

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

APPEARANCES CONT:

**For Plaintiff
State of Colorado:**

JONATHAN SALLET
Colorado Department of Law
CPS/Antitrust Section
1300 Broadway, 7th Floor
Denver, CO 80203

For Defendant Google:

**JOHN SCHMIDTLEIN
KENNETH SMURZYNSKI**
Williams & Connolly, LLP
680 Maine Avenue, SW
Washington, DC 20024

Court Reporter:

JEFF HOOK
Official Court Reporter
U.S. District & Bankruptcy Courts
333 Constitution Avenue, NW
Washington, DC 20001

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I N D E X

WITNESS

PAGE

MICHAEL WHINSTON

Continued Cross-Examination by Mr. Schmidtlein

6017

E X H I B I T S

No exhibits marked.

P R O C E E D I N G S

1
2 **DEPUTY CLERK:** This is civil action 20-3010, United States
3 of America, et al. versus Google, LLC. Kenneth Dintzer for the
4 DOJ; William Cavanaugh on behalf of Plaintiff States; John
5 Schmidtlein on behalf of Google.

6 **THE COURT:** Good morning, everyone. All right. Anything
7 I ought to know about before we get started?

8 **MR. DINTZER:** Not from DOJ plaintiffs, Your Honor.

9 **MR. CAVANAUGH:** Nothing, Your Honor.

10 **THE COURT:** Okay. We're ready with Professor Whinston. I
11 got a little nervous, I didn't see him in the courtroom.

12 Professor Whinston, have a seat. Welcome back. Good
13 morning.

14 Mr. Schmidtlein, ready when you are.

15 **THE WITNESS:** Thank you. Your Honor, if I may, there's
16 one answer to a question of Mr. Schmidtlein's yesterday that I
17 would -- I think, you know, want to amend if -- just because I
18 think it's not totally accurate.

19 **THE COURT:** Let me -- if I can interrupt. If
20 Mr. Schmidtlein wants to ask you to -- for the amendment, he
21 can. And if he doesn't, then certainly plaintiffs' counsel
22 will do so on redirect.

23 **THE WITNESS:** Perfect, thank you.

24 **MR. SCHMIDTLEIN:** Thank you, Your Honor.

25 CONTINUED CROSS-EXAMINATION OF MICHAEL WHINSTON

1 BY MR. SCHMIDTLEIN:

2 Q. Professor Whinston, if you've got some amendment that
3 you want to make from overnight, please, I'm all ears.

4 A. Sure, thank you. So I think at one point yesterday --
5 well, you were asking me various questions about ads that
6 appeared on Instagram and other places. And then you asked me
7 a question about -- I may not get the exact wording. You asked
8 me if there isn't -- if the Court decides there isn't a
9 relevant market for ads, let's say -- there isn't a relevant
10 market, then there's no issue of monopoly power. And I think I
11 said something like: Yes, obviously, something like that. And
12 at some level -- and so why did I say obviously? Because it's
13 almost definitional that if --

14 Q. Actually, Professor, I think I asked you a question
15 about your market shares, that if the Court finds a different
16 relevant market, then the market shares you provided are not
17 indicative?

18 A. Oh, if that's all, then maybe I -- you know, when I
19 leave the courtroom, you know, at the end of the day, I replay
20 the questions. That's how I thought I heard it. If I heard
21 it --

22 Q. If there's something else you want to add, go ahead
23 and add it.

24 A. The only thing I was going to say is that sometimes we
25 use evidence of market power as evidence that sheds light on

1 market definition. So maybe I misheard the question. But I
2 just wanted to emphasize that. That's obviously something in
3 the ad market in general, when I testified, that I talked
4 about. So that's all.

5 Q. Okay. Thank you for the clarification, I appreciate
6 it.

7 A. Sure.

8 Q. So one of the other factors or opinions that you
9 offered on your relevant market monopoly power opinion was that
10 there was -- low advertiser responsiveness allowed Google to
11 raise text ad prices significantly. Do you recall that?

12 A. I do.

13 Q. And if you would look at the binder, I think that we
14 provided you yesterday, of the slides -- your slides from a
15 couple of weeks ago. You should have those there. I'm going
16 to ask you to look at that, because it's a slide that was
17 redacted significantly, and so putting it up on the screen is
18 not going to be, I think, very helpful for us.

19 A. Okay.

20 Q. It's slide 65, and it's the slide that had to do with
21 the ads price index. Do you remember that?

22 A. I do.

23 Q. I've just got a couple of questions about it. And you
24 put this slide together. Am I correct, you didn't do any
25 analyses here? You basically took this data or took this index

1 from some Google documents or something -- or data that you
2 got; is that right?

3 A. Yes.

4 Q. In other words, you didn't perform any independent
5 analysis of it, right?

6 A. No. No, I didn't.

7 Q. And can you tell us what exactly is being measured in
8 this slide?

9 A. So --

10 Q. Without getting into the numbers per se, but just what
11 exactly is being captured in terms of the concept?

12 A. Right. So I think I talked about this 10 days ago,
13 whatever number of days ago it is.

14 Q. I just want to remind the Court.

15 A. So there were documents describing this index as well.
16 And so what this index is, my understanding from those
17 documents, is it's essentially like a -- the equivalent of a
18 consumer price index or producer price index for text ads. So
19 it -- you know, the way -- as I think -- Your Honor, as I think
20 I was explaining to you back 10 days ago, in rough terms, what
21 the consumer price index or the producer price index does is
22 each period, say each month or each year, it will take the
23 basket of goods that are being -- you know, I'm speaking now of
24 consumer price index -- basket of goods, hold them fixed, look
25 at the price change, you know, how much the overall cost of

1 that basket of goods went up.

2 And then the next period, it will take the next period's
3 basket of goods and look at how much the cost of that goes up
4 in that next period. So in that sense, it chains together the
5 price increases, but the -- you know, chains these measured
6 price increases together. And the whole idea is to avoid kind
7 of compositional effects, that if the basket changes from one
8 period to the next, that you don't -- you could think you had
9 a -- for example, prices -- if you didn't do this, it could be
10 the prices didn't change at all, but because the basket changed
11 it looked like the cost went up. And so that's what the basic
12 idea of a price index is, and that's my understanding of what
13 they were doing here.

14 Q. What's in the -- what's the basket that's being
15 measured here?

16 A. So it would be the ads that are being shown.

17 Q. What ads?

18 A. I believe it's text ads.

19 Q. All text ads?

20 A. So my understanding is that there are two lines here,
21 and they're doing a price increase for PCs, you know, ads on
22 PCs, and a price index for ads on mobile phones.

23 Q. What specific ad price is being measured in this
24 index?

25 A. I believe it's CPC, cost-per-click.

1 **Q.** We've got the cost measurement. We've got the pricing
2 aspect down. What exactly is being priced? Is it every single
3 search ad that is clicked on in an auction? Is it the top four
4 ads? Is it the top one ad? What exactly is being measured in
5 this price index, if you know?

6 **A.** So I'm trying to remember. I certainly read these
7 documents carefully when I looked at them. I believe it
8 would -- I think it is top -- I forget, I always get these
9 words mixed up, whether it's slot and position, at text ad
10 prices. So there's a -- Your Honor, there's the top slot,
11 which is the ads that appear at the top. Typically, Google is
12 distinguishing those ads. That's the -- and then within that,
13 there are several positions. You know, the best -- the top
14 position within is the, quote, winner, that has the highest
15 rank score. Then the second one, then the third and then the
16 fourth. There are typically four spots, potential spots there.
17 I think that's what this is doing. It's been a long time since
18 I looked at that document, but I looked at it carefully at the
19 time.

20 **Q.** Is it measuring the average cost-per-click of the top
21 ad slot; the top first and second slot; the top first, second
22 and third slot; the top first, second, third and fourth slot,
23 if you know?

24 **A.** I believe it's the top -- again, from memory from
25 quite a while ago, that it's the top four positions in that

1 slot. That's what I believe it is.

2 Q. So you think it's the average price of all of the ads
3 shown anywhere in the top four slots; is that what your
4 testimony is?

5 A. So let's just be careful about the words "slot" and
6 "position." So there are ads that are on the right panel
7 sometimes. There are ads that are at the bottom. So I'm
8 speaking now of the top slot. And that document, it didn't
9 just write, oh, we did this price index. It actually had
10 discussion of, like, why do we think this price index is good.
11 It talked about episodes --

12 Q. I'm just trying to find out if you know exactly what
13 this chart means.

14 A. I've explained to you now what I remember.

15 Q. Okay. The price index, whatever it captures, would
16 you agree with me that it doesn't measure or otherwise reflect
17 changes in time in search ads quality, right?

18 A. Correct, it's a price index.

19 Q. And it doesn't account for improvements in Google
20 searches' advertising technology over time, correct?

21 A. Correct.

22 Q. And it doesn't account for improvements that Google
23 made to its advertising technology that allowed advertisers to
24 better understand and measure their return on investment for
25 their ads, correct?

1 **A.** Correct. I talked about this quite a bit in my
2 report.

3 **Q.** And this chart does not measure or capture return on
4 investment for these ads, correct?

5 **A.** It's a price index.

6 **Q.** So this index doesn't tell us whether during this
7 period, as the cost-per-click was going up, the return on
8 investment and the value provided to the advertiser was going
9 up just as much or more, correct?

10 **A.** So looking just at this index, no. But in my report,
11 I talk about this.

12 **Q.** Sir, I'm talking about this chart that you decided to
13 put into the slide deck for your testimony, okay?

14 **A.** Yes.

15 **Q.** And I'm -- this chart doesn't tell the Court anything
16 about the value of the ads and how they increased over time,
17 correct?

18 **A.** Correct. So, Your Honor, the --

19 **Q.** Sir, I'm going to -- they can ask you whatever
20 questions they want later.

21 **A.** Okay.

22 **Q.** I'd ask you to answer my questions now.

23 **A.** Sounds good.

24 **Q.** Did you study the extent to which Google, from 2013 to
25 2021, introduced technological innovations that improved

1 Google's ability to serve more relevant ads?

2 A. I'm sorry, could you just repeat the question again?

3 Q. Did you study the extent to which Google, from 2013 to
4 2021, introduced technological innovations that improved
5 Google's ability to serve relevant ads?

6 A. I looked at that, yes.

7 Q. And you're aware that throughout this entire time
8 period, Google was continually innovating to improve its
9 ability to serve relevant ads?

10 A. To some degree. As I -- in the last document that I
11 showed during my testimony, it was about things they decided
12 not to do.

13 Q. We'll get there.

14 A. But they were also doing things, I agree with that.

15 Q. Okay. Did you study the extent to which Google, from
16 2013 to 2021, introduced improved and better ad formats that
17 improved ads quality and click-through rates?

18 A. I think they did introduce formats. You know, I
19 talked about format pricing 10 days ago, so yes.

20 Q. And you know from your review in this case that over
21 this time period, Google, in fact, greatly increased advertiser
22 ROI and ROAS for Google search ads?

23 A. You know, ROI is a measure that advertisers -- that is
24 very, very hard to measure. So I think it's not entirely clear
25 what happened to ROI. Yeah, that's my answer.

1 Q. You didn't do any analysis in this case that tried to
2 capture or estimate the increase in advertiser ROI for Google
3 search ads, right?

4 A. No. That would be impossible with the data.

5 Q. If you'll turn to the next slide in the binder. This
6 is a question and answer that you cited from Mr. Dischler. Do
7 you recall that?

8 A. I do.

9 Q. And as part of this Q and A, was Mr. Dischler asked
10 about increases in advertiser ROI or ROAS?

11 A. I'm not remembering exactly the rest of the
12 conversation.

13 Q. The question and answer here about a price increase of
14 5 percent makes no reference to whether, in connection with any
15 price increase of that magnitude, Google had also increased
16 advertiser ROI or ad quality, correct?

17 A. That's correct. The point of this slide was just a
18 confirmation that this price index -- you know, what we're
19 seeing in the price index is something that you can see in
20 testimony.

21 Q. If a business improves the quality of its product such
22 that it delivers greater value to a customer, the fact that the
23 seller increases the price to capture some of that increased
24 value to the customer is not evidence of substantial market
25 power, correct?

1 **A.** Not in itself, but it's consistent with it, and
2 combined with other evidence it is.

3 **Q.** By itself, that factor does -- that set of facts does
4 not indicate substantial market power, correct?

5 **A.** If that's the only piece of evidence, then it's
6 consistent potentially with both.

7 **Q.** Now, if you'll look at slide 67, the next one. This
8 document that you call out in slide 67 makes reference to
9 pricing mechanisms and pricing knobs, right?

10 **A.** It does.

11 **Q.** And would you agree that if an auction price does not
12 properly account for the value that Google is providing to
13 advertisers, Google may look for ways to more fairly price the
14 auction, correct?

15 **A.** I don't know what fairly means. Does fairly mean
16 Google gets all the value? Is that what fairly means in your
17 question?

18 **Q.** If Google improves its advertising technology and
19 improves other aspects of the auction that deliver increased
20 value to Google -- I'm sorry, to the advertiser, the fact that
21 Google may raise the price to capture some piece of that value,
22 that's not proof of the exercise of substantial market power,
23 correct?

24 **A.** Some piece or all of it? Because what I testified to
25 is that they were seeking all of it.

1 Q. It's your testimony that you've identified instances
2 where Google has increased an ad's price to capture all of the
3 increased value to advertisers?

4 A. That's exactly what they were doing during this
5 period.

6 Q. When?

7 A. From 2016 to --

8 Q. What advertise -- in what circumstance? Can you
9 identify for me a particular advertising launch when Google
10 captured 100 percent of the increased value?

11 A. That's not -- I'd have to go back. I ended up -- in
12 my initial report, I talked about how Google was trying to
13 measure what the value was in trying to capture all of it. So
14 that's --

15 Q. You haven't identified in your testimony to this Court
16 a single instance where Google introduced an advertising
17 innovation, the launch of a new product, some new feature that
18 increased value to the advertiser and Google increased the
19 price to take all of that value; isn't that true?

20 A. You know, my report was --

21 Q. Sir, I'm asking you about the testimony you've given
22 in this courtroom.

23 A. I'm answering it, I'm answering your question. So the
24 testimony I gave in this courtroom, you know, of necessity,
25 given the amount of time that I had, didn't do everything that

1 was in the 1,300 pages. Your Honor, I know what seems short to
2 me probably was very long to you, but I had to pick what I was
3 talking about.

4 Q. Have you done an analysis in this case to evaluate
5 whether Microsoft or Yahoo! have pricing mechanisms and pricing
6 knobs?

7 A. So I haven't studied what they're doing exactly, but I
8 do believe that -- you know, for example, that Microsoft does
9 some of these things.

10 Q. You've seen evidence in this case, testimony in this
11 case, from people from Microsoft where they acknowledge that
12 they use pricing mechanisms and pricing knobs to increase
13 prices in Microsoft's auctions, correct?

14 A. That is my understanding, yes.

15 Q. Is it your testimony, sir, that Microsoft has
16 substantial market power in any search or search ads market?

17 A. So what I would say about that is that Microsoft does
18 have some market power. And part of the reason, I think, is
19 what you referred to yesterday, which is that there are some
20 users on Microsoft that when they have an intent, they're just
21 on Microsoft. You know, that gives -- when we talked about all
22 these different elements of product differentiation between
23 products, Your Honor, that -- the fact that there are users who
24 are only uniquely on Microsoft, on Bing, does give Microsoft
25 some power. Because Microsoft -- you know, some advertisers

1 who want to reach those consumers when they're having that
2 intent, Microsoft is how they can do it. That does not mean
3 that Microsoft has as much market power as Google; it doesn't.
4 Google has a tremendous amount of market power coming from its
5 market share.

6 Q. Have you tried to measure the extent to which pricing
7 knobs are used more or less on Microsoft versus Google Ads?

8 A. I have not. I do not have a measure of that.

9 Q. If you'll turn to slide 69, this is your slide about
10 Project Momiji. Do you recall that?

11 A. Yes.

12 Q. And this slide makes reference to two forms of auction
13 pricing: Format pricing and squashing. Do you recall that?

14 A. I do.

15 Q. You've not done any empirical analysis in this case to
16 assess the extent to which Google adopted or used either of
17 these mechanisms, correct?

18 A. Well, I've seen and looked at many Google launch
19 documents, including launch documents about squashing, for
20 example.

21 Q. You don't know in what percentage of ad auctions
22 squashing occurs, right?

23 A. Where they actually have changed the predicted
24 click-through rate? I may have seen it in one of the launch
25 documents. The launch documents have many statistics, so I may

1 have seen this, but I don't remember it.

2 Q. You've offered no opinion in this case regarding the
3 extent to which squashing has been employed in Google search ad
4 auctions, correct?

5 A. I'm sorry, could you repeat the question just so I'm
6 sure I'm answering?

7 Q. Sure. You have not offered any expert opinion in this
8 case, based on any empirical analysis or anything else, about
9 the extent to which Google employs squashing in its ads
10 auction, correct?

11 A. I mean, I have -- have I offered an opinion about
12 the -- you know, numerically? No.

13 Q. Have you done any analysis in this case regarding
14 whether Microsoft or Yahoo! have implemented squashing in their
15 search ads auctions?

16 A. I've seen documents that indicate that they have.

17 Q. The other aspect that you make reference to here in
18 slide 69 is format pricing; is that right?

19 A. It is.

20 Q. And the format pricing that you talked about involves
21 those search ads where the advertiser can provide additional
22 information that expands the size of the ad, correct?

23 A. Yeah, I think they referred to it as extensions.

24 Q. Extensions, okay.

25 A. Yes.

1 Q. And do we have a demonstrative we can pull up on that.
2 I just want to remind the Court what this actually looks like.

3 This is DX15-015. This is -- would you agree this is an
4 example of a format extension?

5 A. This being the -- sorry, it just disappeared. The Run
6 on Clouds, the first one?

7 Q. Can you give me the other one.

8 A. The one at the top?

9 Q. Yes, exactly. Under "sponsored" there -- and again,
10 this is -- we like running shoes in this trial apparently, Your
11 Honor.

12 A. Who's the runner?

13 Q. Yeah, not me during this trial.

14 **THE COURT:** I was going to say, we all buy them. I don't
15 know how many of us are using them.

16 **BY MR. SCHMIDTLEIN:**

17 Q. Under "sponsored" there, would you agree that the On
18 Run on Clouds, that's an ad on Google search ads, right?

19 A. Yes.

20 Q. And the additional links you see there -- performance
21 running shoes, the on men's collection, shop on women today,
22 those are the extensions that you make reference to, right?

23 A. Yes.

24 Q. And the notion of format pricing is that if an ad with
25 an enhanced or an extended format like that is shown, Google

1 decided to increase the price of that ad because it was taking
2 up significantly more space on the results page, correct?

3 A. Originally they did it -- they gave the space for
4 free. And then at some point -- I think actually around --
5 through this discussion and the slide we had previously been
6 looking at, they realized they could make a lot of money
7 charging for it.

8 Q. And one of the reasons was because it actually
9 provided greater value to the advertiser, correct?

10 A. Yeah, the way Google charges more for things is
11 generally because there's some more value. So the way it
12 extracts more -- a higher price -- cost-per-click is -- in the
13 regular auction, even without extensions, is the top position's
14 going to get more clicks. And that manages to get high
15 willingness to pay -- advertisers to pay more.

16 Q. But this provides even additional value, because it
17 provides more information to the user that's more helpful to
18 the user that leads to increased likelihood of clicking, right?

