT: Search what?

8 MR. DINTZER: Search verticals.

9 And a search vertical is simply a site where you
10 can do more searching. So if it led to Expedia --

11 THE COURT: Right.

12 MR. DINTZER: -- so you could search about
13 airlines or if it led to Amazon to look for a suitcase.

14 THE COURT: Mr. Dintzer, are you going to tell us
15 which search engine you used?

16 Sorry.

17 MR. DINTZER: I will say with absolute confidence,
18 it was a few years back, that I used them both, but some
19 searches, the reason --

20 MR. SCHMIDTLEIN: Your Honor, I'm going to seek
21 leave to take Mr. Dintzer's deposition.

22 MR. DINTZER: Some searches had no verticals at
23 all, such as Japan rail pass versus a daily ticket, and
24 general search providers offer the one-stop shopping for
25 these types of queries.

1 So we get to the point of a query. As the Court
2 knows, general search begins with a query, and of course, we
3 can type anything we want to into the search line. It
4 doesn't have to be a question, it may just be a few cryptic
5 words like "visiting Japan."

6 Search engine's queries --

7 THE COURT: Can I interrupt you for a moment?

8 MR. DINTZER: Of course.

9 THE COURT: So I have a firm sense of this in my
10 mind, before we get too far along, and this will reveal my,
11 perhaps, lack of full understanding and some ignorance, can
12 you precisely explain the difference between a web browser
13 and a search engine.

14 MR. DINTZER: Of course, Your Honor.

15 So a web browser is a software device that allows
16 you to travel the Internet, and if you go back a few years
17 when the distinction between them was a lot clearer, you
18 would have to type, in the top of the web browser, a URL,
19 basically the exact name of the site that you wanted to go
20 to. So www.IBM.com, if you wanted to go there, the browser
21 would take you to IBM's website.

22 Over -- a search engine, general search engine, is
23 a place where you type in "IBM," it will give you a bunch of
24 blue links and you can click on one of those, and some of
25 those links are navigation, which means that they will take

1 you directly to IBM, and for something like IBM, that's
2 usually the link right at the top. It will just take you
3 directly there.

4 What's happened over time is that this line that
5 you see on the screen has been merged with that URL line at
6 the top, and so it seems like there's not a distinction
7 between the browser and the search engine, but there
8 genuinely is.

9 You could be on a Chrome browser, and if you take
10 that out when it's downloaded or out of the box, that will
11 default to Google. But that could be changed. For most of
12 the browsers -- and I'll talk a little bit more about the
13 browsers in a bit -- the default can be changed, it's just a
14 question of whether people do it or not.

15 But that's the distinction. You can use the
16 browser for a lot of other things, but it seems like we do
17 most of it through search these days.

18 THE COURT: Yeah, I was going to ask to the
19 extent, what -- is there any direct way to then use the
20 browser other than what you suggested, which is typing in
21 the URL? Because even now it seems that when I'm typing in
22 a URL, it's directly into the search engine itself.

23 MR. DINTZER: It is my understanding that if the
24 browser identifies a URL, especially if you start with www,
25 it will take you directly there, and it should, and not

1 default you to the search engine. Everybody in the
2 courtroom can try this and see if I'm right.

3 But it is my understanding, and I believe my
4 personal experience, that it does that. If it doesn't
5 detect an actual URL, so if there's not a .com or there's
6 not a www, then all the browsers at this point, I believe,
7 default to general search engines.

8 THE COURT: Okay. Thank you.

9 MR. DINTZER: So queries can be generally grouped
10 into thirds. A third of them are head queries, a third
11 torso and a third tail. And these classifications matter
12 because it tells us how hard those queries are for search
13 engines to answer and respond.

14 So this chart here on the vertical axis shows
15 how often a given query shows up. And we can see that
16 there's substantial duplication in the head queries. These
17 are ones that come out rather frequently and they're the
18 easiest for search engines to answer.

19 These could be just words like Facebook.
20 So if you just type in "Facebook," that would be basically a
21 navigational query, the head query. The search engines all
22 see that all the time, and it's relatively easy. The first
23 link will most likely be to Facebook.com.

24 The torso queries are a bit less frequent.

25 THE COURT: Does one define a head query by any

1 particular parameters or just by frequency of use of a term?

2 MR. DINTZER: We've heard the term used slightly
3 differently by people. The easiest way to think of it is
4 the easiest third of all queries can be grouped as head
5 queries. I'm sure someone else could come up with others,
6 but the general gist of it is that they are ones that are
7 frequently seen and relatively easy to answer. A lot of
8 them, like weather. So it may not even be just a website,
9 but it's just one word that the general search engines see
10 all the time.

11 THE COURT: Okay.

12 MR. DINTZER: Tail queries are different -- there
13 are many, many different ones, which is why you see this
14 tail of -- there's a whole bunch of them, and they come up
15 very infrequently. As a grouping, they are a third of all
16 queries, but some of them are unique.

17 In fact, I believe it's greater than 15 percent of
18 all queries are ones that have never been seen before,
19 sometimes because of spelling errors and sometimes for other
20 reasons; but they are -- for whatever reason, they're
21 unique, and the general search engine has to figure out what
22 to deal with them.

23 Those are the hardest ones for a general search
24 engine to answer. And we'll come back, when we discuss how
25 the general search engines work, to show why user data is so

1 important, especially with those.

2 So --

3 THE COURT: I'm sorry, I think you skipped over
4 torso, because I interrupted you.

5 MR. DINTZER: Oh, that's fine, Your Honor.

6 Torsos are basically the middle. And, in fact, if
7 you take a look at this next slide, this may help out.

8 So for my trip, you know, when I was ready to book
9 my ticket, I went -- I put in United Airlines. I didn't put
10 in the URL because I'm lazy, and so I just put in -- and
11 I can never remember if it's UAL or whatever, so I just put
12 in United Airlines. That's a head query. And so I'm also
13 certain I got the blue link, and I just clicked on that and
14 it took me to directly to United.

15 A torso one, train schedule from Tokyo to Kyoto,
16 can be something that the search engine probably has seen
17 before. Maybe not every day or every week but something
18 that people routinely ask even in English, which is the
19 language I was searching in.

20 A tail query might be something like ramen
21 restaurant in Hakone, Japan with red awning, something
22 that -- and especially in English that the search engine may
23 never have seen before, maybe just once or twice, depending
24 on how remote it is.

25 And with the tails especially, that's sort of one

1 way of judging how good results are on a general search
2 engine.

3 While considering the different type of searches,
4 we should also consider what device you're searching from.
5 Users conduct different types of searches on different
6 devices.

7 For example, I purchased my tickets on a desktop
8 because it's a bigger screen, and, quite honestly, I'm
9 afraid of making a mistake by trying to do it on a phone.
10 And so more complicated things, queries are often given on
11 desktops.

12 Whereas, so for my flight, I did that, but when I
13 came back, if I wanted to find a ramen restaurant, you know,
14 in my neighborhood, I would most likely use a phone and I
15 could type in "ramen near me."

16 THE COURT: And is that -- what you said, the more
17 complicated queries are often done on desktops, is that
18 proven up by data or is that --

19 MR. DINTZER: Yes, that is the experience --

20 THE COURT: Okay.

21 MR. DINTZER: -- that people tend to do more
22 complicated and also more non-location oriented queries. So
23 your phone, they call them near me inquiries, but basically
24 they're are lot more sort of what's a restaurant near me.

25 THE COURT: Right.

1 MR. DINTZER: They're going to get those on the
2 mobile phones as opposed to a desktop. I mean, you might do
3 that, but it's just the mix tends to be different on a phone
4 as opposed to -- and the way that they are answered and
5 responded to, especially the near me, special efforts and
6 information, which we will get to, but in just talking about
7 queries, this is one other way we can think of two types of
8 queries, the desktop versus the mobile.

9 And I will note Google's particularly good at
10 answering the near me inquiries because their mobile market
11 share gives them an advantage in that area.

12 So we've entered our query and we've ended up on
13 the search engine result page, or SERP, which is what -- the
14 term we're going to be using basically from now until the
15 end of trial.

16 This SERP is basic -- is simply the blue links
17 that we get. These are organic results. That's the term
18 that is used for nonpaid results that we can click on and
19 well take us away from the SERP and take us to some
20 third-party's website. So if I put in "visiting Japan," the
21 first link is to the USEmbassy.gov, you click on that, it
22 will take you off the SERP to, presumably, the embassy's
23 website.

24 To go from query to SERP, there is a complex
25 infrastructure of algorithms, including artificial

1 intelligence and machine learning.

2 Now, the SERP may also have advertising, as shown
3 here. Google started query-related advertising in 2000,
4 which means the ads are related to the query that you put
5 in. Our best estimate, and this is something that the
6 documents seem to differ on, is about 25 percent of the
7 SERPs include advertising for Google.

8 Ads are shown when my query suggests a commercial
9 intent. So if what I'm typing in, if I'm asking for
10 Rommel's, you know, second lieutenant, it probably won't
11 have any ads there because it's not showing I'm really
12 interested in buying anything. Whereas, if you put in
13 something, you know, "best idea for a new backpack," that
14 will show some commercial intent, that will almost
15 definitely come up with advertising.

16 So it raises the question, Why bother showing
17 pages without ads given that the ads are how Google and Bing
18 monetize their search product.

19 And the first answer is is that all queries
20 generate -- as long as they're clicked on -- user data, so
21 that's always valuable.

22 But more broadly, we're creatures of habit,
23 Your Honor, so if a general search engine has answered my
24 question about Japanese temples, it has no commercial
25 intent. It's likely I'm going to go back when I want to ask

1 about that backpack. And so they offer one with the idea
2 that I'll come back for the other, and we do that, which is
3 how they work.

4 So with that as a starting point, Your Honor, we
5 ask -- we look at the questions -- the question, What are
6 the dimensions of quality in general search?

7 Now, general search engines are evaluated across a
8 number of dimensions. The relevance and quality of the
9 results and the ads is certainly important, but so is
10 privacy and how the users' data is protected and used.

11 Another element is latency. Latency is the time,
12 Your Honor, from when you hit enter on a search query and
13 when you get your results. The longer that time, the more
14 that people get frustrated, and so that's an element of
15 quality for general search engines.

16 THE COURT: And is there a -- on that topic, and
17 maybe you'll get into this in a little bit, but is there
18 real genuine material difference among the search engines
19 when it comes to latency? I mean, it seems like any search
20 engine you use, once you put in the query, the results
21 should pop up almost instantaneously.

22 MR. DINTZER: The answer is, Your Honor, that --
23 there's two parts to that answer. The first part is that
24 your latency can be affected by other things, like cell
25 phone reception. So there's -- putting all that aside.

1 The general search engines push on latency, and
2 sometimes they do better than others. So it's not a set
3 number, but there is a range of acceptable latency in the
4 view of the search engines, and then if it takes longer than
5 a certain amount of time, they recognize the users will get
6 frustrated.

7 And so that's something that -- and latency, I
8 mean, just to get one more level of -- one of the factors
9 that affects latency is whether the general search engines
10 have places with their servers close, reasonably close. If
11 you're searching from Maine and the closest server was in
12 Los Angeles, that would affect latency. So their physical
13 build-out will affect latency as well.

14 Another of the elements here, Your Honor, is
15 freshness, and freshness is how fresh are the documents that
16 it's identifying and sending me to. And the links, are the
17 links broken, are the links -- but even more importantly,
18 are they -- is the search that I'm doing and finding
19 consistent with the document that's been there, and we'll
20 talk about how that -- how freshness is preserved.

21 Safety is another search quality, how much spam or
22 fraud is on the websites I see.

23 And finally, device optimization. Websites can be
24 optimized for desktops or phones, and one of the questions
25 is is, How good is the general search engine at plucking out

1 a website that is -- that fits the format that I'm searching
2 in.

3 And there are many others as well, but these are
4 some of the ways that we could expect -- in a competitive
5 environment, we would expect Google and its competitive
6 rivals to compete again across these axes.

7 So this is the timeline that we were talking
8 about, and I mentioned privacy. Recognizing an interest in
9 privacy, in 2008, DuckDuckGo entered the search market with
10 a specific focus on privacy, which brings us to the
11 question, Who provides general search in the United States.

12 THE COURT: And can you just elaborate, what do
13 you mean by that?

14 MR. DINTZER: I'm sorry, Your Honor?

15 THE COURT: What do you mean by a specific focus
16 on privacy? I mean, I have a general understanding that
17 that -- sorry -- that that search engine does less, for lack
18 of a better term, sort of saving and recording of the search
19 queries than Google and, perhaps, Bing do.

20 MR. DINTZER: That is DuckDuckGo's -- that is --
21 the way that they communicate with the public is that they
22 say, We gather -- we don't gather your information, we -- or
23 a very small amount. We don't use it for ads, and more
24 generally, we don't sell it. And so their forward-facing
25 position is one of a GSE that preserves user privacy in a

1 way that certainly is not defaulted by the other general
2 search engines and may not be available from the other
3 general search engines.

4 THE COURT: So how does -- to the extent you can
5 share this. So DuckDuckGo, presumably, I mean, they do
6 advertise, right? They --

7 MR. DINTZER: They do have ads, yes, Your Honor.

8 THE COURT: So how do -- what's -- how is their
9 approach different? I mean, if they're collecting less user
10 data, how is their approach to targeting ads different than
11 Google's, to the extent it is?

12 MR. DINTZER: You know, I don't know, Your Honor.
13 Mr. Severt is going to be addressing ads, and we'll do our
14 best to make sure that that's part of his presentation.

15 So who provides general search in the
16 United States? And there are two types of general search
17 engines. There's independents and there's syndicated. The
18 independents develop software for search engines, they
19 explore the web, they provide responses to queries. It is
20 extremely expensive and complicated to run a general search
21 engines, soup to nuts.

22 Syndicated search engines purchase some or all of
23 their responses from the independents.

24 Now, the cost of developing a syndicated search
25 engine is, of course, much lower, but from a competition

1 perspective, syndicators are less significant than the
2 independents for the simple reason that they're not
3 competing on search engine quality because they're not
4 developing their own search engines, so there's no
5 competition to make the search better, they're not
6 participating in that, at least the back end of the search
7 better.

8 Years ago, Yahoo! was an independent search
9 engine. In 2009, Yahoo! entered a syndication deal with
10 Microsoft. And in that same year, in 2009, Google's market,
11 search market share was -- it continued to be over
12 80 percent.

13 By 2010, Yahoo! had exited as an independent and
14 began syndicating all the results from Microsoft.

15 On that same year, Ask.com, which had previously
16 been independent, started syndicating their results, too.
17 They choose Google.

18 THE COURT: And would the general idea be that
19 that decision was made because the cost of maintaining a
20 search engine was greater than purchasing of the data?

21 MR. DINTZER: Well, there's no question,
22 Your Honor, that purchasing the data as a syndicate is
23 significantly cheaper and less complicated.

24 The decision to leave independent search, I would
25 say, is most likely connected both to the costs but also to

1 the profitability that they were finding.

2 And we'll get to the point later with the question
3 of scale. Data is important. And if you don't have enough
4 scale to feed your general search engine to teach it --
5 we'll get into this -- then it's hard to keep up with
6 Google, it's impossible.

7 And so at some point, if you can't manage the
8 scale, then you get out of the kitchen. And so I don't want
9 to put words in -- I mean, these are a lot of different
10 companies, but certainly that is part of the calculus.

11 In 2013, AltaVista exited the market. And in
12 2021, there were three new entrants, Neeva, Brave and You,
13 spelled Y-O-U. So those are three new brand-new entrants
14 just in the past near. Obviously they're on the small side.

15 So where does that leave us, Your Honor? The
16 independent general search services, the ones that search --
17 that go into the web and develop their own search software
18 are Google, Bing, and -- and Brave is a new entrant, to a
19 lesser extent, but they also are independent. All the rest
20 that are shown here are syndicated searches; they get
21 their -- theirs from one of the independents.

22 Now, the next slide, Your Honor, is redacted. We
23 direct you to page 27 in your slide deck. And what this
24 shows is market shares in 2020 amongst the largest general
25 search engines, Google, Bing, Yahoo! and DuckDuckGo.

1 The pie chart is based on data from the general
2 search engines, and Google's market share can be seen there
3 in red, and Bing's can be seen there in blue.

4 THE COURT: Let me just ask, the revenue model for
5 these other search engines, the one that I am somewhat
6 familiar with, which is Neeva, which I understand is a
7 payment based, it's a -- the word I'm looking for.

8 MR. DINTZER: It's pay for -- it's a pay --

9 MR. SCHMIDTLEIN: Subscription.

10 THE COURT: Subscription, that's the word I'm
11 looking for. It's a subscription-based model --

12 MR. DINTZER: Yes, Your Honor.

13 THE COURT: -- and not based on advertising. How
14 about the others?

15 MR. DINTZER: So the only one -- well, let me talk
16 about Neeva for just a second. Neeva has two tiers, as
17 I understand it. They have a free tier and a subscription
18 tier. And all the rest are advertising based, as
19 I understand it.

20 Bing has a funky feature where they actually offer
21 like frequent flyer miles, they actually -- so they actually
22 will compensate users for their searches. They monitor --
23 so they -- their model is -- for people who sign up -- is to
24 actually -- they send the money in the opposite direction as
25 well, but all the rest have -- all of them have advertising

1 as part of it.

2 So we've talked about what is a general search
3 engine. And in considering the market that we've
4 articulated, we think it will be helpful to consider what is
5 not in the market.

6 And the first set are specialized or vertical
7 providers, they're not general search engines. And the
8 verticals are named because their areas stovepipe. They
9 include verticals for travel and restaurants and retail and
10 social networks.

11 Search verticals are not one-stop shopping. For
12 my Japan trip, travel verticals didn't have links to things
13 like sumo schedules or blogs where people discuss their
14 appearances at ryokans.

15 Amazon is not a general search engine. You can't
16 go on Amazon and learn about Japanese baseball teams. And
17 Facebook is not a general search engine. You can search for
18 people there, but it's not a one-stop shop and it's not the
19 place we would go to do that kind of informational
20 searching.

21 THE COURT: And I take it these verticals, their
22 search engines are -- what they end up searching is their
23 own reservoir of data?

24 MR. DINTZER: Yes, Your Honor, that's exactly
25 right.

1 Sometimes they're referred to as closed gardens or
2 walled-off gardens; they have their own place.

3 Now, the next slide, Your Honor, is redacted.
4 It's Slide No. 30, and most verticals -- and the point we're
5 making here is that most verticals advertise on general
6 search engines because most people being their search
7 journey on general search engines, even if they end up on a
8 vertical.

9 So the four items that we have here, those are
10 Google's top four advertisers in 2020, and they're
11 verticals. And the ones that are listed as No. 1 and 3
12 routinely are the company's largest advertisers.

13 And it's similar with Bing. In 2020, three of
14 their top four advertisers were verticals as well.

15 So the second item here, Your Honor, is voice
16 assistance. Voice assistants are not general search
17 engines. That's Alexa and Siri. Most of their
18 functionality is directed at tasks like playing music or
19 turning lights on or setting calendars.

20 Voice assistants are mostly -- also, voice
21 assistants mostly respond verbally. You don't end up with a
22 SERP, so there's no selection of, Okay, I'll click on this
23 one, it sounds like the closest thing I have, they just give
24 an audio answer. So these are not general search engines.

25 And, finally, there are some services which

1 actually search the device itself. Example, they may search
2 a user's email or texts, or they search for files that are
3 saved on the device or even search apps that are loaded on
4 in the device. But they are not general search engines
5 either.

6 This is a summary of product markets. Their top
7 column is labeled "Products." This was developed by Google,
8 and Google's chief economist, Professor Varian, used this in
9 presentations and articles from 2016 to 2020. It shows
10 Google tracking the largest tech companies and the products
11 they offer. And it specifically identifies general-purpose
12 search engines as a specific product, and it shows that only
13 Google and Microsoft participate in that product. And the
14 yellow line is ours, I believe.

15 I'll note that Apple and Amazon, although listed
16 at the top, are not checked for general-purpose search
17 engines, and they don't even identify -- so below that line
18 is special-purpose search engines, those would be verticals,
19 and they don't even identify Facebook as a vertical on this.

20 So the document also lists digital assistants and
21 social networks as different products separate from general
22 search engines.

23 Is general search free? Seems like an obvious
24 question. So there are different business models exist for
25 general search engines, as the Court noted, Neeva. We don't

1 pay cash to use Google and DuckDuckGo and Bing. And as I
2 noted, Microsoft has its -- a rewards program.

3 So why is our slide, "It's free, but," and the
4 answer is -- first, I'd like to point out that users can be
5 harmed by anti-competitive conduct even if the product is
6 free because consumers would benefit from robust competition
7 in search that would yield better quality, higher privacy,
8 more innovative search products.

9 But the real point I want to make here about free
10 is that even though it is free, there are costs to users.
11 We pay with our attention and our data. If, if a general
12 search engine shows ads to us, they are selling our
13 attention and our time for advertisers. And when general
14 search engines collect our data, they use it in a number of
15 ways, including making the search engine more accurate, and
16 they're advertising more targeted and more profitable.

17 Turn next to the general search mechanics. Now
18 we're going to get into how the general search engine works.
19 And we start with the question of, What data does Google and
20 other general search engines collect on the search side.

21 Every search entry that is entered in, every query
22 that is entered into a general search engine is matched with
23 every click and interaction we take on. And so it helps if
24 I have a slide to explain this.

25 If I type in "COVID restrictions in Japan," Google

1 comes back with these organic links. If I click the third
2 organic link, Google records that, and the relationship
3 between the query and the click. And that's true with other
4 general search engines as well.

5 Now, along with queries and clicks, the general
6 search engines record much more. If, five seconds later
7 after clicking that third link, I come back and I click a
8 different one, well, I'm telling the search engine
9 something. I'm telling them that that first one I clicked
10 on wasn't such a good answer for the query that I had
11 entered. And the next one, if I stay there longer maybe was
12 a better one. And that's important information for down the
13 road.

14 They also record whether I hover over a link even
15 if I don't click, and they record how I scroll. They record
16 what language I'm searching in, and maybe physically the
17 device has this, where I'm searching and much more. This,
18 it's called click, query click data, and it is enormously
19 important. This information regarding for searches, makes
20 search engines more accurate.

21 And so the next time someone enters "COVID
22 restrictions in Japan," the search engine has my responses
23 to provide better answers for them.

24 And we'll turn now to how that's done and how does
25 general search work.

1 So every year, there are trillions of searches on
2 Google -- and this is from their 10-K -- and billions of
3 times each day, Google observes users issue queries and
4 interact with those results. Google reuses that information
5 to provide results.

6 And this is a text and an image from a 2015 Google
7 document, and Google explains, in effect, Google is a
8 mechanism for transferring knowledge from each user to those
9 who follow.

10 So with that as starting place, Your Honor, we
11 discussed how the search engine works and how data powers
12 search. And this is a -- and we've talked about the query
13 and the SERP; now we're going to fill in what happens in
14 between.

15 These are general features for general search
16 engines. Obviously it's a simplified picture. This is
17 what's called a search stack. This is the back end, and
18 obviously I haven't done it in enough detail to build one of
19 these, but this is sort of a representation.

20 And we'll start with "web Documents," which is in
21 the upper left corner. The Internet is expansive, and new
22 pages are constantly coming online, while existing pages are
23 continuously being updated.

24 So a general search engine's work begins long
25 before you've entered your query. They start by crawling,

1 which is a process a search engine uses to hunt down useful
2 web pages.

3 So web crawling, a web crawler is a program that
4 follows links throughout the web page.

5 THE COURT: And this is done independent of any
6 search queries?

7 MR. DINTZER: Yes.

8 THE COURT: Okay.

9 MR. DINTZER: This has to be done before your --
10 or that latency would be enormous.

11 THE COURT: In other words, this is sort of the
12 data gathering process.

13 MR. DINTZER: That's exactly right, Your Honor.

14 THE COURT: Okay.

15 MR. DINTZER: And so what the crawler does is it
16 basically goes to websites, and it finds the links on those
17 websites, and it effectively clicks on them and goes to the
18 next pages, and it does this into massive quantities so that
19 it goes out there and finds billions and billions of web
20 pages. The -- and it gathers that information from each of
21 those pages.

22 Now, no search engine crawls every web page on the
23 Internet. Search engines make choices, not only on which
24 pages to crawl but how often to come back and recrawl them
25 to keep them fresh.

1 The freshness of some documents is more important
2 than the freshness of others. A search like "COVID
3 restrictions in Japan," obviously I want the most up-to-date
4 information, and presumably that would be something that is
5 crawled rather frequently.

6 THE COURT: Is there a relationship between
7 frequency of queries and frequency of recrawling? In other
8 words, if somebody's -- they're getting a high volume of
9 queries about COVID restrictions in Japan, would that then
10 sort of tell the algorithm to recrawl that information more
11 frequently?

12 MR. DINTZER: The data on queries is one of the
13 things that is used to make decisions about how frequently
14 to crawl certain websites. And so that's -- the short
15 answer is yes, Your Honor, that's exactly right. It's --
16 the data is -- that's how user data is used, one of the
17 functions, to figure out what to crawl and how often to
18 crawl.

19 Observing users' search engines -- search engines
20 gather information about which ones are the most popular,
21 which ones need the most up-to-date information.

22 Only two U.S. companies crawl in depth, Google and
23 Microsoft, with Brave now crawling to a lesser extent but
24 them crawling as well. All the other general search engines
25 syndicate, and so they don't crawl the web. Although, even

1 Apple and Amazon crawl to a certain extent but on a much
2 more limited basis.

3 The next step, Your Honor, is indexing. This is
4 where the information is gathered by the web crawling
5 components and put in storage. And the information is
6 organized in a way that allows for efficient retrieval when
7 a relevant query arrives.

8 And they certainly also involve translating
9 websites. The general search engines use tiered indexes
10 with -- I mean, if you're visually thinking it, sort of the
11 most frequently accessed stuff near the top and the last
12 frequently accessed stuff near the bottom or near a
13 landfill -- in a landfill.

14 The index organization is affected -- I mean, it
15 affects latency. So that question about how fast it can
16 answer, it affects latency and the efficiency that the
17 system uses, and it is affected by user data.

18 The information about what people are looking at,
19 how often and the like, is used to figure out how to tier
20 and organize the index and optimize the index.

21 THE COURT: When you say "tiering of the index,"
22 what do you mean? Do you remember that search destinations
23 that are more frequently visited at a greater rate end up
24 tiered at a higher level than some screen that's less
25 frequently --

1 MR. DINTZER: And I don't want to overrun my
2 understanding, Your Honor, by my understanding is that if
3 there are sites that are -- are not only ones that --
4 I mean, if I want to go there, let's say IBM.com, I'm sure
5 that's at the top.

6 But also, if it's a site that has information that
7 is generally used to respond, even if I don't know that I'm
8 looking -- maybe there's one great site that past experience
9 has shown this really answers a lot of questions about
10 visiting Japan, that may be closer to the top, whereas maybe
11 there's another side where, when they've shown it, people
12 are like, I'm not interested, and maybe that goes farther to
13 the bottom.

14 It means that -- as I understand the index, it
15 means that it will -- it will take longer to go there less
16 efficiently and mean less likely that -- I believe less
17 likely that it will come up, although I'm not -- don't hold
18 me to it.

19 THE COURT: And is the only -- not the only --
20 but -- well, is latency then the primary reason -- in order
21 to reduce latency the primary reason for the indexing
22 function? I think of indexing as, you know, you can index
23 something alphabetically, but that's not what you're
24 referring to. You're referring to --

25 MR. DINTZER: No. If you indexed it

1 alphabetically, then if I asked for something about zoology,
2 your latency would be higher because it would be -- it would
3 take -- I mean, there could only be so many things that are
4 here -- and I'm using visual because that's how I think
5 about it, but here as opposed to here or here as opposed to
6 here, and it takes -- whether the servers are stacked in a
7 way that it takes longer to -- I mean, to get to these
8 bottom ones, and so those pages don't come up as often. So
9 latency is a big one.

10 My understanding is that another one is just the
11 efficiency of the machine so that it operates at its most
12 efficient.

13 So now that it's been indexed, these two things
14 happen before you show up. Now you're ready to enter your
15 query. And so let's say you enter "best suitcase for Japan
16 travel." And in the real world, there would be some
17 suggests here, which might reduce the latency, that you
18 could click on one -- if they've seen this query before,
19 they might be suggesting some.

20 But -- and I'll note that -- that -- well, not you
21 but for certainly me, I would be -- you know, I may have
22 misspelled this, and so the search engine is going to have
23 to deal with that as well.

24 And that takes us to the next part, which is the
25 "Meaning" box. And basically for relevant results, the

1 general search engine must establish what we're looking for,
2 they have to figure it out, the meaning behind the query, no
3 matter how cryptic.

4 Specialized software examines the query and tries
5 to decode what you're looking for and then re-write or
6 annotate the query to get the best results for internal use.
7 And three examples, Your Honor, for general search engines
8 recognizing the meaning in the query are spelling, synonyms
9 and location. And, of course, these examples are
10 simplified.

11 But first, the general search engine will
12 recognize and correct spelling mistakes, because if it tries
13 to search internally with a spelling mistake, it will
14 probably come up with less.

15 And Google explains -- this is a Google document
16 from 2020 -- how this is done. Quote, How? By looking for
17 mistakes. We look at all the ways in which people misspell
18 words in queries and texts all over the web and use that to
19 predict what you actually mean.

20 So, for example, Google tracked over
21 800 misspellings for one's celebrity's name, someone -- I'm
22 not going to call her name out, but someone who's frequently
23 in the news, over 800 misspellings.

24 THE COURT: I think that was my query.

25 And I take it what you're going to tell me, either

1 now or at some point, is that some of the indicia or --
2 indicia of meaning, for example, spelling, it may be that
3 the -- ultimately the government's position is that sort of
4 Google does that better than some of the other search
5 engines.

6 MR. DINTZER: It's not that they do that better,
7 Your Honor, it's that the data and the data that they have
8 available gives them an advantage on all of these areas.

9 THE COURT: Right. In other words, they get more
10 misspellings than the other search engines and are able to
11 then use those -- use that volume of misspellings to develop
12 a better understanding of the next misspelling.

13 MR. DINTZER: Yes, exactly, Your Honor.

14 When you get trillions of queries a year, it
15 allows you to do things that -- at -- when your rival gets
16 significantly less -- we have a screen showing what the
17 disparity is -- it just allows you to do a lot less with the
18 data that you have.

19 The second example here is synonyms, where I put
20 in the word "suitcase," it's going to add on "or luggage"
21 for its internal use. So if there's a document that's
22 connected to luggage, it will find that as well.

23 And the third one is location. If the best answer
24 includes places such as when I type in "where to buy
25 suitcase for Japan travel," it's implicit that "near me"

1 might have the best than in -- for their -- its internal
2 use, may also append my location or something close to my
3 location so that the results could reflect that.

4 And as you say, Your Honor, you get more queries,
5 then you have more data, and you can do all of these in a
6 way that you can't without the data, which brings us to
7 ranking, and ranking is the ordering of results. The
8 general search engine must to be helpful, must be able to
9 place the most useful results at the top of the page.

10 This, when we put in "COVID restrictions in
11 Japan," this was the page. If you look at the top, they say
12 that there were 73,900,000 results. So how do they get from
13 that many to the handful shown? And this is -- all general
14 search engines do ranking that do this.

15 If it works -- I'm sorry.

16 So if they do it, the ranking system, the first
17 way it does it, it looks at keywords. I've typed in -- some
18 of me keywords were "suitcase," and then they added a key
19 with luggage. And so they will look at those keywords I
20 added, I put in, to see what they've got in their index that
21 they be relevant for that. And I'm simplifying this, of
22 course. So the keywords is one way to figure out which
23 documents may be relevant.

24 But that doesn't say which ones belong at the top
25 of the SERP, and that's ranking, and that's where data comes

1 in a big way.