19 A. Yeah, I mean --

20 Q. An increased likelihood of conversion, correct?

21 A. So the way the documents that I saw, they often
22 thought about this in terms of clicks; that we're doing this
23 thing that gives more clicks. We can try to put it on the
24 same -- you know, they would describe, like, a click-cost
25 curve. Like, the more clicks you want, the more we're going to

1 charge you, not -- and by that, I don't mean just charge you
2 more in total. What I mean is the higher your cost-per-click
3 is going to be, the more clicks you're going to get. And so
4 that's what -- how they were thinking about this.

5 Q. You don't find it unusual, from an economic
6 perspective, that a firm with an advertising platform -- and
7 whether this is the Washington Post, whether it's Facebook,
8 whatever it is, if I provide more space on my platform for an
9 ad, it's not unusual to charge more for that ad, correct?

10 A. So there's a distinction, and I was just making it.
11 So, like, if I'm on the -- if I'm getting more, you might say,
12 well, you're going to pay -- if I get more bananas at the
13 store, I pay more in total, but my price per banana hasn't gone
14 up. In these auctions, it's as if my price per banana does go
15 up. If I go into the store and I want four bananas, I'm going
16 to pay more than someone who gets two. In essence, in
17 economics lingo, they're price discriminating; they're managing
18 to do this kind of price discrimination. That's how they get
19 high willingness to pay buyers to pay more per click.

20 Q. But the larger advertisement is more impactful and
21 provides additional information that makes it more likely that
22 the user will click and convert, correct?

23 A. I don't know about conversion. I do know that in the
24 documents I saw, that the team involved in this was thinking
25 about it in terms of clicks.

1 Q. This is a more valuable banana, right?

2 A. You know, it's not clear -- for example, you might say
3 something similar to that about the top position. But I've
4 seen documents, for example, where Hal Varian was explicitly
5 saying: We've studied the top position versus the second
6 position, and the conversion rates aren't really different.

7 Q. If the return --

8 A. A click is a click.

9 Q. If the return on investment for the enhanced pricing
10 format is the same as without enhancements, the advertisers
11 won't bid more, correct?

12 A. I'm sorry, could you repeat the question?

13 Q. If the return on investment for the enhanced ad is no
14 different than the text ad without the enhancement, the
15 advertiser won't bid more for the enhanced ad, right?

16 A. Sorry, one more time. It's your switch to return on
17 investment. I'm just trying to understand. So can you just
18 say it again?

19 Q. If the enhanced ad with the extensions doesn't deliver
20 more return on investment, the advertiser won't bid more than
21 it does for a regular ad without the extension or the
22 enhancement, correct?

23 A. So if these ads -- again, you know, it's a question of
24 whether we're speaking about the level. So return on
25 investment is how much revenue or profit I get for a dollar

1 that I put in. In the end, return on investment is something
2 that, in economics, all -- yes, I mean, what we're going to do
3 is we're going to buy things until the point at which the
4 return on investments are equalized. And so, yes, we're going
5 to spend more -- if these things deliver more clicks, we're
6 going to spend more on them. I guess I'd answer it that way.

7 Q. Have you looked at the question of whether Microsoft
8 uses product ad or format enhancements like this?

9 A. My experience, yes.

10 Q. Can you show the next slide, the slide that we looked
11 at before.

12 This is the same query on Bing, correct?

13 A. I didn't look what the query was in the previous one,
14 but it is Bing. And I don't -- I'll take your word for the
15 fact that the previous one was a query for running shoes.

16 Q. Okay. And this is an example of format -- a format ad
17 on Bing, correct?

18 A. Yes.

19 Q. And you're aware, based on the record in this case,
20 that Microsoft charges more for format ads than it does regular
21 search text ads, correct?

22 A. I mean, I haven't seen that, but I'm sure that's the
23 case.

24 Q. You can take it down.

25 Now, you've not conducted any empirical analysis in this

1 case as to what Google search ads' pricing would have been in
2 any but-for world, correct?

3 A. I mean, exactly as I was testifying yesterday, in
4 these but-for worlds, like the possibility of coming up with a
5 quantitative measure of exactly what would have happened in --
6 had Google used some less restrictive set of contracts, that's
7 not something I'm able to do.

8 Q. You've not conducted any analysis in this case as to
9 what level of search or search advertising output would have
10 been achieved in any but-for world, correct?

11 A. Correct.

12 MR. SCHMIDTLEIN: Your indulgence, Your Honor, just one
13 moment.

14 (Brief pause)

15 BY MR. SCHMIDTLEIN:

16 Q. Now, Professor Whinston, I want to switch gears to
17 talk about the testimony that you gave in response to
18 Mr. Severt's questions yesterday; is that okay?

19 A. Absolutely.

20 Q. You attended the opening arguments in this case; is
21 that right?

22 A. I did.

23 Q. And during the opening arguments, Mr. Dintzer told the
24 Court in response to a question that the DOJ plaintiffs
25 contended that in 2010, Google began illegally maintaining a

1 monopoly. Do you recall that?

2 A. I do.

3 Q. And Mr. Dintzer explained or claimed that the DOJ
4 plaintiffs' contention in this case, that Google was a
5 monopolist at least as early as 2010. Do you recall that?

6 A. I do.

7 Q. Now, you were given an assignment in this case by
8 counsel for the DOJ, right?

9 A. I was.

10 Q. And for purposes of your analysis in this case, your
11 assignment, if you will, both with respect to the market power
12 issues and relevant market issues we've been talking about --
13 and as well as the conduct issues we're going to be talking
14 about, you were asked by the DOJ to look at the time period
15 beginning in 2014, correct?

16 A. That's correct.

17 Q. You were not asked to go back and look at the period
18 and offer opinions from 2010, right?

19 A. Correct.

20 Q. And you have not offered any opinion in your reports
21 in this case as to when Google supposedly first achieved
22 monopoly power or substantial market power, to use your terms,
23 in any search or search ads market, right?

24 A. That's correct.

25 Q. You've not offered any opinions in your reports that

1 Google created or acquired substantial market power in any
2 relevant market through anti-competitive conduct, correct?

3 A. That's correct.

4 Q. You've not offered any opinion in your reports
5 comparing the distribution agreements that Google entered into
6 during the period prior to it supposedly achieving substantial
7 market power and the period after it supposedly achieved
8 substantial market power, correct?

9 A. Could you just repeat the question again, please?

10 Q. You've not offered any opinions in your reports
11 comparing the distribution agreements that Google entered into
12 during the period prior to achieving monopoly power with the
13 agreements after monopoly power?

14 A. That's correct.

15 Q. And you have not offered any opinions in this case
16 that Google would have lost its allegedly substantial market
17 power in any market in the absence of the allegedly
18 anti-competitive agreements, correct?

19 A. You know, your question is a question asking me
20 whether I expressed the opinion that it would -- I think your
21 question -- definitely lost, like I don't -- I'm not sure I
22 understand your question.

23 Q. You have not offered any opinions in your expert
24 reports in this case that Google would have lost its allegedly
25 substantial market power in any market in the absence of the

1 alleged anti-competitive agreements, correct?

2 **A.** I've not offered any opinion that Google would have
3 definitely lost its market power.

4 **Q.** All right. For purposes of your opinions regarding
5 Google's conduct, again, you looked only at 2014 to the
6 present, right?

7 **A.** Yes.

8 **Q.** And you're not offering any opinion that any Google
9 search agreement -- distribution agreement that was entered
10 into prior to 2014 was anti-competitive?

11 **A.** So, I guess to the extent that there were agreements
12 that were in existence and continued to be in existence, those
13 would be things that were within the period.

14 **Q.** Fair enough. Agreements that did not have any overlap
15 or effect, 2014 to the present, you haven't offered an opinion
16 as to those?

17 **A.** If they didn't overlap into 2014 or later, then no.

18 **Q.** In the case of Apple, is it fair to say that your
19 opinions in this case focus on the 2016 agreement between
20 Google and Apple?

21 **A.** Well, I mean, Apple had an agreement prior to that,
22 so -- and the document, Your Honor, that we looked at looking
23 at that spread, for example, was talking about profits under
24 that -- you know, gains under that 2014 agreement. So that's
25 something that I did look at.

1 Q. Okay. Turning to Mozilla, you recall Mozilla had a
2 default agreement from 2014 to 2017 with Yahoo!, right?

3 A. November 2014. Earlier in 2014 it had an agreement
4 with Google.

5 Q. Okay. And is it fair to say the primary focuses of
6 your analysis with respect to Mozilla pertained to that
7 agreement that Google entered into in 2017?

8 A. Well, also the one before November 2014.

9 Q. Got it. And the same is true for the Android
10 agreements, you focused on Android agreements that were in
11 effect from 2014 to the present?

12 A. Correct.

13 Q. Between 2017 and 2014, would you agree that Google was
14 overwhelmingly the most popular search engine on both desktop
15 computers and mobile devices in the United States?

16 A. Sorry, you went backwards in time.

17 Q. I did?

18 A. Say it again.

19 Q. Between 2007 and 2014 --

20 A. Oh, I missed the question. I thought you said '17,
21 that's why I thought you went -- that was the sense in which I
22 was confused.

23 Q. I may have misspoke. Let me try it again.

24 A. Okay.

25 Q. Between 2017 and 2014 --

1 A. Sorry, say it again.

2 Q. 2007 and 2014 --

3 A. '7, 2007.

4 Q. Sorry, my apologies. Let me try again.

5 A. Okay.

6 Q. Between 2007 and 2014, would you agree Google was
7 overwhelmingly the most popular search engine on both desktop
8 computers and mobile devices in the United States?

9 A. So, between 2007 and 2014, I believe that Google first
10 had a market share over 50 percent maybe in 2006. And so I'm
11 not sure if, in 2007 -- which I think was the first year you
12 mentioned, I would call it overwhelming -- I forget the
13 adjective you used. But it grew rapidly. I think by 2009, it
14 might have been 70, 80 percent or something.

15 Q. You've offered an opinion in this case, in connection
16 with your monopoly power opinion, that Google's search quality
17 was significantly superior to Bing's from 2015 to 2021,
18 correct?

19 A. Yes.

20 Q. And you have not offered any opinion in this case in
21 your reports that a browser developer believed that Bing had
22 superior search quality to Google in the U.S., correct?

23 A. Correct.

24 Q. And relatedly, you've not offered any opinion in your
25 reports in this case that a browser developer wanted to switch

1 from Google to another search engine in the U.S. based on
2 search quality, but was blocked from doing so by Google's
3 search distribution agreements?

4 A. Well, I don't think I would agree with that. So if
5 you take Microsoft, for example, and the Surface Duo, it --

6 Q. I said a browser developer, sir.

7 A. Well, they have a browser, Edge. So that's what I
8 guess --

9 Q. I mean, let me try the -- listen to my question, sir.

10 A. Okay.

11 Q. You've not offered any opinion in your reports in this
12 case that a browser developer wanted to switch from Google to
13 another search engine as the default for that browser based on
14 search quality, but was blocked from doing so due to a Google
15 search distribution agreement, correct?

16 A. I understand now. So Bing was the default in Edge,
17 period, so no.

18 Q. Now, Mozilla, in 2014, switched from Google to Yahoo!,
19 correct?

20 A. Correct.

21 Q. And that agreement was 2014 to 2017, the
22 Mozilla-Yahoo! agreement, correct?

23 A. Correct.

24 Q. And in 2016, Google was competing to win the renewal
25 of the Apple search agreement, correct?

1 A. That is correct.

2 Q. And Apple could have switched from Google to another
3 search engine for the Safari agreement in 2016, correct?

4 A. I think they had the option in 2017, and that the
5 negotiations were happening before that. But that's my
6 recollection.

7 Q. But unlike Mozilla, Apple decided not to switch from
8 Google, right?

9 A. Correct.

10 Q. And Apple did -- Apple decided to stay with Google
11 based on Google's search quality, correct?

12 A. Google's search quality and Google's search money,
13 both.

14 Q. Now, Mozilla's decision to switch from Google to
15 Yahoo! for the Firefox default resulted in significant harm to
16 Mozilla, correct?

17 A. Mozilla wasn't happy in the end.

18 Q. The switch from Google to Yahoo! for Firefox harmed
19 the quality of the Firefox user experience, correct?

20 A. I think they were disappointed with what Yahoo!'s
21 performance was.

22 Q. And it harmed Firefox's brand reputation, correct?

23 A. I haven't -- I don't think I've seen anything
24 specifically about brand reputation, but as I said, I know they
25 weren't happy with Yahoo!'s performance.

1 Q. And the switch from Google to Yahoo! harmed Firefox's
2 ability to compete against other browsers, correct?

3 A. Again, same answer that I just gave you about brand.

4 Q. And Mozilla's switch from Google to Yahoo! caused
5 significant economic harm to Mozilla, correct?

6 A. I don't have a number, but I think their unhappiness
7 surely was related to some sense of what the ultimate economic
8 impact was.

9 Q. Now, you've not offered any opinion in your reports
10 that during the period 2014 up until when you filed your
11 reports, that an Android OEM, like a Samsung, or a U.S.
12 wireless carrier, like an AT&T, wanted to pre-load a rival
13 search engine instead of Google on an Android device, correct?

14 A. So instead as in take Google off of the --

15 Q. Right.

16 A. And, sorry, could you repeat the question? Were you
17 asking about both carriers and OEMs?

18 Q. Correct.

19 A. So carriers really didn't have an option, because
20 Google was going to be on no matter what because of the MADA.
21 So they couldn't -- the instead wasn't an option for carriers.

22 Q. My question was: You've not offered any opinion that
23 they wanted -- that they wanted to replace Google with a rival
24 search engine?

25 A. No. That's -- well, you asked the question, so I'll

1 stop. Go ahead.

2 Q. As part of your work in this case, you have not
3 offered any opinion that Google's search distribution
4 agreements have resulted in users who affirmatively prefer or
5 are loyal to Bing or Yahoo! or DuckDuckGo, that they've been
6 prevented from using their search engine of choice on any Apple
7 or Android device, correct?

8 A. So it's not that I'm studying individual users, but
9 the evidence about defaults, I think, makes clear that, yeah,
10 some people who might have -- in a choice, might have preferred
11 those, didn't. I mean, we -- so didn't go to them.

12 Q. You have not tried to quantify or study or document
13 what percentage of people who affirmatively want Bing or Yahoo!
14 or DuckDuckGo but somehow haven't been able to use Bing, Yahoo!
15 or DuckDuckGo on any Apple device or any Android device,
16 correct?

17 A. So I don't know if -- affirmatively want is kind of --
18 I don't know. When people are behavioral, I don't know quite
19 how to think about affirmatively want, that concept. So, I
20 guess subject to that caveat, no.

21 Q. You've not attempted in this case to estimate what
22 percentage of U.S. consumers prefer Bing, Yahoo! or DuckDuckGo
23 to Google?

24 A. U.S. -- I'm sorry, repeat the question one more time,
25 so I'm sure I'm answering it.

1 Q. Have you attempted to estimate what percentage of U.S.
2 search consumers prefer Bing or Yahoo! or DuckDuckGo to Google?

3 A. Not -- in some sense, the analysis I did of the EU
4 choice screen and then projecting what that would imply had the
5 same choice screen been in the U.S. was seeking to do that.

6 Q. Okay, and that's a fair point. I wanted to get to
7 that, because I was going to ask you whether you viewed that as
8 a proxy, if you will, for trying to get at the question of
9 whether there were people who actually preferred a non-Google
10 search engine. And you think the choice screen analysis is the
11 closest thing you've seen to that?

12 A. I think the choice screen analysis tells you something
13 about -- well, what does it tell you? It tells you if you've
14 instituted a choice screen with the current quality of rivals,
15 what share of choices would be for rivals.

16 Q. And your choice screen analysis demonstrated that over
17 90 percent of U.S. consumers would select Google if presented
18 with the choice screen, right?

19 A. Yeah, I think it was 90.55, but yes.

20 Q. And that percentage of users that you just identified,
21 the 90 percent-plus, that's actually larger than the market
22 share number that you provided to the Court for purposes of
23 your relevant market analysis, right?

24 A. It's larger, but it's for a different thing.

25 Q. Understood.

1 **A.** So the market share is for the whole market, and
2 that's for Android.

3 **Q.** Right. But you don't have -- do you have a belief
4 that a choice screen result on Apple devices would be
5 different?

6 **A.** It could be.

7 **Q.** But you haven't offered an opinion to that effect,
8 have you?

9 **A.** No. So, I mean, I see the Android results.

10 **Q.** Now, we talked a little bit yesterday about Microsoft
11 and the fact that it has pre-load exclusivity for both Bing and
12 Edge, and historically IE, on Windows PCs, right?

13 **A.** Yes.

14 **Q.** And you understand Microsoft paid Windows PC OEMs
15 significant moneys in the form of rebates on their Windows
16 licenses to get that exclusive search and browser pre-load
17 distribution on Windows PCs, right?

18 **A.** I do.

19 **Q.** And is it your opinion -- have you formed an opinion
20 in this case as to whether these Microsoft search distribution
21 agreements on Windows PCs have impacted Bing's search query
22 volume in the United States?

23 **A.** So I haven't expressed an opinion directly about that,
24 but I have expressed opinions that defaults matter. And so in
25 that regard, I think it probably has made -- had an impact.

1 **Q.** Okay. Have you analyzed whether Microsoft's search
2 distribution agreements on Windows have harmed consumer
3 welfare?

4 **A.** No. That was not part of my assignment.

5 **Q.** Would you agree that Microsoft's search distribution
6 agreements with Windows PC OEMs have resulted in users
7 searching with an inferior search engine?

8 **A.** Repeat the question one more time.

9 **Q.** Would you agree that Microsoft's search distribution
10 agreements with Windows PC OEMs have resulted in users
11 searching with an inferior search engine?

12 **A.** I think if you put together that the defaults have an
13 effect on where people go, which I've said, and the fact that
14 Bing's quality is not as high -- although it's very close on
15 desktops, so it's not very different. It is quite close on
16 desktops. But to the extent -- I mean, we looked at that, and
17 to the extent it's a little bit below on desktop, then the
18 answer would be yes.

19 **Q.** Have you done an analysis to determine whether search
20 engine usage on Windows PCs would be different if a choice
21 screen were used on Windows PCs?

22 **A.** I haven't done any analysis of that. You know, the
23 Windows PC situation is a little complicated, because there's
24 so much Chrome use on it and Google has a default in Chrome.
25 So it's not clear, I think, to me exactly.

1 Q. I see. So --

2 A. And I haven't done any analysis, to come back to your
3 question.

4 Q. Have you analyzed whether, on balance, Bing has gained
5 more search query volume on Windows PCs due to its distribution
6 agreements than Google has gained on Android devices based on
7 Google's distribution agreements?

8 A. One more time with the question, just so -- again, so
9 I'm sure I'm answering your question.

10 Q. Sure. Have you analyzed whether, on balance, Bing has
11 gained more search query volume on Windows PCs as a result of
12 its pre-load exclusive agreements than Google has gained search
13 query volume on Android devices due to its distribution
14 agreements?

15 A. So I haven't done that calculation. We certainly
16 talked about yesterday how defaults are much more powerful on
17 mobile devices than on desktop. But I haven't then done the
18 calculation that you're saying, which would depend on volumes
19 as well.

20 Q. Did you do any analysis in this case of why users
21 around 2015 began searching more on mobile devices than on
22 desktop computers?

23 A. Excuse me. No, I mean, they certainly did search much
24 more on mobile devices, you know, as I said yesterday.

25 Q. Was one of the reasons that users began searching more

1 on mobile devices than desktop computers the significant
2 improvements in mobile device technology?

3 A. I'm sure the fact that the devices got better and
4 better was a very big effect.

5 Q. Would you agree that competition between Apple and
6 Android has resulted in better mobile devices that users spend
7 more time on today than ever before?

8 A. I haven't studied the device market, so I can't -- you
9 know, I don't have an opinion about exactly what's happening
10 with device competition.

11 Q. Would you agree that from 2010 to the present, that
12 wireless carrier networks have significantly expanded and
13 improved the performance of mobile devices?

14 A. You know, that's my personal experience.

15 Q. Would you agree that better mobile devices operating
16 on better wireless networks have resulted in increases in sales
17 of mobile devices in the United States?

18 A. Again, I haven't studied the device market, so -- I
19 mean, I'm sure it's true.

20 Q. Have you done any analysis in this case as to whether
21 the rise of mobile device sales in the U.S. has increased the
22 overall volume of search?

23 A. Just one more time on the question.

24 Q. Have you done any analysis in this case as to whether
25 the rise of mobile device sales in the United States has

1 increased the overall volume of search?

2 **A.** I haven't. I'm sure that as people are using their
3 mobile phones more, that it has impacts on search demand.

4 **Q.** Being able to carry basically a pocket computer with
5 you all day has allowed consumers to search more than when they
6 only had desktop computers, correct?

7 **A.** That's certainly true. It would be hard to carry the
8 desktop in your pocket.

9 **Q.** But you actually haven't looked at the overall
10 increase in search output that has occurred as a result of the
11 increase in sales of mobile devices, have you?

12 **A.** I haven't measured that, no.

13 **Q.** Now, would you agree that competition on the merits
14 refers to competition based on the quality of a firm's product
15 and the efficiency of its production?

16 **A.** I do.

17 **Q.** And have you offered any opinions in your expert
18 reports in this case about whether Apple has substantial market
19 power in any market where it sells iPhones, iPads or Mac
20 computers?

21 **A.** Sorry, the question jumps. Can you repeat the
22 question?

23 **Q.** Sure. Have you offered any opinions in your expert
24 reports about whether Apple has substantial market power in any
25 market where it sells iPhones, iPads or Mac computers?

1 **A.** No. I haven't studied the device market.

2 **Q.** You similarly have not offered any opinion in this
3 case that Apple has substantial market power in any market
4 where the Safari browser competes, correct?

5 **A.** I haven't studied the browser market either.

6 **Q.** You would agree that the default search engine is
7 important to a consumer's view of the quality of a browser?

8 **A.** I think that's the case, yes.

9 **Q.** And would you agree that a browser developer has an
10 interest in designing its product in a manner that is
11 attractive to consumers?

12 **A.** I think a browser manufacturer has an interest in
13 maximizing its profit. One component of that is what you say,
14 but another component is -- you know, there are other
15 components, such as whether you're getting paid for a
16 distribution contract. So both of those things matter.

17 **Q.** When Apple first released its Safari browser in 2003,
18 did it make Google the single default search engine where all
19 search queries were sent?

20 **A.** I think it -- I'm trying to just remember the timing.
21 You know, I think it offered a choice screen or some version of
22 that for consumers in Safari -- maybe on Windows. When it
23 first introduced Safari for Windows -- sorry, repeat your
24 question so I'm sure -- I'm not sure I'm on track about your
25 question.

1 Q. When -- you know that the Safari browser was first
2 released in 2003, right?

3 A. I don't remember the date.

4 Q. When the Safari browser was first released, it was
5 released only on Mac computers, correct?

6 A. Correct.

7 Q. And the first agreement that Google entered into with
8 Apple was in roughly that 2002-2003 time period, right?

9 A. I think it entered into -- the initial agreement,
10 there was no money involved, and it was just saying, hey, you
11 can -- it didn't say hey, but hey, you can use our search
12 engine.

13 Q. And in that agreement, with that term, that
14 description, Apple sent all of the search queries to Google,
15 correct?

16 A. By sent, you mean made it the default?

17 Q. Correct.

18 A. I think that's correct. I'm not a hundred -- I'm not
19 remembering exactly.

20 Q. And Apple made Google the default when it first
21 released the Safari browser, because Google was -- had the
22 highest search quality, correct?

23 A. I think it did have -- I mean, I'm not speaking to
24 Apple's motives, which is what your question asked me. But
25 yesterday I was saying I think Google revolutionized search

1 back then.

2 Q. Throughout the years, Apple has made search quality
3 the primary factor it evaluated when selecting a default search
4 engine for Safari, correct?

5 A. Certainly, Apple executives are saying this, and they
6 do -- certainly, the documents show that they care very much
7 about quality. They care about money, too.

8 Q. And in many respects, the money is connected to the
9 search quality in the agreement, correct?

10 A. I don't know what that means.

11 Q. Well, if you have very high search quality, people
12 will stay with the default search engine, correct?

13 A. So it's certainly the case that if you were not -- for
14 reasons we talked about yesterday, like the quality is going to
15 affect how many people stick with a default.

16 Q. Mozilla found that out the hard way, right?

17 A. Mozilla found out that people would leave Yahoo! if
18 Yahoo! wasn't doing a good job.

19 Q. And when people leave, there's economic consequences
20 to that, correct?

21 A. There are.

22 Q. So picking the right highest quality search engine is
23 both good for the browser product experience, but it also has
24 positive economic consequences for your revenue share, correct?

25 A. I think it does have positive consequences. It's just

1 not the only thing in the equation.

2 Q. You've not offered any opinions in your reports in
3 this case that Apple selected Google as the default search
4 engine for Safari, even though Apple believed another search
5 engine was superior to Google, correct?

6 A. Correct.

7 Q. And in fact, you're aware that there have been
8 instances where Apple has specifically carved out particular
9 foreign countries where it is allowed to use a search engine
10 other than Google based on quality considerations, correct?

11 A. I'm aware that they have carved out some countries. I
12 think Korea, for example, would be one of them.

13 Q. And would you agree that the evidence in this case is
14 that Mozilla entered into its agreement with Google in 2017,
15 because Mozilla believed Google provided the best quality
16 search engine to be the default for Firefox?

17 A. I'm sorry, in 2017?

18 Q. Correct.

19 A. Why they went with Mozilla -- sorry, why Mozilla went
20 with Google. Yeah, I think in 2017, that was their view. I
21 think in 2014, they had other thoughts about what going with
22 another search engine might do.

23 Q. Now, you've made reference to Google being able to
24 offer an unconditional revenue share; is that correct?

25 A. Repeat the question about that.

1 **Q.** You've provided testimony and opinions about the
2 prospect of a search distribution agreement involving an
3 unconditional revenue share; is that right?

4 **A.** Yes.

5 **Q.** And am I correct, by unconditional revenue share, you
6 mean the search provider is obligated to pay a revenue share to
7 a browser developer, let's say, but the browser developer has
8 no obligation at all?

9 **A.** The browser developer can then choose what to make the
10 default or how it's going to -- you know, how it's going to set
11 up its browser. Is it going to make someone the default; is it
12 going to offer a choice screen; is it going to make different
13 firms the default for different -- you know, a separate thing
14 for privacy. So they'd be free to do that.

15 **Q.** Do Microsoft's agreements with Windows PC OEMs that
16 make Bing the default search engine, are those unconditional
17 revenue share agreements?

18 **A.** I haven't seen the agreements, but my understanding is
19 no.

20 **Q.** When Yahoo! became the default search engine for
21 Mozilla's Firefox browser, did Yahoo! agree to an unconditional
22 revenue share agreement?

23 **A.** I'm trying to remember if I actually have seen the
24 agreement itself and the clauses in it. If I have, it was a
25 long time ago, so I'm a little hesitant to say exactly what the

1 terms were, whether it was explicitly exclusive or whether
2 Mozilla just made them the default. So I just -- I don't want
3 to say something that I don't know is accurate.

4 Q. You're aware that over the years, Microsoft had
5 agreements with various mobile device manufacturers like RIM,
6 BlackBerry, Nokia and Verizon, where Bing has been pre-loaded
7 as the exclusive search engine on those mobile devices,
8 correct?

9 A. So, you know, are you referring to, like, back in
10 2011-2012?

11 Q. Correct.

12 A. So Microsoft had agreements -- I think it's very --
13 like, when I looked at the evidence about that -- and there was
14 some back and forth about this, I think the evidence is not
15 entirely clear about what the nature was of the agreements. So
16 I know Microsoft had an agreement, and at the same time I've
17 seen documents that Verizon, for example, on RIM devices was
18 shipping Google. So I don't know of the -- like, the reality
19 of what was happening with defaults back then is a little -- on
20 those devices is not entirely clear to me.

21 Q. For the devices covered by Microsoft's mobile
22 agreements, you're not aware of any unconditional revenue
23 share, are you?

24 A. I haven't seen those agreements, so no. You know --
25 anyway.

1 Q. If you can turn to your slides that Mr. Severt used
2 with you yesterday.

3 A. I don't know if I -- well, maybe I do have them.

4 Q. It's probably the white binder. And I'll ask you to
5 turn to slide five. Now, these are the three opinions that you
6 offered in your testimony to Mr. Severt, is that right, as to
7 the --

8 A. Correct.

9 Q. -- Apple agreements?

10 A. Sorry, I didn't let you finish.

11 Q. As to the Apple agreements, these are your three
12 primary opinions regarding exclusivity; is that right?

13 A. Correct.

14 Q. And as to the first -- let's go to the next slide. So
15 offering a search choice screen, are you aware of any evidence
16 in this case of Apple wanting to offer a search choice screen
17 on the Safari browser loaded on any Apple device?

18 A. Just give me a moment. I'm trying to just think back.
19 I think Apple did, in fact, offer a choice screen when it
20 introduced Safari for Windows.

21 Q. You believe Apple actually offered a version of its
22 browser with a choice screen?

23 A. What I'm trying to remember is whether they did or
24 they wanted to, and Google pushed back and it didn't happen.
25 It may be the latter.

1 Q. Did you review Mr. Cue's testimony on that topic
2 during this trial?

3 A. I've looked at segments of Mr. Cue's testimony. I
4 looked at a lot of things. I'm not remembering the specifics
5 of that.

6 Q. Did Mr. Cue testify that Apple wanted to have a choice
7 screen on any version of Safari?

8 A. I'm not -- as I say, I don't remember that part of his
9 testimony. The comment I made was based on other evidence --
10 contemporaneous evidence, I should say.

11 Q. And Windows -- Safari on Windows, what -- when was
12 that product last in the market?

13 A. Last in the market? I don't remember when they
14 withdrew it. I remember when they started it, because that's
15 when this whole episode happened, you know, maybe 2007.

16 Q. It's been off the market for over a decade, right?

17 A. I think it's something like that.

18 Q. It didn't gain any market share in the market, did it?

19 A. I haven't studied what Safari on Windows did.

20 Q. Your next entry here on slide six is offering a
21 different default in Safari's private browsing mode. You
22 haven't seen any evidence in this case that Apple wanted to
23 offer a different default search engine in Safari's private
24 browsing mode, have you?

25 A. I mean, I haven't seen evidence that they wanted to

1 offer a different default, but the latest version of iOS lets
2 you -- gives you a choice for whether to change separately the
3 private browsing default. So the idea that separating out
4 private browsing from other browsing, that you might want a
5 different search engine, is something they clearly recognize.
6 But they are still setting Google as the default for both. On
7 the other hand, they're also still under the agreement.

8 Q. You're not aware of any evidence in this case of Apple
9 going to Google and saying: We would like to set somebody
10 other than Google as the default in private browsing, correct?

11 A. No, I'm not. You know, that said, Gabriel Weinberg
12 did testify about his conversations with Apple. And at least
13 he was of the -- his sense -- at least my recollection of the
14 testimony, is his sense was they were interested. But in
15 answer to your question, did they go to Google, I don't think
16 Gabriel Weinberg knows that. But he does think that the reason
17 they didn't do it was the agreement.

18 Q. Gabriel Weinberg thinks a lot of things. We'll deal
19 with him.

20 A. Okay.

21 Q. Offering different defaults in the United States
22 versus the rest of the world. You're not aware of any evidence
23 in this case of Apple wanting to use somebody other than Google
24 in the U.S., but using Google elsewhere in the rest of the
25 world?

1 **A.** No. I think it was something Microsoft was hoping to
2 sell Apple on doing.

3 **Q.** They made the pitch and Apple didn't buy it, correct?

4 **A.** In the end, Apple went with Google.

5 **Q.** Now, substantially increasing its own suggestions for
6 users. Sir, where in your expert reports did you offer an
7 opinion about the clause in the 2016 agreement relating to
8 substantially increasing suggestions for users?

9 **A.** I'm trying to remember. There's, as I said earlier,
10 many, many pages in these reports.

11 **Q.** I'm handing you an excerpt from your June 6th, 2022
12 report. This was your opening report in this case. And if
13 you'll look at paragraph -- do not put this up on the screen --
14 paragraph 808, you are recounting -- or discussing the 2016
15 agreement between Apple and Google, correct?

16 **A.** Sorry, am I supposed to be seeing something on the
17 screen?

18 **Q.** No.

19 **A.** Oh, okay.

20 **Q.** Paragraph 808.

21 **A.** It's talking about the 2016 agreement.

22 **Q.** And in that paragraph of your report, you say: "Under
23 the new contract, the following material clauses applied."

24 Do you see that?

25 **A.** I do.

1 Q. And thereafter, you recounted in four bullets various
2 what you described as material clauses in the 2016 contract,
3 correct?

4 A. Correct.

5 Q. Nowhere in your description there of the material
6 clauses is there anything having to do with the provision
7 relating to substantially similar, correct?

8 A. That's correct. And so I'm remembering now that the
9 point about substantial -- this substantially similar is a
10 contemporaneous document that has been entered as evidence, I
11 think, in the trial before.

12 Q. Correct. But you've offered no expert opinion in your
13 expert reports, the 1,300 pages you made reference to before --
14 you've offered no opinion about this provision anywhere in
15 those reports, correct?

16 A. Correct. I had not --

17 Q. You made this up for trial, correct?

18 MR. SEVERT: Objection, argumentative.

19 THE COURT: Sustained. Just rephrase the question,
20 please.

21 BY MR. SCHMIDTLEIN:

22 Q. The first time you offered this opinion was yesterday
23 at trial, correct?

24 A. I think that's correct, because I hadn't seen that
25 document.

1 Q. The last bullet, relating to running ads on Siri and
2 Spotlight without giving Google the right of first refusal.
3 Can you explain, again, what restriction that places on Apple
4 and how it impacts competition?

5 A. I think it keeps Apple potentially out of selling ads.

6 Q. As part of the 2016 agreement, Apple required Google
7 to make available to it, at Apple's election if it called upon
8 Google, search results for Siri and Spotlight, correct?

9 A. Yes.

10 Q. And do you have any understanding as to whether the
11 right of first refusal provision is designed to offer some
12 potential compensation to Google for that?

13 A. I don't know what the intent or motivation was.

14 Q. Okay. And has Apple ever shown ads on Siri or
15 Spotlight?

16 A. I don't think they have.

17 Q. You've offered the opinion in this case that neither
18 Siri nor Spotlight is a general search engine, correct?

19 A. Correct.

20 Q. And have you seen any evidence in this case that Apple
21 has ever expressed any intention of offering ads on Siri or
22 Spotlight?

23 A. Just give me a moment to just think about that.

24 Sitting here right now, I'm not remembering anything I've
25 seen about that.

1 Q. Now, going back to the substantially increasing its
2 own suggestions for users. Because you have offered this
3 opinion for the first time yesterday at trial, you certainly
4 have not done any analysis, empirical or otherwise, to evaluate
5 whether from 2016 to the present suggestions have increased,
6 decreased or stayed the same?

7 A. I have not done that.

8 Q. You don't know whether or not over this time period
9 Apple has diverted increasingly more and more search queries to
10 itself to answer in Safari, correct?

11 A. Correct. I have not studied that.

12 Q. Have you seen any testimony in this case from any
13 witnesses about Apple's conduct in terms of whether it is
14 increasingly making suggestions and answering searches directly
15 itself in Safari?

16 A. So I think both Mr. Giannandrea and Ms. Braddi did
17 testify about this, somewhat at odds to this contemporaneous
18 document. So that's as much as I can say about it.

19 Q. Now, you've provided an opinion in this case that the
20 Safari default agreement is -- well, let me strike this.

21 You've testified that the Apple agreement with Google is
22 exclusive as to Safari, correct?

23 A. Repeat the question just one more time.

24 Q. Your opinion in this case is that the Apple-Google
25 agreement is an exclusive agreement as it applies to Safari,

1 correct?

2 A. To the Safari default, yes.

3 Q. And you recognize and understand that the Safari
4 agreement does not place restrictions on Apple's ability to
5 promote search engines outside of Safari, correct?

6 A. Correct.

7 Q. And for that, you have claimed that the agreement is
8 effectively exclusive; is that right?

9 A. I used that term. I mean, it's kind of a shorthand,
10 but I have used that term.

11 Q. But, again, you acknowledge, if Apple wanted to, it
12 could pre-load any rival search engine on any Apple device
13 outside of Safari, right?

14 A. Pre-load like an app, you mean?

15 Q. Yes.

16 A. Yes.

17 Q. They could put a search bar across the default home
18 screen of an iPhone and set the default on that search bar to
19 any rival search engine, correct?

20 A. So I'm not a legal -- I'm not a lawyer or a legal
21 analyst as to what it means -- you know, when I looked at the
22 agreement, it's talking about instances of Safari. And
23 legally, exactly what would be considered an instance of
24 Safari, like if you had -- if they created Safari Two, how is
25 that treated under the contract, I can't speak to that.

1 Q. You've seen -- you're familiar --

2 A. I'm sorry, what I do know is that they're paying Apple
3 a whole lot of money for something that is for some reason.
4 And so they clearly think that's getting them something. And
5 if all of these things were things Apple was easily -- either
6 easily going to do or wouldn't do even if it wasn't -- if there
7 wasn't this contract specifying that Google was the exclusive,
8 there wouldn't be a reason to pay them.

9 Q. Sir, I'm asking you about the contract.

10 A. Okay.

11 Q. The contract does not prohibit Apple from setting up
12 any number of other additional search access points on its
13 devices, correct?

14 A. It's just your use of "any number." Certainly, it can
15 do many things, and exactly what the line is is all I'm saying.
16 I legally don't exactly know.

17 Q. You're familiar with search widgets, correct?

18 A. I am.

19 Q. A search widget is a manifestation of a search engine
20 application with a convenient search entry box, correct?

21 A. Yes.

22 Q. And Apple, if it wanted to, could place a Bing or
23 DuckDuckGo or Yahoo! search widget on any Apple device,
24 consistent with Google's contract, correct?

25 A. I think that's true.

1 **MR. SCHMIDTLEIN:** Your Honor, I'm about to switch topics,
2 if now is a good time for you.

3 **THE COURT:** Okay. Let's go ahead and take our morning
4 break a little before 11:00. We'll resume at 11:15. See you
5 all shortly.

6 (Recess taken at 10:58 a.m.)

7 (Back on the record at 11:16 a.m.)

8 **THE COURT:** Whenever you're ready.

9 **THE WITNESS:** Give me a moment. I'm going to put my watch
10 a little forward so that doesn't happen again. Okay, very
11 good.