2 This next document is redacted, this is Slide 58,
3 but at the top is a quote from a Google document about the
4 significance of clicks in the ranking process.

5 THE COURT: Is the ranking purely a function of
6 sort of the clicking feedback, or is there some
7 independent -- or is there some other algorithm or some
8 other variables that go into the rankings?

9 MR. DINTZER: So the search -- the ranking is --
10 there are other things that go in, but the data plays -- the
11 user data plays a very, very significant part of it. It's
12 the information that's fed into -- the program itself,
13 I mean, obviously the program has to be well written, and
14 we'll talk about how it can be -- how the data even helps
15 them improve the program itself, but -- so there's
16 two aspects; it's how good the program is and then how good
17 the data is that you're feeding into it. And it turns out
18 the data affects both of those.

19 This quote is from the same document, and this one
20 is not redacted so I can read it. In 2019, where Google
21 explained, We can regard each search as a massive
22 multiple-choice test. Each day, we get to ask humanity a
23 billion question of the form, which of these ten documents
24 is most relevant to your query. Then some person helpfully
25 answers with a click, which teaches us something about the

1 world. This is how data improves the general search engine.

2 And finally, we get to the search results, which
3 is the search and result page, where those ranked items are.

4 And I need to note, Your Honor, that along with
5 web crawling, although that's a primary source of
6 information that appears on the SERP, it's not the only one.

7 GSE's buy and contract for data feeds and
8 information from others -- that others have assembled and
9 curated and -- and such as baseball scores or stock quotes
10 where crawling wouldn't be the best way to get the best
11 information.

12 THE COURT: Would or would not be?

13 MR. DINTZER: Would not be. So, I mean, you'd
14 have to crawl constantly to get updated baseball scores.
15 They can just purchase those as a data feed and use those.

16 So each of the steps we've discussed has been
17 informed. Even that part where the display of that
18 information is something that is tested and used and user
19 data is used to figure out what the best way of displaying
20 it is, every step that we've discussed has been improved --
21 informed and improved by user data.

22 THE COURT: So just a simple example. I mean,
23 you've used -- for example, if I typed in "what is the
24 national score," and that would -- the data, the information
25 that would come back would be, for example, from whatever

1 contract Google has signed for data from
2 Major League Baseball?

3 MR. DINTZER: That's my understanding, Your Honor.

4 So each of these functions then is -- the
5 information from these functions is put into search logs,
6 which is then routed back and used to teach the next -- to
7 teach these elements in the future.

8 But Google also used data to constantly experiment
9 and improve this system. They called it -- and I'm sorry,
10 all the general search engines do this.

11 It's called AB testing, where they may change,
12 make this little, teeny change to the search engine and
13 maybe expose it to 1 percent of the population and then see
14 how the results there compare with everybody else.

15 And then they can -- and by doing that iteratively
16 over a period of time, they can improve not just sort of the
17 information, they can improve the actual structure of the
18 search engine.

19 But it takes data. It takes a lot of users, and
20 the more users you have, the more often you can do this kind
21 of testing. And the data that they have puts them at an
22 advantage in doing this kind of a testing too. You can
23 imagine doing this for 20 years with the data advantage,
24 then that affects not just the data going in but the
25 structure that you've got there.

1 And I'm running a little behind time, Your Honor,
2 and so I'm going to skip over a slide or two, if that's okay
3 with the Court.

4 THE COURT: Sure.

5 MR. DINTZER: And we're going to get to the
6 question of, What is scale? Scale is the amount of data
7 that Google has and can use compared to rivals.

8 This next slide is redacted, it's Slide No. 67.
9 This shows query distribution between Google and its rivals
10 based on market share. And this is across all platforms.
11 But the disparity is worse on mobile queries where Google
12 gets more of those. So this shows one year's worth of
13 search queries compared to its rivals.

14 THE COURT: And is this across all different
15 devices?

16 MR. DINTZER: Yes, Your Honor. If we just did
17 mobile queries, this would be more pronounced.

18 And the next one is also redacted, Slide 68, and
19 this one is just a head-to-head between Google and Bing on
20 one year's worth of data.

21 And it's important because fresh data matters, so
22 how much data you have, you know, that's six months old or a
23 year old, then that's what you can bring to bear when
24 teaching -- when training your system. The websites are
25 constantly changing --

1 THE COURT: I'm sorry. Is what you're saying in
2 this slide for a fixed amount of data, this is how long it
3 would take for each of the search engines to collect that
4 amount --

5 MR. DINTZER: No. The reverse, Your Honor.

6 THE COURT: Okay.

7 MR. DINTZER: If you spent a year -- if you look
8 at what they got in a year, then for each of these, then,
9 this is how much data that they have from that year.

10 THE COURT: I see.

11 MR. DINTZER: So if they wanted to use a year's
12 worth of data to train a certain function, this is what they
13 would each bring to bear.

14 And if a general search engine has to go farther
15 back, the information is not as fresh, the data is not as
16 fresh. So think about the word "COVID." Two years ago,
17 three years ago, nobody had anything on it. So you look at
18 a year ago, you know, who can bring the most relevant data
19 on COVID, user data, and this slide depicts what the
20 disparity would be.

21 Next, Your Honor, we're going to turn to search
22 distribution. And if we could have a five-minute break,
23 because I'm told from my team I'm running behind, and I have
24 a blood oath not to step on the State's time, and so I want
25 to make sure that I'm absolutely sticking to it.

1 THE COURT: That's fine.

2 We've been going for about an hour, so why don't
3 we give everybody a break. It's, at least by that clock,
4 about 20 of. Why don't we come back at quarter of.

5 MR. DINTZER: That would be great. We appreciate
6 that.

7 THE COURT: Is that enough time to keep things
8 going?

9 COURTROOM DEPUTY: All rise.

10 The Court stands in recess.

11 (Recess from 10:41 a.m. to 10:49 a.m.)

12 COURTROOM DEPUTY: All rise. This Honorable Court
13 is again in session.

14 THE COURT: Please be seated, everyone.

15 MR. DINTZER: Thank you, Your Honor. We
16 appreciate that.

17 THE COURT: Sure. They haven't yanked you from
18 the lectern?

19 MR. DINTZER: The net is coming.

20 No, the team has been generous in making sure that
21 we've got enough time to do this.

22 So with that, Your Honor, we're going to pick up
23 on Slide No. 69, which is search distribution, and we'll
24 talk about how general search gets distributed.

25 And the first question is, How do consumers access

1 general search. And the answer is primarily smartphones,
2 tablets, desktops and laptops. These devices contain
3 something called search access points, which call general
4 search engines, and it raises the question, What is a search
5 access point.

6 A search access point is a place on a computer or
7 mobile device where a user can enter a query. You can type
8 in a query, that's a general -- if it goes through a general
9 search engine, that is a search access point.

10 And search access points are the onramp to search.

11 Historically, general search engines were accessed
12 on computers through browsers and toolbars, and that was
13 what we discussed earlier.

14 Now, there are a number of search access points
15 that have grown, include search widgets, search apps,
16 browser apps, and browsers have -- can have -- have search
17 access points in them.

18 THE COURT: And just to be clear, what you refer
19 to as widgets or the box or the rectangular, long
20 rectangular balk that appears at the top.

21 MR. DINTZER: Yes, Your Honor, that's a search
22 widget. And it is -- it comes standard on Android phones in
23 the United States, and we'll talk a little bit about why.

24 So what is a default search engine? A default
25 search engine is the search engine that a distributor

1 programs a certain -- to a search access point
2 automatically -- to automatically send queries out of the
3 box.

4 So, we take it out of the box. Whichever search
5 access point points to a general search engine, that's --
6 that is the default search engine.

7 When you buy computer, tablet, mobile phone, they
8 have many defaults set, not just search. They also have
9 preinstalled apps. The out of the box settings and apps
10 have been chosen by the company that's selling the device,
11 the manufacturer of the device, and a software and services
12 company like Google, and those are the defaults.

13 And the question is, Why are search defaults
14 important? And the answer is because of user behavior.
15 People tend to accept defaults and stick with them, which
16 increases the use of the default service.

17 And 15 years ago, Google recognized the
18 exclusionary power of defaults. They recognized that if one
19 company owned a default, the rivals would need to try to
20 force that company off and get people to change them.
21 That -- sometimes that was impossible.

22 And this is a quote from a 2007 Google document.
23 "Default home page can be a powerful strategic weapon in the
24 search battle. Could be an easy way to grow and defend
25 market share for Google."

1 At Google, people use phrases such as "the power
2 of default" when Google has the default, or "the tyranny of
3 the default" when some other company has the default. And
4 it's -- in response and recognition of the power of default,
5 Google spends billions of dollars buying default search
6 positions.

7 Which general search engines are defaults? There
8 are three primary echo systems, Apple, Android and
9 Microsoft. We'll look at them in turn.

10 With Apple, Google is the general search engine
11 preset default on Safari, on Safari's search access points,
12 and that's true on computers, tablets and phones.

13 Now, other general search engines are bookmarked,
14 which means that they have a little picture of them, but
15 those are not search access points, you can't type a query
16 into them.

17 And they don't change the default. So if you open
18 Safari out of the box and you type a query into the URL line
19 or that box line, it will always go -- it will go to the
20 Google as the general search engine.

21 THE COURT: I assume that's unless the user goes
22 into the settings and changes the search engine itself?

23 MR. DINTZER: That is correct.

24 And we're going to -- I have a graphic on that in
25 just a moment to talk about that.

1 So that -- these are -- this is with Apple. And
2 on Android, for the Android's phone sold in the United
3 States, the widgets, the search apps, the browsers are
4 nearly all -- on nearly all Androids are Google.

5 Microsoft's Bing is the default search engine on
6 the Edge browser. Edge is generally preinstalled on
7 computers running Windows operating systems.

8 Although -- and Bing is also the default on
9 Amazon's Fire tablets.

10 And so as Your Honor asked, so what is a
11 user-selected default search setting? That's if you go into
12 the settings and change it. The search engine that a user
13 sets at a search access point to automatically send queries
14 to.

15 And the question, how sticky are defaults, and the
16 answer is, very sticky. Some defaults can be changed by the
17 user, some cannot. The default search engine for many, but
18 not all search access points, is changeable.

19 But even defaults where it's relatively simple to
20 change can be sticky. People often stick with the defaults
21 rather than change, and the harder or more complicated it is
22 to change a default, the more likely you won't bother, and
23 that's called friction.

24 And of course, companies know the power of
25 defaults and the effect of friction on changing defaults.

1 There is a branch of economics called behavioral economics,
2 and they have spent significant time studying defaults and
3 how they affect user behavior in all areas of life, from
4 signing up to a 401(k) to donating organs, to all areas of
5 life.

6 For example, if you see this tip screen like this,
7 after you get coffee at a shop, you're more likely to go to
8 22 percent. Behavioral economists tell us it's because we
9 can only make so many decisions in a day. And when
10 something helps us with a decision like that with a default,
11 we often just go with it.

12 Behavioral economists also tell us that when a
13 user stays with a default, it tells us little or nothing
14 about what choice it would have made in the absence of any
15 default.

16 So, the Court asked about steps, and so this is --
17 this is -- if you wanted to change the default search engine
18 on an Apple phone. So you're in the browser and you're
19 looking at the search line, and instead of going to the
20 default browser, you decide, I'd like to change it.

21 Well, first you have to leave the browser, you
22 have to open the settings, you have to find Safari. You
23 have to pick the search engine option, then you have to
24 pick -- and this is the one on the right -- the desired
25 search engine from the choice screen, that's what you're

1 seeing in the big picture. Then you have to return to the
2 browser and perform the search.

3 Of course, there are more steps if you have to
4 figure out how to do this, right? You either have to fiddle
5 around with it until you've figured it out, or you have to
6 do a search on the existing browser so you can get
7 information on how to change the browser.

8 And so Google invests billions of dollars in
9 defaults knowing that lots of people won't change them. And
10 when people don't change them, it doesn't tell us anything
11 about their preference.

12 The import of defaults on cell phones can be seen
13 from an incident about a decade ago. In 2007, Apple's map
14 application was powered by Google's map technology. If you
15 bought an iPhone and sent map queries, they would go to
16 Google Maps by default, and Google sold ads there.

17 In 2012, Apple developed its own maps technology,
18 and it changed all the defaults on its iPhones from Google
19 to itself.

20 Now, Apple eventually acknowledged that at least
21 at that point, their map app was terrible, and Apple's CEO
22 suggested that people might need to use their rival's if
23 they were dissatisfied. So this is a perfect experiment,
24 and the question is, What happened?

25 So this slide is redacted, but, of course, the

1 Court has it as Slide 94. And this is a 2016 document.
2 It's an important document that Google put together to
3 examine what would happen if it lost the search engine
4 defaults on Apple?

5 And for the analysis, it looked back to what
6 happened when it lost the maps default on Apple, and so we
7 can't show it in the courtroom, but in the red box, there
8 are two lines that begin with the words "Apple Maps," and so
9 we direct the Court to that.

10 And this shows the number of active users Google
11 lost when the defaults were switched, even though Apple Maps
12 was more or less admittedly inferior.

13 So one takeaway from this slide is when the
14 company has the default, it can't tell anything about user
15 preference or product quality from the fact that the default
16 isn't changed.

17 But the next line begins with the words "Mobile
18 defaults," and it's a reference that effectively discusses
19 why all -- although all defaults are sticky, they're even
20 more sticky on phones.

21 Now, Google used this experience from the maps to
22 analyze how sticky defaults can be, and the slide was
23 created to figure out how much revenue Google would lose if
24 they lost a default on Apple.

25 And if you look at the top in that blue line, it

1 shows the percent of revenue that they thought they might
2 recover -- so they would lose the rest -- if they lost the
3 default. So this is the basis of Google paying billions for
4 defaults on Apple. And why are they paying it? Because
5 defaults matter a lot.

6 So we get to Google's search distribution
7 contracts. And turn to the question, How does Google gain
8 default exclusivity on so many devices, and we're going to
9 start with Apple.

10 I said earlier that Google had 100 percent of
11 Apple's defaults. How did this exclusively happen? Apple
12 is a proprietary operating system. You can't license Apple
13 to put on your phone if you're a manufacturer. And so you
14 have to deal with Apple, the company.

15 Nearly 60 percent of mobile devices are iPhones,
16 and 40 percent --

17 THE COURT: Has Apple ever had its own search
18 engine?

19 MR. DINTZER: No, Your Honor.

20 No. The relationship between Google and Apple
21 dates back to 2002, 2003.

22 40 percent of Google's searches in the U.S. are on
23 iPhones. So this shows -- this actually doesn't date it all
24 the way back to their origin, this dates is to when Google
25 started paying for the search default on Apple, and that was

1 2005.

2 In 2007, Apple launched the iPhone, and they
3 carried over the agreement that was originally on desktops
4 to now be on the iPhone.

5 Safari is the only preinstalled browser on Apple
6 devices and the only app that contains search access points
7 on the phones, computers and tablets. So, that's the only
8 search access point.

9 There is -- theoretically, there could be other
10 search apps on the phone, right. There could be a Bing app
11 or whatever app on an iPhone out of the box. But there
12 aren't, and you won't ever find one there, and that is
13 because Apple does not allow third-party apps on their
14 devices.

15 And we asked an Apple executive --

16 THE COURT: I'm sorry, say that again.

17 MR. DINTZER: Sure.

18 So when you open up an iPhone, there will be all
19 these cute apps about -- with contacts and -- all of those
20 are Apple apps.

21 THE COURT: Right.

22 MR. DINTZER: There's no third-party app on an
23 iPhone.

24 THE COURT: Oh, I see.

25 MR. DINTZER: Google doesn't have an app on the

1 iPhone. The only search access points on the iPhone come
2 through the browser, and Google has the defaults on those --
3 on the browser access points.

4 So we asked an executive, Eddy Cue, at Apple about
5 this, about -- and the question, why are GSA and Chrome --
6 GSA's Google search app -- and Chrome not preinstalled on
7 Apple mobile devices.

8 Answer: We don't install any third-party apps.
9 Never have on iOS.

10 Question: Since 2007, Apple has never
11 preinstalled or preloaded any third-party applications on an
12 iPhone, correct?

13 That's correct.

14 Question: What type of value would Apple require
15 if it decided that it was going to preload third-party
16 applications on iPhones?

17 Answer: There is none. We would never do it.

18 So that -- the Safari search defaults are the only
19 game in town on Apple devices.

20 How is Google the default -- exclusive default
21 search engine on Android?

22 Google's contracts with Android are a bit more
23 complicated. Android is a mobile device operating system
24 owned by Google. It's 40 percent of the mobile U.S. market,
25 and 80 million Android phones are sold and shipped in the

1 U.S. last year.

2 In the United States, Android is the only feasible
3 mobile operating system that an OEM can license. So if you
4 want to make a phone and sell it in the U.S., and Apple
5 won't license theirs, so really it's Android or it's
6 nothing.

7 Google acquired Android in 2005. 2007, they made
8 it open source, which means anybody can download the AOSP
9 Android operating system. It's free to download.

10 And in 2008, OEMs sold their first Android phones.

11 Now, this slide is redacted, this is Slide 104,
12 and this is about the AOSP, the ability to basically
13 download the Android operating system from the phone.

14 It is true you can do that, but that doesn't mean,
15 if you're an OEM, you can just plug that into your phone and
16 you're ready to work.

17 First you have to customize it so that it works on
18 your phone, and second, you have to add features that don't
19 exist, that aren't part of the AOSP build. This requires
20 significant time, effort, and money.

21 And this document, at the top, that quote
22 basically explains Google's position on this document. This
23 is a 2020 Google document.

24 THE COURT: I'm sorry, what does AOSP stand for
25 again?

1 MR. DINTZER: I'll get that, Your Honor. You
2 know, I don't have that in my notes anymore.

3 THE COURT: That's okay.

4 MR. SCHMIDTLEIN: Android Open Source Project.

5 MR. DINTZER: Thank you. Thank you, counsel.

6 So you can't really just take it off the shelf,
7 the AOSP, but Google offers solutions for OEMs, but only for
8 OEMs that sign Google agreements. All Android OEMs that
9 sell in the United States have signed Google's agreements,
10 and these agreements provide Google with default
11 exclusivity.

12 THE COURT: You'll have to forgive me. The
13 acronyms, the OEM stands for?

14 MR. DINTZER: Original equipment manufacturer.

15 THE COURT: Okay. You mean the phone
16 manufacturer?

17 MR. DINTZER: That's exactly it, Your Honor,
18 Samsung, Motorola, LG.

19 THE COURT: Got you.

20 MR. DINTZER: So the Android phones are covered
21 from three types of contracts, the AFAs, the MADAs and the
22 RSAs, but even though they're titled separate and they have
23 separate signature lines, it's important that we emphasize
24 that they act together like pieces of a puzzle, they fit
25 together, and they're not -- they are not designed to be

1 independent.

2 Who are Google's contracting partners from this --
3 this -- the OEMs are -- such as Samsung and Motorola.
4 Samsung is far and away the largest manufacturer in the
5 United States.

6 Google's MNO partners are -- the phone partners,
7 are AT&T, T-Mobile, Verizon, Sprint -- I'm sorry, T-Mobile,
8 Sprint, and Verizon. In the United States, most cell phones
9 are sold by the MNOs, by the phone companies, so they have
10 lots of control on the phones, their features and their
11 defaults.

12 Looking first at the AFA, the Anti-fragmentation
13 Agreement, that's signed by OEMs that want a relationship
14 with Google. Every Android OEM that sells in the United
15 States, signed one of these agreements.

16 With the exception, I have to make a comment,
17 apparently you can buy from China some crazy phones that are
18 not sold by OEMs in the U.S. My understanding is that this
19 is a de minimis amount, but you can't actually have -- bring
20 these in. But that is not a relevant portion of the market.

21 If you want, if you sign an AFA, you promise to
22 only make and sell Android phones that meet Google's
23 specifications. That means Google must approve your Android
24 devices, and it gets to decide what the specifications are.

25 It also limits OEM's ability to distribute Android

1 devices that are, quote, noncompatible that don't meet
2 Google's specifications.

3 So practically speaking, what does this mean? It
4 means that if you have an OEM that has signed an AFA, as
5 Samsung have, they can make compatible Android devices.
6 They cannot -- any signatory, they cannot make noncompatible
7 Android devices and sell them, which means that if they
8 download that AOS -- the public version of the software and
9 they want to fiddle with it and maybe do something cool with
10 it, if it doesn't meet Google's specifications, they can't
11 do that. So they can't -- Google would consider that
12 forking.

13 So they can't say, Well, we'll just do it on these
14 other phones because there's this free software we could do,
15 and we could do really cool things, put them on these other
16 phones, and it says, not if you signed an AFA, not if these
17 really cool other phones don't meet Google specifications.

18 THE COURT: So do I understand correctly, there
19 are two primary operating systems, right? You've got
20 Apple's operating system, AOS, and then Android --

21 MR. DINTZER: Yes, Your Honor.

22 THE COURT: -- owned by Google?

23 Is there another operating system in the market,
24 one, and two, I take it that the creation of a new operating
25 system would be extremely difficult and costly and

1 et cetera.

2 MR. DINTZER: The short answer is in the United
3 States, there is not. It is my understanding in China that
4 Android has been forked and there are other operating
5 systems.

6 To create a new operating system, not only would
7 you have to -- you could download the free Android -- you
8 could start from scratch if you download the free Android,
9 but either one of those versions, you would have to come up
10 with -- with apps, an app store with apps that people
11 wanted.

12 So Amazon --

13 THE COURT: And a product that's compatible with
14 the operating system, or that runs the operating system?

15 MR. DINTZER: Well, you'd have to have the phone,
16 you'd have to have the operating system, you'd have to have
17 apps.

18 Amazon does have a tablet that is based on a fork
19 of Android. There are no phones that are sold that are
20 either based on forks and Android or any other operating
21 system, but their Fire tablet is based on a fork of Android
22 that is not compatible.

23 Google's mobile services, GMS, are Google's
24 proprietary apps, and because you can't sell a phone without
25 certain apps, these are desperately important to OEMs who

1 want to sell phones, especially in the United States.

2 Google bundles these together. It includes
3 Google's search application, or GSA, their crawl map, and
4 Google Play, as well as maps, YouTube, Gmail, and others,
5 and it also includes the proprietary APIs.

6 So let's take a second to talk about the Play
7 Store. Google's -- this is Google's proprietary app store.
8 It's the largest collection of apps available on Android.
9 And so -- and it also has proprietary APIs.

10 So if you get the Google Play store, you get
11 access to all these apps that will run through the Play
12 Store, and if you don't, then you have to either create your
13 own Play Store, but you have to find apps that are willing
14 to sell into it.

15 THE COURT: So if I were to download the Google
16 Play app on my iPhone, I assume the app would be available
17 on the iPhone.

18 MR. DINTZER: I don't know if Google Play is
19 available on --

20 THE COURT: It's not available on the app?

21 MR. DINTZER: I don't believe Apple allows any
22 other stores other than its own.

23 MR. SCHMIDTLEIN: That's correct, Your Honor,
24 Apple doesn't make that available.

25 THE COURT: Okay. All right.

1 MR. DINTZER: Another app that I'd like to talk
2 about is the Google search app, which, as the Court asks,
3 Google, being DuckDuckGo, they have their own search apps.
4 Google search app and Google search widget both result -- if
5 you open them, you type in, it immediately takes you to a
6 SERP.

7 There are also APIs. And these are just the tools
8 that go between apps and the operating system and
9 communicate information such as where the phone is.
10 Google's APIs are part of their GMS bundle. Some are
11 connected to -- some of the apps are connected to the Play
12 Store.

13 Most of Android's tops apps use one or more of the
14 APIs. So if you sign an AFA, you qualify for Google's apps
15 and tools. If you don't sign the AFA, you're on your own as
16 far as building the phone up.

17 Every non-Apple phone sold in the U.S. is subject
18 to an ACC or an AFA because OEMs believe that the absent
19 tools are vital.

20 But if you sign the AFA and ACC, you don't
21 necessarily get that GMS bundle. First you have to sign the
22 MADA, which is the licensing agreement. When an OEM signs
23 the MADA, they get to preinstall the GMS bundle, including
24 the Play Store.

25 But there's a catch. If they sign the MADA, they

1 have to take all the apps, they can't just take Play Store.
2 So there's currently 11, they can't pick and choose.

3 Also, if you sign the MADA, you have to put the
4 Google search widget on the front home screen in a prominent
5 position, so that -- that's why Android phones all have
6 Google widgets on their front page, on the home screen, and
7 that placement takes some of the best real estate on the
8 phone.

9 Finally, it requires the OEMs make core apps, five
10 or six of these of the apps in the GMS bundle, undeletable
11 so they can't be deleted.

12 The practical effect, if an OEM preinstalls the
13 Play Store, which they need, they must preinstall the search
14 app, the Chrome, and the widget on the home screen.

15 A second practical result is effective
16 exclusivity. The MADA doesn't require exclusivity in and of
17 itself. In theory, you just sign the MADA, you can put
18 another search app or another search widget on the phone.

19 But OEMs and MNOs and users, they don't like
20 duplicate apps on the phone coming out of the box.
21 Sometimes that's called bloatware if you have duplicate
22 things like two widgets on your home screen.

23 So because the OEMs, MNOs and users don't want
24 multiple things on the home screen, once you sign the MADA
25 and you've got the Google search items on the home screen,

1 the likelihood that an OEM or phone company will add
2 something else goes down to zero.

3 Finally, there's the RSA, which is the Revenue
4 Share Agreement. This is the contract where Google provides
5 money for the default search exclusivity. Both the OEMs and
6 the MNOs sign these, and it's sort of a belts and
7 suspenders.

8 Every MNO has signed one of these, and nearly
9 every OEM has signed an RSA. The RSA provides the OEM with
10 a share of the search revenue. It comes from the devices.

11 In exchange, the OEM or MNO must make Google the
12 exclusive search default on the device. They must install
13 search-related Google apps with prominent placement, and
14 they must exclude alternative search services.

15 Now -- and it's worth noting that although the
16 RSAs prohibit the partners from putting rival GSEs on the
17 phone, they actually don't prevent the partners from putting
18 Amazon and Facebook on the phone, which is another way of
19 thinking, Well, that's because they're not really
20 competitors for Google.

21 Now, there is a new version of the RSA out more
22 recently where there are two tiers. One tier, you get paid
23 a little and you don't give exclusivity, and the other tier
24 you get paid more and you get -- and Google gets
25 exclusivity.

1 We haven't found any -- anyone who's opted for the
2 smaller payments, and that, of course, makes sense because
3 once Google has staked out all this territory in the MADA,
4 who's interested in being on the same screen and paying for
5 all that opportunity.

6 This next slide, Your Honor, is an important one.
7 This chart shows -- and it's redacted. It's Slide 118. It
8 shows Google's RSA payments by distribution partners. So
9 the left axis is payments in billions, and the colors show
10 us who gets the money.

11 And the blue part of the bar is Apple and how much
12 money they get, and the green part is the phone companies,
13 and then the little parts are the browsers and operating
14 systems.

15 Now, the important thing to see here, along with
16 the rise in RSA payments -- it's because of revenue sharing,
17 so as Google's profits go up, so do these payments.

18 The important thing to see here is the enormous
19 numbers we're looking at, and it raises the question. What
20 is Google buying and why are they buying it.

21 And the answer is, they're buying default
22 exclusivity because defaults matter a lot. If the defaults
23 don't matter, then these payments don't make any sense at
24 all.

25 Two more points about Google's contracts. First,

1 if you don't sign the AFA and MADA, there's no Play Store,
2 no Google, no Google APIs.

3 The second point is this. You don't get paid if
4 you don't sign the RSA. And you can't sign the RSA unless
5 you sign the MADA. And you can't sign a MADA unless you
6 signed an AFA. So while we may talk about these being
7 independent contracts, they fit together, one requires the
8 other.

9 And on nearly all Android devices sold in the
10 U.S., all search access points are preset to Google for
11 contract exclusivity.

12 And this is a piece of a deposition from Google's
13 CEO. When I asked him: And Google pays rev share on a
14 specific device type if it gets exclusivity on default out
15 of the box, right?

16 Answer, that's my understanding, yes.

17 We only use that to show what we're talking about
18 here is something that -- it's not hugely controversial,
19 it's in the agreements.

20 Is Google the exclusive default search engine on
21 other browsers? And it is. Google has RSAs with each of
22 these companies for their browsers, big and small, and when
23 you download the browsers, they default to Google.

24 And we'll take a minute to talk about the Chrome,
25 which is Google's own browser, it always defaults to Google

1 search, unless, of course, that default gets changed by a
2 user.

3 The Android phones ship with Chrome, but Chrome
4 can also be downloaded on Apple and Windows devices, and
5 when it is, it defaults to Google.

6 Chrome was launched in 2008 and was launched on
7 mobile in 2012.

8 And that, Your Honor, brings me to the summary and
9 conclusion of the general search part of our presentation.
10 We've discussed Google's contracting practices and exclusive
11 defaults. We've discussed how the search engine works and
12 the import of data, and the question, of course, the last
13 question I'll consider, is, How do they come together.

14 Google's paid distribution agreements enshrine
15 exclusivity. Every OEM and MNO in the U.S. has signed them,
16 and the vast majority of searches and ad clicks in the
17 United States flow through them or through Google's own
18 Chrome browser, where it controls the defaults.

19 Default exclusivity allows Google to
20 systematically deprive rivals of data and has for the last
21 ten years plus. With data, such an -- on such enormous
22 scale, Google can train its search engines in ways -- search
23 engine in ways that rivals cannot.

24 So on the search side, this case is about default
25 exclusivity and access to data at scale. And with that,

1 I'll pass the podium to my colleague, Mr. Severt, to explain
2 the advertising side of things.

3 Thank you, Your Honor.

4 THE COURT: Thank you, Mr. Dintzer.

5 MR. SEVERT: Good morning. Adam Severt for the
6 United States.

7 THE COURT: Mr. Severt, welcome.

8 MR. SEVERT: May it please the Court.

9 Our complaint alleges that the agreements
10 described by Mr. Dintzer not only harm users in the general
11 search market but also advertisers and to advertiser
12 markets, the. Same contracts, the system of defaults they
13 protect, and the importance of scale all have impacts felt
14 in the advertising markets.

15 And that's true because you need a search engine
16 before you can offer search advertising.

17 So I'll start with the most basic question, What
18 is advertising.

19 Now, advertising is ubiquitous. Everyone has a
20 basic understanding having watched, read, seen, I'm sure,
21 thousands of ads over the years, but I'm asking the question
22 here from the point of view of an advertiser. There's a
23 100-year-old expression that's attributed to a number of
24 different people, that I'll paraphrase as, Half of my
25 advertising spend is wasted, and I don't know which half.

1 And I'm not sure if that's -- half is the right
2 proportion then or now, but the basic point remains true, it
3 is critically important for advertisers to put the right
4 kind of advertisement in front of the most suitable and
5 receptive audience, and that's called targeting.

6 Now, advertisers may have multiple objectives, and
7 typically there is no one single type of ad that is most
8 suited for each objective. So advertisers use a range of
9 different techniques and advertising channels to reach their
10 marketing objectives.

11 And the context for everything that I'm going to
12 discuss today, that the advertiser is trying to use the ad
13 type best suited to their objective, and that will be the
14 most effective and waste as little money as possible.

15 And as we'll see, some technique and ad types are
16 better than others for satisfying particular objectives.

17 And just a little bit of context, here's a couple
18 of charts from an industry analyst firm called eMarketer.
19 And you'll see here that the digital advertising spend in
20 2021 was about a little over \$200 billion, and of that
21 search, on the right you see in red, it was about
22 \$86 billion in 2021. So if you do a little bit of the rough
23 math, search advertising, it's a little bit over a quarter
24 of all advertising spend in the U.S.

25 So what advertising markets do the U.S. plaintiffs

1 allege? Well, we have two. The first is general search
2 text ads. These are ads consisting primarily of text
3 appearing on a general search engine's results page in
4 response to a realtime query.