12 **BY MR. SCHMIDTLEIN:**

13 **Q.** Professor Whinston, as part of your work in this case,
14 did you try to analyze how much search traffic on Apple devices
15 was Google traffic from the Safari default versus all other
16 search traffic that went through access points outside of
17 Safari?

18 **A.** I've seen numbers on that. It's the vast, vast
19 majority, but the exact number isn't in my head right now.

20 **Q.** Okay. Let me show you some documents. We're going to
21 try to work through that.

22 Now, Professor, these -- some of these figures are
23 confidential; in other words, the traffic by access point -- I
24 know you just gave a high-level characterization of that, but
25 I'd just remind you of that. And we'll both do our very, very

1 best not to trip over some of the numbers.

2 A. Thank you, given that I messed up once yesterday.

3 Q. No, it's understandable. If you'll take a look at
4 what we've marked as DXD16.005. It's the fifth slide.

5 MR. SCHMIDTLEIN: And this is redacted because it contains
6 confidential data, Your Honor, that's been produced in
7 connection with the case.

8 Q. And this is -- I will represent to you, Professor,
9 this is figure 90 in your report.

10 A. Yes, I remember that.

11 Q. I've taken the liberty of doing a little bit of math
12 and adding the column on the far right to that. So when it
13 says modified, that's the modification, just to flag for you.
14 And we'll see if we can't sort of work our way through this.

15 So your reply report, figure 90, was part of a larger
16 chart, if I remember correctly, where you listed search queries
17 or percentage of Google search queries through various
18 different devices and access points on devices.

19 Do you remember that?

20 A. I do.

21 Q. And what I've done here -- again, no hiding the ball
22 here, I've only excerpted the part that pertains to Apple.

23 A. Yeah, I remember. It was quite a long chart.

24 Q. Right. It had other Android devices and Mozilla and
25 things like that, right?

1 A. Yes.

2 Q. But you recognize this as being the Apple excerpt from
3 that chart?

4 A. With the exception of your modification, yes.

5 Q. Okay. So let me see if I can't walk through and we
6 can get on the same page as to what's being sort of
7 demonstrated here. So the left column, the distribution
8 partner obviously lists Apple. And then it lists various --
9 and the query number there is the total queries sent to Google;
10 is that right?

11 A. Correct.

12 Q. And then underneath that, Safari address bar, what
13 does that represent?

14 A. I think that's the omnibox where --

15 Q. That's the default?

16 A. Correct.

17 Q. And then we've got non-Safari address bar, and that
18 reflects the three sub points underneath it; is that right?

19 A. Yes.

20 Q. So that reflects the queries that were sent to Google
21 from non-Safari address bar access points; is that fair?

22 A. Yes. And just to maybe clarify one thing, this is
23 over all Apple devices, not -- it's combining both PCs and
24 mobile.

25 Q. It's all the devices that were covered under the

1 agreement, right?

2 A. Correct.

3 Q. And so if we add the Safari and the non-Safari address
4 bar together, that would get us the top Apple RSA number,
5 right?

6 A. I'm sorry, say that again.

7 Q. If you add the Safari and the non-Safari address bar
8 together --

9 A. Those two rows you mean?

10 Q. Those two rows. That gets you the very, very top row,
11 right?

12 A. In the second column. I was looking at your column
13 which has no top row, sorry.

14 Q. We're going to get to that column.

15 A. Okay, no problem.

16 Q. And then the percentage of total Google queries, which
17 is that middle column from your report, that's percentage of
18 total Google queries from everywhere, right?

19 A. Yes.

20 Q. In other words, that includes search queries from
21 devices other than Apple?

22 A. Yeah, not seeing the whole table -- I'm trying to
23 remember the whole table, but yes.

24 Q. So for purposes of our analysis here, remember we
25 started with did you do some analyses that might allow us to

1 understand what percentage of queries were coming from that
2 Safari address bar versus what percentage of queries were
3 coming from somewhere else; in other words, somewhere other
4 than the default, right?

5 **A.** Sorry, what was your question?

6 **Q.** I said: This is what you were referring to when you
7 made reference to having done some look at that type of an
8 analysis?

9 **A.** You know, your original question didn't speak of
10 Google's queries. So I actually was thinking about overall
11 queries. This is about as a share of Google's, so that's why I
12 was not specifically referring to this. But yeah, this is
13 looking at that for Google queries.

14 **Q.** Is it fair to say this is the closest thing you tried
15 to do to look at the difference between query volume coming
16 from the Safari default versus some place else on the Apple
17 device?

18 **A.** I think I've looked at other things, like what it is
19 in mobile, but I don't think it's in the report.

20 **Q.** So, again, this focuses just on Google search queries,
21 right?

22 **A.** Correct.

23 **Q.** This does not account for search queries on non-Safari
24 address bar queries that went to other search engines, correct?

25 **A.** Correct.

1 Q. And it doesn't account for, for example, search
2 queries where if somebody were to type into the address bar of
3 Safari Google.com?

4 A. Yeah, I think that's correct.

5 Q. So, again, just focusing here on Google queries, I've
6 added that far right column to try to give a sense of the split
7 between how much comes from Safari and how much comes from
8 places other than Safari, right?

9 A. Correct.

10 Q. And would you agree with me that that's -- I'm not
11 asking you to do the math on the fly here, but that the column
12 I've added on the right gives the approximation of the
13 percentage of queries that, at least amongst Google queries,
14 the percentage Google gets from Safari versus from other access
15 points on the device?

16 A. You mean Safari address bar, is that what you meant?

17 Q. Correct, yes.

18 A. I trust you.

19 Q. Okay. Now, I think as we talked about, this does not
20 account for the search traffic that goes to other search
21 engines, right?

22 A. Correct, as I said.

23 Q. If you'll take a look at the next chart in your
24 binder, which is DXD16.006. This is a chart we've put together
25 using data from your report that tries to get at some other

1 categories of searches that were being done, and maybe you're
2 familiar with some of this data as well. And let me just see
3 if we can get on the same page again for the Court, to orient
4 us to what's being shown here.

5 The dark green --

6 **A.** Could I just state one thing?

7 **Q.** Sure.

8 **A.** Just to be -- just as a clarification, just to make
9 sure.

10 **Q.** Sure.

11 **A.** This chart --

12 **Q.** I'm sorry, which chart are you referring to?

13 **A.** I'm sorry, I apologize.

14 **THE COURT:** The one on the prior page, .005.

15 **THE WITNESS:** Yeah, thank you.

16 So that chart appeared in my first report. I just want to
17 clarify that -- and I said this yesterday, but when I got to
18 coverage numbers, for example, it's not that I included all of
19 this in the coverage numbers, as I said.

20 **BY MR. SCHMIDTLEIN:**

21 **Q.** Understood.

22 **A.** Okay.

23 **Q.** Understood. So here on page 16-006, the dark green
24 slice of the pie, that's the -- it's labeled Safari default
25 search. That's the Safari address bar equivalent from your

1 prior -- from the prior slide, correct?

2 A. I didn't create this, but if you're representing that
3 that's what it is, fine.

4 Q. Okay. And then we've added some other slices over
5 here on the right side, and some of these -- again, drawing
6 from some of that same data that you built from your prior
7 chart, we've got Safari bookmark traffic that goes to Google,
8 right?

9 A. Yes, I see that.

10 Q. And then we've got iGSA traffic. That would be -- and
11 again, you have an entry for that on the prior slide. I think
12 you referred to it as GSA, iGSA. That's the Google search app
13 on Apple devices, right?

14 A. That is.

15 Q. And then, just as you had on the prior slide, you had
16 an entry for Chrome, and we've got an entry for Chrome here on
17 this slide, right?

18 A. Yes, I see that.

19 Q. And, again, that would be Google search traffic that
20 is coming from the Chrome browser downloaded on an iPhone,
21 right, or an Apple device?

22 A. Correct.

23 Q. And then we've got a couple other slices here. Safari
24 organic search and other browsers. So when I talked -- I
25 mentioned to you a moment ago people who type in Google.com

1 into the Safari browser and get -- and go to Google that way,
2 there's some portion of traffic that's accounted there,
3 correct?

4 A. So it seems, yes.

5 Q. And then there are other browsers that people can
6 download onto an Apple device that are defaulted to Google as
7 well, and Google gets some traffic from those as well, right?

8 A. Yes.

9 Q. We've tried to combine those in a light green slice.
10 Then we've got a gray slice, and that's search traffic on the
11 Apple devices that are going to non-Google search engines,
12 right?

13 A. The little gray slice?

14 Q. Correct.

15 A. Yeah, that's others -- that's rivals.

16 Q. So looking at this holistically here, we've got the
17 dark green piece, which is the default piece, right. That's
18 the percentage -- and I won't say it out loud, but that's the
19 percentage over to the left there that's the default. It's
20 covered by the default, right?

21 A. Yes.

22 Q. And then the percentage on sort of aggregating all of
23 the other -- other, that's the search that's being done outside
24 of the default, correct?

25 A. Correct.

1 Q. And would you agree that for the search that's being
2 done outside the default, the overwhelming majority of that
3 search is going to Google?

4 A. Yes.

5 Q. If you'll look at the next slide, we have --

6 A. If you'd just give me a moment.

7 Q. Sure.

8 A. Right. So, I guess just coming to your question, I'm
9 just trying to quickly do the math, you know. Out of those,
10 five out of roughly 39 -- 5 percent out of roughly
11 39 percent --

12 Q. Careful, I'd ask you to be mindful of giving
13 percentages.

14 A. Oh, I'm sorry. I apologize again. I can't do the
15 math and say what it is, but one can do the math and see what
16 share of that non-default is going to rivals, just following up
17 your question. Again, it's hard to keep track sometimes. Once
18 I start focusing in on the figure, it's hard to remember that
19 there's a red line around it.

20 Q. Understood. Not a problem. If you'll turn to the
21 next slide, which is DXD16.007. What we've tried to do in this
22 slide is take sort of all of the light green and the gray from
23 the prior slide and make that its own pie. In other words,
24 we're going to make a pie of the non-default search.

25 A. I see. You're doing the math for me.

1 Q. Exactly.

2 A. Thank you. I have to keep you around more often.

3 Q. Yeah. And if you look at that slide, the 16.007, this
4 gives an idea of -- again, outside the default, so no default
5 preference or anything else. Outside the default, this tells
6 us -- gives us some percentages about people who are searching
7 for Google, going and getting to Google, and people who are
8 getting to rivals, right?

9 A. Correct.

10 Q. And this shows that, overwhelmingly, when people
11 decide to ignore the Safari browser and search elsewhere, they
12 overwhelmingly prefer Google, correct?

13 A. So just to clarify your question. When you said
14 ignore the Safari browser, you meant ignore the Safari browser
15 default?

16 Q. Fair clarification, right, because some of these could
17 be coming from bookmarks in Safari.

18 A. Okay. Yeah, I mean, what's interesting -- the reason
19 I started doing the math is that the number here, it's not that
20 far away, but it's bigger than my projection on the choice
21 screen. That's what -- you know, that's why I started doing
22 the math.

23 Q. Right. This is both -- and again, I don't want to get
24 into too much precision around the numbers, but this is in line
25 with choice screen, and it's in line with overall market share

1 statistics that you've cited in your reports, correct?

2 A. As I said, it's bigger than the choice screen, but --

3 Q. Not by much.

4 A. I can't say the percent, because I said the choice
5 screen number yesterday. But it is in line and it's bigger --
6 yeah, and it's significantly bigger than what those rivals'
7 overall share is in the market, much bigger than that.

8 Q. Not based on the collective numbers that you've
9 provided to us already --

10 A. I should say, it's bigger than that.

11 Q. It's a little bit bigger than that?

12 A. Yeah, I mean, so the -- and remember, when you're
13 making that comparison, you have to remember what Apple's --
14 remember I said that we're looking at both PCs and mobile here.
15 And if you did the same thing for mobile, I'm sure that the --
16 first of all, I'm sure the Safari default would be a much
17 bigger number, first of all. Second, if you're comparing it to
18 the overall market shares, you have to remember that Apple is
19 disproportionately mobile relative to the overall market.

20 Q. Right. And these are built using the numbers from
21 your figure 90, which took into consideration the percentage of
22 queries coming from mobile versus the percentage of queries
23 coming from Mac?

24 A. Yeah, absolutely. I'm just saying that if you start
25 making the comparison that we started to make, you have to

1 remember that distinction. That's all.

2 Q. And the market shares that you provided to us --
3 again, apples to apples here -- no pun intended, is you gave us
4 overall market shares, and these numbers are very, very similar
5 to those overall market share numbers?

6 A. It's bigger, but it's also -- remember, it's --
7 relative to the overall market, it's a depressed number,
8 because Apple is disproportionately mobile where the rivals
9 have very low share.

10 Q. Understood. Now, Mozilla, like Apple, also promotes
11 other search engines in addition to Google in its browser,
12 correct?

13 A. Correct -- sorry, say your question again. I just
14 want to make sure I got the verb.

15 Q. Mozilla, like Apple, also promotes other search
16 engines in addition to Google in its browser, correct?

17 A. So if what you mean by promotes is there's a choice --
18 change the default, then it does that, for example.

19 Q. And it has links and other promotions, correct?

20 A. I don't know about the promotions you mean. You are
21 able -- unlike in most other browsers, you are able, when you
22 put in a query, there's a button that you can hit to change
23 where it's going. So that's a difference from other browsers.

24 Q. Now, we talked before about the Mozilla decision to
25 switch default search engines from Google to Yahoo! in 2014.

1 And I think you testified many users switched back to Google
2 after Firefox switched to Yahoo!, right?

3 A. Yes.

4 Q. And once the dust settled, after Mozilla had made that
5 switch, the large majority of search queries were sent to
6 Google, even though Google was not the default on Firefox,
7 right?

8 A. I think we -- you know, I showed the market shares
9 yesterday in a figure, and so it still was, I would say, the
10 large majority, yes.

11 Q. And if you'll look at DXD16.010 in your binder -- and
12 again, this is also redacted. This is the same slide that was
13 in your slide -- slides from yesterday, correct?

14 A. I think so, yeah.

15 Q. This is --

16 A. I mean, it didn't say figure 150 in my presentation,
17 but I believe it's the same as what I used.

18 Q. And this is lifted from your expert report, correct?

19 A. Yeah, I think it's from my first expert report.

20 Q. Now, as part of your analysis here -- well, strike
21 that.

22 You've testified that this shows the impacts of defaults,
23 right?

24 A. This is one piece of evidence about the impacts of
25 defaults.

1 Q. Did the increase in search queries that Yahoo! gained
2 as a result of getting the default with Mozilla, did that
3 result in any search quality improvement for Yahoo!

4 A. You know, I think Yahoo!, during this time, was not --
5 you know, it was having problems. So I can't say -- you know,
6 I think in general it was having problems, I think part of
7 which was about the amount of ads it was showing, from my
8 recollection. So piecing -- separating that out, you know, so
9 you could well imagine it was getting worse. But it got
10 less -- you know, it got -- it declined less than it would have
11 if it hadn't gained the scale. But let me just say one other
12 thing -- well, let me just leave it at that.

13 Q. You haven't offered any opinion in this case that this
14 increase in scale for Yahoo! resulted in some particular
15 increase in search quality for Yahoo! search results, correct?

16 A. I have not.

17 Q. And during this time period, Yahoo! was getting its
18 search results from Bing, correct?

19 A. Correct.

20 Q. And you haven't offered an opinion that as a result of
21 this increase in scale as a result of the Mozilla deal, that
22 Bing's search quality increased, correct?

23 A. I haven't. I mean, it's worth remembering that
24 Mozilla's pretty small overall. But, no, I haven't.

25 Q. I think we've established earlier today that as a

1 result of this episode of the switch to Yahoo!, that in fact
2 Firefox users switched away from Firefox and started using
3 other browsers, correct?

4 A. You know, I haven't seen numbers on that. I've seen
5 some documents of concern by Mozilla, but I haven't seen any
6 actual numbers about that.

7 Q. And recognizing that that did, in fact, occur -- I
8 mean, you've seen testimony, people at Mozilla testified that
9 they believed that happened, right?

10 A. Yeah. I mean, there was something that I did, looking
11 at this in -- you know, I looked at Yahoo!'s overall share in
12 the market -- which I should say, from before this deal to
13 after this deal, it was just going down. So there was
14 something happening with Yahoo! that had nothing to do with
15 this deal.

16 But the question of whether switching away from Mozilla
17 would -- everybody would just switch away from Mozilla and this
18 deal wouldn't end up -- you know, the default in Mozilla
19 wouldn't matter, you still see -- and I showed this, you still
20 see that Mozilla, despite any switches away, did gain share as
21 a result of this, overall share.

22 Q. You did not account for the decrease in search usage
23 caused by people leaving Firefox because of the switch to
24 Yahoo! when you put together your chart that we're looking at
25 here in 16.010, correct?

1 **A.** No. This is just looking at the Mozilla, which is
2 exactly why I did the other analysis -- which I didn't testify
3 to. Again, I had to make choices. So I didn't discuss that
4 yesterday, but I did look at that.

5 **Q.** If you had tried to account for all of the search
6 queries that bled away to people going to Chrome or some other
7 browser during this time period, the Google share would be
8 higher, right?

9 **A.** I don't know what you mean by the Google share would
10 be higher. Just to be clear, the beginning of your question
11 talked about a change, and the question you asked was about
12 level. It sounded a little wonky, but, like, I can't really --
13 your question -- I don't understand your question I guess is
14 what I'm trying to say.

15 **Q.** Let me try it again. You understand that as a result
16 of this switch, a lot of people -- the overwhelming majority of
17 people switched back to Google, right?

18 **A.** People switched -- well, switched back in one way or
19 another you're saying?

20 **Q.** No, the --

21 **A.** Here --

22 **Q.** The queries represented here --

23 **A.** Here being, sorry?

24 **Q.** The here being this exhibit, DXD16.010.

25 **A.** Okay, go ahead.

1 Q. This reflects the people who switched back to Google
2 on Firefox?

3 A. I think what you're referring to, just so I
4 understand, is we're looking at essentially a daily level of
5 the shares on Mozilla. And the switching back would be the
6 fact that we see -- like I testified yesterday, we see within
7 three days a dramatic shift in shares. And then we see some
8 bounce back for Google up to -- if you look at this, up until
9 mid-2016, and then actually Google starts declining again. And
10 then when Google -- when they switch back to Google, you see a
11 big jump back up.

12 Q. But what I'm saying here is this just captures
13 searching being done on Firefox, right?

14 A. No, that's true.

15 Q. This doesn't capture all of the search volume that
16 previously was on Firefox but has departed to go to another
17 browser to search with Google, correct?

18 A. This doesn't. That's why I'm telling you about the
19 other analysis that I did.

20 Q. Now, in your expert reports in this case, you've not
21 offered an opinion that Google's MADA agreements constitute
22 anti-competitive tying, correct?

23 A. I haven't expressed that opinion.

24 Q. Instead, you've opined that the MADAs are
25 anti-competitive exclusive dealing arrangements, correct?

1 **A.** In essence, yes.

2 **Q.** And you understand that exclusive dealing arrangements
3 can be pro-competitive, correct?

4 **A.** I've written about that, yes.

5 **Q.** And you understand that for an exclusive dealing
6 agreement to harm competition, it must foreclose a substantial
7 share of the market, correct?

8 **A.** That's the anti-competitive driver.

9 **Q.** And you would agree that the likely competitive
10 effects of Google's behavior, locking up search access points
11 through the challenge agreements, is ideally examined relative
12 to a but-for world?