5 And just -- here's a quick example. Mostly text,
6 you'll see there's blue links at the top, and they're marked
7 in the corner where it says "Ad."

8 And here's the second market. This is the search
9 ads market. This includes any ads appearing on any search
10 engine's results page in response to a realtime query, and
11 that also includes text ads. That means that our text ads
12 market is fully contained within the search ads market.

13 And in addition to those text ads, the search ads
14 market also adds in all other kinds of ads that are served
15 in response to the user's realtime query.

16 And that includes ads that appear both on a
17 general search engine's results page and also ads that
18 appear on a vertical search engine's results page, or a
19 specialized search engine's results page. They're all in
20 this market.

21 And I will just note here that the Colorado
22 Plaintiffs, that will talk later this morning, have a third
23 market that they're going to talk about.

24 THE COURT: So we're bleeding into the
25 government's theory here, but help me understand, why do you

1 contend that these are two separate markets?

2 MR. SEVERT: So they are separate antitrust
3 markets for which there has been harm. They are especially
4 concentric circles. They're alternative ways of thinking
5 about the marketplace. Both are appropriate and both would
6 be --

7 THE COURT: Maybe I should have asked the question
8 differently which is, are there -- is the government going
9 to say that there are different competitors from the --
10 there are, for example, competitors in the search ad market
11 that are not competing in the general search text ad market?

12 MR. SEVERT: Yes, Your Honor. And the main
13 difference is, in the search ads market, we also include the
14 vertical or specialized search firms. So the Expedias, the
15 Amazons, even Apple's app store are also in that market.
16 They would not be in our general search text market, which
17 includes only general search engines.

18 So here's a screenshot. We see text ads on the
19 left, and on the right, we see what are called shopping ads.
20 Now, they're different from text ad in some important ways
21 that we'll discuss. But what they all have in common is
22 they are all served in response to a user-generated realtime
23 query.

24 So what advertising channels do advertisers use
25 and why? So advertisers use a lot of channels, and which

1 ones they choose depends upon their objective. If you look
2 to the marketing textbook or talk to an advertiser, you'd
3 pretty quickly hear about something like this, that consumer
4 purchase funnel.

5 Now, this is a version that we put in the
6 complaint, and you see it's annotated on the right with some
7 alternative stages that you might find in other sources.
8 And there are many different versions of the funnel and
9 perhaps with different number of stages or different names
10 for the stages, and the one you choose isn't really that
11 important. What matters is it's the advertising industry's
12 conceptual framework for how they think about things.

13 It just shows there's more people at the top of
14 the funnel than the bottom. And it reflects that there are
15 stages where you do things like you become aware of a
16 product, develop an interest or desire, and you ultimately
17 take some action like make a purchase.

18 And at each stage, advertisers may want to provide
19 a different type of information. And just for context here,
20 we typically think about search advertising as being most
21 effective in sort of the middle to bottom part of the
22 funnel.

23 Here are two examples of alternative purchase
24 funnels from Google's documents. As I said, it's a way to
25 think about a consumer's journey before making a purchase.

1 And there are many possible consumer journeys. Some
2 consumers may skip steps or go back up the funnel or bounce
3 around to any number of ways before they make a purchase.

4 In fact, the funnel on the right anticipates
5 customer loyalty and repurchases, but it's consistent
6 with -- conceptually consistent with the more
7 traditional-looking funnel.

8 And a key insight from the funnel is that it's a
9 way to think about targeting. If I have potential customers
10 at lots of different points along their own journey, one way
11 I can target them is by where they happen to be at a
12 particular point in time.

13 Now, an advertiser might want to target lots of
14 places on the funnel or along their journey all at the same
15 time. So the advertiser would set up a series of
16 objectives, each targeting a specific audience. So an
17 advertiser would be pursuing many complementary objectives
18 all simultaneously.

19 And I thought it would be helpful to sort of walk
20 through an example just to talk about some objectives and
21 how they might be accomplished by advertisers. So let's say
22 I'm a marketing director for a company that makes kids'
23 bikes, and I want to target consumers, and I have four
24 different objectives I've listed here.

25 First, I want to increase awareness of my brand.

1 Second, I want to increase engagement with my
2 brand and its products.

3 Third, I want to increase favorability of my brand
4 and product.

5 And fourth, I want to increase purchases.

6 And because advertising is not one size fits all,
7 I'll go through and match each -- match an ad type to each
8 objective. And keep in mind, it has to fit within my budget
9 and waste as little money as possible. So what does that
10 look like?

11 So to start with awareness, I'll primarily use
12 display ads. They're really great for this objective. For
13 example, I can purchase banner ads on different websites to
14 promote my brand to consumers who have previously had little
15 or no direct engagement with my bikes.

16 And here's what display ads look like. We see
17 display ad across the top and on the right of this web
18 article. They're graphical, they're designed to catch the
19 eye.

20 And some display ads use demographic or personal
21 information to try to target ads at you, but what they don't
22 have is access to a realtime query. So instead, they make
23 inferences, the advertisers make inferences when using
24 display ads, about consumers' interests and intent.

25 THE COURT: So what's the connection between -- so

1 if I'm on *Washington Post*, there will be ads embedded in
2 articles. Frequently those ads are consistent with some
3 query I've typed in. If I'm looking for shoes, there might
4 be an ad for -- on running shoes.

5 What's the connection between sort of the search
6 engine functionality that Google provides and then the
7 placement of the ads on a third-party website?

8 MR. SEVERT: Sure. So there's a couple different
9 answers that I think -- it could be a lot of different
10 things.

11 So it could be -- like in this example, it could
12 be the content of the site itself. It could be that you
13 visited a website. It could be that you entered a query.
14 It could be that you fit in a particular demographic
15 profile. It could be that you went to a website and put
16 something in your cart and then abandoned your cart.

17 So it really could be a number of different
18 factors that lead to the particular ads that you would see
19 on a particular page, and we're going to walk through a
20 couple of examples.

21 THE COURT: Okay. But if *The Washington Post*, for
22 example, if they're selling ads on -- digital ads, what's
23 the relationship between that website and what Google is
24 doing in terms of capturing queries? And maybe there isn't
25 any, but I gather there's some Google ad software that

1 perhaps these websites use and --

2 MR. DINTZER: Yes.

3 So Google -- I don't know about *The Washington*
4 *Post* specifically, but Google does, indeed, have a
5 substantial display ads as -- well, not at issue in this
6 matter -- whereby Google serves the ads.

7 But to be clear, it's at least my understanding
8 that the literal queries that you've typed into Google,
9 I don't believe are powering the ad results, the display ads
10 you see. I don't think there's a connection there.

11 THE COURT: No, that answers the question. I
12 wasn't aware of that. Okay.

13 MR. SEVERT: So here, the interest might be
14 inferred just based on the content of website.

15 All right. My second objective is to increase
16 engagement with my brand. And for that, I might use social
17 ads, which are essentially ads on social media.

18 I can purchase social ads from Facebook, where
19 consumers can like the ad, they can comment on it, they can
20 share it with friends.

21 I can use social ads to redirect customers to my
22 brand's social media page, which might be helpful for
23 customers who are not yet ready to buy but they want to
24 explore more information about my company and my products.

25 So here's what that looks like. Social ads,

1 they're a type of display ad that you might find on a social
2 media site, and here's an example on Facebook and an example
3 on Instagram. And similar to other display ads, virtually
4 all ads on social networks are targeted using behavioral or
5 demographic targeting, including your past activity on that
6 social media platform.

7 And social media sites can also target ads based
8 on connections between users, who -- you know, things your
9 friends like. But like other forms of display ads, what
10 they don't have is the benefit of a realtime query so they
11 have to make inferences about what you might be interested
12 in at that time.

13 And my third objective is, I want to increase
14 favorability with my brand, my product. And for that I can
15 use something called retargeted ads.

16 So this is the example where a customer visits my
17 website and they don't make a purchase. I could purchase
18 retarget ads for my bikes to show on the other websites
19 where the customer has visited over the next few days or
20 weeks. I've added it to my cart, didn't buy it, but that
21 bike follows me around for days or weeks afterwards. That's
22 a retargeted ad.

23 And the goal is to help promote a -- give a
24 favorable impression of my bikes and hopefully leave an
25 impression on the consumer so that when that customer is

1 ready to make a purchase, my bikes are at the top of their
2 mind.

3 So here's an example of how it can work. You
4 visit a website and look at a product, you put in your cart
5 and you decide not to buy. That's what's happening on the
6 left.

7 Then the product's advertised on another website.
8 Here, it's a cooking website, as you see on the right. And
9 sometimes these can follow you around for weeks and weeks
10 and weeks. I know I've had that happen well after I've made
11 a purchase.

12 And so retargeting is -- it's a bit like search
13 ads because you showed some real purchase intent, you put it
14 in your cart, but then you didn't buy it. So one important
15 point is that retargeted ads are kind of inherently limited
16 to consumers who you got onto your website in the first
17 place, but they can certainly be effective in that
18 situation.

19 But the other big downside is that for retargeted
20 ads, the clock is ticking. As time passes, your customer
21 might buy something else, lose interest, or just move on for
22 any number of reasons. That's why retargeted ads really
23 lose their effectiveness with time, and then pretty quickly.

24 They reflect a user's past behavior, whereas in
25 contrast, if you think about search ads, they appear

1 immediately in response to your realtime inquiry. They're
2 what you're interested in right now.

3 So the last objective is, I want to drive sales.
4 And here, search ads are particularly suited for this
5 objective. I can target customers who are actively
6 searching for kids' balance bikes. Say a consumer goes on
7 Google.com and types in "balance bike for toddler."
8 A Google results page will be shown immediately in response
9 to that query, and I could have a search ad promoting my
10 bikes. I could even include a special offer or other
11 incentive for the consumer to click on the link, go to my
12 website, make a purchase, or find a retailer.

13 So since search ads are what we're talking about
14 here, I thought it made sense to sort of do a deeper dive
15 into search ads. Just ask -- start by asking the question,
16 What are search ads.

17 Well, they're served in response to a consumer's
18 realtime query on a general or specialized search engine.

19 And here, we see on the laptop screen the search
20 ads, what they look like on a general search engine. If --
21 text ads on the left, shopping ads on the right. And we've
22 blown up a picture of each so you can see them a little more
23 clearly. Both types are in response to a user's realtime
24 query.

25 And one interesting feature of search ads is that

1 the advertiser only pays if the user clicks on the ad
2 itself, essentially confirming their intent at that time.

3 So it's this query, followed by a click, that
4 makes search ads kind of magical. With their queries, users
5 provide information about what he or she is interested in at
6 that time, and if you're on a mobile phone, also, where
7 you're located. It's -- this kind of realtime insight is
8 completely unique.

9 And then there's the click to confirm. There are
10 many techniques and strategies, we've talked about some, to
11 infer a user's intent, and some work better than others, but
12 nothing is as good as when the user tells you directly.

13 This power of matching the ads and users' intent
14 is why search advertising is 25 percent of as spent in the
15 U.S. Advertisers will pay more for better targeting because
16 they are wasting less money in effective ads. They know the
17 user's interested because the user just told them.

18 So we talked a bit about how I might try to reach
19 the objectives I said, and it's true that the real world is
20 a lot messier than the simple example I put together for
21 this presentation.

22 Display or social ads might end up being shown to
23 someone who's ready to buy, it happens all the time. But
24 the key is that those ad types are less effective than
25 search ads and actively and accurately targeting the

1 consumer when they're searching to buy a kid's bike.

2 Of course, this is an example, a company selling
3 other products or services might have different objectives
4 or strategies, but there is no combination of other
5 advertising that can replace search advertising.

6 All right. Now that we've gotten the lay of the
7 land, let's separate search ads into just two groups. Text
8 ads first, and then just more broadly, everything else
9 essentially.

10 Let's start with the text ads.

11 So I asked the question, What are text ads? As
12 Mr. Dintzer noted, when a user enters a query into a general
13 search engine, the results belong to two broad types, the
14 organic results, which you see in the blue box, and then the
15 sponsored links in the red box.

16 Notice how the text ads look pretty similar to the
17 organic result below. The red box contains a larger version
18 of the second ad, text ad. It's from NerdWallet. It's
19 blown up on the right.

20 At the top you see the headline, "Best Credit
21 Cards of 2022." And that's the link that most closely
22 relates to the query that I entered. And if I click on it,
23 it will send me to the NerdWallet landing page. Under the
24 headline, there's a little snippet attached that has just
25 the description.

1 And the other thing is, the text ads offer a lot
2 of flexibility to advertisers, including features called
3 extensions. You can see them at the bottom, the bottom of
4 the red box, where you can see it says, "Top Ten Credit Card
5 Deals." That's an example of an extension. It could be
6 configured in a way to take the user to a particular part of
7 NerdWallet's website. That's what they want.

8 THE COURT: So these are linked pages within what,
9 the main website?

10 MR. SEVERT: Yes. They're sub pages within the
11 website. And the advertiser can configure them however they
12 want.

13 So how are text ads sold? Well, they're sold
14 through a keyword auction. Advertisers place bids on
15 keywords based up what consumers what searches are they
16 trying to reach.

17 Now, here's a little bit of detail I'm going to --
18 on exactly how this -- how these bids are made that we'll
19 skip for now.

20 The auction, keyword auction, is conducted
21 algorithmically and in realtime. The selected ads then show
22 up on the results page. And I'll just mention a couple of
23 details. I don't want to go too much into the weeds of how
24 the auction works, but a few -- I think a few high-levels
25 details could be helpful.

1 The auctioneer -- and that would be -- for Google,
2 would be for searches on its own site -- controls the
3 auction and makes up all of its rules, and that includes
4 pricing.

5 And unlike other online auctions the Court might
6 be familiar with, the winner does not pay the price of the
7 bid, and it does not pay the price of the second-place bid;
8 it's actually much, much more complicated, and I'm not going
9 to go into that today, and Google has much more control than
10 that. Google can and does make changes or, as it calls
11 them, tunings, and change the prices that advertisers pay.

12 The auction's designed to encourage bidders to
13 disclose to Google maximum price they're willing to pay in
14 any auction. Now, they don't pay that, but as part of the
15 process, they're encouraged to disclose sort of their
16 maximum price.

17 THE COURT: The auction, this is something that
18 takes place sort of literally, quite literally between the
19 time the query is entered and the search results come up.
20 So I mean, it is --

21 MR. SEVERT: That's correct.

22 THE COURT: -- instantaneous, and the user -- you
23 don't see any of that happening but you just get the end
24 result of the auction.

25 MR. SEVERT: Correct.

1 And the ads displayed -- in the auction, it
2 happens that fast -- are not just based upon the bid. The
3 algorithm text takes into account other factors, things like
4 ad quality, how likely is a user likely to click on a link,
5 because after all, the advertiser only pays if the user
6 clicks. So a high bid might not generate a lot of revenue
7 for Google if no one's going to click on it.

8 THE COURT: So -- that's it. So even if you win
9 the auction, if, for whatever reason, Google determines that
10 your website is not one that users frequently will click on,
11 a lower bid might actually end up -- may actually end up --

12 MR. SEVERT: Right.

13 THE COURT: -- being featured.

14 MR. SEVERT: And we need the options to show, so a
15 number -- there are usually a number of ads that appear, and
16 you sort of win when you are clicked. That's the only time
17 you have to pay.

18 THE COURT: Right.

19 MR. SEVERT: But it's not just the price. It's a
20 lot of other factors. I'm not going to get into that.

21 THE COURT: Maybe my -- my question was different
22 was, which is that in terms of what ends up getting
23 displayed, is it only based upon the price that's offered by
24 virtue of the auction? Or I thought I heard you to say that
25 the display itself is not just based on the bid, it's also

1 based upon other factors that Google considers --

2 MR. SEVERT: It's based on a number of factors,
3 but price is one.

4 THE COURT: Right. Okay.

5 MR. SEVERT: It is one, but there are many.

6 THE COURT: And the idea is that -- I think it's a
7 very simple example -- is just because you bid high, there
8 may be data that fewer users are likely to click on your
9 link, and it's in Google's, their revenue model is to
10 encourage the link to be clicked because that's when they
11 get paid. And so that's the reason there may be other
12 factors that go into it.

13 MR. SEVERT: Yes, that's right. And quality as
14 well. I mean, frankly, Google does not want to serve bad
15 ads either.

16 All right. So who shows text ads in the
17 United States? It's basically the same folks that
18 Mr. Dintzer showed in general search.

19 I want to just address your question about
20 DuckDuckGo here. So DuckDuckGo syndicates its ads from
21 Bing, and the difference between what it does and what folks
22 like Google and Bing do is that it really only uses your
23 query to generate the ads.

24 Other search engines might use things like your
25 last query, your last few queries, to get a sense of what

1 you're getting at. It might have more -- DuckDuckGo by
2 default will use sort of a coarser grain location kind of
3 information about you. It might sort in there where you are
4 but not as precisely as if you're on Google or Bing. And
5 there also be other information too it might not use, but
6 those are the main ones.

7 We've got some market share information in the
8 deck. I'm going to skip that in the interest of time and
9 just talk very briefly about other types of the search ads
10 that are not text.

11 And there are lots of them.

12 THE COURT: Can I just interrupt you and just
13 ask -- Mr. Schmidlein will address this, undoubtedly -- but
14 is Google conceding that search ads are, by themselves, a
15 market, or would they say that you're thinking too narrowly,
16 that's not a market in and of itself, you need to think
17 about advertising more broadly, the market includes some of
18 the other types of ads that you've suggested?

19 MR. SEVERT: I'll let Mr. Schmidlein address
20 that, but my understanding from reading the answer is that
21 they not concede anything on the market.

22 THE COURT: Okay.

23 MR. SEVERT: So here's an example of a results
24 page that has both text ads on the left and search -- search
25 ads on -- other search ads on the right. And these are

1 shopping ads. They -- as you can see, they look pretty
2 different.

3 One note I'll make about shopping ads is they are
4 essentially limited to folks who potentially sell tangible
5 products. If you sell something other than a tangible
6 product, if you're an airline, if you're a plumber, you
7 can't use these, they're not really available to you.

8 Here's an example of a Maps results page that has
9 local ads placed on a map. So, for example, here's a travel
10 results page with travel ads and a map.

11 Here's an example of a Booking.com results page.
12 And the reason why we include this here as an example is
13 because if you recall our discussion earlier, our search
14 advertising market actually would include these kinds of ads
15 on a vertical like Booking.

16 And the same is true on Amazon.

17 And just one last example. Here are ads for
18 applications that appear within Google's own Play Store.
19 And the only thing you can advertise in the Play Store are
20 Android applications. We see some ads there. And indeed,
21 we do account for those in our search advertising market.
22 So those are in.

23 So how are these other kinds of ads sold? Well,
24 it's pretty similar. Now, there's a separate auction,
25 there's a different auction for text ads versus the other

1 kinds of ads, but the process overall is pretty similar.

2 The one detail I would highlight is a little bit
3 different, is that for a text ad, the advertiser writes
4 their ad copy or at least pieces of it. In other kinds of
5 ads like a shopping ad, you give -- the retailer might give
6 information like its inventory, its pricing to -- other
7 information about its product to Google, and Google itself
8 would use that information and create the ad for you. So
9 you get a little bit more control if you're doing a text ad
10 versus a shopping ad as an advertiser.

11 And then what are the other types of search ads?
12 So who else shows search ads? So it's essentially all the
13 general search folks, plus the specialized verticals, they
14 also provide search ads in the U.S. Even the Apple App
15 Store has search ads. You know, only apps advertise there
16 but they're in the market.

17 We also have some market share information on this
18 market; I'm going to skip that.

19 THE COURT: Is it the search engines that only do
20 the text advertising?

21 MR. SEVERT: I'm not aware of any search engine
22 that only does text advertising.

23 THE COURT: No, no. I'm sorry, it was poorly
24 worded, but the text advertising market, are the only
25 competitors search engines or do the verticals or some of

1 these other --

2 MR. SEVERT: In our market, the only competitors
3 are search engines.

4 Now, there are a very small number of other places
5 where you might get a text ad here and there. It's pretty
6 de minimis; and, in fact, most of those are syndicated from
7 Google itself. But those are not in our market.

8 THE COURT: Okay.

9 MR. SEVERT: And now, why is data important to the
10 search ads business? First, advertisers follow scale. The
11 more users use a search engine, the more advertisers it
12 attracts. Just like when there are more fish, it's more
13 opportunity to get a bite.

14 And then this page is redacted. It's essentially
15 a document, a slide that Mr. Dintzer showed; that every time
16 Google serves a results page with ads, it learns, the user
17 clicked on the ad, which ad the user clicked on, mirrored
18 other things about the user's reaction to the ad. And this
19 is incredibly valuable, improving the search engine's
20 ability to serve ads that will attract clicks. It's when
21 you get paid, it's when there's a click.

22 So more data allows a search engine to run more
23 experiments on live traffic and observe actual clicks. And
24 remember that -- so the more money -- the more money you
25 make, the more you can invest in getting better. And that

1 means without scale, your ability to monetize and serve
2 advertisers is diminished. And as we see here, even
3 Google's largest rivals are at just an enormous scale of
4 disadvantage.

5 And in closing, I'd like to tie together
6 Mr. Dintzer's points with my own. Search is a scale
7 business, whether you're talking about organic results or
8 ads. Like most things, the more you see, the more you
9 learn, the smarter you get, and that's why scale matters.

10 Now, how do you get scale? Well, you can win
11 customers one at a time. And all the search engines, I know
12 they're trying to do that every single day, and that is
13 competition on the merits.

14 And everything Google does to win customers by
15 innovating, building a better product, that's great for
16 consumers and it's great for advertisers.

17 But gaining scale through that kind of retail
18 effort, really hard. So Google goes wholesale, bypass the
19 consumers, and paying large sums to partners for default
20 placement. With these arrangements, Google pulls up the
21 ladder, protects itself from real competition, and those
22 business arrangements are what this case is about. We look
23 forward to presenting our case in September next year.

24 Thank you.

25 THE COURT: Thank you, Counsel.

1 MR. SEVERT: I'll pass the podium to
2 Mr. Cavanaugh.

3 THE COURT: All right, Mr. Sallet.

4 MR. SALLET: We're going to take just a second to
5 reset slides.

6 Your Honor, while we're waiting for the slides, we
7 had set different amounts of time between DOJ and ourselves.
8 Your Honor's questions are all important, and so the time is
9 being a little bit reshuffled. But we will maintain the
10 time we have, which I believe to be roughly one hour, to
11 cover the key points of what we would like to bring to the
12 Court's attention.

13 THE COURT: I think your time calculation is
14 right.

15 Let me just make sure our court reporter doesn't
16 need a break.

17 COURT REPORTER: I'm fine. Thank you.

18 MR. SALLET: I might begin.

19 Your Honor, I should have said, this is
20 Jonathan Sallet on behalf of Colorado and Nebraska. I'm
21 here with Mr. Cavanaugh, and we will address with emphasis
22 on issues that are unique to what the states are alleging in
23 this case, but recognizing the relationship to that which
24 DOJ has already suggested.

25 So, Your Honor, if I could just have a -- give a

1 minute of context. The DOJ case concentrates on the first
2 of the items on this slide, the search distribution
3 contract.

4 Now, Your Honor, we allege the search distribution
5 contract as exclusionary harm. This is the first part of
6 our case. We've been typically calling this the DOJ case
7 just for convenience. We are making our own allegations,
8 largely consistent, perhaps completely consistent with DOJ.
9 At trial, we intend to deal with these issues in an
10 efficient manner.

11 But it is important to recognize that we begin
12 with this; in fact, I think it's fair to say that our case
13 is built on the search distribution case but it extends
14 broader than the DOJ complaint, extends broader in two
15 respects; one, there's a set of conduct I will discuss
16 concerning a manner by which big advertisers purchase ads on
17 Google and other general search engines, which is all
18 Google's SA360. It's called a search engine management
19 tool.

20 Secondly -- I'm sorry -- thirdly, we will discuss
21 what we call specialized vertical providers, and let me take
22 just a minute on this because there's different names. The
23 Department of Justice, I think, has referred to these as
24 specialized search or vertical providers. I believe you may
25 hear Mr. Schmidlein use the term specialized vertical

1 providers, because we have used it in our complaint.

2 I'm going to come back to this point, but the one
3 point I want to make is that we use the term "specialized
4 vertical providers" because we are focusing on companies
5 whose purpose is to sell, not just search. It's not just
6 the place to go for a more limited form of what one might
7 find on Google, it's a place to go to do something that one
8 does not do on the Google search engine results page: Buy a
9 product, book a service, make a reservation. In other
10 words -- and I will come back to this -- these are
11 transaction-oriented entities, as opposed to Google's
12 business model on the search engine results page, which is
13 to gain advertising revenue by presenting choices and
14 different kinds of information as people think about where
15 they wish to go next.

16 THE COURT: Right.

17 So your point is that the verticals, or what we
18 are calling the verticals, if I go to Kayak, for example,
19 I can buy my ticket there, I can rent the car there, book
20 the hotel there. It doesn't then necessarily take me to the
21 original -- to the actual company page.

22 MR. SALLET: Well, there are a series of
23 distinctions here that are very important.

24 Yes, what you say is correct for the verticals
25 that sell products. So, for example, if one is in a

1 specialized vertical website, it's like walking into a store
2 in the mall, you're in that store, you can buy what's
3 stocked on the shelves of that store.

4 But if you want to go to another store, you walk
5 back out into the mall, you look at the directory, you
6 decide what other store you'd like to go to. It isn't a
7 place to go to search for what other entities are offering
8 or to purchase what other entities are offering, and we're
9 going to go through a demonstration of what the customer
10 journey can look like that will demonstrate that.

11 The point of this slide is to demonstrate that our
12 theory for context is that the three elements work together;
13 that they create cumulative competitive harm; that's
14 basically a hotly contested issue. But just to understand
15 our theory, what we are suggesting is that, what we are
16 alleging, is that the three forms of harm are not just
17 additive -- in this slide, it does look additive -- but that
18 they work together in various ways that I will describe as I
19 go through the next few pages.

20 Another important point here, Your Honor, is
21 we will be discussing specific companies, we'll be showing
22 you real SERPs. Nothing about our case cares at all about
23 the fate of any of these companies in a competitive
24 marketplace.

25 It's not surprising, though, in a monopoly

1 maintenance case, this is what happened in Microsoft, that
2 practice is directed at specific companies where
3 exclusionary can harm competition. Our emphasis is on
4 whether competition is harmed, advertisers and users. The
5 conduct directed at specific companies is, as in Microsoft,
6 simply a mechanism by which we allege exclusion is
7 accomplished.

8 Then I want to just address one question that
9 Your Honor asked, I think, Mr. Severt. What I'm going to go
10 through now, I think, is a description of business
11 practices, Google business practices that are largely
12 uncontested. There's two important elements to that.
13 Your Honor asked at one of the status conferences, might
14 there be a need for a technological master or something like
15 that. What I will show, I think, what you will see by the
16 end of the day is what we have are business practices.
17 Fierce debate about whether they're pro- or
18 anti-competitive, of course, but they're not driven by
19 technological requirements.

20 Second important point. There are very important
21 factual disputes about the effects of these practices, but
22 not, Your Honor, about the existence of the practices.
23 There is general agreement on what Google does, but, of
24 course, this lawsuit is based on our view as to the effect
25 of what it does.

1 So with that, let me just move to a discussion of
2 SA360. This stands for search advertising 360. Now, it
3 plays an important role. This is a slide that Your Honor
4 has unredacted as DOJ slide 27, it's a market share slide,
5 I think Your Honor is familiar with it.

6 But the point I want to make, I can make simply on
7 the right. Whatever is being shared on this slide, it has a
8 smaller share on mobile devices. It has its own browser now
9 called Edge. Bing provides a lot of search queries through
10 its own browser. So the search distribution agreements
11 have, in our view, all the effects that Mr. Dintzer talked
12 about, but they don't necessarily reach Bing at home in its
13 own browsers. Google's SA360, however, sits between Bing
14 and very big advertisers. So let me take a minute to just
15 talk about this slide.

16 Big advertisers or advertising agencies that are
17 interested in buying on multiple general search engines,
18 Bing and Microsoft -- I'm sorry, Google and Bing in the
19 United States, but Yahoo! Japan in Japan on an international
20 basis, there are others that I will show you, can use a tool
21 that allows the management of purchase from rivals, from
22 competitors.

23 SA360 is owned by Google, is used to purchase
24 Google ads, but it has also become a gateway through which a
25 great deal of advertising flows to Google's rival in the

1 United States; that is to say, Microsoft. And this is --
2 and it creates an important set of economic incentives.

3 In fact, so that -- just if I'm an ad agency, just
4 moving down the chart, I can use SA360, I will show you a
5 web page briefly as to what that might look like, and I can
6 buy a Google ad or a Microsoft ad. Or outside of the
7 United States, I could buy Baidu in China or Yahoo! Japan in
8 Japan, without having to go to a different place. It's
9 almost like a package of TV networks in some sense, a
10 package lets me go one to another, I don't have to make
11 separate journeys to each. And so for big advertisers, it
12 provides a considerable benefit.

13 This is simply a web page from Google describing
14 what a client account looks like, and it simply makes the
15 point that I've made. On the left, the pullout box are
16 general search engines that are supported by SA360;
17 different choices, of course, Your Honor, in different
18 nations.

19 So, Your Honor, this is a redacted slide. It's an
20 internal Google slide that you should have in the hard copy
21 in front of you. The point is simply, I've said that Google
22 SA360 sits between Microsoft and large advertisers. By
23 Google's calculation, its SA360 tool was the number one such
24 tool in the United States.

25 And if Your Honor has a chance to look at the

1 actual graphic --

2 THE COURT: I'm sorry, I'm just trying to catch up
3 to where you are.

4 MR. SALLET: Sure. I'm sorry.

5 THE COURT: That's okay.

6 MR. SALLET: It's slide 29 in our deck,
7 Your Honor.

8 THE COURT: 28.

9 MR. SALLET: Is it 28?

10 THE COURT: That's okay. Go ahead, Mr. Sallet,
11 I'm with you.

12 MR. SALLET: Sorry.

13 You will see this is an analysis, redacted, of --
14 showing the existence of multiple entities that provide this
15 kind of what's called search engine management tool, a tool
16 for managing the cross-platform purchase of general search
17 ads. And you will also see Google's calculations and in
18 green of how its search engine is fairing, as opposed to the
19 rival -- I'm sorry, how its search engine management tool,
20 SA360, is performing vis-à-vis the performance of other
21 competitive search engine management tools.

22 THE COURT: Is the search -- it appeared from what
23 you just showed me that the search engine management tool is
24 sort of integrated into -- maybe I'm not saying this
25 right -- but it's integrated into Google's browser?

1 MR. SALLET: No, Your Honor.

2 THE COURT: It's not?

3 MR. SALLET: I showed you -- I think I was
4 confusing you.

5 THE COURT: No, no. I just --

6 MR. SALLET: I showed a web page that Google
7 offers to people that understand how SA360 works.

8 THE COURT: Okay. I see. That's not the
9 actual --

10 MR. SALLET: No, but it is a separate tool, a
11 separate economic function from the browser.

12 THE COURT: Understood. Okay.

13 MR. SALLET: Okay.

14 So in a recent year, 62 percent of Google's search
15 engine -- search ad revenues that came through these tools,
16 just the ones that came through these tools in 2019 came
17 through SA360. And I think that's a roughly fair notion for
18 other general search engines as well. So the traffic from
19 big advertisers that's going through a search engine
20 management tool is going largely through the Google-owned
21 SA360.

22 This can create questions. And Google answered a
23 critical question after it acquired the tool. Just for
24 historical context, Google acquired the company known as
25 DoubleClick; I think that closed in 2008. DoubleClick was

1 the originator of this tool. In 2018, it was rebranded as
2 SA360.