13 **A.** Competitive -- just for -- so I'm sure I'm answering
14 your question, can you just repeat the question?

15 **Q.** The likely competitive effects of Google's behavior,
16 locking up search access points through the challenged
17 agreements, is ideally examined relative to a but-for world?

18 **A.** Yes. Your question asked about competitive effects,
19 and I agree with that.

20 **Q.** And you would agree that calculating the percentage of
21 search queries covered by a MADA or an RSA does not inform the
22 Court about the amount of search traffic that is actually
23 foreclosed by any agreement, correct?

24 **A.** No, I don't agree with that. Sorry, do you want me --
25 you sometimes tell me to just say yes or no. So if you want to

1 ask something else, I can explain.

2 Q. Let me read you some language to see if it sounds
3 familiar to you: "In the present case, however, one can
4 reasonably argue that Google securing these contracts does not
5 make unavailable to rivals all of the search traffic that the
6 contracts cover, because Google would have served some of the
7 search traffic, even without the contracts. To the extent that
8 this is the point that Professor Murphy is making when he
9 states that Plaintiffs appear to equate foreclosure with the
10 coverage of Google's arrangements, but the queries that those
11 arrangements cover is not an economically sensible measure of
12 foreclosure, I agree with him."

13 You wrote those words, correct?

14 A. I did. Actually, can you repeat that? Because there
15 was just so much that you've said, I just want to make sure I
16 take back in that paragraph. Obviously, yes, I did write it.

17 Q. You've not offered any opinions in your reports in
18 this case about what the but-for world would look like,
19 correct?

20 A. I don't agree with that either.

21 Q. You did -- you believe you've offered an opinion in
22 this case as to what the but-for world would look like absent
23 the alleged agreements?

24 A. Yes.

25 Q. And where is that in your expert report?

1 **A.** So, as I said, I consider -- I think about
2 unconditional revenue share payments. I think about --

3 **Q.** Did you offer those in your initial report?

4 **A.** I talked about -- you know, so --

5 **Q.** The word "unconditional revenue share payment" doesn't
6 appear anywhere in the opening report you issued in this case,
7 correct?

8 **A.** I'd have to go back and look, but it's certainly
9 what -- things I was thinking about about the overall effect.

10 **Q.** You've never offered the opinion in your report that
11 in the but-for world, absent the agreements, that anybody would
12 have entered into an unconditional revenue share agreement?

13 **A.** Oh, I don't know if -- as I said yesterday, I mean,
14 it's very hard to know exactly what the form -- you know,
15 absent these agreements, it's very hard to know exactly what
16 the agreements would have been, what Google would have done to
17 start with.

18 **Q.** You've not offered any opinion in this case that in
19 the but-for world, Apple would have selected anyone other than
20 Google to be the default search engine for Safari, correct?

21 **A.** So repeat the question one more time.

22 **Q.** You have not offered any opinion in your expert
23 reports in this case that in a but-for world, Apple would have
24 selected another search engine provider other than Google to be
25 the default for Safari?

1 **A.** So I don't know that with certainty. But what I do
2 know is that the incentives for rivals and their scale would
3 have been larger in less restrictive alternatives. That's a
4 major change in what the likely quality of rivals would be.
5 So --

6 **Q.** We'll get to the likely -- we'll get to that. The two
7 things you modeled in your report were a world in which every
8 single search distribution agreement that you looked at, the
9 default was flipped from Google to a rival. That was one of
10 your scenarios, correct?

11 **A.** No. I was really, really clear about this. So what
12 I've said is that that thought exercise was designed, Your
13 Honor, like I said yesterday, to show what the overall effect
14 of defaults is. It was not a but-for analysis.

15 **Q.** Right.

16 **A.** It was not competitive effects, but it was something
17 to show the power of defaults. And that ultimately leads you
18 to -- as we talked about at length yesterday, leads you to a
19 measure of foreclosure of the amount of the market that's tied
20 up by these contracts.

21 **Q.** Right. We'll talk a little bit about each of your
22 measures. But you offer opinions in this case about moving all
23 the defaults from Google to somebody else, and then you also
24 look at a world in which all of the agreements involve a choice
25 screen, correct?

1 **A.** They're not worlds, they're --

2 **Q.** What are they? What are they? If they're not but-for
3 worlds, what are they? Why did you put them in your reports?

4 **A.** I put them in my reports to show the power -- as a
5 measure of the power of defaults. I've said that very
6 explicitly.

7 **Q.** So when you calculated the Android agreements -- let's
8 talk about the Android agreements, and you were calculating the
9 power of the default for the Android agreements, and you
10 compared the actual world to a world where every Android
11 agreement in the United States involved a choice screen. Are
12 you with me?

13 **A.** I'm with you except for the use of the word world,
14 which is trying to kind of make things sound like it's a
15 but-for world, and that that was what I was thinking of when I
16 did competitive effects. It was not. I mean, I was thinking
17 about that as an input to competitive effects, because I was
18 thinking about how -- what do defaults do. But it wasn't the
19 competitive effects analysis.

20 **Q.** So whether you want to call it a but-for world,
21 whatever word you want to try to now put on it, okay, when you
22 compared search market share with the Android agreements
23 compared with search -- Google search market share in a world
24 where -- in a scenario where every Android agreement had a
25 choice screen, the shift in market share from Google to a

1 search rival was less than 1 percent of U.S. market share,
2 correct?

3 **A.** So yes. But, Your Honor, there are two things in that
4 question. One is Android is just a fraction of the market.
5 Two is the same thing -- something I really was trying to
6 emphasize yesterday, is it's at today's quality levels for the
7 rivals. And so when we're thinking about but-for analysis,
8 we're thinking about how the world would be if -- you know, how
9 incentives would change, how rivals would potentially change
10 their investments.

11 And so there are a lot of -- you know, a lot of what
12 Google points to is what happened in the choice screen, you
13 know, with the current level of rivals: Did distributors with
14 the current level of rivals -- of quality want to use the
15 rivals. But the whole point -- you know, what I tried to
16 emphasize yesterday, first with the hypothetical about how --
17 you know, if you had a really powerful default but rivals are
18 weak, you might not see it at all, even though the default is
19 super powerful and would affect things if rivals' quality went
20 up.

21 And second, how that would affect rivals. You know, when
22 we talked about foreclosure and the horrible Super Duck name,
23 you know, how that would affect rivals' incentives. So when
24 we're doing competitive effects analysis, we can't just look at
25 what's the evidence given the rivals are really weak, because a

1 significant contributor to why the rivals are really weak are
2 the contracts.

3 **THE COURT:** Can I ask you to square the following -- and
4 maybe I'm not following. As I understand it, you did an
5 exercise in which all of defaults covered by Android agreements
6 would be switched to a rival, right? And in that thought
7 experiment, your conclusion was that there would be a less than
8 1 percent overall switch in traffic?

9 **THE WITNESS:** So that's a number that Google has talked
10 about. So what I had evidence about was in the choice screen,
11 what the share of choices would be. The projection was, in the
12 U.S., 10 percent of choices would have been, you know, in an
13 Android choice screen with the current level of quality that
14 rivals had in the U.S. And I should say, with the same choice
15 screen that was used in Europe, the projection would be that
16 10 percent of people would choose rivals.

17 **THE COURT:** I see.

18 **BY MR. SCHMIDTLEIN:**

19 **Q.** And that translates into less than 1 percent of U.S.
20 market share, correct? Just answer the question, sir.

21 **A.** Yes, and for the reasons that I just said.

22 **Q.** Sir, have you studied in this case -- have you gone
23 back and tried to evaluate the delta in search quality between
24 Google and rivals during --

25 **A.** And can I just say --

1 Q. -- a period before any anti-competitive conduct versus
2 post any alleged anti-competitive conduct?

3 A. I'm sorry, if you could repeat the question, because I
4 was -- there was something else I was going to say, but you
5 kept going -- which is fine. So just repeat the question.

6 Q. Have you done any analysis -- you keep telling us
7 about the adjustments and how rivals -- the quality gap between
8 Google and the rivals today has been affected. Have you gone
9 and done any analysis in this case to study the quality gap
10 between Google and rivals in a period before alleged
11 anti-competitive conduct versus after alleged anti-competitive
12 conduct?

13 A. I don't have a period before.

14 Q. You didn't -- you can't say whether whatever gap
15 you're referring to today is greater than, the same or less
16 than any gap that preceded any alleged anti-competitive
17 conduct, correct?

18 A. I don't have a preceding period.

19 Q. The period preceding -- you were only asked to look at
20 2014 to the present, right?

21 A. Correct.

22 Q. And you know that during the period before 2014, there
23 was a large gap in search quality between Google and Google's
24 rivals, correct?

25 A. There was.

1 Q. And you don't know whether that gap, even that period
2 before 2014 -- 2010 to 2014, whatever it is, you don't know
3 whether that gap is the same or different than today?

4 A. So I haven't expressed an opinion about the gap
5 before, and I haven't also expressed an opinion about whether
6 Google had monopoly power and was engaged in anti-competitive
7 behavior before. So I'm just able to look at 2014 and beyond.

8 **THE COURT:** Can I just go back to what we were talking
9 about for a moment and what you said, that on a choice screen
10 hypothetical, that 10 percent would choose the rival, correct.
11 How does that square with the market foreclosure analysis in
12 which you identified, I think it was, 33 percent would stick
13 with a new default -- and I suppose that's the difference? And
14 then there was an additional band of 17 percent that might be
15 available, depending upon the strength of a competitor.

16 **THE WITNESS:** Right, thanks. So there are two
17 differences. The first thing is that exercise of thinking
18 about foreclosure is thinking about ultimately where Google has
19 the defaults. And the choice screen outcome is where it
20 doesn't. So it's not talking just about what's tied up.

21 But the second, and really important thing -- and very
22 important thing, is the choice screen is at current rival
23 quality. That's the evidence we see. We only -- it's like you
24 have a spotlight, and what -- there's a streetlight, and what
25 is available to us is -- at least in terms of the choice

1 screen -- we don't see the -- you know, otherwise what's
2 available to us is what happened in the world where we had this
3 choice screen.

4 What we're thinking about is that 17 -- you know, it's
5 what happens if a rival gets -- when we do the foreclosure,
6 that 33 and 17, is what happens if the rival got much, much
7 stronger, as much stronger than Google as Google is now, okay.
8 But the piece of the choice screen they keep talking -- the
9 choice screen actually does tell us something about the
10 difference if a rival got that much stronger. What the choice
11 screen tells us, at least for Android, is that if a rival
12 got -- if we have a firm that's much stronger than others, it's
13 like Google's share where they got 90 percent, okay. And
14 that's a lot bigger than 17, which is what happens when Google
15 has the default.

16 **THE COURT:** Maybe I'm oversimplifying this, and you'll
17 forgive me. Help me square what the 10 percent number is.
18 Let's leave aside this 1 percent U.S. market share number.
19 What I understand from your thought experiment on Android, it
20 would be a 10 percent change. And that's sort of consistent
21 with what we've seen in Europe in some countries.

22 How does that square with the 33 percent that you have
23 identified as foreclosed by virtue of the default?

24 **THE WITNESS:** So the 10 percent is, right now with current
25 qualities, what do weak rivals get. The strong rival, Google,

1 gets 90 with a choice screen. That's what we saw. Let's go
2 back and think about Super Duck for a moment. What we talked
3 about yesterday is that when Google -- if Google had a default
4 and a rival got so much stronger than Google, but Google had
5 the default, the share of covered queries it would get is just
6 a third of the covered queries. Out of the 50 percent in the
7 U.S. that are covered, the rival would just get 17, okay.

8 But now let's think, well, what if we didn't -- Google
9 didn't have the default and there was a choice screen with that
10 much stronger rival. The Euro choice screen tells us the
11 answer to that. It tells us the answer, because in Europe when
12 we did the choice screen, we had a rival that was much stronger
13 and rivals that were weaker, and the rival that was much
14 stronger got 90 percent.

15 So when there's a choice screen with a really strong rival
16 and weaker alternatives, the really strong rival -- you know,
17 another way to put this is if Super Duck was in the Euro choice
18 screen, it would have gotten 90 percent because that's what
19 Google got when it was much stronger than its rivals. When
20 Super Duck, instead, faces a world where the existing contracts
21 have Google, the weaker rival in that Super Duck scenario, has
22 the defaults, it's only getting a third of the covered queries,
23 17 percent. That's a huge gap.

24 **THE COURT:** Thank you.

25 **BY MR. SCHMIDTLEIN:**

1 Q. In the world -- or in the scenario that you calculated
2 where you assumed that all Android devices were switched -- the
3 default was switched, so we're out of the choice screen world,
4 you assumed that every single Android device came pre-loaded
5 exclusively with a rival, your expert report analyses suggests
6 that that would have resulted in a share-shift of 6.9 to
7 8.5 percent of queries, correct?

8 A. I'm sorry, let me just re-center myself on you. If
9 you could repeat the question, just so I'm sure I'm taking it
10 all in and answering your question.

11 Q. Moving away from the choice screen scenario that you
12 disclosed in your expert report to the other scenario, which is
13 an assumption that all Android devices would operate with a
14 rival search engine as the exclusive search engine, you
15 estimated a share-shift of 6.9 to 8.5 percent of search
16 queries, correct?

17 A. Of U.S. search queries?

18 Q. Correct.

19 A. I don't remember the exact number, but the way it was
20 calculated was using the share-shift estimate for mobile -- you
21 know, for Android mobile, which is mobile, and applying that to
22 the share of U.S. queries that's mobile.

23 Q. You don't -- you're not -- those were the numbers you
24 came up with in your report, correct? You recognize those
25 numbers?

1 **A.** It sounds right. I mean, if you put my report in
2 front of -- if I had my report in front of me, I'd look at it
3 and tell you if that was exactly right or wrong, but I believe
4 you're saying the right thing. I'll take your word on it.

5 **MR. SCHMIDTLEIN:** Can we pull up from the Professor's
6 slides yesterday slide 38.

7 Your Honor, we might as well jump right into the
8 50 percent, 33 percent here.

9 **Q.** The Super Duck example that you testified to yesterday
10 and you've been talking about today with Your Honor, this is
11 another example of an opinion that you did not disclose in your
12 expert reports, correct?

13 **A.** What I said in my expert report was that --
14 exclusively was that that 33 percent number was a proper
15 measure of foreclosure.

16 **Q.** You've never referred to or set forth an opinion that
17 33 percent represents what a much weaker rival with the default
18 gets?

19 **A.** I mean, it's exactly what I did in my report and
20 stated. So --

21 **Q.** You think this chart's in your report?

22 **A.** No, it's not. In doing this today -- yesterday, I was
23 trying to explain that calculation, that estimate, and how the
24 share-shift number leads to a foreclosure measure.

25 **Q.** Got it. Now, again, just to kind of reorient

1 ourselves here, you're focused on -- the 50 percent covered
2 queries, queries covered by Google agreements, correct?

3 A. By the exclusionary provisions.

4 Q. Yes. And then what you're saying here is that if
5 during the course, in the middle of an agreement -- and let's
6 say on day one what you've described as Super Duck occurs,
7 somebody invents a search engine that has a quality that is
8 higher than Google's, of the same magnitude that Google's
9 quality is higher than rivals' today, correct?

10 A. That's what I'm thinking about, yes.

11 Q. All right. So on day one, you're saying that search
12 engine, on day one, would be able to get what percent of
13 queries in the market?

14 A. I'm sorry, I'm not sure what you're asking exactly.

15 Q. You're saying that on that day one, that new and
16 improved search engine would only be -- would be foreclosed
17 from winning 33 percent of queries, correct?

18 A. So I don't quite understand the day one point. I
19 mean, the --

20 Q. On day one -- in other words, we're in the midst of
21 agreements, we're at a time period when the agreements are in
22 place. And you say: When I introduce that new search engine
23 that is so much better, because of the existing agreements,
24 33 percent of the queries I can't get; is that right?

25 A. So if you go back to what it was based on -- for

1 example, Your Honor, that Google's estimates of what it would
2 lose if it lost the default, that's where all of this came
3 from, those kind of recovery and shared estimates. Those
4 estimates didn't have a thing about day one or day five or
5 anything else. Google was just saying if we lost the default,
6 how much -- what share of default revenue would we lose.

7 So that's why I'm having trouble with your day one thing,
8 because like -- you know, all of this is based on those -- you
9 know, Google's and Microsoft's estimates of recovery -- of how
10 powerful defaults are. And they weren't talking about day one
11 versus day five versus day seven.

12 Q. Well, the next time the Apple agreement comes up for
13 negotiation, Super Duck's going to win the agreement, right?

14 A. So the foreclosure measure -- I mean --

15 Q. Can you answer my question, sir?

16 A. It may or may not.

17 MR. SEVERT: Objection, argumentative.

18 THE COURT: So it's argumentative.

19 Go ahead. Objection's overruled.

20 THE WITNESS: It may or may not. And the reason is -- and
21 I think we'll get to -- I'm sure at some point either next --
22 next time or whenever about talking about competition for
23 contracts. And there is a fundamental asymmetry when you're
24 competing for these exclusive contracts between the dominant
25 firm that has market power and rivals. And the asymmetry is

1 that the dominant -- Your Honor, the dominant firm is
2 protecting monopoly profits if it wins. The rival is bringing
3 competition and it's destroying profits.

4 And so there's this asymmetry that if they're equal, for
5 example -- this is kind of a standard result in industrial
6 organization in thinking about these things. The dominant firm
7 will win. Because the dominant firm will deploy -- you know,
8 has the protection of those monopoly profits and will spend
9 them if it needs to to win. And it's a fundamental asymmetry
10 between those who bring competition versus those who are trying
11 to protect it in competing for these contracts.

12 You saw that -- actually, when I was reading Mr. Nadella's
13 testimony, actually I was really struck because he says
14 something kind of just like that about, you know, if we bring
15 competition where -- you know, we're bringing competition,
16 Google's protecting against it. And that makes it hard to win.

17 And so that's why the answer -- you know, it's not clear
18 even whether DuckDuckGo would. But just to make also clear,
19 the foreclosure measures, as I said last time, Your Honor,
20 they're a very circumscribed exercise. They're really asking
21 with the contracts in place, what's the effect. They're not
22 getting at your question, which is what would happen when, you
23 know, ultimately there is competition.

24 And I should say, in the case of Apple, it's a fairly
25 long-term contract, and so it's not like every week we're doing

1 competition for the Apple agreement. So anyway, I hope I've
2 responded.

3 **BY MR. SCHMIDTLEIN:**

4 Q. You have not answered the question of when that Apple
5 contract next comes up for renewal, if Super Duck's quality is
6 that much better than Google's, Super Duck will win the
7 contract, correct?

8 A. I did answer that. I said it's not clear for the
9 reasons I said.

10 Q. Not clear, okay. And similarly, Super Duck can
11 compete for Android contracts, correct?

12 A. Super Duck can compete for Android contracts, yes.

13 Q. And if they have superior search quality, you would
14 expect them to win traffic on Android agreements, too, correct?

15 A. I mean, the answer's the same. I think just to say
16 one other thing about, like, foreshadowing this whole
17 discussion about competition for the contracts. Your Honor,
18 competition --

19 **MR. SCHMIDTLEIN:** Your Honor, if I may, I don't know what
20 he's talking about when he says foreshadowing discussions about
21 competition for the contracts at some later date.

22 **THE COURT:** Let's move on.

23 **BY MR. SCHMIDTLEIN:**

24 Q. Why don't we stick with what we're talking about
25 today, because if you wanted to talk about competition for the

1 contracts, the time for that was yesterday.

2 A. Okay, no problem.

3 MR. DINTZER: Your Honor --

4 THE COURT: I got it. Let's move forward.

5 BY MR. SCHMIDTLEIN:

6 Q. The MADA is an agreement that an OEM enters into,
7 correct?

8 A. OEMs enter into it with Google.

9 Q. Right. It's not an agreement that wireless carriers
10 enter into, correct?

11 A. Correct.

12 Q. And the MADA does not prevent an OEM from pre-loading
13 a non-Google search engine, correct?

14 A. That's correct.

15 Q. And the MADA does not prevent an OEM from pre-loading
16 a browser that defaults to a non-Google search engine, correct?

17 A. That's also correct.

18 Q. And you made reference to the fact yesterday that the
19 MADA requires Google to put -- sorry, requires the OEM to put
20 the Google Search app and the Chrome search app into a folder,
21 right?

22 A. Yes.

23 Q. The MADA would allow a competing search rival like
24 Microsoft to put -- as it does on the Duo, to put the Bing
25 widget -- I'm sorry, the Bing search app and the Edge app,

1 pre-loading that on the device, right?

2 A. Yes.

3 Q. And they could put both of those in the hotseat of the
4 device, correct?

5 A. They could.

6 Q. And when you say that the MADA prevents or is an
7 exclusive -- is it your testimony that the MADA is an exclusive
8 agreement?

9 A. So there are aspects that are explicitly exclusive in
10 the sense -- you know, I guess exclusionary in that they're
11 explicitly saying what rivals can't get. And that would really
12 be about encouragement and implementing launchers. Those are
13 explicit things that the OEM can't do for rivals. The rest of
14 it, you know, I wouldn't describe as, quote, exclusive. But I
15 kind of used that kind of effectively exclusive language. But
16 really, the bottom line as an economist is just like what's the
17 effect of the contract.

18 Q. And as to launchers, what's a launcher?

19 A. A launcher is, in essence, software that will change
20 the settings and defaults automatically for a user.

21 Q. And Microsoft offers a launcher product, correct?

22 A. I think they have that.

23 Q. And Microsoft's launcher, if the user activates it,
24 replaces the user interface with a collection of Microsoft
25 applications, correct?

1 **A.** That would be the idea of a launcher. I haven't used
2 it, so I don't know exactly what it's doing.

3 **Q.** And the MADA provisions that you've testified to do
4 not prevent an OEM from pre-loading a Microsoft launcher
5 application, correct?

6 **A.** So the language is about implementing, and I think --
7 I'm not totally clear legally what that would do, but I believe
8 they can put it on, and maybe they can't in some sense promote
9 it to a user. Like, hey, do you want to use this Microsoft
10 launcher to change the widget to Bing?

11 **Q.** The MADA agreement prevents the OEM from automatically
12 launching a rival's launcher product during the boot-up of the
13 device to replace the default home screen per the MADA,
14 correct?

15 **A.** It does that, but I think it also stops them from
16 encouraging the user to do it as well.

17 **Q.** So you can place the icon right there for the launcher
18 on the default home screen, but you -- are you saying the user
19 won't know how to find it when it's right there?

20 **A.** There are lots of things users don't find. So I don't
21 know; I haven't studied that.

22 **Q.** Have you done any analysis in this case as to whether
23 any Android device would be more competitive against Apple
24 devices with Bing pre-loaded on the device instead of Google?

25 **A.** With Bing as an option?

1 Q. With Bing pre-loaded exclusively on a device instead
2 of Google.

3 A. Oh, I'm sorry, I missed the word "instead of" in the
4 first. So if Bing had all -- was the only thing when it
5 shipped, I haven't study that.

6 Q. Have you seen any evidence in this case that Samsung
7 or Motorola believed that exclusively pre-loading Bing or
8 Yahoo! or DuckDuckGo on any Android device instead of Google
9 would make that device more competitive in the marketplace?

10 A. Instead of, no. I think there was evidence that they
11 were potentially interested in in addition to.

12 Q. I'm sorry, what evidence -- you didn't reference that
13 in your testimony yesterday. What evidence are you referring
14 to?

15 A. So I think Samsung -- I'm just trying to -- yeah, so
16 Verizon was interested in having Yahoo! on its devices. I
17 think Samsung was interested in as well, but I'm now trying to
18 remember the details.

19 Q. You didn't make reference to that in your testimony
20 yesterday, did you?

21 A. No, I didn't.

22 Q. And the Verizon interest that you make reference to --
23 the Judge has heard it from Mr. Higgins from Verizon. The
24 Verizon interest was to have something called the Yahoo! Home
25 application pre-loaded on the device, correct?

1 **A.** When I -- what I remember from deposition and other
2 testimony is they -- I don't remember the name Home, but that
3 in the end, they were interested in something that was much
4 broader than what they ended up being able to do with Yahoo!,
5 that it ended up restricted to certain vertical -- like finance
6 and things like that, in terms of what the search function
7 could be.

8 So I mentioned earlier Microsoft with the Duo. They ended
9 up -- they put Google on, but they ended up with, I think, a
10 Google search widget because of the MADA. And they weren't
11 able to do a launcher, which you -- I think Mr. Tinter
12 testified that had it not been for the MADA, they would have
13 had something that encouraged users to change.

14 **Q.** Did you look at the MADA for Microsoft?

15 **A.** Did I look -- what do you mean, at Microsoft's MADA?

16 **Q.** Yes.

17 **A.** I have not, no.

18 **Q.** And as to Verizon, you're aware that Verizon's
19 agreement with Google during the years 2014 to 2021 did not
20 prohibit Verizon from pre-loading Yahoo! search on the device,
21 correct?

22 **A.** So what I'm aware of with that is --

23 **Q.** Yes or no, sir?

24 **A.** I could say more, but that's fine. Repeat the
25 question.

1 Q. You are aware from the evidence in this case that from
2 2014 to 2021, Google's agreement with Verizon did not prevent
3 Verizon from pre-loading Yahoo! on Verizon Android devices,
4 correct?

5 A. Yes. And as I said, I could say more.

6 Q. Microsoft was given the opportunity in Europe, as a
7 result of certain unbundling that was done in Europe, to
8 license the Google Play Store without licensing Google search
9 widget that you just referred to or Google Chrome, correct?

10 A. Yes.

11 Q. And Microsoft decided to license Google search on its
12 Duo devices in Europe, correct?

13 A. It did, you know, for the -- you know, there's -- Your
14 Honor, in Europe, after the remedy, aside from the choice
15 screen, there's an unbundling of the license to Play Store and
16 other things, and placement -- the kind of MADA placement
17 restrictions for the widget and things like that, where
18 essentially you pay for the -- sorry, you pay for the license
19 of the -- of Google Labs, like the Play Store, and then you get
20 paid for placing the widget. That's what I think we're talking
21 about.

22 Q. Microsoft could have created a version of the Duo with
23 exclusively Bing and exclusively Edge on the device, correct?

24 A. So it could have. I think there were -- from what I
25 remember reading, there were issues about how it felt about

1 having the device be different in Europe than the U.S. I
2 remember that.

3 Q. The Google RSAs that are in place today with Android
4 OEMs and wireless carriers operate on what is referred to as a
5 device-by-device basis, correct?

6 A. They do.

7 Q. And that means that the OEM or the wireless carrier
8 can determine whether to enroll any particular device into the
9 RSA and become eligible for revenue share, correct?

10 A. Yes.

11 Q. And if an OEM or a wireless carrier wanted to pre-load
12 a non-Google search engine on one device type, and thus not
13 comply with the exclusivity provisions, they could do that
14 without jeopardizing whatever revenue share payments they were
15 getting on other devices, correct?

16 A. You know, in principle.

17 Q. And as I said, you were aware that -- well, strike
18 that.

19 In addition to pre-load exclusivity, are there other
20 things that Google pays OEMs and wireless carriers for as part
21 of an RSA?

22 A. You mean, are there other provisions in the contract
23 in addition to the restrictions, the exclusivity --

24 Q. Correct.

25 A. There are. There are, Your Honor, some provisions

1 about frequency of updates and things like that. I think that
2 may be what you're referring to.

3 Q. Security upgrades?

4 A. Yes.

5 Q. What's a security upgrade?

6 A. I guess making the phone more secure against outside
7 intrusions.

8 Q. And operating system letter upgrades are also part of
9 what Google is incentivizing OEMs to do with RSA payments,
10 correct?

11 A. Well, it's requiring them to do it as part of getting
12 the payment, as part of the contract.

13 Q. That makes the devices -- making sure that users have
14 the latest Android operating system improves the performance of
15 those devices, correct?

16 A. I'm sure it does.

17 **THE COURT:** Mr. Schmidtlein, it's about 12:30, so why
18 don't we break for lunch.

19 Professor, again, I'll ask you not to discuss your
20 testimony with anyone during the break. We'll resume at 1:30.
21 I'll ask you to step outside of the courtroom for just a
22 moment, please.

23 (Witness not present)

24 **THE COURT:** Mr. Schmidtlein, how much more do we have?

25 **MR. SCHMIDTLEIN:** An hour or less.

1 **THE COURT:** I haven't wanted to interrupt. We are getting
2 into areas that are more his interpretation of what the
3 contracts provide. I understand why you're asking those as
4 predicate stuff, but if we can -- I mean, I can read the
5 contracts, we can talk about the contracts, but I'm not sure I
6 need an economist to tell me that.

7 So if we can move along really to what his testimony is
8 about in terms of his economic analysis and opinions, that
9 would help us get to the end much more quickly.

10 Thank you, everyone. We'll see you at 1:30.

11 (Lunch recess taken at 12:29 p.m.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

C E R T I F I C A T E

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I, **Jeff M. Hook, Official Court Reporter,**
certify that the foregoing is a true and correct transcript of
the record of proceedings in the above-entitled matter.

October 17, 2023

DATE



Jeff M. Hook

<p>BY MR. SCHMIDTLEIN: [11] 6016/25 6031/15 6036/14 6062/20 6067/11 6073/19 6091/17 6095/24 6101/2 6101/22 6102/4</p> <p>DEPUTY CLERK: [1] 6016/1</p> <p>MR. CAVANAUGH: [1] 6016/8</p> <p>MR. DINTZER: [2] 6016/7 6102/2</p> <p>MR. SCHMIDTLEIN: [7] 6016/23 6036/11 6066/25 6068/4 6097/4 6101/18 6109/24</p> <p>MR. SEVERT: [2] 6062/17 6099/16</p> <p>THE COURT: [19] 6016/5 6016/9 6016/18 6031/13 6062/18 6067/2 6067/7 6073/13 6091/2 6091/16 6093/7 6094/15 6095/23 6099/17 6101/21 6102/3 6109/16 6109/23 6109/25</p> <p>THE WITNESS: [8] 6016/14 6016/22 6067/8 6073/14 6091/8 6093/15 6094/23 6099/19</p>	<p>10:58 a.m [1] 6067/6</p> <p>1100 [1] 6013/14</p> <p>1133 [1] 6013/23</p> <p>11:00 [1] 6067/4</p> <p>11:15 [1] 6067/4</p> <p>11:16 a.m [1] 6067/7</p> <p>12:29 [1] 6110/11</p> <p>12:30 [1] 6109/17</p> <p>1300 [1] 6014/4</p> <p>150 [1] 6080/16</p> <p>16-006 [1] 6073/23</p> <p>16.007 [1] 6077/3</p> <p>16.010 [1] 6082/25</p> <p>17 [5] 6013/5 6094/4 6094/6 6094/14 6095/7</p> <p>17 percent [2] 6093/14 6095/23</p> <p>1:20-cv-3010 [1] 6013/4</p> <p>1:30 [2] 6109/20 6110/10</p> <hr/> <p>2</p> <p>20-3010 [1] 6016/2</p> <p>20001 [2] 6013/18 6014/25</p> <p>20005 [1] 6013/15</p> <p>2002-2003 [1] 6053/8</p> <p>20024 [1] 6014/9</p> <p>2003 [3] 6052/17 6053/2 6053/8</p> <p>2006 [1] 6041/10</p> <p>2007 [7] 6040/19 6041/2 6041/3 6041/6 6041/9 6041/11 6059/15</p> <p>2009 [1] 6041/13</p> <p>2010 [5] 6036/25 6037/5 6037/18 6050/11 6093/2</p> <p>2011-2012 [1] 6057/10</p> <p>2012 [1] 6057/10</p> <p>2013 [3] 6023/24 6024/3 6024/16</p> <p>2014 [29] 6037/15 6039/5 6039/10 6039/15 6039/17 6039/24 6040/2 6040/3 6040/3 6040/8 6040/11 6040/13 6040/19 6040/25 6041/2 6041/6 6041/9 6042/18 6042/21 6044/10 6055/21 6079/25 6092/20 6092/22 6093/2 6093/2 6093/7 6106/19 6107/2</p> <p>2015 [2] 6041/17 6049/21</p>	<p>2016 [11] 6027/7 6039/19 6042/24 6043/3 6061/7 6061/14 6061/21 6062/2 6063/6 6064/5 6084/9</p> <p>2017 [9] 6040/2 6040/7 6040/13 6040/25 6042/21 6043/4 6055/14 6055/17 6055/20</p> <p>2021 [6] 6023/25 6024/4 6024/16 6041/17 6106/19 6107/2</p> <p>2022 [1] 6061/11</p> <p>2023 [1] 6013/5</p> <p>209 [1] 6013/20</p> <p>2200 [2] 6013/23 6013/24</p> <p>23 [1] 6013/7</p> <hr/> <p>3</p> <p>3010 [2] 6013/4 6016/2</p> <p>33 [1] 6094/6</p> <p>33 percent [7] 6093/12 6094/22 6097/8 6097/14 6097/17 6098/17 6098/24</p> <p>333 [1] 6014/24</p> <p>38 [1] 6097/6</p> <p>39 [1] 6076/10</p> <p>39 percent [1] 6076/11</p> <hr/> <p>4</p> <p>450 [1] 6013/17</p> <hr/> <p>5</p> <p>5 percent [2] 6025/14 6076/10</p> <p>50 percent [4] 6041/10 6095/6 6097/8 6098/1</p> <hr/> <p>6</p> <p>6.9 [2] 6096/6 6096/15</p> <p>600 [1] 6013/20</p> <p>6017 [1] 6015/4</p> <p>60604 [1] 6013/20</p> <p>65 [1] 6018/20</p> <p>67 [2] 6026/7 6026/8</p> <p>680 [1] 6014/8</p> <p>69 [2] 6029/9 6030/18</p> <p>6th [1] 6061/11</p> <hr/> <p>7</p> <p>70 [1] 6041/14</p> <p>7th [1] 6014/4</p> <hr/> <p>8</p> <p>8.5 percent [2] 6096/7 6096/15</p> <p>80 percent [1]</p>	<p>6041/14</p> <p>80203 [1] 6014/4</p> <p>808 [2] 6061/14 6061/20</p> <hr/> <p>9</p> <p>90 [4] 6068/9 6068/15 6078/21 6095/1</p> <p>90 percent [4] 6046/17 6094/13 6095/14 6095/18</p> <p>90 percent-plus [1] 6046/21</p> <p>90.55 [1] 6046/19</p> <p>9:32 [1] 6013/6</p> <hr/> <p>A</p> <p>a.m [3] 6013/6 6067/6 6067/7</p> <p>ability [5] 6024/1 6024/5 6024/9 6044/2 6065/4</p> <p>able [10] 6036/7 6045/14 6051/4 6055/23 6079/21 6079/21 6093/7 6098/12 6106/4 6106/11</p> <p>above [1] 6111/5</p> <p>above-entitled [1] 6111/5</p> <p>absence [2] 6038/17 6038/25</p> <p>absent [3] 6086/22 6087/11 6087/15</p> <p>absolutely [2] 6036/19 6078/24</p> <p>access [8] 6066/12 6067/16 6067/23 6068/18 6069/21 6072/14 6085/10 6085/16</p> <p>account [8] 6022/19 6022/22 6026/12 6071/23 6072/1 6072/20 6082/22 6083/5</p> <p>accounted [1] 6075/2</p> <p>accurate [2] 6016/18 6057/3</p> <p>achieved [3] 6036/10 6037/21 6038/7</p> <p>achieving [2] 6038/6 6038/12</p> <p>acknowledge [2] 6028/11 6065/11</p> <p>acquired [1] 6038/1</p> <p>across [1] 6065/17</p> <p>action [2] 6013/3 6016/2</p> <p>activates [1] 6103/23</p>	<p>actual [2] 6082/6 6089/10</p> <p>actually [18] 6017/14 6022/9 6029/23 6031/2 6032/4 6032/8 6046/9 6046/21 6051/9 6056/23 6058/21 6071/10 6084/9 6085/22 6086/14 6094/9 6100/12 6100/13</p> <p>ad [24] 6018/3 6018/11 6020/23 6021/3 6021/4 6021/9 6021/21 6024/16 6025/16 6029/21 6030/3 6030/22 6031/18 6031/24 6032/1 6033/9 6033/9 6034/13 6034/14 6034/15 6034/19 6034/21 6035/8 6035/16</p> <p>ad's [1] 6027/2</p> <p>ADAM [1] 6013/16</p> <p>add [4] 6017/22 6017/23 6070/3 6070/7</p> <p>added [3] 6072/6 6072/12 6074/4</p> <p>adding [1] 6068/12</p> <p>addition [5] 6079/11 6079/16 6105/11 6108/19 6108/23</p> <p>additional [6] 6030/21 6031/20 6032/16 6033/21 6066/12 6093/14</p> <p>address [10] 6069/12 6069/17 6069/21 6070/3 6070/7 6071/2 6071/24 6072/2 6072/16 6073/25</p> <p>adjective [1] 6041/13</p> <p>adjustments [1] 6092/7</p> <p>adopted [1] 6029/16</p> <p>ads [41] 6017/5 6017/9 6018/21 6019/18 6020/16 6020/17 6020/18 6020/19 6020/21 6020/22 6021/4 6021/11 6021/12 6022/2 6022/6 6022/7 6022/17 6022/25 6023/4 6023/16 6024/1 6024/5 6024/9 6024/17 6024/22 6025/3 6028/16 6029/7 6030/9</p>
---	--	--	---	--