3 But in 2011, Google addressed how it would operate
4 the tool. It said, we believe in analytics-based marketing
5 on Google, Bing, Yahoo!, or any other network or platform
6 that delivers accountable results online. We want online
7 advertising to continue its growth trajectory and will
8 always be a neutral third party -- this is our highlighting,
9 Your Honor -- helping you to achieve the highest return on
10 investment regardless of the online channel. That's not a
11 surprising statement since the purpose of the tool, in some
12 sense, is to afford the same competitive opportunities for
13 Bing and Google.

14 What we allege, however, is that there's
15 exclusionary harm from the Google failure to provide parity
16 in the supportive features. Again, Your Honor, I think
17 we're not going to have a debate about whether the features
18 are supported in exactly the same way at the same time, but,
19 rather, the factual dispute will be about the effect of such
20 treatment.

21 So, for example, this is a list of features, this
22 is our document, we compiled this from public information
23 Google makes available that talks about a set of features.
24 Just -- Your Honor, I'm sorry to introduce even one more
25 term here, but by a feature, we don't mean a different kind

1 of ad, these are all search ads, but search ads can be of
2 various kinds. We have corks, but we have up-down sideways
3 corks, right?

4 So here, we have search ads that it can be
5 auction-time bidding, which I will discuss, it can be
6 dynamic, which means that Google, in essence, creates the
7 search copy from information made available to it. They can
8 be responsive, meaning that they can shift their content
9 over time. And they can show what a store has in a local
10 community. That's a local inventory ad.

11 But the point of this is, uncontested, I believe,
12 that SA360 supports the Google ads in every instance, but
13 the treatment of Bing ads in the United States is different,
14 either not supported, partially supported, delayed
15 supported, or maybe delayed support after partial support.
16 It is that distinction that is at the heart of our SA360
17 allegations.

18 And I want to talk about just one of these, which
19 is called auction-time bidding and give you, Your Honor, an
20 illustration of how that might work.

21 Imagine Suzy's Bakery and Ice Cream Shop
22 advertising on Google, buying keywords that it believes will
23 be of interest to users. Imagine it's a Wednesday morning.
24 And it's a hot day, it's 95 degrees. But the typical
25 traffic into Suzy's at 10:00 in the morning is people buying

1 doughnuts, it's a workday, and yet it turns out a water main
2 breaks at the local elementary school and school is
3 dismissed. So now parents start going to Suzy's website
4 looking for what kind of ice cream is available.

5 Well, what auction time bidding does is, it says
6 basically to Suzy, ice cream is more important to
7 advertisers right now than doughnuts. You wouldn't have
8 expected all these people showing up for ice cream at 10:00
9 in the morning, but something is happening, we're seeing
10 changes in demand, so we're going to give you the
11 information right now so you can advertise ice cream.

12 Suzy does, and now it reaches people -- parents
13 who don't know about Suzy's that are searching for ice cream
14 near me. It's a very powerful tool, because it allows
15 advertisers in various ways to respond in realtime to
16 changes that might not be anticipated or information that
17 might not have been known.

18 THE COURT: So can you just -- Mr. Sallet, can you
19 elaborate on, using your example, how does that sort of
20 functionally work?

21 I mean, does the end user, the advertiser in this
22 case, the ice cream shop owner, need to go to SA360 and say,
23 you know, for some reason, I've got an increase in ice cream
24 buyers in the morning that's unusual, so please promote or
25 I'm willing to bid more for those ads? Or does the

1 information flow to her in some way through SA360 or through
2 some other means?

3 MR. SALLET: What basically happens, Your Honor,
4 is that the information on the website, all of a sudden
5 people start looking for ice cream or making purchases or
6 whatever that is being tracked is given to SA360 by
7 agreement between Suzy and SA360.

8 So that Google has the ability, agreed to by the
9 advertiser, of course, to use that data to immediately shift
10 what keywords are being bid for in the kinds of auctions
11 Mr. Severt described.

12 So instead of bidding so much on doughnuts, the
13 so-called conversion data is saying, oh, gosh, start bidding
14 on ice cream. So it's a realtime process that very quickly,
15 I would say virtually instantaneously, shifts the bidding
16 strategy to meet unanticipated or new events.

17 And that is very powerful. And Google has
18 recognized as such. I'm just going to skip through a couple
19 of slides very quickly, but a Google document recognizes
20 bringing the power of these decisions to what was then known
21 as DoubleClick search strategies, that it is query level and
22 proactive optimization, not just reactive to historical
23 data. Absent auction-time bidding, the data might be four,
24 six hours old. It wouldn't capture the sudden surge of ice
25 cream demands.

1 And that there are particular kinds of
2 information, location, demographics the device used that can
3 be updated immediately, as opposed to waiting the four to
4 six hours, which, in my hypothetical, would have missed the
5 ice cream demand.

6 THE COURT: You'll forgive me for re-asking this,
7 but so where does the data input come from to make these
8 changes? If, for example -- I mean, say there is an
9 increased search for ice cream in the area --

10 MR. SALLET: Yes.

11 THE COURT: -- is that one source?

12 Is Suzy herself somehow, are her sales connected
13 up to SA360 in a way --

14 MR. SALLET: Yes.

15 THE COURT: -- that it can see, all right, well,
16 now we're selling more ice cream.

17 MR. SALLET: Yes.

18 By agreement with the advertisement SA360, the
19 advertisers --

20 THE COURT: The advertiser.

21 MR. SALLET: -- would allow exactly that kind of
22 information on sort of whatever criteria.

23 Has somebody visited my website looking for ice
24 cream? Have I actually started selling ice cream? Sets of
25 data that come from the way the business is being operated

1 that would inform the best keywords on which to bid. That's
2 the core functionality. And Google says it's a powerful
3 one. Google notes that, what it calls uplift is up 15 to 30
4 percent. That can be sales revenue when entities use
5 auction-time bidding.

6 But the point we are making that I made on an
7 earlier slide is, Google does not support that feature when
8 it helps manage the sale of Bing advertising. So
9 advertisers buying Bing through SA360 do not have access to
10 the same feature, the same equivalent of auction-time
11 bidding that Microsoft has empowered as it does to the
12 Google ads.

13 And, indeed, Your Honor, Google is very forthright
14 internally about the value of SA360 to Google. Our
15 highlighting, but it is a platform to go to the highlighted
16 text that prioritizes Google features. And that's not
17 completely surprising in one set, Your Honor, because one
18 should think about the economic mechanics of the purchase.

19 So on the next slide, this is a slide I showed you
20 before, Your Honor, but just think about the way the money
21 flows. There is a small fee for using SA360, okay? Then
22 there is the price of the ad itself. So if somebody goes
23 down the red column, one pays the fee, plus buys the Google
24 ad. If one goes the other way, one pays the fee and pays
25 Microsoft for its ad.

1 It's very clear that it is more profitable for
2 Google, certainly it provides more revenue for Google if a
3 Google ad is sold than if a Bing ad is sold, even though the
4 tool was described to advertisers as providing neutral
5 treatment.

6 THE COURT: When you say the ad is sold, do you
7 mean when it's clicked or are you talking about --

8 MR. SALLET: Yes.

9 THE COURT: Only when it's clicked.

10 MR. SALLET: I'm talking about now about the kinds
11 of search ads that Mr. Severt described.

12 THE COURT: Is that also true with Bing?

13 MR. SALLET: Yes, we're only talking about ads
14 that appear on those search engine results page.

15 THE COURT: Right.

16 But just to be precise, is Bing's model also that
17 the ad is purchased and therefore Bing is paid when the ad
18 is clicked on?

19 MR. SALLET: Yes, Your Honor.

20 All search ads, as I understand it, require some
21 action by a user.

22 THE COURT: Okay.

23 MR. SALLET: The text ads, I believe, are always
24 cost per click. Sometimes different forms of ads can take
25 slightly different forms of conduct, but the focus is that

1 something has to happen on the ad.

2 This is a difference for the display ad.

3 A display ad, say, in a newspaper gets paid for just because
4 it's in, well, the *Washington Post*.

5 But these ads are focused on the goal of the users
6 in discovering information, and so the payment is keyed to
7 the interest of the user in clicking on the advertisement,
8 okay?

9 THE COURT: And so your theory is that Google is
10 advantaging itself by not offering auction-time bidding for
11 Bing advertising. And the way that plays out is that it is
12 able to promote ads through its searches that are more
13 likely to be clicked and therefore generate ad revenue.

14 MR. SALLET: Right.

15 And our theory, just to go back to that very first
16 slide, the search distribution plus SA360 plus SVPs is that
17 strategy is advantaged by the effect of the search
18 distribution contracts; in other words, the allegation is
19 that the search distribution contracts limit the number of
20 users that come to Bing, that's what Mr. Dintzer was talking
21 about when he was talking about behavioral economics, that
22 that makes Bing or DuckDuckGo or anybody less interesting to
23 advertisers so it limits advertiser demand.

24 Then one gets to SA360, demand for the Google
25 rival has already been lowered by that prior conduct, and

1 therefore gives Google greater freedom to make the
2 distinction by which it prioritizes its own features. We
3 think this is one connected narrative, in other words.

4 Let me go, if I might, back to an issue that we
5 discussed before. This is a redacted slide that actually is
6 earlier in our deck but you have in front of you. So let me
7 just discuss it. It basically shows purchases of
8 advertising by the SVPs from Google.

9 And let me talk a little bit about what this tells
10 us about SVPs. First of all, it tells us that they are
11 looking to Google as a source of traffic, particularly new
12 customers, customers that don't know about the SVP or what
13 it can offer.

14 As I've said before, a core distinction between
15 the SVPs we're discussing is that they offer actual
16 transactions as opposed to simply offering choices that they
17 monetize through ads.

18 And we've seen that, for example. I think this is
19 an example Your Honor may have asked about. Google once had
20 a service by which one would book a hotel through Google.
21 Earlier this year, it discontinued that service because it
22 said there wasn't much demand for it, at least that's what
23 the journalism was, that there was not much demand for it.
24 So this helps make the distinction.

25 Google is about presenting choices and information

1 and the SVPs are about being the place where a transaction
2 happens. We've seen this discussed in the industry, that
3 the effect of the business being transaction based,
4 Your Honor already noted this and we talked about this, is
5 to try to keep people in their store, on their website. But
6 because they want to increase the number of transactions,
7 they look to the broader set of users on Google as people
8 who might be interested in what they have to sell; in other
9 words, Your Honor, they are customers, but, in our view, not
10 competitors of Google.

11 This is a redacted portion from a deposition,
12 Your Honor. You should have in front of you a quote that
13 talks about this. It's from an industry executive, who
14 basically said -- and I'm paraphrasing in an open
15 courtroom -- the SVPs need general search more than general
16 search needs SVPs in terms of traffic flow.

17 And the one point to note, Your Honor, is when I
18 talk about traffic flow, it's not just about ads. A lot of
19 traffic can come through the other links, the nonpaid links
20 on the Google search engine results page that Your Honor
21 viewed.

22 So let me turn to a description of what we are
23 talking about. The SVPs both supply content and buy Google
24 ads. This is an important fact of the economic functioning.
25 So on this slide, you can see in the blue box, Google and

1 then its rival's horizontally located. At the top are
2 search users, the people who use search queries -- who make
3 search queries.

4 On the other side are content providers. Now, in
5 some sense, everybody in the world is a content provider to
6 Google to the extent that their websites are indexed and
7 crawled, right. Mr. Dintzer talked about that.

8 But that isn't all the information that Google
9 believes it needs. It needs certain kinds of information
10 that isn't made freely available on the open web. It might
11 be a weather report. It might be, Your Honor noted this
12 before, the score of a Major League Baseball team, except if
13 you're a Red Sox fan and you don't care anymore.

14 THE COURT: Well, welcome to having been an
15 Orioles fan.

16 MR. SALLET: Above the Red Sox.

17 But the kind of data that, say, a company like
18 Expedia or Booking or other SVPs have is called structure
19 data. It's the data they build, they invest in, they
20 collect. Every hotel in the world, at least as close as
21 they can get, and the rates on a realtime basis and the
22 features and the availability on a realtime basis and
23 photographs and ratings and that kind of data, they're
24 collecting.

25 THE COURT: I take they're collecting that through

1 agreements with --

2 MR. SALLET: Yes.

3 THE COURT: -- airlines, hotels, car rentals
4 companies?

5 MR. SALLET: Very important. They're going out
6 and making the deals and arrangements to be able to gather
7 the data.

8 This data is not searchable on the open web.
9 It's like a newspaper that's behind a pay wall with which
10 we're familiar. Google would like to have this data,
11 because it would like to be able to provide these kinds of
12 additional data points to its users who come to the search
13 engine results page.

14 So we will come to a set of contracts, I'll give
15 you an example of one, by which the SVPs and Google -- that
16 Google sets the terms, in our view, for how this data is
17 obtained from the SVPs. Our view is that it forms an
18 exclusionary practice. Again, the fact of the data being
19 transferred is not going to be an issue, whether it is
20 anti-competitive or pro-competitive is very much an issue.

21 THE COURT: So if I'm understanding you correctly,
22 so, for example, if I punch in a flight to Miami --

23 MR. SALLET: Yes.

24 THE COURT: -- and I think oftentimes if you use
25 Google, it will show -- there will be text boxes that will

1 allow you to put in the date and so on and so forth.

2 MR. SALLET: Yes.

3 THE COURT: The data that informs the output, if I
4 were to use that function, comes from the vertical
5 providers?

6 MR. SALLET: Comes from multiple places.

7 THE COURT: Okay.

8 MR. SALLET: But it absolutely includes data from
9 the specialized vertical providers, and we will come to this
10 in a few minutes very specifically.

11 THE COURT: So the airline, for example, United,
12 I'm selling data to the vertical services provider -- excuse
13 me, the specialized vertical provider, but United has not
14 said that this data is exclusive; in other words, they are
15 okay with the service provider -- the verticals re-selling
16 the data?

17 MR. SALLET: Well, one of the questions is is it
18 being resold or is it being required? We're going to have a
19 slide that says Google requires it.

20 But, Your Honor, yes, we understand that the SVPs
21 having collected and created these proprietary databases are
22 free to transfer them to Google. The example we're going to
23 see is a Google requirement that if you want to buy a
24 particular kind of ad on Google, you have to give Google
25 access to all of the data, okay?

1 The other role that the SVPs play, and we've
2 talked about this, are, of course, purchases of great
3 amounts of advertising from Google, in this sense being both
4 a supplier of content and a customer.

5 So I want to back very briefly to a slide that
6 Mr. Severt showed and put in the context of the SVPs
7 specifically.

8 THE COURT: And I'm sorry to keep interrupting
9 you --

10 MR. SALLET: No, no. Please.

11 THE COURT: -- but just so I have this all right.

12 But you consider SVP -- Amazon, for example, in
13 your view, is an SVP. I'm stuck on things like --

14 MR. SALLET: No, no, I should do that.

15 THE COURT: -- Kayak, the travel sites, but it's
16 broader than that. It's Walmart, Amazon --

17 MR. SALLET: Yes.

18 THE COURT: -- Wayfair, any of these --

19 MR. SALLET: Let me give you a couple of sectors.

20 In reality, Amazon, Wayfair, eBay, for example.
21 In local services, we're looking for a plumber, Thumbtack,
22 Angie's List. In local searches, OpenTable shows us
23 different restaurants. In travel, Expedia booking. These
24 are all SVPs, and what they have in common is they focused
25 on a vertical, they've created this data that's relevant to

1 that vertical, and that their revenue stream is
2 significantly or sometimes -- well, very largely comes from
3 a transaction or maybe it's making a reservation or it's
4 booking a plumber for you or selling an airline ticket or a
5 hotel room or, as you say, in retail, a product, buying a
6 product on Amazon or eBay. These are all examples of
7 specialized vertical providers.

8 And what they all have in common on this slide,
9 which is the funnel. There's a lot of talk about the
10 funnel; there's a lot of literature. Our view of this is
11 very simple. The place you go to make a purchase is closer
12 to the place of purchase than the place you go to see where
13 to purchase or what information would help you decide what
14 you want to purchase.

15 So there's different forms of this diagram that
16 can take different shapes. But our point is that for the
17 SVPs we're discussing here, they are the point of purchase.
18 So if an advertiser wants to reach somebody at the checkout
19 counter, at the metaphorical checkout counter, like displays
20 in the supermarket, one wants to go to the point of
21 purchase.

22 That's a different location from a user's
23 perspective than when the user is in the place on the Google
24 SERP or the Bing SERP of trying to think about what place to
25 go to or think about what information would tell the user

1 what -- a newspaper article, what would be good products to
2 buy or actually even see what Google might think is the
3 relevance of different specialized vertical providers.
4 That's a different process; that this funnel idea simply
5 says typically, not always, comes before the actual
6 purchase. But our view is that's just by definition.
7 Finding a store always comes before making a purchase in a
8 store.

9 So let me show Your Honor an example of a SERP
10 that's about shopping. Your Honor asked about shopping,
11 because the point here, Your Honor, is we are going to go
12 through some certain forms of conduct, they are not uniform
13 across the specialized vertical providers. So I'd like to
14 give Your Honor just a quick look at a shopping SERP and
15 then we'll make some comparisons as time permits.

16 On this SERP, we see, first, at the top, what are
17 shopping ads. This is a search for an iPad holder. And the
18 first thing that comes up are ads. And you can see Amazon
19 is highlighted there, we've highlighted Amazon across this
20 page, although it is not the only SVP. That's one way
21 Amazon and similar companies can appear on a shopping SERP.

22 Then -- it's very small, Your Honor, I apologize.

23 THE COURT: That's okay.

24 MR. SALLET: But what you're seeing highlighted
25 are text ads, the text ads of which we've been speaking.

1 One that shows up for Amazon.

2 Then third is what I'm going to call a blue link.
3 And there's a nomenclature issue here. There are different
4 kinds of nonpaid results on the Google SERP I'm going to
5 call blue links, and this is used in industry, the things
6 that we are most well-acquainted of that are blue that
7 Google ranks by relevance after collecting information from
8 across the web.

9 THE COURT: These are what we talked about, these
10 are organic search results?

11 MR. SALLET: Yes.

12 But I've not used the word "organic" because
13 sometimes the word "organic" is also applied to the next set
14 of nonpaid results, which in this case are popular products.

15 So I'm using blue links to mean the specific kind
16 of organic results with which we're most familiar, but there
17 are some nonpaid results in places like shopping and hotels
18 and flights.

19 So here you can see that the retail SVPs appear in
20 all four categories of the SERP. I'd like to take you
21 through a journey on a mobile phone to show that -- to set
22 up what I'm going to describe as differential treatment.

23 This is reaching a travel SVP from a mobile phone.
24 The mobile smartphone turns out to be important to this
25 discussion. I'm going to show you four things; a text ad,

1 the kind we've talked about that goes directly into an SVP
2 site; what is a hotel unit that appears on the SERP, which
3 is a box, a universal or a unit that's focused on hotels, an
4 SVP -- reaching an SVP; then, thirdly, if you want to go
5 back to the SERP; and then fourth if one wants to use a blue
6 link. And my purpose for this, Your Honor, is simple. It's
7 to show that on the SERP, there are more limited
8 opportunities for SVPs to appear in some verticals, and
9 hotel is one, than in other places like shopping.

10 And, Your Honor, this is important because the
11 SERP on the traffic is -- I'm sorry, the place where users
12 go is the SERP. They travel to other things like into these
13 hotel units and other Google pages in much, much, smaller
14 numbers. If people want to be able to reach the Google
15 users, one wants to be on the face of the search engine
16 results page. So let me go through the four points very
17 quickly.

18 As we said, if one is on a text ad, clicks on it,
19 goes right to the SVP site. This is very important,
20 Your Honor. It doesn't go to an intermediate Google page,
21 it goes right to the advertiser page. A little more
22 complicated.

23 Go down the screen a little bit for this search of
24 hotels in New York and there's a box that appears on the
25 left, it's called a hotel unit, it has nonpaid listings on

1 the SERP for different hotels.

2 Let's say one wants to go to the bottom of that
3 unit. The red box indicates the ability to see over 1,200
4 different New York hotels. If one clicks on that, one goes
5 into another Google page. That's the next box. It contains
6 an ad, but it also contains nonpaid listings. So suppose
7 one clicks on the nonpaid listing, in this case, a
8 Doubletree Hotel, one goes to a page specific to the
9 Doubletree Hotel. One then sees an SVP, we've denoted one,
10 and can click on it and it can go to Priceline.

11 Many, many fewer people make this journey, three
12 clicks away from the SERP than look at the SERP itself. Our
13 contention is this makes a differential treatment. This
14 creates a differential treatment in this space, hotels,
15 than, for example, in shopping.

16 But let's say someone does this journey,
17 Your Honor, and decides they don't like what the offers are.
18 This is the point you asked about before. They can't
19 immediately go to Expedia from this SERP and just say, well,
20 show me, please, Priceline, show me what Expedia has to say.
21 Rather, they go back and back and back to the SERP. And
22 they go back to the SERP, Your Honor, because that's where
23 the choices are, that's where the information is.

24 In fact, Your Honor, in thinking about this, in
25 the key verticals that we've talked about, these kinds of

1 universals that are at the right, it's called a universal or
2 a unit, it's on the right-hand side where the 1227 hotels is
3 noted, the users in categories like local search, food
4 delivery, local services, shopping, flights, hotels, click
5 on this in the low single digits. Of the 100 percent of
6 people who get a SERP in response to a search query, low
7 single digits. And, in fact, Google itself says that the
8 fraction of SVP traffic originating from these vertical
9 features is relatively small.

10 But in any event, we've encountered a user who
11 doesn't like -- doesn't want what's being offered, goes back
12 to the search engine results page, and on the next slide
13 clicks, what is below the hotel unit, a classic blue link, a
14 free search, and then goes into an app. And this is
15 important, Your Honor. On a mobile phone, if an app is
16 installed, the user has to install the app. If one clicks a
17 company like Amazon on the mobile SERP or in this case
18 Expedia, one is not taken to the website, he or she is taken
19 to the app. This is important because it's a frequent issue
20 as to whether SVPs need Google at all, whether they can just
21 get their traffic from apps.

22 But, in fact, Google is a pathway and an important
23 pathway to apps for users that know about the SVPs. It's an
24 even more important pathway, perhaps for users who don't,
25 who are discovering, and we've -- that is by definition,

1 Your Honor. If one doesn't know that there's an SVP that
2 offers, I don't know, musical concert tickets and advice,
3 one doesn't use an app to get to it, one has to learn about
4 it, and learning is what the Google SERP is all about.

5 So let me just briefly go through these four
6 categories, Your Honor, because I know time is short, and
7 link them to how we see the case just to give Your Honor
8 some context.

9 The first is text ads. We've talked about text
10 ads. It's the contention of the state that the competition
11 in text ads has been adversely affected by both the search
12 distribution contracts and SA360, directly, and other forms
13 of conduct indirectly, but we regard them as having been
14 affected.

15 Secondly, the trip from the hotel unit to the SVP,
16 this is different than shopping. SVPs are not appearing and
17 we believe that means it's less likely that they will get
18 traffic from SERP because of the differential treatment
19 because it is such a small portion of Google users who go
20 through these immersives.

21 Thirdly, that if one is in an SVP and one wants to
22 go back to find another one, if one goes back to Google,
23 reinforcing the point that Google is the place of discovery,
24 the SVPs are the place of purchase.

25 And, finally, that the blue links can lead -- do

1 lead directly to the SVPs, including on a mobile phone now.
2 So the question is, what is the impact of Google practices
3 on this fourth item, and it is that to which I will briefly
4 turn.

5 We've talked about a SERP all day long, desktop
6 and mobile. In the industry, there's a recognition of what
7 is above the fold and below the fold, and it basically
8 means, we're all familiar with this, if one has to scroll
9 down, that's considered below the fold. This is a newspaper
10 term, right, but *Washington Post*, Nixon resigns, above the
11 fold, because it's considered to be more important, more
12 prominent and attract more attention. That's the core
13 industry view here. This is, I want to say, a contested
14 point, but it is one that Your Honor will hear about.

15 And the other point about this is, and I think we
16 all know this, where the fold is, how much content it picks
17 up or doesn't, is, of course, dependent on the device we're
18 using. Desktops generally contain more information above
19 the fold, mobile devices generally less.

20 But what we have seen, Your Honor, what we will
21 explain to the Court, is that these blue links that we're
22 talking about have tended over time to be appearing in some
23 verticals, not shopping but in these other verticals, below
24 the fold, where they get less attention.

25 By our estimate, where there's a universal unit

1 like the hotel unit, the clicking on blue links drops by
2 almost 20 percent. That's a very significant difference in
3 performance. I want to make plain, Your Honor, it is not
4 the states' contention that there's anything wrong with
5 Google having a search universal. It is the states'
6 contention that the combination of effects of text ads,
7 through other forms of conduct, through the universals in
8 verticals where they differentiate from, say, shopping, and
9 the concomitant lowering of the blue links to a less
10 prominent place, that all adds up to conduct that
11 disadvantages the SVPs.

12 THE COURT: All right. Mr. Sallet, sorry, I know
13 you've answered this, but just for my own benefit, blue
14 links are not paid advertisements, right?

15 MR. SALLET: Correct.

16 THE COURT: Okay.

17 MR. SALLET: Correct.

18 If one went to a Google search results page in
19 2000, say, one might see only blue links.

20 In fact, Your Honor, I believe about 75 percent of
21 Google pages return only something like blue links
22 acknowledgment but no ads. About 75 percent have no ads at
23 all. Mr. Dintzer gave an example. What was the name of
24 Magellan's boat? Unlikely to be generating a great deal of
25 ad revenue.

1 But for the commercial sectors that are very
2 important to Google because they provide the bulk of the
3 search advertising and then in verticals where the SVPs are
4 just treated differently than in shopping, the combination
5 of effect on text ads, exclusion from the universal, and
6 demotion of the blue links has an adverse impact, and,
7 Your Honor, quite frankly, raises the cost of traffic
8 acquisition to these SVPs.

9 Now, Your Honor, a reasonable question would be --

10 THE COURT: Is that why -- the reason for that is
11 because, in your view, if the nonpaid ads are below the
12 line --

13 MR. SALLET: Yes.

14 THE COURT: -- in order to attract traffic, they
15 have to pay for advertising?

16 MR. SALLET: For the text ads specifically.

17 And it isn't as absolute, Your Honor. But as
18 attendance, yes, it's this. Suppose I'm an SVP and I'm
19 buying one ad and getting one blue link and I'm getting them
20 both clicked on, and the ad is 50 cents. But then because
21 of the changes, accumulative effect of changes, the blue
22 link isn't attracting attention, so I'm buying two ads. My
23 cost has gone up to a dollar. On a per-unit basis, it's
24 doubled, right, because I was getting two for 50-cents. Now
25 I'm getting two for a dollar. That's the core thesis.

1 But, Your Honor, I want to emphasize, a reasonable
2 question would be why do we care about these SVPs being
3 harmed? Because you've heard me say, they're not
4 competitors to Google.

5 Our theory, Your Honor, is, our allegations, the
6 evidence that we plan to present at trial, is that what's
7 happening here is that Google's conduct is diminishing the
8 ability of SVPs to be strong enough to be very attractive to
9 rival general search engines. Rival general search engines
10 can use the SVPs to attract traffic or they can get their
11 data which could be more robust.

12 But the partnership between a rival engine and an
13 SVP is diminished to the home of the rival general search
14 engine, okay? And it comes from both directions,
15 Your Honor. The conduct I've talked about, the SVPs, limits
16 the attractiveness of the SVPs to the rival. The conduct
17 Mr. Dintzer talked about this morning, for example, limits
18 the attractiveness of the rival general search engine to the
19 SVP. Potential partnerships that could strengthen rival
20 general search engines through stronger SVPs, both sides are
21 being degraded by the conduct to which we point.

22 And this conduct, Your Honor, I will be very
23 brief, although perhaps not as brief as my co-counsel might
24 appreciate, but I'll try to finish up, is uncontested.
25 Here's a page, Google's treatment of SVPs on SERPs.

1 Google itself says, Your Honor, that other than
2 shopping, SVPs are treated differently, they can't appear on
3 the SERP. And this is a user that's in one box. It's the
4 same as the universal or the unit for hotels, flights, local
5 services, local search. Local search, Your Honor, is
6 restaurants near me as an example. And they can't feature
7 their own name in certain kinds of ads the way shopping can.
8 And so let me just very briefly show you this and then I
9 want to go on to data.

10 Here's an example of the same shopping SERP and a
11 SERP for flights. What's on the left are free results,
12 product listings. On Google, the flight SERP on the right.
13 Both have nonpaid listings, the SVPs are allowed in
14 shopping, not in flights.

15 Secondly, this is a -- these are different ads,
16 these are different ads than texts, Your Honor. On the
17 left, the shopping ads. On the right, what's considered a
18 local services ad.

19 So one looks for a cleaning service. You note on
20 the right that an SVP can buy the ad in its own name and is
21 the only name displayed. But on the left -- excuse me, on
22 the left. But on the right, Google interposes itself
23 between the user and the SVP in a very direct way.

24 Whereas if I click on the shopping on it at the
25 left, I go into Amazon. Say I click the Amazon one, I go to

1 Amazon. But when I click the one at the right, I go to a
2 Google page, and I have to go an additional click to go to
3 get to the SVP. Even though it's the SVP that has purchased
4 the ad, its name isn't at the top of the ad, it isn't the
5 only name, the cleaning service and Google is also, and
6 perhaps most importantly, the extent it wants to get people
7 to its own website, that's why it's buying ads because it
8 wants to create customer loyalty, it wants to show them
9 other choices and information, Google puts itself between
10 this ad and the SVP.

11 So I want to skip a few slides if I can.

12 THE COURT: I'll just give you a few more minutes.

13 MR. SALLET: Yes, your Honor's been very patience.
14 I'm reading fast.

15 THE COURT: That's okay. We're coming up on the
16 time.

17 MR. SALLET: Let me just make one point about the
18 data. We've talked about data being suppliers.

19 This is a redacted slide. Your Honor will see in
20 the middle a box that is from a Google document. Google
21 describing how one SVP felt about the data and the
22 circumstances on which it has to be given to Google, the
23 circumstances in which, as the top of the slide says, the
24 data is required.

25 And then, Your Honor, the next slide speaks to a

1 question that Your Honor asked: What is the data? Well,
2 this is from a Google expert report that we -- I'll
3 paraphrase -- but this is our understanding about what
4 Google is saying; that for hotels, the kinds of data that
5 we're talking about includes hotel information, price,
6 availability, photos, reviews, booking links. Importantly,
7 Your Honor, some of this data is needed to support an ad.
8 SVP says hotels prices. Google has to have the hotel
9 prices. But Google doesn't limit its use to the hotel ads
10 in that instance, it uses it to present results for hotel
11 queries separate from its use in the ads.

12 In flights, same thing, it gets extensive data
13 which feed into Google's sites, not just the ads. Local
14 services, plumbers, same thing, extensive information on the
15 kinds of relationships these companies have created with
16 suppliers that Google can use for itself separate from any
17 advertising.

18 This is important, we believe, because it limits
19 the ability of the SVPs to use the data the way they wish to
20 use it, right. It is our contention that Google, given the
21 market power that Mr. Dintzer described, is able to obtain
22 the data, and once it has it, it means an SVP can't make a
23 separate, better deal saying we'll give a rival search
24 engine some special forms of our data, because, as
25 Your Honor will see on the next page, from a contract that's

1 relevant in this, Google has a clause calling for a very,
2 very broad scope of data and noting the extent to which that
3 data can or cannot be supplied in any different form to a
4 different company. So I'm going to now just promise to end.

5 The SVPs, all three forms of conduct, they buy
6 Google ads, they're harmed like every advertiser is. If
7 they use SA360, they're harmed like advertisers. If they
8 try to acquire customers, their costs go up.

9 But I just want to repeat one point because it's
10 so important. Harm to the SVPs is not the harm we plead in
11 this case. The harm we plead is in two pieces. First, that
12 all of the conduct, search distribution, SA360 and SVPs add
13 up to conduct that makes it harder for other general search
14 engines to compete against Google in different but
15 interlocking ways.