A	agree [26] 6022/16 6024/14 6026/11 6031/3 6031/17 6040/13 6041/6 6042/4 6048/5 6048/9 6050/5 6050/11 6050/15 6051/13 6052/6 6052/9 6055/13 6056/21 6072/10 6076/1 6085/9 6085/19 6085/20 6085/24 6086/12 6086/20	al [2] 6013/3 6016/3 alleged [6] 6039/1 6086/23 6092/2 6092/10 6092/11 6092/16 allegedly [3] 6038/16 6038/17 6038/24 allow [2] 6070/25 6102/23 allowed [4] 6018/10 6022/23 6051/5 6055/9 almost [1] 6017/13 along [1] 6110/7 alternatives [2] 6088/3 6095/16 although [1] 6048/14 always [1] 6021/8 amend [1] 6016/17 amendment [2] 6016/20 6017/2 AMERICA [2] 6013/3 6016/3 Americas [1] 6013/23 AMIT [1] 6013/10 amongst [1] 6072/13 amount [5] 6027/25 6029/4 6081/7 6085/22 6088/19 analyses [3] 6018/25 6070/25 6096/5 analysis [36] 6019/5 6025/1 6028/4 6029/15 6030/8 6030/13 6035/25 6036/8 6037/10 6040/6 6046/3 6046/10 6046/12 6046/16 6046/23 6048/19 6048/22 6049/2 6049/20 6050/20 6050/24 6064/4 6070/24 6071/8 6080/20 6083/2 6084/19 6088/14 6089/19 6090/7 6090/24 6092/6 6092/9 6093/11 6104/22 6110/8 analyst [1] 6065/21 analyze [1] 6067/14 analyzed [3] 6048/1 6049/4 6049/10 Android [35] 6040/9 6040/10 6044/11 6044/13 6045/7 6045/15	6047/2 6047/9 6049/6 6049/13 6050/6 6068/24 6089/7 6089/8 6089/9 6089/10 6089/22 6089/24 6090/4 6091/5 6091/13 6094/11 6094/19 6096/2 6096/4 6096/13 6096/21 6101/11 6101/12 6101/14 6104/23 6105/8 6107/3 6108/3 6109/14 answer's [1] 6101/15 answered [1] 6101/4 anti [13] 6038/2 6038/18 6039/1 6039/10 6084/22 6084/25 6085/8 6092/1 6092/2 6092/11 6092/11 6092/16 6093/6 anti-competitive [13] 6038/2 6038/18 6039/1 6039/10 6084/22 6084/25 6085/8 6092/1 6092/2 6092/11 6092/11 6092/16 6093/6 Antitrust [1] 6014/3 apologies [1] 6041/4 apologize [2] 6073/13 6076/14 app [6] 6065/14 6074/12 6102/20 6102/20 6102/25 6102/25 apparently [1] 6031/10 appear [3] 6021/11 6086/9 6087/6 APPEARANCES [2] 6013/12 6014/1 appeared [2] 6017/6 6073/16 Apple [77] 6039/18 6039/20 6039/21 6042/25 6043/2 6043/7 6043/10 6043/10 6045/6 6045/15 6047/4 6050/5 6051/18 6051/24 6052/3 6052/17 6053/8 6053/14 6053/20 6054/2 6054/5 6055/3 6055/4 6055/8 6058/9 6058/11 6058/16 6058/17 6058/19 6058/21	6059/6 6059/22 6060/8 6060/12 6060/23 6061/2 6061/3 6061/4 6061/15 6063/3 6063/5 6063/6 6063/14 6063/20 6064/9 6064/21 6064/24 6065/11 6065/12 6066/2 6066/5 6066/11 6066/22 6066/23 6067/14 6068/22 6069/2 6069/8 6069/23 6070/4 6070/21 6071/16 6074/13 6074/21 6075/6 6075/11 6078/18 6079/8 6079/10 6079/15 6087/19 6087/23 6099/12 6100/24 6101/1 6101/4 6104/23 Apple's [5] 6053/24 6063/7 6064/13 6065/4 6078/13 Apple-Google [1] 6064/24 apples [2] 6079/3 6079/3 application [3] 6066/20 6104/5 6105/25 applications [1] 6103/25 applied [1] 6061/23 applies [1] 6064/25 applying [1] 6096/21 appreciate [1] 6018/5 approximation [1] 6072/12 areas [1] 6110/2 argue [1] 6086/4 argumentative [3] 6062/18 6099/17 6099/18 arguments [2] 6036/20 6036/23 around [5] 6032/4 6049/21 6076/19 6077/2 6077/24 arrangements [4] 6084/25 6085/2 6086/10 6086/11 aside [2] 6094/18 6107/14 aspect [2] 6021/2 6030/17 aspects [2] 6026/19 6103/9 assess [1] 6029/16 assignment [3]
----------	--	---	---	---

A	ball [1] 6068/21	6078/7 6078/10	6041/21 6041/25	6034/17 6035/10
assignment... [3]	banana [3]	6078/11 6078/17	6042/6 6042/7	6035/24 6051/21
6037/7 6037/11	6033/13 6033/14	6079/6 6094/14	6042/12 6042/13	6053/11 6053/11
6048/4	6034/1	binder [5]	6047/16 6052/4	6056/9 6058/1
assumed [2]	bananas [2]	6018/13 6025/5	6052/5 6052/7	6063/3 6064/18
6096/2 6096/4	6033/12 6033/15	6058/4 6072/24	6052/9 6052/12	6066/14 6069/6
assumption [1]	band [1] 6093/14	6080/11	6052/17 6053/1	6073/3 6075/5
6096/13	Bankruptcy [1]	Bing [27] 6028/24	6053/4 6053/21	6076/15 6079/22
asymmetry [4]	6014/24	6035/12 6035/14	6054/23 6056/7	6085/3 6085/14
6099/23 6099/25	bar [12] 6065/17	6035/17 6041/21	6056/7 6056/9	6086/1 6086/3
6100/4 6100/9	6065/18 6069/12	6042/16 6045/5	6056/11 6056/21	6086/14 6091/3
attempted [2]	6069/17 6069/21	6045/13 6045/14	6058/17 6058/22	6091/25 6093/8
6045/21 6046/1	6070/4 6070/7	6045/22 6046/2	6074/20 6075/1	6097/5 6099/15
attended [1]	6071/2 6071/24	6047/11 6049/4	6077/11 6077/14	6101/10 6101/12
6036/20	6072/2 6072/16	6049/10 6056/16	6077/14 6079/11	6104/8 6104/17
attractive [1]	6073/25	6057/6 6066/22	6079/16 6083/7	6108/8 6110/4
6052/11	based [12] 6030/8	6081/18 6102/24	6084/17 6102/16	6110/4 6110/5
auction [7]	6035/19 6042/1	6102/25 6104/10	browsers [6]	6110/7
6021/3 6026/11	6042/13 6043/11	6104/24 6104/25	6044/2 6074/24	capture [7]
6026/14 6026/19	6049/6 6051/14	6105/1 6105/4	6075/5 6079/21	6023/3 6025/2
6029/12 6030/10	6055/10 6059/9	6105/7 6107/23	6079/23 6082/3	6025/23 6026/21
6032/13	6078/8 6098/25	Bing's [4]	browsing [6]	6027/2 6027/13
auctions [5]	6099/8	6041/17 6047/21	6059/21 6059/24	6084/15
6028/13 6029/21	basic [1] 6020/11	6048/14 6081/22	6060/3 6060/4	captured [2]
6030/4 6030/15	basically [2]	bit [6] 6023/1	6060/4 6060/10	6019/11 6027/10
6033/14	6018/25 6051/4	6047/10 6048/17	built [2] 6074/6	captures [2]
automatically [2]	basis [1] 6108/5	6068/11 6078/11	6078/20	6022/15 6084/12
6103/20 6104/11	basket [7]	6088/21	bullet [1] 6063/1	care [2] 6054/6
available [4]	6019/23 6019/24	BlackBerry [1]	bullets [1]	6054/7
6063/7 6093/15	6020/1 6020/3	6057/6	6062/1	careful [2]
6093/25 6094/2	6020/7 6020/10	bled [1] 6083/6	business [1]	6022/5 6076/12
Avenue [3]	6020/14	blocked [2]	6025/21	carefully [2]
6013/23 6014/8	became [1]	6042/2 6042/14	but-for [15]	6021/7 6021/18
6014/24	6056/20	bookmark [1]	6036/2 6036/4	carrier [4]
average [2]	become [1] 6108/9	6074/7	6036/10 6085/12	6044/12 6050/12
6021/20 6022/2	began [3] 6036/25	bookmarks [1]	6085/17 6086/18	6108/7 6108/11
avoid [1] 6020/6	6049/21 6049/25	6077/17	6086/22 6087/11	carriers [6]
aware [13] 6024/7	beginning [2]	boot [1] 6104/12	6087/19 6087/23	6044/17 6044/19
6035/19 6055/7	6037/15 6083/10	boot-up [1]	6088/14 6089/2	6044/21 6102/9
6055/11 6057/4	behalf [2] 6016/4	6104/12	6089/15 6089/20	6108/4 6108/20
6057/22 6058/15	6016/5	both [16] 6026/6	6090/7	carry [2] 6051/4
6060/8 6060/22	behavior [3]	6037/11 6040/14	button [1]	6051/7
6106/18 6106/22	6085/10 6085/15	6041/7 6043/13	6079/22	carved [2] 6055/8
6107/1 6108/17	6093/7	6044/17 6047/11	buy [3] 6031/14	6055/11
away [7] 6077/20	behavioral [1]	6052/16 6054/23	6035/3 6061/3	case [65] 6024/20
6082/2 6082/16	6045/18	6060/6 6064/16	buyers [1]	6025/1 6028/4
6082/17 6082/20	belief [1] 6047/3	6067/25 6069/23	6033/19	6028/10 6028/11
6083/6 6096/11	Belknap [1]	6077/23 6078/14	C	6029/15 6030/2
	6013/23	6103/3	calculated [3]	6030/8 6030/13
B	BELLSHAW [1]	bottom [2] 6022/7	6089/7 6096/1	6035/19 6035/23
back [27] 6016/12	6013/16	6103/16	6096/20	6036/1 6036/8
6019/20 6027/11	below [1] 6048/17	bounce [1] 6084/8	calculating [2]	6036/20 6037/4
6037/17 6049/2	BENCH [1] 6013/10	box [1] 6066/20	6085/20 6089/8	6037/7 6037/10
6054/1 6057/9	best [3] 6021/13	Braddi [1]	6049/15 6049/18	6037/21 6038/15
6057/14 6057/19	6055/15 6068/1	6064/16	6097/23	6038/24 6039/18
6058/18 6058/24	better [9]	brand [3] 6043/22	calculation [3]	6039/19 6041/15
6064/1 6067/7	6022/24 6024/16	6043/24 6044/3	6049/15 6049/18	6041/20 6041/25
6080/1 6083/17	6050/3 6050/4	break [3] 6067/4	6026/8	6042/12 6045/2
6083/18 6084/1	6050/6 6050/15	6109/18 6109/20	6041/12 6089/20	6045/21 6047/20
6084/5 6084/8	6050/16 6098/23	Brief [1] 6036/14	called [2] 6063/7	6049/20 6050/20
6084/10 6084/11	6101/6	bring [2] 6100/10	6105/24	6050/24 6051/18
6086/16 6087/8	beyond [1] 6093/7	6100/14	came [3] 6096/4	6052/3 6052/8
6091/23 6093/8	bid [3] 6034/11	bringing [2]	6096/24 6099/2	6054/13 6055/3
6095/2 6098/25	6034/15 6034/20	6100/2 6100/15	can [46] 6016/19	6055/13 6058/16
backwards [1]	big [2] 6050/4	broader [1]	6016/21 6019/7	6059/22 6060/8
6040/16	6084/11	6106/4	6023/19 6025/19	6060/23 6061/12
balance [2]	bigger [10]	Broadway [1]	6027/8 6029/2	6063/17 6063/20
6049/4 6049/10	6077/20 6078/2	6014/4	6030/21 6031/1	6064/12 6064/19
	6078/5 6078/6	browser [34]	6031/7 6032/23	6064/24 6067/13

<p>C case... [16] 6068/7 6081/13 6084/20 6086/3 6086/18 6086/22 6087/6 6087/18 6087/23 6088/22 6091/22 6092/9 6100/24 6104/22 6105/6 6107/1 categories [1] 6073/1 caused [2] 6044/4 6082/23 CAVANAUGH [2] 6013/22 6016/4 caveat [1] 6045/20 center [1] 6096/8 certain [2] 6106/5 6107/7 certainly [11] 6016/21 6021/6 6049/15 6049/23 6051/7 6054/5 6054/6 6054/13 6064/3 6066/14 6087/8 certainty [1] 6088/1 certify [1] 6111/4 chains [2] 6020/4 6020/5 challenge [1] 6085/11 challenged [1] 6085/16 change [13] 6019/25 6020/10 6060/2 6079/18 6079/22 6083/11 6088/4 6090/9 6090/9 6094/20 6103/19 6104/10 6106/13 changed [2] 6020/10 6029/23 changes [2] 6020/7 6022/17 characterization [1] 6067/24 charge [3] 6033/1 6033/1 6033/9 charges [2] 6032/10 6035/20 charging [1] 6032/7 chart [14] 6022/13 6023/3 6023/12 6023/15 6068/16 6068/23 6069/3 6072/23 6072/24 6073/11 6073/12 6073/16 6074/7 6082/24 chart's [1] 6097/21</p>	<p>Chicago [1] 6013/20 choice [48] 6045/6 6045/10 6046/4 6046/5 6046/10 6046/12 6046/14 6046/16 6046/18 6047/4 6048/20 6052/21 6056/12 6058/15 6058/16 6058/19 6058/22 6059/6 6060/2 6077/20 6077/25 6078/2 6078/4 6079/17 6088/24 6089/11 6089/25 6090/12 6091/10 6091/13 6091/14 6093/9 6093/19 6093/22 6093/25 6094/3 6094/8 6094/9 6094/10 6095/1 6095/9 6095/10 6095/12 6095/15 6095/17 6096/3 6096/11 6107/14 choices [4] 6046/15 6083/3 6091/11 6091/12 choose [3] 6056/9 6091/16 6093/10 Chrome [8] 6048/24 6048/24 6074/16 6074/16 6074/20 6083/6 6102/20 6107/9 circumscribed [1] 6100/20 circumstance [1] 6027/8 cited [2] 6025/6 6078/1 civil [2] 6013/3 6016/2 claimed [2] 6037/3 6065/7 clarification [3] 6018/5 6073/8 6077/16 clarify [3] 6069/22 6073/17 6077/13 clause [1] 6061/7 clauses [4] 6056/24 6061/23 6062/2 6062/6 clear [13] 6024/24 6034/2 6045/9 6048/25 6057/15 6057/20 6083/10 6088/11 6100/17 6100/18 6101/8 6101/10 6104/7 clearly [2] 6060/5 6066/4 click [12] 6020/25 6021/20</p>	<p>6023/7 6024/17 6029/24 6032/12 6032/24 6033/2 6033/19 6033/22 6034/8 6034/8 click-cost [1] 6032/24 click-through [2] 6024/17 6029/24 clicked [1] 6021/3 clicking [1] 6032/18 clicks [7] 6032/14 6032/22 6032/23 6032/25 6033/3 6033/25 6035/5 close [2] 6048/14 6048/15 closest [2] 6046/11 6071/14 Clouds [2] 6031/6 6031/18 CO [1] 6014/4 collection [2] 6031/21 6103/24 collective [1] 6078/8 Colorado [3] 6013/22 6014/2 6014/3 COLUMBIA [1] 6013/1 column [8] 6068/12 6069/7 6070/12 6070/12 6070/14 6070/17 6072/6 6072/11 combine [1] 6075/9 combined [1] 6026/2 combining [1] 6069/23 coming [10] 6029/4 6036/4 6071/1 6071/3 6071/15 6074/20 6076/8 6077/17 6078/22 6078/23 comment [1] 6059/9 compared [3] 6089/10 6089/22 6089/23 comparing [3] 6038/5 6038/11 6078/17 comparison [2] 6078/13 6078/25 compensation [1] 6063/12 compete [3] 6044/2 6101/11 6101/12 competes [1] 6052/4 competing [4]</p>	<p>6042/24 6099/24 6100/11 6102/23 competition [17] 6050/5 6050/10 6051/13 6051/14 6063/4 6085/6 6099/22 6100/3 6100/10 6100/15 6100/15 6100/23 6101/1 6101/17 6101/18 6101/21 6101/25 competitive [25] 6038/2 6038/18 6039/1 6039/10 6084/22 6084/25 6085/3 6085/8 6085/9 6085/13 6085/15 6085/18 6088/16 6089/16 6089/17 6089/19 6090/24 6092/1 6092/2 6092/11 6092/11 6092/16 6093/6 6104/23 6105/9 competitor [1] 6093/15 complicated [1] 6048/23 comply [1] 6108/13 component [2] 6052/13 6052/14 components [1] 6052/15 compositional [1] 6020/7 computer [1] 6051/4 computers [8] 6040/15 6041/8 6049/22 6050/1 6051/6 6051/20 6051/25 6053/5 concept [2] 6019/11 6045/19 concern [1] 6082/5 conclusion [1] 6091/7 conduct [9] 6037/13 6038/2 6039/5 6064/13 6092/1 6092/2 6092/11 6092/12 6092/17 conducted [2] 6035/25 6036/8 confidential [2] 6067/23 6068/6 confirmation [1] 6025/18 confused [1] 6040/22 connected [1] 6054/8 connection [3] 6025/14 6041/15</p>	<p>6068/7 Connolly [1] 6014/8 consequences [3] 6054/19 6054/24 6054/25 consider [1] 6087/1 consideration [1] 6078/21 considerations [1] 6055/10 considered [1] 6065/23 consistent [4] 6026/1 6026/6 6066/24 6094/20 constitute [1] 6084/21 Constitution [1] 6014/24 consumer [4] 6019/18 6019/21 6019/24 6048/2 consumer's [1] 6052/7 consumers [7] 6029/1 6045/22 6046/2 6046/17 6051/5 6052/11 6052/22 CONT [1] 6014/1 contains [1] 6068/5 contemporaneous [3] 6059/10 6062/10 6064/17 contended [1] 6036/25 contention [1] 6037/4 continually [1] 6024/8 continued [3] 6015/4 6016/25 6039/12 contract [14] 6052/16 6061/23 6062/2 6065/25 6066/7 6066/9 6066/11 6066/24 6100/25 6101/5 6101/7 6103/17 6108/22 6109/12 contracts [19] 6036/6 6086/4 6086/6 6086/7 6088/20 6091/2 6095/20 6099/23 6099/24 6100/11 6100/21 6101/11 6101/12 6101/17 6101/21 6102/1 6110/3 6110/5 6110/5 contributor [1] 6091/1 convenient [1] 6066/20</p>
---	--	---	--	---