16 And, because of the diminishment of the rivalry,
17 users are harmed because they have fewer choices, and
18 advertisers are harmed because they're forced to buy from
19 the one place that can aggregate all the users, Google, and
20 they're deprived, therefore, of truly competitive offerings
21 from other general search engines. So Your Honor's been
22 very patient. I think I've eaten all of our time, but I
23 appreciate your time.

24 THE COURT: Thank you, Mr. Sallet.

25 All right. Thank you, plaintiffs' counsel, for a

1 very informative morning and into the early afternoon.

2 So it's now a little bit before 1:00. Let's get
3 started again at 2:00. It actually would help me, because I
4 need to leave just about 5:00 this afternoon, and I want to
5 make sure Google gets its full three hours and we have a
6 little bit of time for a break, so why don't we plan to
7 start around 1:50. It's a shorter lunch break than I would
8 have hoped, but does that work?

9 MR. SCHMIDTLEIN: That's fine.

10 THE COURT: All right. We'll see everybody at
11 1:50. Thank you.

12 DEPUTY CLERK: All rise. The Court stands in
13 recess.

14 (Recess from 12:57 p.m. to 1:50 p.m.)

15 COURTROOM DEPUTY: The Court is in session. The
16 Honorable Amit P. Mehta presiding.

17 THE COURT: Please be seated, everyone.

18 Just bear with me everyone. Sorry.

19 Okay. Sorry, everyone. Thank you very much for
20 your patience. I hope everybody had a nice lunch break.

21 Mr. Schmidtlein, I'm ready to hear from you.

22 MR. SCHMIDTLEIN: Thank you, Your Honor.

23 John Schmidtlein for Defendant Google. Just as the
24 government did, we have a relatively small number of slides
25 that are redacted and that, when I come to those, there will

1 be a redacted page shown on the screen.

2 What I have for you and for the Clerk are binders
3 of all of the slides but we have tried to, with tabs, flag
4 the specific pages that are redacted so that when I come to
5 one of those, you can quickly sort of just pull those out
6 and review it in your binder. So hopefully that'll keep us
7 all on the --

8 THE COURT: By the way, I don't know if I've done
9 this already, but you all should make your acquaintance with
10 Danayit Musse, who's the new clerk on this case. I don't
11 remember --

12 Were you here for the last status hearing? Okay.

13 MR. SCHMIDTLEIN: Welcome aboard.

14 THE COURT: Sophy Montgomery, who was the former
15 clerk, sends her regards, wishes you all well. She's now
16 clerking on the Fourth Circuit, so whatever happens here,
17 she will not have to deal with ever again.

18 But in any event, I wanted just you all should
19 make your acquaintance with her and you'll get to know her
20 over the next year.

21 So, Mr. Schmidtlein.

22 MR. SCHMIDTLEIN: All right. Thank you,
23 Your Honor.

24 As you heard this morning, the plaintiffs' claim
25 in this case that Google has unlawfully maintained,

1 maintained a monopoly in a general search engine market, in
2 somewhat different flavors depending upon which plaintiff of
3 search advertising markets through supposed anti-competitive
4 conduct. Most of the conduct that was discussed this
5 morning and that is the subject of the case, pertains to
6 things relating to the search market.

7 You heard Mr. Sallet talk briefly about some
8 conduct relating to SA360, which is a search ad's marketing
9 tool, and we'll talk a little bit about that, and that
10 pertains to how people buy -- how advertisers buy ads on
11 various different platforms.

12 But aside from that, everything else here is
13 directed at conduct supposedly relating to search and how
14 Google gets its search product out in the market, even the
15 conduct that Mr. Sallet was trying to describe at the end
16 relating to SVPs, specialized vertical providers, and sort
17 of where things go on the page, they claim that that conduct
18 somehow circles back, and I'll talk little bet about it,
19 somehow circles back and has something to do with a general
20 search engine market, even though they go to great lengths
21 to say that those SVPs aren't actually in that market.

22 Oh, one of the things that I think is notable
23 about the case and the fact it's a monopoly maintenance
24 case, not a monopoly acquisition case, is that the
25 government necessarily concedes that Google achieved

1 extraordinary success in whatever market you want to
2 describe by whatever dimension through lawful
3 pro-competitive conduct.

4 I believe you probably saw in one of their slides,
5 and I promise I'm not going to comment on your slides more
6 than I would like to, but one thing that did jump out to me
7 when I got them the other day was on one of their timelines,
8 and Mr. Dintzer referenced it a couple times, that as of
9 2009, I believe they say, Google had, according to them, an
10 80 plus percent share of the market. 2009.

11 Now, by all estimations, that's years before any
12 of the supposed conduct in this case that they're
13 complaining about occurred. So Google obviously had
14 extraordinary success and was doing something incredibly
15 valuable, not only for consumers who were using their
16 product back in those early days when we were sitting in our
17 computers at law firms trying to find things on the
18 Internet, but also they began to enter into some of the
19 exact same agreements that are being challenged here.

20 You heard some discussion earlier this morning,
21 and I'm going to talking about it today. The Apple and
22 Mozilla browser agreements, those were entered into in the
23 early to mid-2000s. The Android operating system that you
24 heard about, we'll talk a little bit about today, was
25 launched in 2008. And in the years that followed very

1 sophisticated partners, OEMs that you heard, like Samsung
2 and Motorola, carriers -- that's word I'll use instead of
3 MNOs, carriers like Verizon or T-Mobile or AT&T, they
4 partnered with Google in those years after Android launched.
5 And the reason they partnered with Google wasn't because
6 they had to, it's because they wanted to, it's because
7 Google had the best search engine product back in those
8 days, just as it has today.

9 The D.C. Circuit in the *U.S. v. Microsoft* case
10 obviously has a lot of things to say, and I know Your Honor
11 has probably studied the case closely already, you're going
12 to be reading the case multiple times like I will be; but
13 one of the things that pretty clear there, competition on
14 the merits is not unlawful, competition on the merits.

15 We know Google has competed on the merits for
16 many, many years and achieved a lot of success. So what's
17 changed? What's different? What occurred over all these
18 years that has changed agreements with large commercially
19 sophisticated partners like an Apple, like a Mozilla, AT&T
20 and others? What's changed that made agreements that were
21 pro-competitive and sort of voluntary, what made those now
22 different?

23 Respectfully, we will submit the plaintiffs in
24 this case, they want you to interfere in the market. They
25 want you to disrupt normal market competition, and somehow

1 steer search traffic to rivals, and they spent a lot of time
2 on scale. We'll talk a little bit about scale, and you'll
3 hear from people who know lot more about computer science
4 than I do, explain to you sort of how scale matters and
5 actually how scale is actually a challenge, sort of more
6 data is not always better. It's difficult to manage data
7 and there are certainly diminishing returns to scale for
8 data.

9 But one of the questions is sort of how has this
10 competition on the supposed merits that has occurred, how
11 has that actually harmed competition, because Google,
12 competing fair and square in the market, is not something
13 that the anti-antitrust laws prevent even if you accept what
14 we would submit is as their incorrect characterization of
15 Google being a monopolist in some sort of market.

16 The Colorado Plaintiffs' theories, as Mr. Sallet
17 described, in addition to their focus on search
18 distribution, they obviously have things that they're
19 concerned about having to do with search -- specialized
20 vertical providers, and we'll talk a little bit about this
21 later; but they want to do something perhaps just as
22 drastic. They want the Court to regulate Google search
23 results. You sort of heard Mr. Sallet trying to walk you
24 through various different types of pages and units and
25 specialized types of search results that Google has,

1 frankly, innovated and created over the years to try to be
2 more responsive and more useful for users.

3 He, I think, fairly obviously, kind of wants you
4 to micromanage that to say, no, no, wait a minute, I think
5 it would be better if an SVP appeared here rather than
6 there. I think we should surface earlier rather than later.
7 Even though we're not a competitor in the market, we think
8 Google needs to sort of present its search results
9 differently.

10 We're obviously not here to argue the law but the
11 case law is pretty clear about courts' authority and the
12 propriety of courts trying to regulate the product design of
13 parties in the market.

14 And, again, sort of this notion that Google should
15 be designing its search results pages to help SVPs, rather
16 than focus on what they think is best for users, I think
17 it's going to be one of the critical questions that will be
18 presented to you in the context of those types of claims.

19 So per the Court's request, and I'm sure you
20 flipped through the slides, and I don't know if it was sort
21 of a good thing or a bad thing for you, you probably noticed
22 that we actually covered some amount of the same type of
23 topics, and I am going to try to sort of not repeat
24 unnecessarily, but we're going to give you an overview on a
25 number of different topics.

1 We're going to talk little bit about Google's
2 search, give you a little bit of our perspective of an
3 overview of the market and how search and search advertising
4 has developed. We'll talk a little bit about digital
5 advertising. You heard some of that earlier today. Talk a
6 little bit about how Google search ads work. Then shift to
7 how users access search providers, because that's a key part
8 of the claims in the case about whether, in fact, users have
9 been foreclosed from getting access to rival search engines.

10 We're going to talk about search on Windows. You
11 may sort of wonder why are we talking about Windows. Well,
12 Windows is actually -- has over the years been a very, very
13 important, popular platform for people to search on, not
14 surprisingly. Windows PCs today are still the dominant
15 computer that is found on most people's desk tops, and what
16 you'll hear and what we'll talk a little bit about is, to
17 what extent did Google have these types of distribution
18 agreements on Windows and then how did they do on Windows?
19 How did consumers decide where to search on Windows devices?

20 I think as Mr. Dintzer alluded to on one of his
21 sliding, most Windows computers come with a Microsoft
22 browser set to Microsoft search engine defaulted and/or have
23 Microsoft's Bing preloaded or distributed as part of
24 Windows. We'll talk to you a little bit about how Microsoft
25 has done on its own platform, because we think that that is

1 probably the most powerful evidence you're going to see on
2 this question of how sticky are defaults, how difficult is
3 it for people to sort of change the use of their search
4 engine depending upon what's defaulted or what is preloaded
5 on their device.

6 Last we're going to talk a little bit about
7 Google's agreements. I will try not to recover all the
8 grounds about the AFA and the MADA and the RSA, but we'll
9 talk to you a little bit about that and give you our
10 perspective on those. And I'm trying to try to take you
11 through some of the vertical search designs and hopefully do
12 educate you a little bit about how some of those properties
13 work and give you a little bit of context around what we
14 think some of the problems with the plaintiffs' claims are
15 in terms of where they see problems and where their
16 objections are and give you a little flavor as sort of why
17 Google does what it does for vertical search.

18 THE COURT: Mr. Schmidlein, before you continue,
19 can you -- again, I know this isn't the focus for today, but
20 I asked the question of plaintiff's counsel about how Google
21 sees the ad market.

22 MR. SCHMIDTLEIN: Yes.

23 THE COURT: And whether you view -- whether you
24 agree with the definitions of the product markets that have
25 been alleged in the complaints or whether you see the market

1 more broadly than they do.

2 MR. SCHMIDTLEIN: We see it much more broadly than
3 they do, and I'll talk a little bit about it; but, you know,
4 this idea, there's basically sort of two flavors, I mean
5 they've got slightly different cuts on the market and they
6 even have, and you'll get this in detail as we get further
7 into the case, but you heard them talk about the funnel and
8 they've even got sort of different views about sort of where
9 ads work or sort of operate best in the funnel.

10 Our view, I think, is, and I'll talk little bit
11 about it, but the funnel is outdated, the funnel is no
12 longer sort of, if it ever was, an accurate sort of neat
13 predictor of sort of where ads fit and I think plaintiffs'
14 counsel acknowledged that to some degree today.

15 But we do submit that advertisers have lots of
16 different places where they can place ads. There are
17 certainly ad campaigns or types of ad campaigns that people
18 run on search engines today that are sort of identical or
19 have the same goals and designs as ads that are run on a
20 whole variety of different media. Even some of the
21 traditional media, like television, but certainly a wide
22 array of other types of digital advertising.

23 And you heard the plaintiffs talk a little bit
24 about some of them. Like display advertising, sort of this
25 neat division between display ads fit over into this bucket

1 because I'm trying to build my brand and search engines fit
2 over here because I'm trying to get somebody to buy
3 something.

4 I think almost all of the display ads I saw,
5 I think, this morning, if you actually click on those
6 display ads you'll go to a web page where you can buy a
7 product, we're trying to get you the buy the problem.
8 They're not just interested in showing you an ad that says,
9 hey, look, I've got a really nice red, rosy, you know,
10 umbrella I want to sell you. They're trying to sell the
11 umbrella to some degree.

12 So our view is whether you're talking about a
13 display ad or you're talking about a social media ad, for
14 example, and we'll talk about Facebook, Amazon, other people
15 who are not, according to them, traditional search engines,
16 how they are significant forces in digital advertising, as
17 well as a whole variety of other properties. I mean, your
18 own experience, I'm sure, similar to mine, which is, if you
19 go on the Internet, you see ads from lots of different
20 places coming up from lots of different -- lots of different
21 areas.

22 You asked a question earlier about *The Washington*
23 *Post* and some of the ads you see there and sort of why some
24 ads that you might see there may reflect other activity or
25 other searching that you've been doing sort of on the

1 Internet, that's actually -- and I think counsel
2 acknowledges, that actually has nothing -- that does not
3 have to do with Google and that doesn't have to do with
4 search ads, that has to do with the fact if you've gone to a
5 website and you've actually clicked and visited another
6 website, the advertiser who may be -- owns that website now
7 knows you've been or knows your device has gone to their
8 website and that can influence whether they want to then bid
9 in an auction when you sort of, let's say, click on a web
10 page on *The Washington Post* because, just as Google runs
11 search ads on searches on Google, websites will run auctions
12 for ads that are displayed on their web pages. The
13 mechanisms for those auctions are a little bit different,
14 but the end result is sort of the same, is they're trying to
15 show you an ad that is sort of relevant either to the
16 content or it may be that the advertiser knows you and knows
17 you've been on their site and so, therefore, the fact that
18 you're visiting that web page is valuable to them. That
19 makes you a better person to advertise in front of than
20 somebody randomly who hasn't been. But that's data that the
21 advertiser collects on their own, not data that's sort of
22 Google data. I hope that solves that question.

23 So Google's search and we're going to talk little
24 bit about how it works, search quality and search
25 innovations, and hopefully I will do justice to what's a

1 very, very complicated topic and at least give you some high
2 level information about each of those.

3 So Google's mission, you probably heard this
4 before, Google's mission is to organize the world's
5 information and make it universally accessible and usable.
6 And while Google has -- that has tried to innovate and
7 search has come a long way from those early days, the
8 mission has really remained the same at Google.

9 So how does that infect -- impact how Google
10 works? Well, again, this is an incredibly simplified
11 version of how Google works, but we like to think of it in
12 sort of two, or at least I'm going to try organize it in for
13 purposes of today in sort of two broad buckets. Indexing
14 activity, which is sort of gathering the information and
15 trying to make it available, and then sort of on the
16 querying side, once you get a query, what do you do to try
17 to connect the information that you've indexed to the user.

18 So information acquisition. In the early days,
19 the earliest days of the Internet, you know, we talked --
20 and Mr. Dintzer talked a lot about crawling the web and how
21 going out and gathering web pages was a significant part of
22 the information that was required for search engines to
23 produce. It's still certainly one big important piece of
24 the equation. But actually, it's only one piece of the
25 equation.

1 There is an awful lot of information that Google
2 now gathers and acquires from lots and lots of different
3 sources. And here we give you just some of the examples.
4 It's not just web pages and things from the open web, it's
5 public data sources, it's licenses and partnerships. You
6 talked about sort of sports scores. You were actually spot
7 on that for something like a sports score, Google goes and
8 enters into licenses and it's not a license with
9 Major League Baseball, it's licenses with people all over
10 the world. Painstaking, yard by yard, sort of mile by mile
11 data acquisition so that all of that information is not only
12 available but it's fresh and it's accurate.

13 And information that people and businesses sort of
14 voluntarily provide to it. So if you're a really small
15 local business, let's say you've got a really small sort of
16 local restaurant and for whatever reason you don't have the
17 time, the resources to go hire somebody and build yourself a
18 website, Google allows you very easily to go and claim sort
19 of a business page, sort of populate that with information
20 about your business, 'you know, your hours that you're open,
21 your address, maybe you can put a menu, whatever. It allows
22 you to put all sorts of information, claim a page, and now
23 that page sort of exists within Google. And again that's
24 been a really, really powerful and useful way for lots of
25 different people to make themselves findable on the Internet

1 without having to do a lot of --

2 THE COURT: So if I punch in a restaurant into
3 Google, oftentimes you see the restaurant will appear,
4 you'll see the hours, the address, phone number, here's how
5 you get to it, that's what you're talking about.

6 MR. SCHMIDTLEIN: Yeah, typically, that
7 information is actually provided by the business, and Google
8 sort of makes, in a very automated, computerized fashion,
9 makes it very easy and simple for a business to provide that
10 information.

11 Now, you also see -- and we'll go through some
12 search engine result pages actually involving restaurants
13 because that obviously a popular local type of search query.
14 There's other information that Google gathers itself, so.
15 For example, reviews, you may have seen or read like Google
16 reviews.

17 THE COURT: I don't read those.

18 MR. SCHMIDTLEIN: That is -- that's something that
19 Google makes available and allows people to review
20 restaurants, and Google keeps that information. Again,
21 that's information that's stored within its index associated
22 with a place to be provided if information about that
23 restaurant is relevant.

24 Next we go to information processing. This isn't
25 nearly as sort of sexy and gotten as much attention as

1 crawling the web, but actually processing the information
2 and the license content is incredibly important. This --
3 the way in which the information is processed, the way you
4 extract texts, the way you make that information more easily
5 searchable is one of the important pieces to making it both
6 easily accessible, easily found when you go to try to sort
7 of serve a search result, and also can affect the latency
8 that you talked a little bit about with plaintiffs' counsel
9 this morning.

10 And then we have the index creation. Google,
11 after it gathers and acquires various different types of
12 data and processes that data into sort of different types of
13 indexes, it actually then assembles all of it into an index.
14 In total, Google's indices today contain more than one
15 hundred million gigabytes of data.

16 To give you a sense of that, if you printed out
17 and stacked Google's index today, it would be the equivalent
18 of 12 round trips to the moon. And believe it or not, that
19 is a tiny fraction of all of the web pages that exist on the
20 Internet. So Google employs an incredible amount of
21 engineering ingenuity, technological innovation to decide
22 what to crawl, when to crawl, we talked a little bit this
23 morning about freshness and things like that, because making
24 decision about where and when to crawl is very, very
25 important to establishing a high quality index which is

1 another one of the important aspects of building a search
2 engine.

3 THE COURT: And I think Mr. Dintzer said this but
4 just to confirm in my mind. So once the query is input, the
5 query then is matched up against the index; in other words,
6 whatever search terms I'm putting in, once the translation
7 is done, what Mr. Dintzer described as understanding the
8 intent, I guess, of the query, it's then matched up against
9 sort how the index and that's how the different websites or
10 the search results come back.

11 MR. SCHMIDTLEIN: That's correct. The search
12 query, as you say, once it goes through, and we'll talk
13 about that next, once it goes processing through on its end,
14 and then it sort of it goes out and how Google, the magic
15 works, it goes out and it is searched over the index and it
16 is from that index that you then have to decide what's
17 potentially responsive and then how do we rank and how do we
18 display those results.

19 So to your next point, the querying side of the
20 equation. So the first thing you have to do is you have to
21 interpret the query. That may sound simple, but, in fact,
22 there are lots and lots of queries that are ambiguous, you
23 know, or susceptible to many, many different meanings. And
24 Google has, over the years, extraordinary technological
25 innovations in a whole variety of technologies, one of which

1 people talk about is natural language processing, really the
2 ability to understand what the queries actually mean,
3 because if you understand the query better, you are more
4 likely to be able to return appropriate and responsive
5 search results.

6 And here on this slide, we just sort of look at a
7 number of different types of information that Google
8 considers. It's not just the words of the query. Where
9 you're sending the query or where you're searching from is
10 an important piece of information that impacts or could
11 influence sort of what types of information Google believes
12 might be more relevant to you.

13 Synonyms we'll talk a little bit about. Obviously
14 the language, the freshness. There are countless signals
15 that Google looks at that helps Google evaluate and
16 understand the meaning of a query.

17 We then talk about retrieving and ranking relevant
18 search results. Once a query is received, Google, as
19 I think you've indicated, you have to go then search over
20 the vast amounts of data that you have and decide what
21 information is likely responsive, so that's sort of a --
22 drawing a big circle around that.

23 Google, again, you know, countless innovations
24 over the years, improving the ability to go out and find and
25 locate potentially responsive information. The algorithms

1 are too numerous to describe and too complicated to even
2 understand for lawyers to be sure, but it's fair to say that
3 Google uses different -- and this is depicted here.

4 They actually have different signals, different
5 algorithms to analyze and assess different types of
6 information. So how you evaluate the quality of a web page
7 is different than how you would evaluate the quality, let's
8 say, of an image or of a video or even a news article. Each
9 of these, Google over the years has understood and has
10 worked hard to develop and try to ascertain like what are
11 the best ways to evaluate, because there's just not a
12 one-size-fits-all approach to all sort of information.

13 Now, again, you heard a lot this morning about
14 click-and-query data, and to what extent does
15 click-and-query data matter. And particularly you heard a
16 lot about it, I think, in reference to ranking. And all
17 I can tell you here today, for purposes of today,
18 Your Honor, is figuring out what information is responsive
19 to a search query and then figuring it out to what order is
20 most likely to be appropriate involves a lot more than just
21 studying what users are searching for and what they're
22 clicking on.

23 That information is certainly information that
24 Google and other search engines consider and look at, but
25 the notion that I think the plaintiffs would like to leave

1 Your Honor is that's all you need, that's all you need.

2 I've been told that at least as of 2021, Google
3 employed over 14,000 computer science Ph.D.s. If running a
4 search engine today for Google just involved studying the
5 click-and-query data and throwing that into a computer,
6 trust me, we don't need 14,000 Ph.D.s to do that.

7 Evaluating and ranking search results is a very, very
8 complicated process and Your Honor may recall, I think it
9 was the last status conference when we were squabbling over
10 some expert --

11 THE COURT: Right.

12 MR. SCHMIDTLEIN: -- disclosures, as part of that,
13 I think Your Honor was exposed to an expert that we have in
14 this case who actually conducted a data reduction experiment
15 where he tried to replicate significant reductions in data
16 and seeing how that impacted the quality of Google's search
17 results and how that compared in a relative sense to
18 existing quality gaps between Google and Bing. And again,
19 like today is not the place to go into the nitty-gritty
20 detail, but I think what our point here today is, there's a
21 lot more than click-and-query data and the gaps in quality,
22 the gaps in the user satisfaction between Google search
23 results and competitor search results are not the product of
24 well, Google has just had more data over the years.

25 And then lastly, but certainly not least, serving

1 the results; and this may be sort of one of those areas that
2 people don't focus on because, again, we've just become so
3 accustomed to seeing really rich search results, but the way
4 in which Google decides how to display results, that's
5 almost -- that's like a little sub-industry at Google all by
6 itself.

7 There is art and science around, what's the best
8 way, now we have this information, I've got lots of
9 different types of information, what's the best way for me
10 to display it or organize it so that people can easily find
11 what they're looking for.

12 And one of the examples here we have a query for
13 movie volleyball island, and we have on the left how Google
14 is displaying information about the movie *Castaway* on a
15 mobile device versus how it displays results on a desktop
16 computer. It's not just holistically, gee, what's the right
17 way to organize the information. It's even sort of what
18 device you're on, because, you know, as I said when I first
19 started using search engines on a computer at Williams and
20 Connolly probably decades ago, the devices were fairly
21 simple and relatively uniform.

22 Now people, they're searching the Internet on tiny
23 phones, big phones, tablets, computers of all shapes and
24 sizes. Google knows -- can process and understand that
25 information and that goes into -- that's part of the magic

1 of deciding how to display search results. So this is just
2 another area of incredible innovation and thought that
3 Google has given over the years.

4 This is -- Your Honor will undoubtedly remember
5 the early days of search. This was sort of infamous, the
6 famous ten blue links, that's what you would get, just links
7 to web pages. But as technology advanced, we now have a
8 very, very -- a much more sophisticated way to show search
9 results. And here, this is just a query, sort of a basic
10 factual query for the Washington Monument. And we certainly
11 don't just show ten blue links when we see the query for the
12 Washington Monument. And I'll just quickly sort of run
13 through these to give you an example of some of the
14 different types of innovations and different types of
15 information that Google is trying to make available.

16 So at the top, this is sort of web results. You
17 know, sort of what I think what Your Honor was referring to
18 earlier, sort of organic web results. So Google has gone
19 out, they've located the page for the National Parks
20 Service, which operates the Washington Monument, and they
21 have shown you the link to that and actually shown you some
22 of these extensions, these various sub pages so that you're
23 not just going to that home page necessarily if you don't
24 want to do that, you can go and find more specific sub pages
25 within that.

1 THE COURT: Can I ask, are the sub pages, are they
2 a product of the crawling and whatever algorithm is used to
3 crawl and make determinations about what levels of sub pages
4 to display, or is there some mechanism by which the owner of
5 the website, for example, can say, these are the sub pages
6 I'd like to have displayed?

7 MR. SCHMIDTLEIN: It actually can be both.

8 So it is certainly -- Google certainly goes out
9 and evaluates which sub pages to crawl sort of within a web
10 site. They may not crawl all of them or they may crawl just
11 some of them. But website owners do actually have the
12 ability, if they don't want Google to crawl their website or
13 they don't want Google to crawl certain pages, and this is
14 true for any of the other search engines, too, there is --
15 there's text you can put on the URLs that actually sort of
16 tells the crawler don't crawl me.

17 THE COURT: Do not crawl?

18 MR. SCHMIDTLEIN: Yeah, do not crawl.

19 So, you know, you know, that is an option that is
20 actually available, because the technology is there to
21 permit that. So it can be a product of both.

22 In addition, on the right-hand side here, this is
23 a Google innovation I'll talk a little bit more about later,
24 called the knowledge panel, and this is sort of a Google
25 sort of specific innovation that displays in sort of one

1 easy to review place a variety of factual information; and,
2 again, this could be information that an entity or place
3 provides to Google; it could be a collection of information
4 that Google actually just goes out and sort of kind of digs
5 out itself and organizes.

6 But, again, this is an innovation that allows
7 people to find -- they don't want to have to click through,
8 and it's particularly convenient, let's say you're in town
9 and you're a tourist and you're sort of walking around and
10 one of your kids says, hey, let's go see the
11 Washington Monument and you're on your phone and sort of you
12 pull up this information, it's nice not to have to be
13 clicking through when you're on a device and particularly if
14 it's a place that, oh, I know it's still open, if I need to
15 call the place, we'll look at some of the restaurants, you
16 can order food, it provides an easy to find place, lots of
17 information in addition to a map.

18 THE COURT: And this is where we would find what
19 you were talking about earlier, where, for example, a
20 restaurant could populate its own information page and it
21 would potentially display here.

22 MR. SCHMIDTLEIN: It's -- well, it's a similar
23 concept, different name.

24 THE COURT: Okay.

25 MR. SCHMIDTLEIN: So that would not be a knowledge

1 panel, that would be a place page that is specific to
2 restaurants. But the concept is the same.

3 THE COURT: Okay.

4 MR. SCHMIDTLEIN: And then at the bottom, Google
5 also provides images for the Washington Monument, which is a
6 completely separate type of information, a separate type of
7 sort of data that you have to acquire, and, again, this
8 could be from all sorts of different sources either on the
9 Internet or could be theoretically a feed of information
10 that's provided by the business or the location, and, of
11 course, here you can see across the top a number of
12 different fillers so that if you wanted to look at the
13 reflecting pool or the inside of the Washington Monument,
14 you click on those, you can get more information about that
15 as well.

16 Here's another type of query just quickly to give
17 you a little flavor of other types of information that
18 Google serves for a different type of query.

19 So here we have hotels downtown D.C. This is more
20 of a commercial query. And so there's a different blend of
21 information that Google makes available.

22 At the top, this query has triggered one of those
23 ads auctions that we talked about this morning. And you see
24 there at the top ads are run, and as you noted, this happens
25 in the blink of an eye. It is magic that I can't even

1 explain, but every time a query like this comes in and you
2 hit enter, an auction is run, hotels are given the
3 opportunity to bid, I'll talk a little bit at a high level
4 about that process later, but Google then decides if it's
5 got sufficiently high quality ads and, if so, which ones to
6 display to you. And as you see here, there are ads for a
7 couple of different hotels.

8 Below that is the hotel's unit. So this is a
9 specialized Google sort of search result. Mr. Sallet,
10 I think, made reference to this earlier, where this is
11 information that Google has assembled, oftentimes with
12 getting feeds of data from actual hotels or potentially
13 specialized vertical providers, and it assembles this in
14 what Google thinks is a logical and useful information with
15 a map. Again, you see across the top there a number of
16 different filters that the user can sort of click on to
17 reorganize it in a way that they find most useful or
18 relevant to them. We'll come back to this and go a little
19 bit deeper into this later.

20 THE COURT: And these are not, I think -- these
21 are not ads, right? These are not ad-generated results?

22 MR. SCHMIDTLEIN: That is correct.

23 THE COURT: Right, okay.

24 MR. SCHMIDTLEIN: In this page, these are not ads,
25 that's correct.

1 And then below the hotel's unit, you see web
2 results. And, you know, examples of web results here
3 include a number of the SVPs. So hotels.com, booking.com,
4 Expedia. So in response to this query, hotels in downtown
5 D.C., we've given you ads for specific hotels. We've given
6 you a Google hotel unit that actually gives you particular
7 information about hotels that you can go into and look more
8 deeply at specific hotels, or if you would prefer to search
9 for hotels looking -- you know, using an SVP, Google
10 provides links to those.

11 As I said, I'll come back later and see if I can
12 articulate what exactly the complaint is here. It's,
13 I think, at a high level, largely, I'd rather be further up
14 the page and I'd rather be in your hotel's unit on the very,
15 very first page rather than being down below, and we'll
16 explain that a little bit more.

17 Google search quality. There are a number of key
18 drivers of search quality and Google is continually
19 evaluating, testing, trying to improve its search quality.
20 Mr. Dintzer showed you a slide that identified some of these
21 features.

22 Again, I agree with him, this is just an example,
23 these types of things; but certainly, the index, the quality
24 of your index is an important feature for search quality.
25 The types of features that you offer, like that hotel's

1 unit, I consider a feature.

2 And if you go and you look at other types of
3 search engines like a Bing, they try to develop similar
4 types of features. Ranking obviously is an important
5 aspect, latency is an important aspect, and we've talked a
6 little bit about device optimization as well.

7 Google regularly tests for its search quality, and
8 there's a whole long laundry list of metrics that Google
9 uses to evaluate different aspects of its search quality.
10 Here's just a couple of examples.

11 There's something called information satisfaction.
12 You're probably going to hear about this later potentially
13 in the case. It's called IS scores, where Google actually
14 has people evaluating search results page and on a scale and
15 trying to evaluate sort of whether the search results to a
16 particular query are good or poor or need improvement.

17 One thing I do want to clarify, and this is
18 relates a little bit to the click-and-query data point.
19 When Google is looking at or any of the search engines are
20 looking at a particular click-and-query data or they're
21 looking at evaluating information satisfaction, they're not
22 sort of hard coding the search results; in other words, when
23 they see these are poor results or I see users clicking here
24 rather than there, it's not that the algorithm automatically
25 says, oh, we're going to flip them, because the algorithms

1 are sort of being designed to impact more broadly, there's
2 not an -- it's not like Google has built a single algorithm
3 for every single search query you and I could possibly
4 enter. You try to build algorithms that are useful and rank
5 across all the queries.

6 THE COURT: Right.

7 MR. SCHMIDTLEIN: And you may have different
8 algorithms for different categories of queries but you can't
9 write a new algorithm for every single search query that
10 comes about.

11 THE COURT: This is, again, I'm going a little far
12 afield here, but I guess the ultimate point that you
13 would -- at least on the merits, you would -- one of the
14 points you would make is, notwithstanding whatever you think
15 the market share may be, notwithstanding whatever you think
16 our arrangements may be in terms of exclusivity, Google
17 continues to innovate, it continues to devote lots of
18 resources to ensuring the product quality and the
19 improvement of the product itself.

20 MR. SCHMIDTLEIN: Well, and that's a good intro
21 into the very next couple of slides I have here.

22 Google is absolutely continuously innovating,
23 continuously testing, continuously looking at and
24 evaluating. The number of tests that Google is running on
25 various aspects of its search, either search results or

1 actual pages to evaluate quality is -- it's breathtaking.

2 Here you just see just over the last three years,
3 the statistics about how many human-rater quality tests that
4 Google has run. Now, these are tests involving third party
5 trained raters, people who are brought in, hired, they're
6 trained to evaluate -- how to score and evaluate search
7 results based on specific guidelines that Google has
8 established that they think hopefully will provide guidance
9 into what's a good search result page. They do thousands
10 and thousands of these human-rater side-by-side tests.

11 Now, a side-by-side test could be -- whereas a
12 quality test is a test that evaluates, are the results on
13 the page sort of, how good are they, just looking generally
14 at the results, are the results look like they're
15 responsive?

16 The side-by-side experiments allow Google to sort
17 of test, so is Google search results page for a particular
18 query, how does it rank or stack up against, let's say, a
19 Bing search results page for that query or a DuckDuckGo
20 search, or Google might say, how does our current search
21 result quality compare with a potential set of search
22 results if we implemented a change that we're thinking about
23 to our algorithm, because as I think I was trying to explain
24 earlier, if you make a change to your algorithm, let's say
25 you've identified some research -- a search results page and

1 you're like, gee, you know what, we're not doing a
2 particularly good job there, we should really sort of try
3 to -- we need to tweak things, we need to somehow figure out
4 where are we going wrong here, are we not emphasizing
5 freshness enough for this query, are we not emphasizing some
6 other signal or factor. Well, if you tweak that, you might
7 improve that search result but you might break the results
8 for a whole slew of other queries.

9 So sort of trying to get and evaluate, hey, if we
10 make this change, what is this going to do it a whole slew
11 of -- kind of a sample set of queries that Google is
12 constantly testing. And then you also heard a little bit
13 this morning about live experiments and this is when Google,
14 and I think a lot of search engines do this, they will
15 implement sort of a proposed change and run it on a very,
16 very small portion of their user base and see how people
17 react to that and whether -- based on those reactions,
18 whether they think change is good, better or worse.

19 But your point, Your Honor, I think that is
20 critical, it's not just regardless of how you define the
21 market, regardless of what numbers you calculate as a market
22 share. This is not the behavior of a company that is
23 sitting back on its laurels and thinks, I've got it on Easy
24 Street, I've got a monopoly because I've got all the search
25 data, I don't need to improve my search results. This is

1 the behavior of a company that is as innovative and as
2 technologically advanced and as competitive.

3 You know, the old adage that Google has said, and
4 government, I'm sure, disagrees, competition is one click
5 away. This is unlike so many other industries. When you
6 read the *Microsoft* case and you get to that part where they
7 talk about the application's barrier to entry that Microsoft
8 faced, that once we have an enormous share of Windows and
9 all these people who got their Windows computers and they've
10 spent thousands of dollars or hundreds of dollars on those
11 computers, they've spent all that money on all those
12 applications that only run on Windows, I'm going to go
13 switch from Windows to, let's say, a Mac, is going to be a
14 big check to write and then I've got to go buy all those
15 applications that I used to run on Windows. Somebody wants
16 to stop using Google and use Bing, it is a -- it's a type
17 into the Google search engine and they're at Bing. So
18 Google has always understood that competition is easily
19 available, and if they don't do a good job, if they don't
20 continue to innovate, if they don't continue to find new and
21 improved ways of providing search results, people will --
22 they'll go not only to general search engines, they'll go to
23 specialized search engines.

24 We'll talk about in the relevant market, how many
25 people do you know who start shopping on Amazon? They don't

1 have to go to Google to shop on Amazon. They don't have to
2 go to Google to go buy airline tickets on Expedia. If
3 Google doesn't innovate, if Google doesn't try to come up
4 with those hotel units, these people over time are going to
5 say, I'm just going to go there directly. I can bookmark on
6 my laptop the links to those websites or how about on a
7 mobile device, I've got the app right there, just tap on the
8 app. I don't need to open a browser, I don't need to open a
9 search engine, I just tap on the app. So this, Your Honor,
10 I would submit, is proof that however you define the market,
11 Google understands the competition is fierce -- as fierce
12 today, probably more fierce today than ever.

13 So let me talk a little bit about just some of
14 Google's search innovations because I think it drives home
15 the point you just referenced.

16 These are just some of the examples of various
17 innovations that Google has rolled out over the years.
18 Again, just pertaining to search.

19 Countless others, you know, I could have put on
20 here, the graphic would have been impossible to read. And
21 countless others that Google tried and didn't work or looked
22 at, considered, and then decided after evaluation, maybe
23 that doesn't improve our search results.

24 And this is a combination of different types of
25 innovations. Some of them relating -- some of them sort of

1 hard-core technological innovations, some of them relating
2 to different types of units or a content and how it's
3 presented.

4 THE COURT: What is hum to search? Can I hum
5 something and it will spit something out?

6 MR. SCHMIDTLEIN: Believe it or not, they have
7 worked on technology that if you begin to hum something, if
8 you're a good hummer, it might actually be able to translate
9 into sort of what the song -- what it is. And we'll talk a
10 little bit about some of these other developments that
11 are -- that have sort of taken search to sort of new heights
12 and new levels.

13 So page rank. This is sort of the one of the most
14 famous ones that people have talked about, named after one
15 of Google's cofounders actually, a lot of people think, oh,
16 it has to do with web page. No, it refers to Larry Page,
17 who was one of Google's cofounders, and he had sort of one
18 of the earliest kind of groundbreaking insights about how to
19 improve search quality. And it was roughly the following.

20 In the earliest years of search, people really
21 focused on keywords just as they do today to some extent.
22 But oftentimes you'd go out and you'd run the keywords and
23 you'd search and see, well, which websites refer to that
24 keyword a lot. And doesn't that tell me a lot about whether
25 that's going to be a responsive sort of search result.

1 And maybe it did and maybe it didn't, but it
2 didn't necessarily tell you lot about the quality of the web
3 page. And over time, you know, and it started early in the
4 days of the web and it got much more -- much larger over
5 time, particularly when search advertising took over, what
6 you found were what they called Spam pages, and people would
7 actually create web pages, almost sort of like bogus web
8 pages, with lots and lots of popular keywords on them, very
9 low quality web pages, they'd run ads against them in the
10 hopes that somebody would land there accidentally and they'd
11 click on an ad and they would actually make money.

12 What page rank sort of determined was, I'm going
13 to go out and when I'm evaluating the quality of your web
14 page, one of the things I'm going to go out and study and
15 look for is how many other web pages on the Internet link to
16 your page. Isn't that a good proxy for the quality of your
17 web page? And that was, at the time, a really
18 groundbreaking way of thinking about how do I tackle this
19 problem of the quality or the authoritativeness of a page
20 and helped with ranking and helped with providing high
21 quality search results.

22 THE COURT: It's like citations to District Court
23 opinions.

24 MR. SCHMIDTLEIN: Synonyms is sort of another
25 breakthrough that occurred in the early days, and synonyms,

1 again, it sounds sort of simple but technologically it's
2 pretty complicated. The idea was, well, don't just use the
3 words that are typed in the query, go out and also search
4 simultaneously for various synonym of the keywords because
5 that will help bring in probably additional high quality
6 responsive web pages and in some ways, reminds me a little
7 bit of those days of Lexis searches, when you would say, you
8 know, this and/or that or that word or that word, well, we
9 know people don't typically, when they're searching on
10 search engines, they don't use those types of booleans.

11 But this is almost like Google doing that in the
12 background for the user and help them gather more
13 information.

14 Universal search came along in 2007. I've shown
15 you some of the different types of web results, images or
16 videos or things like that. And you can still, when you
17 search on Google, if you want to only search for like images
18 or videos or news or things like that, you can enter your
19 query and then click on that and that tells Google, hey, I
20 really only want to focus on this. But there's lots of
21 queries that we enter that it's not clear whether we want
22 one or the other or maybe we want a collection of all of
23 them.

24 But what Google found was evaluating the quality
25 of video and comparing that against a web page or a news

1 article was sort of difficult. This technology allowed
2 Google to begin to be able to compare those, rank those more
3 accurately and then assemble them all together on a page.

4 The knowledge graph I talked to you a little bit
5 about before. This is sort of the basis, the database, if
6 you will, that provides information for those knowledge
7 panels. And it's a collection of information about people,
8 places, things; and also the interrelationship between them
9 so that, if appropriate, you can gather, group, and make
10 available all of that information.

11 Google has collected over 500 billion facts about
12 over 5 billion entities and assembled it in this knowledge
13 graph and makes it available for those types of knowledge
14 panels.

15 BERT in search is not Sesame Street. It is
16 bidirectional encoder representations from transformers.
17 That's a mouthful but I'll try my best to explain it.

18 Previously, if somebody entered a search result
19 like you see here, can you get medicine for someone
20 pharmacy. This would have been a very challenging query
21 because it contains a variety of words, sort of common
22 words, that if you're just sort of trying to go out and
23 search the web for those words, very, very difficult and
24 I'm going to drag in a lot of information and for that
25 reason, Google would actually drop the words "can you" and

1 "for someone." This would sort of almost get dropped from
2 the query because it's like I can't go out and just search
3 for those words on web pages.

4 And so you'd wind up, get medicine pharmacy would
5 sort of be the translated query and you'd see there on the
6 left, this is the search result which you would get, getting
7 a prescription filled. Well, that's a perfectly good search
8 result for get medicine pharmacy, but maybe not such a good
9 result for, can you get medicine for somebody else from a
10 pharmacy.

11 With this development and innovation in natural
12 language, Google is able to better understand and translate
13 that, and now you see the search result on the right side of
14 the page and it provides exactly what the user was looking
15 for, which is an answer to the question, hey, can I send
16 somebody else to the pharmacy to pick up -- and you see
17 there it's an HHS web page.

18 Last is, this is a relatively new innovation
19 that's getting rolled out. It's not fully operational at
20 this point. It's called MUM, or multi-task unified model.
21 It's multi-modal in the sense that it's trying to understand
22 information across text and images. And the idea here is
23 you can actually combine different types of information and
24 blend them to ask a really complicated query. So like, can
25 I use these to hike Mount Fuji? This would have been sort

1 of a pipe dream in years gone by, but this is the type of
2 thing that Google is working on today. These are the types
3 of problems, the new problems and the new challenges Google
4 is always trying to solve to improve the search engine and
5 make it responsive to users.

6 This next query, or this next slide, I should say,
7 is in your binders. This one, actually, I flagged with a
8 yellow sticky because I blew and missed -- I didn't get the
9 tab into the binder this morning. So I threw a sticky on
10 it. But this provides you with just some figures and some
11 context around how much Google has invested just in the last
12 several years, going back much further, but how much Google
13 has invested both in search R & D in absolute dollars and
14 the percentage that represents of the total search operating
15 expenditures.

16 Later on in this case you will hear Google is
17 always either number one or in the top handful of company in
18 the world in terms of R & D expenditures that it makes.
19 Again, not the way you would expect a company to behave if
20 it had a monopoly position immune from competition.

21 So now I want to switch gears here and talk, run
22 through a little bit -- an overview of online search.

23 The government this morning gave you sort of one
24 perspective of search, and they spent a lot of time talking
25 to you about what, can Facebook answer all queries, or can

1 Amazon answer all queries, or can Expedia answer all
2 queries. And their view of the world is, I only look at the
3 relevant market by looking at, sort of, is the functionality
4 of each one of these things identical.

5 Our experts in this case are going to explain to
6 you why that's a misguided approach. What you should be
7 looking at is from the user's perspective. They're the
8 customer, they're the consumer of this product. And if I'm
9 a user, I may have a whole different array of options
10 depending on what type of query I'm looking for so. If I'm
11 looking for a shopping query or I'm looking for
12 commercial -- you identified some of them this morning.
13 I mean, Amazon, Walmart, any number, eBay, any number of
14 places that you can go online, not just through Google, but
15 you can go directly and begin searching there for products.
16 Various other entities here similarly provide information in
17 response to different categories of queries.

18 The fact that Google doesn't face the exact same
19 competitors for every single query doesn't mean it doesn't
20 face effective competition, because Mr. Dintzer, I think,
21 referred this morning to roughly 25 percent of queries
22 trigger ads. Without agreeing or disagreeing to the precise
23 figure there, I will agree that certainly a minority, a
24 small minority of queries actually trigger ads.

25 These are the most valuable queries from a

1 commercial standpoint. That's why you see, for those
2 queries, lots and lots of other competitors other than just
3 Google and Bing trying to get users to come to them to
4 submit those queries.

5 If Google doesn't do a good job of answering those
6 queries, first of all, it's going to be out of the
7 advertising business pretty quickly, because people are just
8 going to stop coming to them to try to advertise. If
9 they're not getting people coming to them to do queries that
10 are of a commercial nature, whether it's sort of a general
11 shopping query, a travel query, restaurants type query, you
12 know, and these are significant queries, it may not be
13 significant in terms of overall volume, but it's where the
14 money comes from.

15 And if Google doesn't do a good job of answering
16 non-monetizable queries, then surely people are not going to
17 come back to them to search for monetizable.

18 THE COURT: So in your view, is it the wrong
19 question to ask how Google performs against other general
20 search engines, of which there are a handful, but, rather,
21 what I ought to be thinking about eventually is how Google's
22 search and advertisement performances compare to specific
23 subject matter specific competitors. So, for example, if we
24 really want to know what Google's dominance in the market is
25 with respect to air travel, we ought to get a sense not so

1 much of what the overall picture is in terms of general
2 search, but you really would want to compare searches within
3 Google for travel as opposed to how often people are going
4 directly to fill-in-the-travel site.

5 MR. SCHMIDTLEIN: Or airlines themselves, right,
6 for that type of query.

7 Absolutely. I mean, I think you have to -- you
8 would have to approach this -- and there's a reason why they
9 haven't approached it that way, it's because the numbers
10 don't work for them. If you pull in and you start looking
11 on a query by query basis, you know, what are people's
12 options, they have a myriad of options.

13 And similarly, we will present evidence from an
14 advertiser's perspective. Advertisers have a myriad of
15 options, it depends upon who the advertiser is, what's the
16 nature of the product they're trying to sell, who's the
17 audience, what are the other correction of entities beyond
18 Bing and Yahoo! -- that's essentially what they say the ads
19 market is. It's Bing and Yahoo! and then a sliver of
20 Amazon, depending if you agree with this other search ads
21 market, not text market, you know, slivers of other things
22 or parts of SVPs, we would say, wait a minute, you can't
23 look at the market sort of and ignore all of these other
24 things that are available.

25 The key people in this equation from Google's

1 perspective are the users. Google looks at, you know, from
2 a search perspective, where can users go to get the
3 information. Google spends lot of time thinking about and
4 worrying about not just Bing, but lots of other people who
5 have become very, very popular because people get trained on
6 I'm only going to shop on Amazon. There are lots of people
7 out there already. Then those are lost customers to Google
8 for the most valuable queries that are out there.

9 If Google doesn't innovate, if Google doesn't
10 compete hard against all of these different types of people,
11 competition with Bing is almost an irrelevance. They have
12 to compete for all these queries and they have to be able to
13 effectively compete with a Facebook or an Amazon or all
14 sorts of other types of digital advertisers that are very
15 popular.

16 You need to look no further than some of the
17 public performance of various companies who have been
18 adversely impacted by TikTok. The number -- depending on
19 the demographic --

20 THE COURT: Not to mention the number of parents
21 who have been adversely affected by TikTok.

22 MR. SCHMIDTLEIN: I am in that demographic,
23 Your Honor.

24 But TikTok, you know, according to them, TikTok
25 doesn't compete with Google. TikTok -- advertisers who

1 could be advertising on TikTok are surely advertisers who
2 also advertise on Google or who can move their spend and
3 you're going to hear evidence about that at trial.

4 So our perspective is when Google thinks about
5 these markets, they're thinking about where are my users,
6 where can they go to answer queries, where are my
7 advertisers go to place ads.

8 THE COURT: How do you think about the following,
9 which is that Google has relative to almost all of these
10 other sites that you've got up here, has a built-in
11 advantage in the fact that you can go to Google not only to
12 search for flights and hotels, but you can go to Google to
13 search for general information, and that as sort of adjacent
14 to that is the ability to conduct these commercial searches
15 and to what extent that gives Google an advantage because
16 people are already used to going to Google for those types
17 of searches, if I want to, you know, find out what time the
18 grocery store closes, I'll go to Google as opposed to
19 directly to the grocery store site.

20 MR. SCHMIDTLEIN: I'll give you a couple of
21 off-the-cuff reactions to that.

22 One is, I think that actually reinforces the
23 notion that it's only an advantage if Google is innovating
24 and doing a fabulous job of returning those search results.
25 You know, if Google doesn't do a good job of returning who

1 won the World Series in 1983, they will do -- they will
2 not --

3 THE COURT: I don't need Google for that. I know
4 who.

5 MR. SCHMIDTLEIN: I know, Your Honor.

6 But if you do a bad job with that, then they're
7 not going to come to you for, can I get Baltimore Orioles
8 replica jersey from 1983. You know, they're going to go
9 directly to Amazon for that or they're going to go to eBay,
10 they're going to go somewhere else. So I think that
11 actually reinforces the notion that you've got to be on your
12 game, you've got to be innovating and it's only an advantage
13 if you're doing a great job. If you do a lousy job, it's a
14 disadvantage.

15 The second thing I would suggest, and there's --
16 you'll probably hear about some of this at trial. People
17 typically search in sort of these -- in sessions. And it's
18 not that I might not be looking for information about the
19 Washington Monument and then I might also like, while I'm
20 still on the computer in that same session, go and look for
21 something about the grocery store, but oftentimes,
22 particularly on commercial types of queries, they kind of
23 sit down to do one at a time. And so this idea that there's
24 as much of a bleed-over effect because I'm already on Google
25 looking for one thing and that the same sort of time period,

1 at the -- because I'm too lazy to click out and go into
2 other app, I think is overstated when you actually look at
3 the data.

4 So, again, you know, not to overstate it, but the
5 plaintiffs want you to ignore all these other entities and
6 instead just focus on these. And we submit that's just an
7 improper way.

8 And again, verticals, we've talked about before,
9 present lots of different options for people who are
10 searching for things. You can see here, all of these -- and
11 these are just examples, all of these types of websites you
12 can go to and you search on the website for, in this
13 instance, you're looking for a home office chair. People go
14 to and start searches on these websites. You're going to
15 get information later in the case about for different types
16 of entities, like how much traffic is direct traffic, you
17 know, they start directly. How much traffic is what we call
18 navigational traffic, which is technically they go to Bing
19 or Google, but they just type in Amazon. That's not really
20 a web result -- that's just sort of using -- that's just
21 lazily sort of using to go to them. Google is not making
22 any money off of those queries and that's a big worry. If
23 Google doesn't do a good job for home office chair, then the
24 next stop is Amazon, and that's a losing proposition in the
25 long run for a general search engine.

1 Similarly here for hotels, you know, all of these
2 types of SVPs provide you the ability to search on those
3 sites directly. Google views all of these folks as
4 competitors to Google for, again, trying to get users to
5 start a travel journey.

6 And food delivery, this was -- became a very hot
7 one during COVID times. This is, again, another example of
8 lots of different places where people can go directly to
9 begin searching for information. And these all provide
10 competitive constraints to Google. If Google doesn't do a
11 good job with them, people will open these apps and bypass
12 Google all together.

13 THE COURT: Can I ask you a question?

14 So say I'm Walmart, obviously you can go directly
15 to Walmart and search for things on Walmart's site. Is
16 Walmart using its own proprietary software to do that or
17 does Google sell that or does Bing sell that? It cannot be
18 that every website you go to has search functionality is
19 it's own software?

20 MR. SCHMIDTLEIN: The most sophisticated ones
21 develop their own search technology. That is -- and it's
22 trained -- and it's -- in some ways, it's somewhat -- it's
23 obviously less complex than what Google uses or Bing uses.

24 THE COURT: Right.

25 MR. SCHMIDTLEIN: Because they only need to focus

1 on a particular sort of vertical area.

2 THE COURT: Right. But I mean, your point is that
3 if you're Amazon, Walmart, Target, you know, these very
4 large retailers, odds are they've developed their own search
5 technology.

6 MR. SCHMIDTLEIN: It's worth it.

7 And there are people out there who they can hire
8 to go build that technology and they absolutely do it,
9 absolutely do it.

10 So you saw a similar timeline earlier today. I'll
11 only note a couple of things here that are, I think, are
12 particularly important that I want to emphasize.

13 One is, Google obviously was not the first one on
14 the block to begin operating a search engine. Google came
15 in in 1998, years after other popular search engines like
16 AltaVista, Yahoo! search, Excite, what was back then Ask
17 Jeeves. The plaintiffs noted earlier that MSN search
18 interested in or Microsoft began operating a search engine
19 in 1998. I guess the only thing that I would quibble with
20 is that wasn't a real search engine. That was Microsoft
21 basically getting web results and a search engine that was
22 powered by other third parties. Microsoft didn't roll out a
23 true full, crawl the web search engine until 2005, a number
24 of years later.

25 Then you see DuckDuckGo entering. Mr. Dintzer

1 referenced earlier today, DuckDuckGo doesn't go out and
2 crawl the web. They send search queries to Microsoft and
3 get search results back from Microsoft and they serve those,
4 as well as ads.

5 And then you also heard earlier today that Yahoo!,
6 in 2009, entered into an agreement with Microsoft, an
7 agreement that still exists today or, you know, amended
8 versions of that agreement still exist today, where search
9 queries that you enter on Yahoo! are sent to Microsoft. So
10 I understand that Microsoft is unhappy about the scale it's
11 getting, but it's not only getting all of Bing's search
12 queries, it's getting all of Yahoo!'s search queries, it's
13 getting all of DuckDuckGo's search queries. It's getting
14 the click data from those queries.

15 THE COURT: So I didn't realize this. When we
16 were talking earlier about, I guess the word was syndicate,
17 if memory serves, like Yahoo! is purchasing query data or is
18 receiving query data, they're not developing it on their
19 own, it sounds what you're telling me is it's a two-way
20 street in terms of the information.

21 MR. SCHMIDTLEIN: So what happens with all of
22 these is for Yahoo! and DuckDuckGo, they have an outward
23 facing consumer search engine product. You go to that, you
24 enter your query, you hit enter, that query is sent to
25 Microsoft. Microsoft then runs through the process, their

1 version of the process that we've talked about, about
2 interpreting the query, evaluating.

3 THE COURT: And is it run on the same, using the
4 same Bing algorithms or are there specific --

5 MR. SCHMIDTLEIN: It is. It is. To my knowledge,
6 it is -- the query goes to them and Microsoft sends back
7 search results. I don't want to get too much into the for
8 proprietary information.

9 Yahoo! or DuckDuckGo may have additional smaller
10 indexes of information and depending on their agreement
11 might be able to sort of add or modify things depending on
12 the query, but by and large, they are entirely dependent
13 upon Microsoft to provide them with sort of the bulk of the
14 search results because they are not out crawling the web,
15 establishing an index, and developing and employing like
16 search technology like a Google or a Bing.

17 THE COURT: So if I enter the same query in Bing
18 as I do in DuckDuckGo, am I going to get the same results
19 back?

20 MR. SCHMIDTLEIN: You aren't for a couple of
21 different reasons, including that the information that
22 DuckDuckGo sends with that query is likely different than
23 the information that Yahoo! sends with that query. We
24 talked a little bit about their privacy proposition and one
25 of the ways they try to differentiate and compete. They're

1 not trying to differentiate and compete based on quality of
2 search results. They're differentiating and trying to
3 compete based on a privacy proposition, trying to convince
4 users that they are doing search in a more private way.

5 Now, Google disputes that, and you'll hear
6 testimony about Google's privacy policies and about the
7 options that Google gives to users; but one of the
8 consequences of -- and you'll hear about this, you'll see
9 evidence about this.

10 One of the consequences of how DuckDuckGo decides
11 to run its search engine is it admits it's providing less
12 information, I believe, I believe Mr. Sorbet may have
13 indicated, they send less specific information about your
14 location. That impacts the quality of the search results
15 that even Bing can return to them. That makes it more
16 difficult to identify Spam and fight other issues because
17 they're masking who the user or where the information is
18 coming from, they're just sending the query. So there are
19 tradeoffs, I think you're going to hear, Your Honor, during
20 this case, about how information impacts the quality of your
21 search results. You're going to hear from Google how
22 Google's view is we give the users the decision and we give
23 you the tools to decide how much information do you want to
24 give us, how much information do you want us to store, how
25 do you want us to use it, and the user can make that

1 decision.

2 As I said, it's perfectly fine, DuckDuckGo has
3 decided to go a different way. Some of the newer search
4 engines that have entered the market have decided, well, we
5 think there's an opportunity in the current environment to
6 market and try to distinguish ourselves and, frankly,
7 distinguish ourselves from Microsoft. Microsoft is
8 certainly not out running around claiming it's a more
9 private, better search engine. And you may hear testimony
10 about whether DuckDuckGo's use of all of those Bing
11 algorithms, you know, aren't those using information from
12 others indirectly to help them sort of serve search results.

13 THE COURT: So, Mr. Schmidtlein, it's quarter
14 after 3:00. Let's take our break. I want to pick back up
15 at 3:30 and then go till about 5:00 or so. I think that'll
16 be about the three-hour mark for you. I suspect you may
17 need to resize your presentation to finish up by 5:00.

18 MR. SCHMIDTLEIN: Yep.

19 THE COURT: So why don't we take 15 minutes give
20 our court reporter a break and we'll be back at 3:30.
21 Thanks, everyone.

22 COURTROOM DEPUTY: All rise. This Court stands in
23 recess.

24 (Recess from 3:15 p.m. to 3:30 p.m.)

25 COURTROOM DEPUTY: All rise. This Honorable Court

1 is again in session.

2 THE COURT: Please be seated, everyone.

3 Thank you.

4 All right. Mr. Schmidtlein.

5 MR. SCHMIDTLEIN: Thank you, Your Honor.

6 You've already asked me a number of questions
7 about digital advertising and we've had a back-and-forth on
8 that so I'm going to breeze through these quickly because
9 I think we've covered a lot of the relevant terrain.

10 So just as Google faces lots of different
11 competitors for search queries, they face a lot of different
12 competitors where advertisers can place their ads. And the
13 focus here, our experts will talk about sort of broader
14 places where people can go but for purposes of today, these
15 are just some of the examples of sort of digital ads and
16 when you hear the phrase "digital advertising," that's not
17 just search advertising, that's all forms of online ads, and
18 Mr. Severt went over and covered a number of types of
19 digital ads but there's lots of different, there's display
20 ads, there's specific types of search ads, there's general
21 kind of search ads, text ads, video ads, sort of anywhere
22 you can place an ad on the Internet.

23 And to Your Honor's earlier question, we
24 absolutely take the position that the competition is broader
25 than just sort of these three companies which at least as to

1 text advertising, the plaintiffs would say these are the
2 only sort of relevant competitors for assessing the relevant
3 market.

4 A brief sort of history of advertising. The point
5 here is simply that over time, as sort of new technologies
6 emerge, new ways to advertise emerge, advertisers shift
7 their spend in lots and lots of ways and, again, today,
8 there are more different types of ads that can be placed in
9 more different places probably than ever before.

10 This is just, again, a look at over the last
11 several years of digital advertising, I know the plaintiff
12 showed you some slides that suggested that Google had these
13 sort of massive market shares around search advertising. If
14 you just look at actually digital advertising, Google is
15 certainly an important competitor in that market. That's
16 the sort of the green bar there. Again, these are just some
17 public estimates based on eMarketer.

18 But what you see there is a whole variety of other
19 competitors, other alternatives. And in particular, you see
20 several really, really big, important competitors that are
21 growing substantially. META there in the blue and Amazon in
22 the sort of the mustard color there, they're growing fast,
23 and better than Google is in some of these segments. And as
24 you can see sort of Google's share of digital advertising is
25 actually declining, certainly not in marker share

1 percentages that would suggest that it has a monopoly in any
2 market.

3 Again, this is just a slice, a further slice, this
4 is mobile advertising. I know the plaintiffs have talked a
5 lot about how Google has become very, very popular on mobile
6 device and that Google search has got these really
7 incredible share of Google search on mobile devices. Well,
8 if you look at mobile device advertising, what you see
9 there, again, META has done an enormous job, you think about
10 Facebook, you think about Instagram, how they're growing,
11 Amazon also is a significant growing, increasing competitor
12 for advertising on mobile devices, and you see Google's
13 share is declining over this time period.

14 There are lots of other different companies, as I
15 said, TikTok, you're going to hear a lot about. If you look
16 and review sort of what's happened to Snap. I mean, Snap is
17 actually publicly almost acknowledging and saying, our
18 performance is being adversely impacted by TikTok, that kids
19 probably, you've got the same experience I've got sort of
20 the eyeball -- the advertisers go where the eyeballs are.
21 And there are lots of different places where advertisers can
22 find eyeballs and lots of different advertising platforms
23 that have ways of informing advertisers about the types of
24 people who are on their platforms.

25 Having a search query is certainly good

1 information. It's helpful information to give you some
2 intent, to give you some notion of how to match an ad. But
3 the idea that Facebook doesn't have information about sort
4 of your interests or Amazon doesn't have information about
5 your interests or any number of other websites have
6 information that helps them connect advertisers to you,
7 I think is just wrong. Search information is helpful but
8 it's not the only helpful information that's out there for
9 advertisers.

10 And here you can see in this next slide, digital
11 advertising has just taken off. You probably heard, you've
12 now done enough sort of antitrust work, you've been around
13 enough of these conferences where you've heard these experts
14 talk about raising prices and restricting output and how
15 those are some of the measures of monopoly power or market
16 power. Well, this market, by all accounts, is performing
17 unbelievably well. The amount of spend going into digital
18 advertising has sort of shot through the roof.

19 And the reason for that is, it's become a very
20 increasingly effective way for advertisers to connect with
21 users, and that's not just search engines. I mean, search
22 engine usage certainly is increasing because over this time
23 we've got these handhold computers that allow us to search
24 all the time but it also allows us to engage in other
25 activity on the Internet where ads are being displayed.

1 Digital ads, in terms of output, has expanded
2 enormously. Again, not what you would expect from a market
3 that is being monopolized by a single company.

4 And, again, just quickly, these are just examples
5 of different digital ads. I showed you before different
6 places where people could conduct searches. Here are
7 different places where people can go to advertise their
8 product. You've got an Amazon ad. You've got a Google
9 product listing ad, an Instagram ad, a TikTok or a fashion
10 magazine. Again, all of these different platforms have
11 information, and just to be clear, this is a hypothetical
12 sunglass advertisement.

13 But the key here is, different platforms have
14 different information that allow advertisers to connect to
15 users.

16 Similarly for hotels, hotels can go and advertise
17 on various different types of websites, not just general
18 search engines. Here are, again, a travel magazine and a
19 couple of SVPs.

20 I want to pause here just a moment about buying
21 tools.

22 Mr. Sallet talked to you a little bit about SA360,
23 and I'll try to give you a very abbreviated view of the
24 SA360 story from Google's perspective.

25 We talked a lot about how much Google ads were

1 bought or what percentage of Google ads were bought using
2 SEM tools. Well, that's somewhat interesting but not very
3 interesting because it doesn't tell you about all the
4 different ways that advertisers can place their ads. SEM
5 tools are only one of a number of different ways that people
6 actually can advertise. And this is --

7 THE COURT: I'm sorry, what's an SEM tool?

8 MR. SCHMIDTLEIN: Search engine marketing tool.

9 THE COURT: Okay.

10 MR. SCHMIDTLEIN: And this is -- I will contes,
11 this is probably the least intuitive of all of these things
12 because there's absolutely no reason for you to have used an
13 SEM tool in the past.

14 An SEM tool is like -- it's a software interface,
15 a service that various different companies offer based on
16 lots of technological innovation and marketing intuition and
17 development, but what it allows you to do, if you want to
18 try to manage advertising campaigns simultaneously using one
19 tool across a bunch of different advertising platforms, you
20 can use a single tool to do that.

21 But lots and lots of advertisers don't use SEM
22 tools or they use SEM tools as only one way to buy
23 advertising space.

24 Mr. Sallet had made reference to the fact that a
25 specific type of functionality, you know, Microsoft was

1 unhappy about wasn't included in Google's SEM tool, that
2 they want Google to build that SEM tool that supposedly
3 helps one of their competitors. We'll talk about the legal
4 obligation for that at another time. And we'll also, you'll
5 get evidence in the case that Google had legitimate business
6 reasons for how it has adopted functionality and on what
7 specific timelines, because, not surprisingly, it's simpler
8 and easier for Google to integrate certain features from its
9 own ads teams than from other third parties who are building
10 with different technology.

11 But for purposes of today, I wanted to leave you
12 with just a couple of observations. One, there are lots of
13 other SEM tools. So if Bing or if an advertiser doesn't
14 like the fact that Google doesn't -- or SA360 doesn't
15 support every single Google feature with a Bing feature,
16 they have lots of other options, they can use other tools.

17 THE COURT: Do these other tools also provide the
18 optionality of advertising across different platforms?

19 MR. SCHMIDTLEIN: Some of them do, they do, and
20 you'll learn that not all of them have 100 percent feature
21 parity -- in some instances they may have more features for
22 Bing than for Google.

23 THE COURT: So if I were to go to Amazon ads, I
24 can purchase ads on Google?

25 MR. SCHMIDTLEIN: No. I apologize.

1 The buying tools are the ones down in bucket
2 number three.

3 THE COURT: All right.

4 MR. SCHMIDTLEIN: So bucket number one --

5 THE COURT: I see.

6 MR. SCHMIDTLEIN: -- is platform front end and
7 these are actually platforms where, for each individual
8 platform, they have dedicated sort of buying tools, if you
9 will, that are focused only on that platform.

10 THE COURT: I see. Okay.

11 MR. SCHMIDTLEIN: So for the example that
12 Mr. Sallet was discussing with you earlier today, the Suzy's
13 Ice Cream, or whatever it was, and that they were unhappy
14 that they couldn't use SA360 to purchase Bing ads using
15 real-time auction bidding. The Bing ads platform has that
16 functionality on it. If that ice cream store wants to use
17 that technology, it can go directly to Bing and use it.

18 So the idea that Google and its implementation of
19 its own tool is somehow resulting in a monopoly in a search
20 advertising market, we respectfully submit to you that the
21 evidence in the case is going to show that advertisers are
22 not being harmed by whatever lack of parity they claim
23 occurs and that there are going to be plenty of business
24 justifications to explain it and we have no legal obligation
25 to make it parity to begin with.

1 But we will explain to you how all of these
2 different tools, and lots and lots of different advertisers,
3 they use the different platforms. In other words, they will
4 go and they'll say, I'm going to put -- I'm going to use
5 Google's ad platform to buy on Google, I'm going to use
6 Amazon's to buy on Amazon, and then they can move across
7 them.

8 And a lot of sophisticated advertisers, really,
9 really big advertisers, they built their own tools because,
10 depending on what your business is, you may be -- you may
11 care more about certain types of metrics and certain types
12 of ways of tracking and analyzing your ad performance than
13 some of these other people provide and you may want to just
14 do it all in-house. So in those instances they've got --
15 you'll hear testimony evidence about lots of advertisers who
16 say, well, we're just going to buy on our own, we've
17 actually got our own technology, we've got our own APIs that
18 basically sort of hook into like Google ads or Bing ads or
19 Amazon ads.

20 Okay. General search ads, I'm going to sort of,
21 again, you've heard information about this already.
22 I'm going to run through it.

23 There's obviously a lot of technology, just as
24 there's a lot of technology and innovation around Google
25 search, there's an extraordinary amount of technology around

1 search ads. They have to do some amount of the same types
2 of things in terms of gathering advertisements, evaluating
3 the quality of the ads, the page metrics, retrieving them,
4 filtering, in a lot of instances, advertisers can
5 actually -- and the platforms compete to provide this type
6 of functionality.

7 An advertiser may say, I don't want to bid on an
8 ad that hits on, you know, a certain keyword when anybody
9 searches on it. Maybe I only want my ad to run if that key
10 word is typed in in a certain country, certain part of the
11 world, certain time of day. They may have information that
12 suggests that there are other characteristics about a user
13 that they might want to just target those.

14 So they can specifically try to match not just the
15 keyword but other information or other data that they may
16 have to try to make their ad more effective, and Google
17 allows that and has to filter all of that every single time
18 one of these ads occurs when you hit enter on your computer.

19 They somehow run this auction every single time we
20 enter a query. They have to select and evaluate the ads,
21 they evaluate the bids, like Mr. Severt, I am not going to
22 stand up here and try to explain to you today all of the
23 details of the ad auction, but it is surely not the case,
24 I think you had asked this or intuited that it's not just
25 the highest bid wins, because that wouldn't necessarily be a

1 good result for the user, it wouldn't be a good user
2 experience. It could be a lot of people who would go out
3 and bid astronomically high prices for very, very popular
4 search queries, again, hoping that somebody clicks on their
5 ads.

6 Well, if the expected click-through rate of the ad
7 is very, very low or in addition not just that maybe the ad
8 quality, the ad itself isn't very good, because Google
9 evaluates the quality of the ad. It also evaluates the
10 quality of the landing page. And by that I mean, you click
11 on the ad, you see the ad. If the ad works or the ad really
12 interests you, what the advertisers is really trying to do
13 is drive you to go to that next click. Where do you land
14 when you click on something within the ad? And if that
15 landing page is poor, that's a bad user experience that a
16 user has gone through all of that and found that, you know,
17 at the end of the day, it was kind of like going to a really
18 bad web page.

19 So Google is evaluating all of these things in
20 addition to evaluating the price to try to strike this right
21 balance between quality and revenue. Again, select, rank,
22 and price, these are three sort of the primary functions of
23 an ads auction.

24 As I just mentioned, this concept of long-term
25 value, the point here is simple. Again, it goes back to

1 this, the highest bid doesn't win. Google is looking at a
2 variety of different factors in deciding how to rank the
3 ads, how they get placed, and it also impacts what you pay,
4 because if you have a really high quality relevant ad, your
5 ad could get shown in like the first spot, and even though
6 you've bid a lower price than people who are below you or
7 don't get shown at all.

8 THE COURT: And we see evidence at trial, and
9 I'm not even sure to what extent it would be relevant, but
10 what the frequency is of the highest bid winning the
11 auction. Or maybe that's not the right way to put it, but
12 getting the ad placement that its price is commensurate to.

13 MR. SCHMIDTLEIN: People from Google will
14 certainly be available to testify sort of in general about
15 those types of issues.

16 And because it's a second price auction, you don't
17 necessarily -- we don't actually wind up paying what you
18 bid, it's also -- it's typically a function of what the
19 person who was next in line or below you bid.

20 So you could end up with a situation where you set
21 a maximum price and depending on how the auction functions
22 it may go above what you're willing to pay because others
23 sort of jump over you because their page quality is really
24 good. But oftentimes what happens is people set a maximum
25 price and they actually end up paying much less than their

1 max or the price they actually bid because they either have
2 a much better ad, they have better quality within their
3 page, it's most responsive, and they have outcompeted that
4 next person, and Google values that and so credits them.
5 And that's a way for, again, to encourage people to build
6 and make available really high quality ads. These are,
7 again, some examples of Google's search ads innovation.

8 Again, Judge, just sort of driving home the point
9 that just as Google has to compete tirelessly on the search
10 side, it has to compete tirelessly on the ad side,
11 otherwise, people will take their dollars elsewhere.

12 I'd like to sort of switch gears here and move
13 over to how users access search providers. Plaintiffs'
14 counsel touched on some of these so I will try not to be too
15 repetitive. But we'll talk first about general search
16 engines. How do users access general search engines and
17 it's a little bit different sometimes based on desktop or
18 mobile; talk a little bit about the specialized vertical
19 providers you've heard about, and then I'm going to take
20 slightly different lens and talk a little bit about the
21 different platforms where people search because that will, I
22 think, provide some context to you about where the
23 distribution agreements in this case matter and sort of
24 where they don't.

25 So, first, general search engines. You know, in

1 the earliest days of search, you probably remember, and
2 this, I think, went to Your Honor's question about the
3 browser technology. In the earliest days of browsers, there
4 weren't search bars. There weren't -- they didn't have the
5 way to technologically combine searching for or sort of
6 sending you to a URL actual website versus conducting a
7 search on the Internet. A browser in sort of more modern
8 days, we kind of magically think of browsers and search
9 engines as --

10 THE COURT: One and the same.

11 MR. SCHMIDTLEIN: -- one and the same.

12 And that's important. I'm going to talk a little
13 bit about that, because, in many respects, they are in some
14 respects one and the same and I think they certainly, from
15 the browser company's perspective, who is set as the default
16 search engine is a critical, critical question for them and
17 one that they look very carefully at because they understand
18 that if they choose a search provider that provides a bad
19 search experience, that's going to reflect on them. That
20 most people like you and I when we use our browsers, more
21 often than not, we're not typing in a website URL, we're
22 searching -- it may be a navigational query like I'm talking
23 about here, but we're searching for something other than an
24 individual website, and that implicates the search engine
25 that's set as the default.

1 THE COURT: This is -- you know, I know I'm
2 getting far afield. Where's the revenue base for the
3 browsers?

4 It's not clear to me where they're getting their
5 revenue from.

6 MR. SCHMIDTLEIN: The revenue share agreements
7 they enter into with search engines. That is -- you will
8 hear testimony at trial specifically around -- from various
9 browsers, particularly ones now obviously Apple that owns
10 Safari, they have revenue from lots of other places as well.

11 But for independent browser companies like
12 Mozilla, revenue share agreements are critical, because, as
13 Your Honor knows, I mean, we don't pay every single time.
14 We don't buy or license a browser just like we don't buy or
15 license a search engine. Browsers are free.

16 So as I said, in the old days, you'd have to
17 navigate using your browser to a home web page for a search
18 engine and then once you got to Google, you could search on
19 Google.

20 In the early days of search, most of that
21 searching was done on personal computers, and most of those
22 personal computers were owned by Microsoft. And Microsoft
23 had its own products and services distributed on those
24 computers.

25 So search engines had to find a way, because

1 you'll hear evidence, Microsoft made it extraordinarily
2 difficult for you to search on Windows to get to other
3 search engines; in other words, they made it much more
4 difficult. We'll talk about setting defaults. They made it
5 extraordinarily difficult to change some of those settings
6 on Windows, and obviously in the aftermath of the *U.S.*
7 *versus Microsoft* trial, where Netscape Navigator meets its
8 demise as a result of some of this conduct, search engines
9 began trying to find other ways to connect to users.

10 And you may remember, again, this is going back to
11 earlier days, those toolbars that you would see --

12 THE COURT: Right.

13 MR. SCHMIDTLEIN: -- sort of drop down or would
14 appear. Sometimes users you could sort of download those,
15 you might be asked when you go to certain websites or if you
16 were using Google, hey, would you like to download the tool
17 bar that would then be inserted below the browsers so you
18 could type in there. But lots of different search engines
19 began sort of trying to distribute those. And again,
20 sometimes they'd make them available directly to the user.
21 Sometimes they'd go to the personal computer manufacturer
22 back in those days, like a Dell or a Hewlett-Packard and
23 say, hey, would you -- we'll pay you something if you will
24 insert our tool bar. And there was competition for those
25 tool bar deals.

1 Eventually, sort of the toolbars waned in terms of
2 their popularity. Interestingly, the browsers, I think,
3 sort of responded to that and said, you know, wait a minute,
4 now, all of a sudden people are going to search in these
5 toolbars, they're not sort of searching in the browser box
6 and they said, well, let's innovate, let's sort of redesign
7 our products. We can now have a little search box over
8 here, and we will set a default search engine.

9 So on this slide, the left-hand box, the one
10 that's not yellow, that's where you could sort of go and
11 enter a normal URL, but if you wanted to go search the
12 Internet, there was that little box with Google. And Apple
13 came out with -- it was one of the first to come out with
14 this type of innovative product design for the Safari
15 browser. This is back in 2003 so this is pre iPhone. This
16 is just early Mac days and Mozilla followed with the FireFox
17 1.0 browser in 2004. Mozilla was a very popular browser on
18 desktops in particular back then. And as you could see from
19 these press releases, these were big innovations. These
20 were touted by them as being great new innovations,
21 including the fact that they both, after looking around,
22 they both decided, we're going to set Google as the default
23 search engine because we want people to have the experience
24 of just typing, clicking, search results.

25 This is a product design choice that was made

1 many, many years ago, and, lo and behold, years later, even
2 Microsoft came around and recognized, when it released
3 Internet Explorer 7, Microsoft implemented a similar
4 innovation on IE. Of course, they set the default search
5 engine on theirs to MSN Search. And Google kind of came
6 over with the next round of innovation. In 2008, it
7 launched the Chrome browser.

8 What Google's innovation at the time was, we're
9 going to combine these. We're not going to have two
10 separate bars, which was obviously an improved experience
11 potentially from toolbars all over the place and everything
12 else. We've now got a single bar, and we've figured out a
13 way to be able to ferret out if it's a URL, we'll render it
14 that way, sort of using the browser, but if it's a search
15 query, we'll render it another way, we'll send it to it a
16 search engine. And obviously, over the years, Google has
17 defaulted to Google Search.

18 And after that time, other browsers followed suit.
19 This is now -- this has been the standard product design,
20 sort of technological innovation for well over a decade.
21 And all of these search engines, by definition, you have to
22 have a single default search engine. And I think as I
23 referenced earlier, they also recognized that this was a
24 position to generate competition, that they would go to the
25 search engines and say, we would like to share in the

1 revenue that you're generating through our browsers, and
2 let's talk about search sharing revenue on those, and you
3 will hear at trial about the competition that takes place
4 between search engines to be selected for these defaults.

5 Now, then we get to mobile. You know, this
6 browser innovation and technology is occurring, but at the
7 same time, we're about to hit a whole new wave of innovation
8 and that's the evolution of the smartphone. The iPhone
9 launches in 2007, Android launches in 2008.

10 Now, we've got a whole variety of different
11 places. We're now just not talking about a browser bar at
12 the top of our computer. We're talking about these little
13 handhold computers, like, where can we search on these. We
14 have mobile browsers you have different versions of popular
15 browsers and those are typically preloaded on the device
16 depending on which device you purchase. But you now also
17 have these things called search apps, and that's new and
18 that's different, because now all of a sudden you don't need
19 to go through a browser, you can just click on the search
20 app. It's almost like it magically takes you to the home
21 page of the search engine.

22 And search widgets, you heard a little bit about
23 this morning. These are almost like different
24 manifestations of a search app. So it's the same thing as a
25 search app, but it's just another option for a consumer. If

1 you want the convenience of having sort of a bar installed
2 on -- it's easy to type into, that you don't have to open
3 your browser and type in there or you don't want to open a
4 search app, you want to have sort of a persistent bar, you
5 can do that. And you actually saw, sort of -- you can see
6 versions of this, and we'll talk a little bit about how
7 Google includes a search widget on certain Android devices
8 if an OEM has entered into certain types of contracts with
9 them.

10 But again these are all evolutions in various
11 search access points. And all of these involve a single
12 search engine that at least initially has to be set as a
13 default.

14 We talked a little bit about sort of search apps,
15 sort of how popular they are and how that's become a popular
16 way for people to access.

17 THE COURT: Can I, does Google -- or I shouldn't
18 limit this to Google, but do any of search engines have
19 relationships with browsers, the browser companies or the
20 hardware companies that enable the users to make a choice
21 the first time they use the product to set a search engine?

22 MR. SCHMIDTLEIN: Not to my knowledge.

23 This has been having sort of a preset default
24 search engine. You'll hear testimony, I expect, during this
25 case, from some of these partners who will explain why users

1 want these -- when they buy a device, whether it's a
2 computer or a phone, they want the device to work
3 immediately out of the box with as few as sort of steps and
4 boot-up processes as necessary, and they find that setting a
5 default search engine, and candidly setting a default search
6 engine that they know and understand the majority of users
7 they know prefer, is a no-brainer decision for them. You're
8 going to hear from people who have selected Google as to why
9 that was the preferred design decision and the preferred way
10 that they wanted to have their browsers appear out of the
11 box to users.

12 THE COURT: So I guess the next question then is,
13 we're getting into the merits here, I apologize, but why
14 then is it a term of exclusivity? In other words, the
15 government's spent a fair amount of time this morning
16 saying, look, Google essentially has this, for lack of a
17 better term, these tying arrangements with these companies,
18 in exchange for exclusivity, as the way they've turned, in
19 exchange for exclusivity, you'll get some share of --
20 revenue share.

21 And I guess the question is, why is that
22 exclusivity a feature of the contracts as opposed to
23 allowing the manufacturers to determine who they want to
24 pair with and use as their primary search engine? And maybe
25 they're doing that by virtue of entering the contract is

1 what you're going to tell me.

2 MR. SCHMIDTLEIN: You have anticipated the
3 response, Your Honor.

4 And I'll take you through the different types of
5 agreements and how they operate, but the bottom line is,
6 they do make the decision. Apple, Mozilla, the OEMs, the
7 carriers, they have the ultimate say, the ultimate authority
8 about what gets preloaded.

9 And just focusing for a moment on the browser
10 agreements, these are not exclusive. I'll talk a little bit
11 about -- they're not exclusive in the sense of, Mr. Dintzer
12 may have sort of erroneously suggested very early in his
13 presentation that Google is the only browser that will
14 operate -- that can be used on Apple devices, that's
15 obviously not the case and I think he may have misspoke.

16 There's nothing exclusive about Google's agreement
17 with Safari and I'll take you through the details of that.

18 The only thing that those agreements provide for,
19 and I'm talking about the browser agreements right now, the
20 Android ones are more complicated and they're different; but
21 the browser agreements, it's -- I have a browser, the way it
22 operates is there's a default search engine and I, the
23 browser company, not Google, I the browser company have
24 decided I want to have an out-of-the-box default. That's
25 their decision, not Google's. The evidence will be clear

1 that's their decision. And they're the ones who oversee and
2 decide, based on competition, based on their evaluation of
3 which search engine is best for their users. As a result of
4 that competition, they pick Google.

5 Now, they can also do other things that I'll
6 explain to you to promote other search engines on their
7 devices, and of course, they do make it easy for people to
8 use and switch those defaults, and we'll talk a little bit
9 about that.

10 In terms of other ways users can get to it, and
11 I guess another point as to why it is that none of these
12 agreements are exclusive in the way that I think antitrust
13 case law typically thinks of exclusivity and distribution.
14 Unlike the usual case where a distributor says to an
15 ultimate client, I'll give you a really good deal if you
16 make me your exclusive supplier. And if somebody goes
17 around and locks up all the customers with exclusive deals
18 and a competitor just can't even get into the market, that's
19 a different situation here.

20 There's no locking up of anybody here. And we
21 know this because just, you know, in terms of downloading of
22 mobile apps, at least on mobile devices, the figures I've
23 got here on slide 71, these are just the downloads of these
24 apps in 2021 in the United States. The idea that a Google
25 preset on a Safari browser has foreclosed or made exclusive

1 users' ability to get to Bing if they want to use Bing on an
2 iPhone, is absurd. There's nothing exclusive about how
3 those phones are set up.

4 You asked a good question earlier, about can I go
5 to the Apple app store and download competing search
6 engines. You can download search engines, you can download
7 SVPs, all sorts of different places where people searched.
8 And I want to clarify. You asked a question, does Apple
9 make the Google Play Store available in its app store. It
10 doesn't, and let me explain why. As a technical matter, all
11 of the apps that are in the Google Play Store --

12 THE COURT: Android.

13 MR. SCHMIDTLEIN: -- are Android apps. So there's
14 really nothing nefarious about Apple refusing or not having
15 the Google Play Store. I don't think Google would want the
16 Google Play Store on the Apple app store because all those
17 apps wouldn't work on IOS devices.

18 A set of specialized vertical providers can gain
19 access -- or users can access them in a lot of the same
20 different ways that general search engines can. They too
21 all have mobile apps. Oftentimes preloaded. They can go
22 and have deals with mobile providers.

23 Direct web traffic, navigational queries, via
24 search engine.

25 By navigational query, I mean you type in Angie's

1 List on Google.

2 That's an important way that people still get a
3 lot of traffic. It's an important way that if somebody
4 wants to get traffic to Bing and Google is the preset, they
5 can type Bing into Google. The number one, the most popular
6 search query on Bing is Google. So people know how to find
7 their way to other search engines even if something is not
8 set as the default.

9 And then obviously SVPs get lots of traffic from
10 Google, from web pages that Google surfaces in connection
11 with their search results, SVPs get traffic from social
12 media. They all have Facebook pages where people go, and
13 this is a good example of booking.com. And then they
14 obviously also can get traffic from display ads. So SVPs
15 have a wide variety of places that they can get traffic from
16 users.

17 This next slide, Your Honor, is the next one
18 I think that we've got flagged in your -- as redacted.
19 I believe it is -- it's tab 81. And this is just to give
20 you a little bit of context for where search queries at
21 least currently are emanating from in the United States
22 based on at least estimates on internal Google data. And it
23 gives you a sense of the various different platforms and
24 it's primarily three platforms, Windows, Android, and Apple.
25 And, again, I think just tries to give you a little bit of

1 context as to sort of where the competition is.

2 The next slide, slide 82, also redacted, if you'll
3 turn to your binder there, this gives you a sense of, over
4 time, how those statistics have changed; and again, without
5 getting into sort of the details, what's interesting about
6 this is, in the 2010, 2009 period, you see the overwhelming
7 majority of search queries came from Windows devices. And
8 over time, what you see is a decline in those devices.

9 You'll hear testimony at trial about how Microsoft
10 tried to launch mobile devices on its own and failed, how
11 people have moved and have begun using mobile devices for
12 search queries, and now, whereas Windows before sort of was
13 the dominant platform, now we have other competing platforms
14 available, including Android, and, obviously Apple, which is
15 both Mac and iPhones and iPads as well.

16 So this leads us into search on Windows and these
17 are going to be some additional sort of confidential
18 redacted slides.

19 So the government's theory, and you heard them
20 talk this morning about how sticky defaults are and how
21 users don't like to switch defaults or once you've got a
22 default, you know, the users are locked in.

23 What we show here is estimates of Google's search
24 share on Windows devices. This is over the last ten years
25 where Google has had almost no preinstallation.

1 If you look at the next -- and you can see what
2 Microsoft's relative share is on these devices.

3 THE COURT: In other words, these are products
4 that come preinstalled with, I guess now it's Microsoft's
5 browser, plus Bing on top.

6 MR. SCHMIDTLEIN: Yes, if you look at the next
7 slide --

8 THE COURT: In the more recent years, obviously
9 not years past.

10 MR. SCHMIDTLEIN: This is the same slide as
11 before, comparing Google's search share on Windows, but then
12 if you look at that little gray area there towards the
13 bottom, that's the share of Windows devices over this time
14 period where Google had preinstallation of its search.

15 And then if you look at the next slide, contrast,
16 this shows you in the gray area the percentage of those
17 Windows devices that Microsoft had its own browsers and/or
18 search engines defaulted to -- I mean, and browsers with the
19 default search engines or their search engines preinstalled
20 on their devices. And you can see there the comparison
21 between preinstallation defaults and search share.

22 Now, without getting into the details here,
23 somebody's not using the default on these devices. The idea
24 that default equals foreclosure, default equals exclusivity,
25 default somehow means users won't be able to use other

1 competing superior technologies is just wrong.

2 THE COURT: So it's not necessarily that
3 somebody's changed the default but, for example, if you're
4 using Bing, you can go to Google search engine to --

5 MR. SCHMIDTLEIN: And --

6 THE COURT: I expect that's --

7 MR. SCHMIDTLEIN: There's a variety of ways.

8 And, Your Honor, you'll hear evidence in the case,
9 Microsoft, unlike Chrome, unlike Android, unlike Apple,
10 which actually does make it easy to switch the default,
11 Microsoft saw this happening and they fought like crazy and
12 did things to make it very, very difficult to change the
13 defaults over there, and it still didn't work, it still
14 didn't work. People found their way to Google from all the
15 varieties of ways that you said either -- and let's look at
16 the next slide. It's a good lead into the next slide. This
17 is from Stackcounter, publicly available data --

18 THE COURT: Can I interrupt you for a moment real
19 quick?

20 MR. SCHMIDTLEIN: Sure.

21 THE COURT: I should know this, but if I purchase
22 a Windows-based PC and go to the app store and I download
23 Chrome, I can do that. If I download Chrome, is the
24 built-in search engine Google or does it default to Bing?

25 MR. SCHMIDTLEIN: It defaults to Google.

1 THE COURT: It does. So when you download the
2 Google browser --

3 MR. SCHMIDTLEIN: Correct.

4 THE COURT: -- it also comes with the search
5 engine.

6 MR. SCHMIDTLEIN: Correct.

7 And I anticipated, I think, that's where you were
8 growing which this slide, I think, is pertinent to, which is
9 during this same time period, and clearly some of the ways
10 that people decided to get to Google, was to use the Chrome
11 browser, that they over this time period, and, again, this
12 is kind of the same 2009, 2010, to the present time period,
13 at the beginning, you see Internet Explorer had all of the
14 usage or a substantial percentage because Chrome had just
15 sort of launched. Over time here, this time period,
16 Microsoft's browsers were preloaded on, again, this is
17 desktop commuters, so that's the overwhelming percentage of
18 those are Microsoft devices. IE is preloaded on those
19 devices. More recently you see the line for Edge, it's
20 preloaded. Chrome wasn't preloaded on any of these devices,
21 yet people find -- somehow found their way to overcome the
22 supposed tyranny of the default that the plaintiffs want to
23 talk about.

24 So this is, we respectfully submit, you know,
25 extremely powerful evidence that you're going to want to

1 think about later in this case when you think about sort of
2 the power of the defaults, what that means and how much
3 exclusivity really translates with these defaults and
4 whether they are, in fact, what the plaintiffs would call de
5 facto exclusive agreements.

6 THE COURT: You know, I guess the bottom line,
7 though, is when we talk about defaults, what that means is
8 that it is the default search engine on the default browser
9 that accompanies the hardware in the first instance, but
10 there's nothing -- there's no barrier to a user going to
11 either a Google Play Store or the app store and downloading
12 different browsers or even downloading different apps that
13 are standalone search engines, right?

14 MR. SCHMIDTLEIN: In addition to changing the
15 default if they --

16 THE COURT: Right, in addition. Even if you
17 can't -- even if you've got a -- like me, don't have the
18 ability to figure it out or maybe people can figure it out,
19 but there are -- your point is that there are other ways to
20 get to the same result?

21 MR. SCHMIDTLEIN: Absolutely. Absolutely they can
22 get to the same result.

23 And Google understood that. And Google actually,
24 you know, specifically designed Android to make these
25 decisions easier for people. Google, I think, has always

1 believed if people want to change the default, they're going
2 to change the default. You shouldn't make that more
3 difficult.

4 And Google has registered complaints about the way
5 Microsoft handled this over the years, because Google
6 understood there was a lot of potential usage on Windows
7 devices that could be potentially blocked if these defaults
8 were made difficult. It's one of the reasons why they
9 developed Android and launched Android as an open operating
10 system, not a closed one like Windows, or not a closed one
11 like Mac.

12 And one of the reasons why they launched Chrome.
13 I mean, clearly, Chrome was extraordinarily innovative.
14 Move things forward, Google understood that a really, really
15 good browser makes it more likely people are going to search
16 more on the Internet. The more they search, the better that
17 is for Google. But they also understood that they needed a
18 competitive product that was open and available because
19 otherwise they could get shut out. We had all watched what
20 Microsoft had done to Netscape Navigator all those years
21 ago.

22 Let me talk quickly about some of these specific
23 agreements that are the focus of the case. The browser
24 agreement, first, the Safari agreement, and this is sort of
25 the summary of some of the key terms. Apple designs the

1 Safari browser to have a preset default search engine and
2 they and they alone determine which search engine to use as
3 the default. Apple has selected Google as the default
4 search engine on Apple Safari browser. That's preloaded on
5 iPhones, iPads and Mac computers. Google carries a share of
6 search ad revenue generated on all of those devices where
7 Safari is preloaded.

8 You will see and hear evidence from Apple
9 executives, from Microsoft executives, from Google
10 executives, about competition that's occurred over the years
11 and how Apple made those evaluations and made its decisions.

12 The agreements that result in this default search
13 agreement is not exclusive. As I've mentioned to you, rival
14 search apps are easily downloaded from the Apple app store,
15 it's a simple process for people to change.

16 And Apple actually promotes rival search engines
17 providers on Apple devices. And you were provided some
18 testimony earlier about -- from an Apple executive about how
19 historically it's been their policy not to preload
20 third-party apps on Apple devices. We can't control what
21 Apple does. Apple can decide to preload or not preload.
22 But they're not doing it because of anything in Google's
23 contract with Apple. Apple -- the Google agreement with
24 Apple doesn't do anything to restrict Apple from putting a
25 Bing search widget on their devices or doing anything else.

1 And, you know, these agreements were first entered
2 into way back in the 2000s when there wasn't an iPhone and
3 MAC OSs were pretty small. These -- the purpose of these
4 agreements were never to sort of harm search competition or
5 block -- this was at a time when Microsoft had all of the
6 defaults on Windows. Google was competing to try to pick
7 up, candidly, the scraps that were left after Windows and
8 Mac was one of those.

9 THE COURT: Can I ask you a question in terms of
10 the revenue share in these agreements.

11 Is the revenue share -- so say Apple, I buy a new
12 iPhone, Safari is the default browser, Google is the search
13 engine. Say, hypothetically, I'm a user that does nothing
14 more and all I'm doing is that and I'm searching and seeing
15 ads through that --

16 MR. SCHMIDTLEIN: That access point.

17 THE COURT: That access point.

18 Say I'm a different user who says, you know what,
19 I don't want to use the browser, I'd rather just search
20 through the Google app and I download the Google app and
21 that's how I search.

22 Is the revenue connected to searches on both
23 platforms or only the original default platform that sits
24 atop the browser?

25 MR. SCHMIDTLEIN: I don't want to get into too

1 much confidential information.

2 THE COURT: Right.

3 MR. SCHMIDTLEIN: But over time, the other aspects
4 and ways in which people can search on Apple are implicated
5 by these agreements.

6 THE COURT: Okay.

7 MR. SCHMIDTLEIN: So let me sort of take you
8 through sort of what happens if you open Safari on a couple
9 different types of devices to see exactly kind of what the
10 user interaction is.

11 Here, you can see this is sort of the home page
12 for Safari. And what you're presented with is, you have
13 that top sort of search box, but what we have here is a list
14 of favorites that are determined and decided upon by Apple.

15 And, lo and behold, what are some of the favorites
16 that come with icons preloaded? Bing, Yahoo!, Wikipedia,
17 Yelp, Trip Adviser, a collection of other search engines and
18 specialty -- or specialized vertical providers. If this was
19 an exclusive agreement, like how are these people turning up
20 in the favorites bar? And you can see on the right side --

21 THE COURT: So does Yahoo! pay Apple to be
22 designated a favorite?

23 MR. SCHMIDTLEIN: Again, this is -- you will hear
24 testimony -- let me come to this. You will hear testimony
25 about agreements that Yahoo!, Bing, DuckDuckGo, others, have

1 with Microsoft.

2 THE COURT: With apple you mean.

3 MR. SCHMIDTLEIN: I'm sorry, with Apple.

4 So this pops up both on a mobile version of the
5 browser and on the desktop version of the browser.

6 THE COURT: One more question.

7 If I'm using Safari and those pop up as the
8 default favorites, can I change those?

9 MR. SCHMIDTLEIN: Absolutely.

10 And you may, as I said, like over time, they can
11 change based on either your manual use or your activity.

12 THE COURT: It learns. There's machine learning
13 going on. And if I'm using ESPN, for example, a fair
14 amount, that'll show up in the favorites.

15 MR. SCHMIDTLEIN: That is correct.

16 But, again, this is a design decision that Apple
17 makes and Google has no say in it.

18 If you'll take a look at, I think it's tab 93,
19 you'll see, I think exactly what you were alluding to
20 before, that's responsive to one of your questions.
21 Throughout sort of this time period, you can see that, in
22 fact, various other providers actually do have agreements.
23 And, again, I want to respect the confidentiality of the
24 details of those agreements; but you have to ask yourself if
25 this -- if this Google Safari default agreement is so

1 exclusive and blocks people from getting access to other
2 search providers, why do they have agreements with Apple?

3 So I want to quickly go through how to change the
4 default, because it's pretty simple.

5 You know, if you hover over the magnifying glass
6 for the search bar, you get a drop-down menu. You see it's
7 pre-populated there with Google checked, but if you go and
8 check --

9 THE COURT: This is the first time you open the
10 browser?

11 MR. SCHMIDTLEIN: Anytime you open -- this is if
12 you click on or if you hover over the magnifying glass that
13 you see --

14 THE COURT: Oh, okay.

15 MR. SCHMIDTLEIN: -- in that Safari search bar.
16 You can do this anytime. But if you hover over where that
17 magnifying glass is and click, you will be given a drop-down
18 menu and you can simply change the default. And that
19 default is changed for all future searches.

20 Now, another way that you can do it is if you go
21 to -- in the Safari settings tab there over on the far left,
22 you click on that, you click on preferences, you select
23 search, again, there's your default search engine, you click
24 on the drop-down, and, again, you've got various alternative
25 search providers. You make your selection, that has changed

1 the default sort of going forward. And obviously you can
2 make multiple changes and you can go back and forth, but
3 that's the process.

4 On a mobile device, on an iPhone, that settings
5 tab there, that setting sort of app on the front of the
6 phone, you scroll down, you find Safari, click on search
7 engine, and there's the drop-down menu. You can do this in
8 a matter of seconds.

9 If you're having trouble, I recommend Google, how
10 to change the default on Safari and you will get --

11 THE COURT: I thought you were going to say, give
12 me a call.

13 MR. SCHMIDTLEIN: No.

14 YouTube will provide you with a host of videos
15 that make it very simple.

16 I'm going to talk about Mozilla's agreement with
17 Google.

18 Similarly, Mozilla has designed its FireFox
19 browser to allow users to search from a single omnibox that
20 we talked about before. They like Apple. They evaluate
21 sort of the different search providers and they make their
22 decision.

23 Now, Google --

24 THE COURT: I'm sorry, it's 4:30, just for your
25 own timing purposes.

1 MR. SCHMIDTLEIN: Thank you, Your Honor.

2 Google -- Mozilla has most recently selected
3 Google, but you'll hear evidence that in the past, they
4 selected Yahoo!. And you're going to hear about what an
5 experience Mozilla had when it selected Yahoo! and how
6 several years later it came back to Google.

7 Like the Apple agreement, that Mozilla agreement
8 is not exclusive, it provides a simple process to change the
9 default. It allows for prominent placement of other search
10 providers and promotion, and, again, no restrictions on
11 promoting or featuring other search providers.

12 And again, the proof is sort of in the way the
13 product operates. Here's a FireFox home page. When you
14 open it, both on a desktop and on a mobile device, and you
15 see there a search bar and there's a variety of favorites.
16 When you go to click on the actual search box at the top,
17 there are two things appear; one, several other websites
18 like YouTube, Facebook, Reddit, so you can go and click,
19 those are almost like favorites or bookmarks, if you will,
20 if you'd rather go to those sites and look for information.
21 But I want to focus a little bit on -- let me go back here.
22 At the bottom, you'll see this entry, "This time search
23 with" and then there's a whole slew of icons there. So even
24 though Google is the default, so if you type a query into
25 that bar and you hit enter, that query will go to Google and

1 you will get Google's search results.

2 But if you would prefer, every single time you
3 search, this is presented to you and you can make a
4 decision. You can search with Amazon and search with Bing.
5 You can search with DuckDuckGo. You can search with eBay.
6 So here you enter the search query "sushi," you click on the
7 Bing icon there, you go back and click enter, Bing search
8 results.

9 THE COURT: So if you hit enter, it's Google
10 because it's the default, but if you use your mouse to click
11 on the icon.

12 MR. SCHMIDTLEIN: Right.

13 But every time you search, this is what's
14 provided.

15 And, again, obviously our position is they promote
16 other search providers or they're able to promote other
17 search providers in their favorites bar here down below.
18 Here they've got Amazon, Facebook and other places where
19 people could go and search as well, in addition to "this
20 time search with" bar.

21 Like Apple, Mozilla has agreements with various
22 other search providers. So, again, this is tab 109 in your
23 binder. Again, the idea that the Mozilla agreement is de
24 facto exclusive, I'd suggest to you is just an inaccurate
25 characterization.

1 And then I'll quickly run through the changing the
2 default on Mozilla is just as simple. You hover over the
3 top, you go down to the "this time search with," if you
4 click on the far right side, that takes you to the default
5 search engine tab, you click on that, and now you can
6 permanently change the default on the FireFox browser.

7 You can also change it, if you click on the top
8 settings bar, you go down to settings, you click search, you
9 get the default search engine and you switch the default
10 there too.

11 Lots of different ways to switch the default on
12 Mozilla as well.

13 Let me talk, swinging here quickly on Android
14 browsers -- I'm sorry, on the Android agreements that the
15 plaintiffs have talked about.

16 The first is the Anti-fragmentation Agreement or
17 the ACC. Let me explain just briefly what the purpose of
18 this actually was. When Google launched Android back in
19 2008, it didn't do so in a vacuum. There had been, for many
20 years, various other mobile devices out in the ecosystem and
21 candidly they didn't work very well. And one of the
22 reasons, and these were Linux based or you may remember
23 Symbian-based OS phones. One of the reasons they didn't
24 work very well is because they didn't have compatibility of
25 requirements. So those operating systems were licensed to

1 manufacturers and the manufacturers were sort of free to go
2 out and sort of innovate on them in lots of different ways
3 that would result in the apps not working across all the
4 devices.

5 Google doesn't -- and I think one of the
6 disagreements you're going to hear about is, Google doesn't
7 prevent OEMs from innovating. They can do lots of different
8 things with their devices. But in terms of a core
9 collection of API functionality on those devices, what
10 Google says is, if you want to be an Android compatible
11 device, we need you to adhere to, sign an ACC agreement
12 because that will ensure that when those app developers
13 write their app, it's going to run just as well on a Samsung
14 device as a Motorola device or as an LG device.

15 Google experienced this problem firsthand in the
16 earlier days with its Maps application. Believe it or not
17 at one point had, I think, over 100 versions of a maps app
18 trying to function properly across scores of devices. Now,
19 Google had the resources and the engineering behind it to be
20 able to do that. Most app developers won't do that. So
21 Google understood when Android launched -- it was made
22 available for free to download to OEMs. If you didn't want
23 to make an Android compatible device, you don't need to sign
24 the ACC.

25 Counsel made reference to the fact that Amazon

1 took the Android operating system and they went off and made
2 tablet devices that were not Android compatible. They
3 didn't need to sign an ACC to go ahead and do that. But if
4 you were going to do a device and call it Android compatible
5 and you wanted to try to run Google's applications, Google's
6 Android applications, then you needed to sign this because
7 Google did not want incompatible versions out there with app
8 developers, their apps break -- if app developers can't be
9 assured that their apps are going to run properly, they're
10 not going to waste the time. They're just going to write
11 their apps are Apple's IOS, because Apple there's no such
12 thing as an incompatible Apple device. There's no such
13 thing as a fragmented Apple device. They make it from soup
14 to nuts. So in order for Android to be able to compete
15 effectively, they put some minimal functionality
16 requirements and some baseline that they said you've got to
17 develop to. This will foster competition with IOS.

18 As I mentioned it only applies to Android based
19 devices, so if I'm a manufacturer like Samsung, you'll hear
20 evidence, Samsung actually also for a while developed
21 devices based on something called Tizen, which was a
22 completely different, non-Android based operating system.
23 They were free to do that. What they couldn't do was
24 develop an Android-based operating system and an
25 incompatible version at the same time. That would be

1 confusing for app developers. It would be confusing for
2 users, and that would be a recipe for apps breaking on those
3 devices.

4 They can still manufacturer and supply components.
5 So if I am, again, I'm somebody making an Android device,
6 somebody else comes to me and says, I've taken the Android
7 free operating system, I want to go forward it and do
8 something different, will you manufacturer for me components
9 for that device? Fine. But you can't go -- I can't have
10 the Samsung Galaxy and a Samsung Galaxy 6 with both of them
11 having different versions of Android.

12 And lastly, and, again, this is, I would ask you
13 to focus on, because one of the questions that I think
14 naturally arises here is, what the heck does this have to do
15 with search engines? Android -- the anti-fragmentation
16 agreement and the ACC have nothing to do with
17 preinstallation. I know Mr. Dintzer likes to put them
18 together like nice pieces of a puzzle. But you don't have
19 to take any Google applications even if you sign an AFA.
20 There's no distribution component to this.

21 Now, to be sure, if you want Google applications,
22 you want Google's Android applications to be licensed for
23 use on your phone, yes, Google insists your phone has to be
24 Android compatible because we are not going to have our apps
25 breaking and not functioning properly. We're not going to

1 have that. So we're only going to be -- we're only going to
2 license our apps to you if you ensure compatibility.

3 Next I want to talk about the MADA, or the mobile
4 application distribution agreement.

5 It's been part of the Android business model going
6 back to the time of launch in 2008. It's optional. If you
7 are an OEM, you can get the Android open source license.
8 You can go build either your compatible or incompatible
9 version of Android.

10 So let me give you an example. Samsung. Samsung
11 has an app store. They've historically had an app store,
12 the Galaxy App Store. Some other OEM, they could go build
13 and develop their own app stores. Amazon has its own app
14 store.

15 You can get the Android open source. You can make
16 it compatible to take advantage of the fact that all of
17 these people have built compatible versions of apps that run
18 on Android, and then you can go and preload any number of
19 other applications. You can go preload Bing. You can go
20 preload Facebook or, you know, the Samsung browser or, you
21 know, Edge browser or whatever. You can go preload whatever
22 apps you want in addition to licensing Google's
23 applications. So it's optional. You don't need it to
24 obtain the license -- to obtain the agreement, and then you
25 can decide whether or not you want to choose to preload

1 Google apps on a device by device basis.

2 Mr. Dintzer is right that Google does present the
3 MADA as a suite of applications, but you can decide on this
4 device, I want the Google apps on it; on this other model, I
5 don't want the Google apps. It's a device by device
6 selection by the OEM.

7 There's no exclusivity requirements around this
8 so if you do want to preload Google's apps on it, you're
9 free to preload any other apps you want. The only thing
10 that Google asks for are minimal preload and placement
11 requirements, and set forth here is sort of a standard type
12 of Android device that is sort of MADA compliant, if you
13 will.

14 Google asks for the search widget to be on the
15 default home screen, the Google Play Store to be on the
16 default home screen. These are the apps that Google sort of
17 most typically is able to monetize. They've given away the
18 operating system for free to the, OEM, they've given them a
19 suite of really valuable apps like Chrome and YouTube and
20 play and search and everything else. How do we pay for
21 this? They're free. They made it free on purpose. They
22 wanted these OEMs to be able to develop these devices at
23 virtually no cost. You'll hear testimony from others about
24 how when Windows went and tried to launch their mobile OS,
25 they charged for it, and that was a problem. That made it

1 more difficult.

2 They make all of this available for free. What
3 Google asks in return is a search widget on the home screen,
4 Play Store on the home screen so that people can find other
5 apps, again, I think this makes for a good user experience,
6 and then all the other apps that come with the MADA, they
7 get put in a folder so users can access those if they want.

8 If you look at and compare the apps that come
9 pursuant to the MADA and how those are preloaded with an
10 iPhone, you see that what Google is trying to do is to
11 present and make available a compelling set of sort of core
12 functionality apps to make the Android device attractive and
13 make it competitive with IOS.

14 Android OEMs have lots of flexibility in terms of
15 their ability to preload, make different flavors, different
16 types of apps preloaded, and it takes up a lot less home
17 screen, there's a lot more availability than even on
18 iPhones.

19 So from Google's perspective, the MADA is a
20 pro-competitive license that is available and optional to
21 users -- to OEMs who want to use it.

22 The last thing I want to talk about is the Android
23 revenue share agreement. These are highly negotiated
24 agreements among sophisticated parties. They have changed
25 over time. They've had different components. They've had

1 different requirements. I guess for purposes of today, a
2 few points I want to emphasize. They do contain --
3 typically they do contain obviously a revenue share
4 component. Google negotiates with these folks and they
5 arrive on, again, if they want to enter into this, they can
6 get a share of Google's search revenue on the device.

7 What Google gets in return, again, depending on
8 the agreement, is sort of premium promotion of the device.
9 And by that I mean, if I'm going to share revenue with you,
10 then I want you sort of partnering with me to sort of try to
11 encourage people to at least try Google Search. I don't
12 want -- I'm not going share revenue with you off of my
13 widget or off my app if you're going to put a Bing search
14 widget on top of it or you're going to do sort of other
15 things on the device to try to drive traffic away from
16 Google.

17 I'm willing to share revenue with you, but I want
18 certain promotion, and I want, depending on sort of the tier
19 of the agreement, you could be in a situation where you give
20 Google sort of exclusive sort of preload distribution or
21 default on that device.

22 Now, these devices, these agreements are options.
23 You don't need an RSA to get the Android operating system.
24 You don't need an RSA to get the MADA.

25 Samsung, Motorola, in the U.S., the phone

1 carriers, because the phone carriers determine what's on a
2 lot of the devices sold, they're sold in their stores. They
3 actually buy them from the OEMs. They get to determine the
4 final builds. They decide whether or not in their judgment
5 they want to agree to an RSA agreement or not.

6 And, again, Google doesn't force these agreements
7 on anyone.

8 This next slide gives you a sense of the fierce
9 competition between IOS and Android over the years.
10 Obviously, IOS is trending in more positive terms in more
11 recent years than Android, but the competition between the
12 two is obviously fierce.

13 And Google believes, and you'll hear testimony,
14 that revenue share payments are making those available are
15 sort of an important part of aligning incentives to help
16 this competition. Imagine the overwhelming majority of the
17 phones sold in the U.S. are sold in carrier stores, the AT&T
18 store, the Verizon store that you walk into. And there you
19 see them. On one aisle are the iPhones. Another aisle are
20 the Android phones. Google is trying to incentivize those
21 carriers to promote, to market, the train the individuals in
22 the store to show the users how to use Android phones, to
23 promote those.

24 What's one way to do that? Well, I'll pay you rev
25 share on the search revenue that's generated from those

1 phones. That gives you a real incentive to sell and promote
2 those phones in competition with iPhone. It also, with
3 respect to OEMs and carriers, it provides a revenue stream
4 back to them. They're sharing in the success of the device
5 and that affords them revenue that they have available to
6 them to reinvest, to help Samsung build better devices, R&D,
7 help the carriers offer more competitive phones and deals
8 for Android. All of this designed to promote competition
9 but within the realm of if users really, really don't want
10 to use Google and they want to experiment with something
11 else, they can certainly -- they can do that.

12 This gives you a little bit of a feel for how
13 competition exists between Apple and Google, and it
14 emphasizes a couple of important points. One is Android
15 phones are available at a variety of different price points.
16 And Androids phones, at least for some people, are really,
17 really important. And being able to promote and facilitate
18 lower priced, highly competitive devices, we submit, is a
19 product of the Android business model, the ability to offer
20 a Samsung or a Motorola, a free operating system, a free set
21 of compelling apps to preload on their device, and then
22 revenue share payments if they give us that type of
23 exclusive promotion.

24 And then, lastly, obviously people can access
25 other search engines if they need to. I'll run through this

1 quickly.

2 First, if you don't like the Google Search widget,
3 you can delete it from the screen. You press down on it,
4 the remove button comes up, you hit remove, it's gone. If
5 you want to then replace it with Bing, you go to the Google
6 Play Store, you search for Bing, you hit install. Now
7 you've got -- now you can install a widget and you click on
8 the widget and now you've got a Bing widget on your phone
9 instead.

10 Changing the default search engine on Chrome,
11 because, again, that might be a popular way people search on
12 Android phones. Here's the Chrome home page. Again, you
13 click at the top, you get the drop-down menu, you hit
14 settings, you go to search engine, you change the search
15 engine. So it's pretty simple.

16 If you want to take an Android device and you want
17 to reconfigure it because you prefer to use Bing, it's easy
18 enough to do.

19 I'm just going to give you a couple, if you'll
20 indulge me just a few more minutes.

21 THE COURT: You've got about ten more minutes or
22 so.

23 MR. SCHMIDTLEIN: I will do a very quick version
24 of vertical search to give you again just a little bit of a
25 flavor of some of the issues to preview for you.

1 You've heard a lot about the hotel searches.
2 Here's the hotels downtown D.C. search query, here's an
3 example of a Google search result page. We talked about
4 this earlier. Add to the top, hotel unit in the middle, web
5 results down below.

6 This is the Google hotels unit. It presents
7 hotels. It's a query for hotels downtown D.C. Now, what
8 Mr. Sallet and the Colorado Plaintiffs claim is, we want
9 SVPs to be right here in this box on this screen. If an SVP
10 somehow might have a deal with one of these hotels, we'd
11 like you to surface that right here, right now.

12 What you're going to hear from Google is, wait a
13 minute, the person is looking at different hotels. If they
14 want to see more hotels, they click on the bottom button,
15 more hotels are provided. Now, the user says, well, you
16 know what, I might be interested. I've looked at these
17 hotels, I've looked at the variety of the information that's
18 Google has presented, now I might be interested in booking
19 potentially one of them. So I click on one of the hotels
20 and now what am I presented with? Well, you're presented
21 with, in this case, an ads feature where people are provided
22 the opportunity to go to an SVP and book the hotel. You
23 scroll down the page, you obviously get a lot of other
24 information about the hotel. But if you're ready to book,
25 there it is, you click on Expedia and they take you to the

1 Expedia page.

2 So what is Mr. Sallet complaining about? Well,
3 he's saying, I'd rather hear several clicks before. But
4 when you go back and you look at, for example, here, Google
5 has information about a whole -- from a whole source of
6 places where you might want to book. You can't put all of
7 those on the first page with the hotels unit. You're going
8 to hear testimony that explains why Google has logically
9 ordered the various different results pages in the way it is
10 that it believes is most responsive to the users query.

11 This is a flights example. I know Your Honor had
12 asked about flights. Here's a query for flight to Denver
13 and here's the flights immersive. Again, I think apparently
14 the Colorado Plaintiffs say when you populate this
15 information, because they don't say we can't show this,
16 which is of some modest comfort because this is
17 extraordinarily pro consumer, this is responding directly to
18 the query, we're giving you information about flights from
19 D.C. to Denver; but they're somehow saying that on this
20 page, we somehow should be finding a way to give attribution
21 to places where you can actually book.

22 Well, let's see what actually Google does and how
23 they think they're being responsive to users. You hit the
24 show flights. Now it gives you a broader set of places
25 where you now get to decide what it is you want to book, and

1 obviously there's a variety of other information and filters
2 at the top. You can see pricing information on any given
3 day, but when you're ready to book and you see at the top,
4 selected flights, now I've actually selected the actual
5 flights I want. These are the flights I would prefer to
6 take. Now, all of a sudden Google provides you with a whole
7 variety of booking options. Again, a very logical place to
8 provide a whole host of sources where you could book the
9 flight.

10 You'll hear testimony in the case about how the
11 airlines, because they control a lot of data that Google
12 gets here, the airlines were, in some instances restrict,
13 where and when Google can surface certain types of
14 information. But here's a whole variety of places where a
15 user can go to book.

16 Again, you click in the Expedia link there, and
17 you can go book the flight on Expedia.

18 The last one, restaurants, 14th Street D.C., a
19 local query, at the top there you see sort of, you asked
20 before is this sort of a knowledge graph or this is what we
21 call places, but it's a similar idea. We're surfacing
22 information about different restaurants.

23 You click on that, the restaurants, information
24 about the restaurants, a map. Again, I guess somehow the
25 complaint is, we should be stuffing additional information

1 about some SVP on this specific page while the user is still
2 trying to figure out which restaurant am I interested in,
3 which one might I want to book. You go, you get more
4 information. If you like, you pick one, now you're on sort
5 of a dedicated page to that specific restaurant.

6 We had talked earlier, Your Honor, about how
7 businesses can provide voluntarily this sort of information,
8 which is really very useful, including the ability to make a
9 reservation or order food online. And if you click on that
10 at that point, now it's, I'm ready to make a reservation,
11 Google surfaces the ability to make a reservation and you
12 can make it with Open Table, if that's what you would
13 prefer. Again, Google believes that is a logical pro
14 consumer way to organize its web pages, and the plaintiffs
15 here are basically asking you to re-do the web pages because
16 they think it's better for SVPs. Whether it's better or not
17 for SVPs doesn't mean it's necessarily better or not for
18 users and that's what Google is focused on.

19 And the last one I'll run through very quickly,
20 Google local services. This is another type of SVP query
21 that the plaintiffs states are focused on, electricians in
22 D.C. Here's a dedicated local universal for service
23 providers.

24 Again, Google is -- let me go back real quick.
25 If you look at the bottom of the page, there are web results

1 for Home Advisors and Yelp. So if you wanted to go search
2 elsewhere, if you wanted to search for other service
3 providers at one of these other SVPs, Google surfaces that
4 information.

5 When they see the query, electricians in D.C.,
6 Google is going to give you electricians in D.C., not
7 another place to go search for electricians in D.C. And so
8 here is the local services provider SERP, you click on more
9 businesses if you want to look at more of them. You go and
10 you click on -- you picked one out that you think might be
11 helpful to you, and now you've got information, detailed
12 information about that service provider and the ability to
13 contact and make an appointment with that service provider.
14 Again, a very, very logical place for people to go and a
15 logical way to present the information to the users.

16 There is, at the top, an ad -- a specialized ads
17 unit, a local services ads carousel, where again Google
18 makes space available for specific electricians to go and
19 book. Mr. Sallet gave an example of one of these where an
20 SVP placed the ad on behalf of the local service provider,
21 and Google provided attribution to thumb tack in that
22 instance, but apparently they're not happy with that, they
23 want some other implementation that was that they think is
24 more favorable.

25 And then just the last point I'll make, because

1 you probably noticed that Mr. Sallet spent a lot of time
2 trying to do my version of this, but at the very end, he
3 barely got to the point about what does this have to do with
4 monopolization of general search? Because they haven't
5 alleged a case that says you're monopolizing flight search,
6 you're monopolizing restaurants search or anything else.
7 And the convoluted theory that we've got is, if somehow you
8 redesigned your search page differently, we'll get more
9 search traffic. If we get more search traffic, we'll be
10 more attractive to partner with Bing, and somehow if we
11 partner with Bing, that'll make Bing more competitive and
12 now Bing will exert more competitive pressure on Google.
13 That is a quadruple bank shot that I have never heard of in
14 antitrust law. And it is an anathema, the notion that a
15 court would tell Google, here's where you can put this,
16 here's where you can put that, you can't put it here, you
17 can't do this here, that's not how the antitrust laws
18 operate.

19 Google provides lots of attribution, lots
20 abilities to connect users with these vertical search
21 providers, but where it makes sense, at least in Google's
22 judgment, where they are on their journey.

23 Your Honor, you have been infinitely patient with
24 us today. I thank you for all of your time. I speak on
25 behalf of everybody today for giving us a full day. We know

1 you have an incredibly busy trial schedule this fall, and we
2 really thank you.

3 THE COURT: Mr. Schmidtlein, thank you.

4 Mr. Dintzer.

5 MR. DINTZER: Your Honor, we understand that the
6 Court has a hard stop.

7 There was a significant amount of argument
8 sprinkled throughout Google's tutorial today, and obviously
9 we're going to be rebutting it at trial and we're going to
10 be addressing it at trial but if I could just with like one
11 minute to just make one point to the Court, I understand the
12 Court has a hard stop, but we would appreciate it.

13 THE COURT: I'm putting you on a 60-second clock.

14 MR. DINTZER: And that's fair, Your Honor.

15 Google talked about how their desktop browser
16 percentage was particularly high on Windows and they
17 demonstrated that with a slide that showed that Chrome kept
18 going up and up and up and claiming a percentage of the
19 browser share. And the point there, Your Honor, is that
20 they say, well, people are downloading Chrome because they
21 want Google, and there's no evidence of that at all, of
22 course, and people are downloading Chrome, presumably
23 because they want Chrome and Chrome defaults to Google. And
24 I only point that out so that, yes, maybe Chrome's usage is
25 going up and Chrome defaults, that doesn't tell anything

1 about people changing defaults or wanting Google.

2 And I make that point only to -- for this
3 conclusion. If everybody loves Google and if changing
4 defaults is really easy, both of those two premises were at
5 the base of their tutorial, why pay for defaults, because
6 presumably everybody would just go ahead and change them and
7 get wherever they wanted. We saw the chart on how much
8 Google pays for them, and at trial we're going to explain
9 why but they did not -- in three hours, they did not offer a
10 single point about why they would bother paying if it was
11 that easy and everybody was going to change to them anyways.
12 With that, I do appreciate it, I hope I kept my minute but I
13 do appreciate it.

14 THE COURT: Okay. Thank you.

15 All right. Thank you, all. I'm really thankful
16 for this for a whole host of reasons, not the least of which
17 I didn't have to think about January 6th today during the
18 workday so that was nice.

19 But, no, I'm really grateful for the time and
20 attention that you all have put into this. You know, it's
21 nice to have this foundation as we move forward into this
22 case.

23 Clearly there is -- there will be quite a bit to
24 digest next fall and even before that obviously when we get
25 to summary judgment, but this is really helpful. I mean,

1 you can't imagine how beneficial it is to a judge to have
2 had this kind of foundational presentation so that when I
3 start reading these summary judgment briefs, I'm not reading
4 hieroglyphics. And the truth is, in some sense, it should
5 really help you all because now you don't have to dumb it
6 down any more than you probably are going to anyway.

7 So, you know, I think this has been very helpful
8 for that, for those reasons, and I'm really thankful.

9 Just a couple of loose ends. I think, if memory
10 serves and I should have checked my notes from our last time
11 together, I think there were a couple of loose discovery
12 ends that we were going to see whether they had been
13 resolved by today. Any update on those issues?

14 MR. CAVANAUGH: Your Honor, Google has updated the
15 metadata. I think the final meta -- it had to be done twice
16 apparently, and we're still loading it to try to get an
17 answer to whether we have the metadata for the linked
18 documents I talked about the last time.

19 THE COURT: Okay.

20 MR. DINTZER: We are still interacting with Google
21 about the panel data trying to get information. The Court
22 has asked that we find out who the person was who has the
23 information about it. We interacted with him and we've
24 given him some information, and that process hasn't
25 concluded yet.

1 THE COURT: All right.

2 Well, Mr. Schmidtlein? If you could turn that
3 make microphone toward you or come on up to the lectern.

4 MR. SCHMIDTLEIN: There are, to our knowledge,
5 there are no open items. I mean, we have responded to all
6 of their requests for information, and if they have
7 additional requests, obviously we'll take those under
8 advisement.

9 THE COURT: Okay. So what do you all think in
10 terms of a next date to get together. Is that something you
11 think we need? You'd like to have put on the calendar?
12 I know you are sort of heading into a lengthy stretch of
13 expert discovery. We can leave it open or we can set
14 something down.

15 MR. DINTZER: Your Honor, we have found that the
16 monthly approach has worked really well as far as keeping --
17 I mean, disputes come up and it keeps us all, we find a lot
18 of things get accomplished in the few days before we have
19 the status conference, so we'd have to, if it doesn't burden
20 the Court, schedule one for early October and then if we
21 don't have anything on, if there's nothing to resolve then
22 maybe we would jointly agree to take it off the calendar.

23 THE COURT: Okay.

24 MR. SCHMIDTLEIN: I'm obviously fine with that.
25 We are -- just to remind you of the timeline here, we are

1 going to be finishing sort of the last round of expert
2 reports coming up at the end of the month or maybe the one
3 that bleeds over after that. But then we're going to be in
4 the expert depositions and that's going to be a busy --
5 we're going to be, I think, talking next week about expert
6 depositions and the calendars for everything.

7 THE COURT: I guess the final, what's the deadline
8 then for -- I'm sorry I don't have the schedule in front of
9 me -- for the reply expert reports?

10 MR. SCHMIDTLEIN: So it should definitely be
11 after -- sort of after that. And I tend to agree that if
12 we're going to set a date, we can maybe set a provisional
13 one and if for some reason that either we don't need it or
14 that potentially becomes problematic for other things, we
15 might reach out to you to see if there's flexibility. But
16 I know you've got precious little of that, it sounds like.

17 THE COURT: I'm a little reluctant to propose it,
18 but how do you all feel about October the 5th, which is Yom
19 Kippur. If the answer is a hard no, that's fine.

20 MR. SEVERT: Hard no, Your Honor.

21 THE COURT: Okay. That's fine. I mean, we're not
22 sitting that day for trial so it's literally the one day
23 where there's nothing on the calendar in that time frame.

24 Bear with me.

25 MR. SCHMIDTLEIN: I know you're pressed for time

1 this afternoon. If you want to think further about all of
2 the complexities of your calendar and just -- Jean-Claude
3 can reach out to us, we'll schedule something whenever is
4 convenient for you. I don't want to hold you up for today.

5 THE COURT: Well, I think it would be useful to
6 put something down just because you all are about to plan
7 depositions and --

8 MR. SCHMIDTLEIN: If you can that would be
9 helpful.

10 THE COURT: Once those are done, then it maybe
11 difficult to slide a court hearing in. It's a long ways
12 away.

13 MR. CAVANAUGH: Your Honor, we could do something
14 at the end of the day remotely if that will help the Court.

15 THE COURT: Let's do this. How about October
16 14th?

17 Bear with me, everyone.

18 Let's tentatively put down October the 14th at
19 2:00, if that works for everybody. We can make it 3:00 if
20 you think that's better for you all, if you'd like to get a
21 half-day deposition in or -- 2:00. So let's say 2:00,
22 October 14th likely do it via Zoom but either way, I don't
23 know where you all will be in the world so it will probably
24 be easier to do it by Zoom, okay?

25 All right. Thank you, all, very much, I really

1 appreciate this, it's been a very interesting day, to say
2 the least, and I look forward to seeing you in about five
3 weeks.

4 Thank, everybody. Please do not wait for me.

5 (Proceedings concluded at 5:14 p.m.)

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C E R T I F I C A T E

I, William P. Zaremba, RMR, CRR, certify that the foregoing is a correct transcript from the record of proceedings in the above-titled matter.

Please note: This hearing occurred during the COVID-19 pandemic and is therefore subject to the technological limitations of court reporting remotely.

Date: __August 9, 2022__



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