C	6016/25 Cue [1] 6059/6 Cue's [2] 6059/1 6059/3 current [6] 6046/14 6090/13 6090/14 6091/13 6093/22 6094/24 curve [1] 6032/25 customer [2] 6025/22 6025/24 cv [1] 6013/4	6040/2 6042/13 6042/16 6043/15 6048/24 6052/6 6052/18 6053/16 6053/20 6054/3 6054/12 6054/15 6055/3 6055/16 6056/10 6056/11 6056/13 6056/16 6056/20 6057/2 6059/21 6059/23 6060/1 6060/3 6060/6 6060/10 6064/20 6065/2 6065/17 6065/18 6067/15 6069/15 6071/4 6071/16 6073/24 6075/17 6075/19 6075/20 6075/24 6076/2 6076/16 6076/24 6077/4 6077/4 6077/5 6077/15 6078/16 6079/18 6079/25 6080/6 6081/2 6082/18 6087/20 6087/25 6088/9 6089/9 6090/17 6090/18 6093/13 6094/15 6094/23 6095/3 6095/5 6095/9 6096/3 6097/17 6099/2 6099/5 6099/6 6104/13 6104/18	6031/1 Denver [1] 6014/4 departed [1] 6084/16 Department [4] 6013/14 6013/17 6013/19 6014/3 depend [1] 6049/18 depending [1] 6093/15 deploy [1] 6100/7 deposition [1] 6106/1 depressed [1] 6079/7 describe [2] 6032/24 6103/14 described [2] 6062/2 6098/6 describing [1] 6019/15 description [2] 6053/14 6062/5 designed [2] 6063/11 6088/12 designing [1] 6052/10 desktop [8] 6040/14 6041/7 6048/17 6049/17 6049/22 6050/1 6051/6 6051/8 desktops [2] 6048/15 6048/16 despite [1] 6082/20 destroying [1] 6100/3 details [1] 6105/18 determine [2] 6048/19 6108/8 developer [8] 6041/21 6041/25 6042/6 6042/12 6052/9 6056/7 6056/7 6056/9 device [36] 6044/13 6045/7 6045/15 6045/15 6050/2 6050/8 6050/10 6050/18 6050/21 6050/25 6052/1 6057/5 6058/17 6065/12 6066/23 6071/17 6072/15 6074/21 6075/6 6096/4 6103/1 6103/4 6104/13 6104/23 6104/24 6105/1 6105/8 6105/9 6105/25 6106/20 6107/23 6108/1 6108/5 6108/5 6108/8 6108/12 device-by-device [1] 6108/5	devices [38] 6040/15 6041/8 6047/4 6049/6 6049/13 6049/17 6049/21 6049/24 6050/1 6050/3 6050/6 6050/13 6050/15 6050/17 6051/11 6057/7 6057/17 6057/20 6057/21 6066/13 6067/14 6068/18 6068/18 6068/24 6069/23 6069/25 6070/21 6074/13 6075/11 6096/2 6096/13 6104/24 6105/16 6107/3 6107/12 6108/15 6109/13 6109/15 difference [4] 6071/15 6079/23 6093/13 6094/10 differences [1] 6093/17 different [18] 6017/15 6028/22 6034/6 6034/14 6046/24 6047/5 6048/15 6048/20 6056/12 6056/13 6059/21 6059/23 6060/1 6060/5 6060/21 6068/18 6093/3 6108/1 differentiation [1] 6028/22 DINTZER [4] 6013/13 6016/3 6036/23 6037/3 directly [2] 6047/23 6064/14 disappeared [1] 6031/5 disappointed [1] 6043/20 Dischler [2] 6025/6 6025/9 disclose [1] 6097/11 disclosed [1] 6096/12 discriminating [1] 6033/17 discrimination [1] 6033/18 discuss [2] 6083/3 6109/19 discussing [1] 6061/14 discussion [3] 6022/10 6032/5 6101/17 discussions [1] 6101/20 disproportionately [2] 6078/19 6079/8 distinction [2]
	D DAHLQUIST [1] 6013/19 daily [1] 6084/4 dark [3] 6073/5 6073/23 6075/17 data [7] 6018/25 6019/1 6025/4 6068/6 6072/25 6073/2 6074/6 date [3] 6053/3 6101/21 6111/10 DAVID [1] 6013/19 day [15] 6013/7 6017/19 6051/5 6098/6 6098/11 6098/12 6098/15 6098/18 6098/20 6099/4 6099/4 6099/7 6099/10 6099/11 6099/11 days [5] 6019/12 6019/13 6019/20 6024/19 6084/7 DC [5] 6013/5 6013/15 6013/18 6014/9 6014/25 deal [6] 6060/18 6081/21 6082/12 6082/13 6082/15 6082/18 dealing [3] 6084/25 6085/2 6085/5 decade [1] 6059/16 decide [1] 6077/11 decided [6] 6023/12 6024/11 6032/1 6043/7 6043/10 6107/11 decides [1] 6017/8 decision [2] 6043/14 6079/24 deck [1] 6023/13 declined [1] 6081/10 declining [1] 6084/9 decrease [1] 6082/22 decreased [1] 6064/6 default [71]	6040/2 6042/13 6042/16 6043/15 6048/24 6052/6 6052/18 6053/16 6053/20 6054/3 6054/12 6054/15 6055/3 6055/16 6056/10 6056/11 6056/13 6056/16 6056/20 6057/2 6059/21 6059/23 6060/1 6060/3 6060/6 6060/10 6064/20 6065/2 6065/17 6065/18 6067/15 6069/15 6071/4 6071/16 6073/24 6075/17 6075/19 6075/20 6075/24 6076/2 6076/16 6076/24 6077/4 6077/4 6077/5 6077/15 6078/16 6079/18 6079/25 6080/6 6081/2 6082/18 6087/20 6087/25 6088/9 6089/9 6090/17 6090/18 6093/13 6094/15 6094/23 6095/3 6095/5 6095/9 6096/3 6097/17 6099/2 6099/5 6099/6 6104/13 6104/18 defaulted [1] 6075/6 defaults [19] 6045/9 6047/24 6048/12 6049/16 6057/19 6060/21 6080/22 6080/25 6088/14 6088/17 6088/23 6089/5 6089/18 6091/5 6093/19 6095/22 6099/10 6102/16 6103/20 Defendant [2] 6013/7 6014/7 definitely [2] 6038/21 6039/3 definition [1] 6018/1 definitional [1] 6017/13 degree [1] 6024/10 deliver [3] 6026/19 6034/19 6035/5 delivers [1] 6025/22 delta [1] 6091/23 demand [1] 6051/3 demonstrated [2] 6046/16 6069/7 demonstrative [1]		

D	6074/5	6103/17	6065/19 6066/19	6099/4 6099/9
distinction... [2]	driver [1] 6085/8	effectively [2]	6087/20 6087/24	et [2] 6013/3
6033/10 6079/1	Duck [10] 6090/22	6065/8 6103/15	6096/14 6096/14	6016/3
distinguishing [1]	6095/2 6095/17	effects [9]	6098/7 6098/12	EU [1] 6046/3
6021/12	6095/20 6095/21	6020/7 6085/10	6098/16 6098/22	Euro [2] 6095/10
distribution [18]	6097/9 6098/6	6085/15 6085/18	6102/13 6102/16	6095/17
6038/5 6038/11	6101/6 6101/10	6088/16 6089/16	6108/12	Europe [8]
6039/9 6042/3	6101/12	6089/17 6089/19	engines [7]	6091/15 6094/21
6042/15 6045/3	Duck's [2]	6090/24	6065/5 6071/24	6095/11 6107/6
6047/17 6047/20	6099/13 6101/5	efficiency [1]	6072/21 6075/11	6107/7 6107/12
6048/2 6048/5	DuckDuckGo [8]	6051/15	6079/11 6079/16	6107/14 6108/1
6048/9 6049/5	6045/5 6045/14	either [5]	6079/25	evaluate [3]
6049/7 6049/13	6045/15 6045/22	6029/16 6052/5	enhanced [5]	6028/4 6064/4
6052/16 6056/2	6046/2 6066/23	6066/5 6086/20	6031/25 6034/9	6091/23
6069/7 6088/8	6100/18 6105/8	6099/21	6034/13 6034/15	evaluated [1]
distributors [1]	due [3] 6042/14	election [1]	6034/19	6054/3
6090/13	6049/5 6049/13	6063/7	enhancement [2]	even [9] 6032/13
DISTRICT [4]	Duo [5] 6042/5	elements [1]	6034/14 6034/22	6032/16 6055/4
6013/1 6013/1	6102/24 6106/8	6028/22	enhancements [2]	6066/6 6080/6
6013/11 6014/24	6107/12 6107/22	eligible [1]	6034/10 6035/8	6086/7 6090/18
diverted [1]	during [18]	6108/9	enough [1]	6093/1 6100/18
6064/9	6023/6 6024/11	else [9] 6017/22	6039/14	everybody [1]
document [9]	6027/4 6031/13	6030/8 6071/3	enroll [1] 6108/8	6082/17
6021/18 6022/8	6036/23 6038/6	6071/16 6077/5	enter [2] 6102/8	everyone [2]
6024/10 6026/8	6038/12 6044/10	6086/1 6088/23	6102/10	6016/6 6110/10
6039/22 6045/12	6059/2 6081/4	6092/4 6099/5	entered [9]	everywhere [1]
6062/10 6062/25	6081/17 6083/7	elsewhere [2]	6038/5 6038/11	6070/18
6064/18	6091/24 6092/22	6060/24 6077/11	6039/9 6040/7	evidence [28]
documents [16]	6098/5 6104/12	emphasize [3]	6053/7 6053/9	6017/25 6017/25
6019/1 6019/15	6106/19 6109/20	6018/2 6090/6	6055/14 6062/10	6025/24 6026/2
6019/17 6021/7	dust [1] 6080/4	6090/16	6087/12	6026/5 6028/10
6029/19 6029/19	DX15 [1] 6031/3	empirical [4]	enters [1] 6102/6	6045/9 6055/13
6029/25 6029/25	DX15-015 [1]	6029/15 6030/8	entire [1] 6024/7	6057/13 6057/14
6030/16 6032/21	6031/3	6035/25 6064/4	entirely [3]	6058/15 6059/9
6033/24 6034/4	DXD16.005 [1]	employed [1]	6024/24 6057/15	6059/10 6059/22
6054/6 6057/17	6068/4	6030/3	6057/20	6059/25 6060/8
6067/20 6082/5	DXD16.006 [1]	employs [1]	entitled [1]	6060/22 6062/10
DOJ [7] 6013/13	6072/24	6030/9	6111/5	6063/20 6080/24
6016/4 6016/8	DXD16.007 [1]	encouraged [1]	entry [5] 6059/20	6090/25 6091/10
6036/24 6037/3	6076/21	6106/13	6066/20 6074/11	6093/23 6105/6
6037/8 6037/14	DXD16.010 [2]	encouragement [1]	6074/16 6074/16	6105/10 6105/12
dollar [1]	6080/11 6083/24	6103/12	episode [2]	6105/13 6107/1
6034/25	E	encouraging [1]	6059/15 6082/1	exact [3] 6017/7
dominant [5]	earlier [4]	6104/16	episodes [1]	6067/19 6096/19
6099/24 6100/1	6040/3 6061/9	end [7] 6017/19	6022/11	exactly [26]
6100/1 6100/6	6081/25 6106/8	6035/1 6043/17	equal [1] 6100/4	6019/7 6019/11
6100/7	early [1] 6037/5	6061/4 6082/18	equalized [1]	6021/2 6021/4
done [23] 6028/4	ears [1] 6017/3	6106/3 6110/9	6035/4	6022/12 6025/11
6029/15 6030/13	easily [2] 6066/5	ended [5] 6027/11	equate [1] 6086/9	6027/4 6028/7
6048/19 6048/22	6066/6	6106/4 6106/5	equation [1]	6031/9 6036/3
6049/2 6049/15	economic [6]	6106/8 6106/9	6055/1	6036/5 6048/25
6049/17 6050/20	6033/5 6044/5	engaged [1]	equivalent [2]	6050/9 6053/19
6050/24 6064/4	6044/7 6054/19	6093/6	6019/17 6073/25	6056/25 6065/23
6064/7 6068/21	6054/24 6110/8	engine [43]	essence [3]	6066/15 6066/16
6071/7 6073/1	economically [1]	6040/14 6041/7	6033/16 6085/1	6077/1 6083/2
6075/23 6076/2	6086/11	6042/1 6042/13	6103/19	6087/14 6087/15
6084/13 6087/16	economics [2]	6043/3 6044/13	essentially [3]	6097/3 6097/19
6092/6 6092/9	6033/17 6035/2	6044/24 6045/6	6019/17 6084/4	6098/14 6104/2
6104/22 6107/7	economist [2]	6046/10 6048/7	6107/18	Examination [2]
down [3] 6021/2	6103/16 6110/6	6048/11 6048/20	established [1]	6015/4 6016/25
6035/24 6082/13	Edge [5] 6042/7	6052/6 6052/18	6081/25	examined [2]
download [1]	6042/16 6047/12	6053/12 6054/4	estimate [5]	6085/11 6085/17
6075/6	6102/25 6107/23	6054/12 6054/22	6025/2 6045/21	example [18]
downloaded [1]	effect [9]	6055/4 6055/5	6046/1 6096/20	6020/9 6028/8
6074/20	6039/15 6040/11	6055/9 6055/16	6097/23	6029/20 6031/4
dramatic [1]	6047/7 6048/13	6055/22 6056/16	estimated [1]	6034/2 6034/4
6084/7	6050/4 6087/9	6056/20 6057/7	6096/15	6035/16 6039/23
drawing [1]	6088/13 6100/21	6059/23 6060/5	estimates [4]	6042/5 6055/12
		6063/18 6065/12	6099/1 6099/3	6057/17 6072/1

E	6097/12 6097/13 explain [3] 6063/3 6086/1 6097/23 explained [2] 6022/14 6037/3 explaining [1] 6019/20 explicit [1] 6103/13 explicitly [5] 6034/4 6057/1 6089/6 6103/9 6103/11 expressed [7] 6038/20 6047/23 6047/24 6063/21 6084/23 6093/4 6093/5 extended [1] 6031/25 extension [2] 6031/4 6034/21 extensions [5] 6030/23 6030/24 6031/22 6032/13 6034/19 extent [11] 6023/24 6024/3 6024/15 6029/6 6029/16 6030/3 6030/9 6039/11 6048/16 6048/17 6086/7 extracts [1] 6032/12	felt [1] 6107/25 fifth [2] 6013/17 6068/4 figure [6] 6068/9 6068/15 6076/18 6078/21 6080/9 6080/16 figure 90 [1] 6078/21 figures [1] 6067/22 filed [1] 6044/10 finance [1] 6106/5 find [4] 6022/12 6033/5 6104/19 6104/20 finds [1] 6017/15 fine [3] 6074/3 6092/5 6106/24 finish [1] 6058/10 Firefox [13] 6043/15 6043/18 6043/19 6055/16 6056/21 6080/2 6080/6 6082/2 6082/2 6082/23 6084/2 6084/13 6084/16 Firefox's [2] 6043/22 6044/1 firm [6] 6033/6 6094/12 6099/25 6100/1 6100/6 6100/7 firm's [1] 6051/14 firms [1] 6056/13 first [25] 6021/21 6021/21 6021/22 6031/6 6037/21 6041/9 6041/11 6052/17 6052/23 6053/1 6053/4 6053/7 6053/20 6058/14 6062/22 6063/2 6063/11 6064/3 6073/16 6078/16 6078/17 6080/19 6090/16 6093/17 6105/4 five [4] 6058/5 6076/10 6099/4 6099/11 fixed [1] 6019/24 flag [1] 6068/13 flipped [1] 6088/9 Floor [1] 6014/4 fly [1] 6072/11 focus [1] 6039/19 focused [2] 6040/10 6098/1 focuses [2] 6040/5 6071/20 focusing [2] 6072/5 6076/18	folder [1] 6102/20 following [4] 6061/23 6076/16 6091/3 6091/4 For Plaintiffs [1] 6013/21 foreclose [1] 6085/6 foreclosed [3] 6085/23 6094/23 6098/16 foreclosure [11] 6086/9 6086/12 6088/19 6090/22 6093/11 6093/18 6094/5 6097/15 6097/24 6099/14 6100/19 foregoing [1] 6111/4 foreign [1] 6055/9 foreshadowing [2] 6101/16 6101/20 forget [2] 6021/8 6041/12 forgive [1] 6094/17 form [2] 6047/15 6087/14 format [12] 6024/19 6029/13 6030/18 6030/20 6031/4 6031/24 6031/25 6034/10 6035/8 6035/16 6035/16 6035/20 formats [2] 6024/16 6024/18 formed [1] 6047/19 forms [1] 6029/12 forth [2] 6057/14 6097/16 forward [2] 6067/10 6102/4 found [2] 6054/16 6054/17 four [6] 6021/3 6021/16 6021/25 6022/3 6033/15 6062/1 fourth [2] 6021/16 6021/22 fraction [1] 6090/4 free [2] 6032/4 6056/14 frequency [1] 6109/1 front [2] 6097/2 6097/2 function [1] 6106/6 fundamental [2] 6099/23 6100/9	G Gabriel [3] 6060/11 6060/16 6060/18 gain [2] 6059/18 6082/20 gained [6] 6049/4 6049/6 6049/11 6049/12 6081/1 6081/11 gains [1] 6039/24 gap [9] 6092/7 6092/9 6092/14 6092/16 6092/23 6093/1 6093/3 6093/4 6095/23 gave [6] 6027/24 6032/3 6036/17 6044/3 6067/24 6079/3 gears [1] 6036/16 general [3] 6018/3 6063/18 6081/6 generally [1] 6032/11 gets [8] 6026/16 6033/16 6070/10 6072/14 6075/7 6094/5 6095/1 6097/18 Giannandrea [1] 6064/16 given [6] 6027/21 6027/25 6037/7 6068/2 6090/25 6107/6 gives [6] 6028/21 6032/23 6060/2 6072/12 6077/4 6077/6 giving [2] 6063/2 6076/12 goes [3] 6020/3 6072/20 6074/7 good [8] 6016/6 6016/12 6022/10 6023/23 6054/18 6054/23 6067/2 6067/11 goods [4] 6019/23 6019/24 6020/1 6020/3 GOOGLE [197] Google's [26] 6024/1 6024/5 6039/5 6041/16 6042/2 6043/11 6043/12 6043/12 6045/3 6049/7 6066/24 6071/10 6071/11 6084/21 6085/10 6085/15 6086/10 6092/23 6094/13 6098/8 6098/8 6099/1 6099/9 6100/16 6101/6 6107/2
	F Facebook [1] 6033/7 faces [1] 6095/20 fact [14] 6024/21 6025/22 6026/20 6028/23 6035/15 6047/11 6048/13 6050/3 6055/7 6058/19 6082/1 6082/7 6084/6 6102/18 factor [2] 6026/3 6054/3 factors [1] 6018/8 facts [1] 6026/3 fair [7] 6039/14 6039/18 6040/5 6046/6 6069/21 6071/14 6077/16 fairly [5] 6026/13 6026/15 6026/15 6026/16 6100/24 familiar [4] 6066/1 6066/17 6073/2 6086/3 far [3] 6068/12 6072/6 6077/20 feature [1] 6027/17			

G	6033/19 6048/14 6054/11 6067/24 high-level [1] 6067/24 higher [6] 6032/12 6033/2 6083/8 6083/10 6098/8 6098/9 highest [3] 6021/14 6053/22 6054/22 historically [1] 6047/12 hit [1] 6079/22 hold [1] 6019/24 holistically [1] 6075/16 home [5] 6065/17 6104/13 6104/18 6105/24 6106/2 Honor [26] 6016/8 6016/9 6016/15 6016/24 6019/19 6021/10 6023/18 6028/1 6028/23 6031/11 6036/12 6039/22 6067/1 6068/6 6088/13 6090/3 6097/7 6097/10 6099/1 6100/1 6100/19 6101/17 6101/19 6102/3 6107/14 6108/25 HONORABLE [1] 6013/10 HOOK [3] 6014/23 6111/3 6111/10 hope [1] 6101/1 hoping [1] 6061/1 horrible [1] 6090/22 hotseat [1] 6103/3 hour [1] 6109/25 huge [1] 6095/23 hundred [1] 6053/18 hypothetical [2] 6090/16 6093/10	6074/12 IL [1] 6013/20 illegally [1] 6036/25 imagine [1] 6081/9 impact [2] 6044/8 6047/25 impacted [1] 6047/21 impactful [1] 6033/20 impacts [4] 6051/3 6063/4 6080/22 6080/24 implemented [1] 6030/14 implementing [2] 6103/12 6104/6 imply [1] 6046/4 important [3] 6052/7 6093/21 6093/22 impossible [1] 6025/4 improve [1] 6024/8 improved [6] 6023/25 6024/4 6024/16 6024/17 6050/13 6098/16 improvement [1] 6081/3 improvements [3] 6022/19 6022/22 6050/2 improves [4] 6025/21 6026/18 6026/19 6109/14 incentives [3] 6088/2 6090/9 6090/23 incentivizing [1] 6109/9 included [1] 6073/18 includes [1] 6070/20 including [1] 6029/19 increase [12] 6020/21 6025/2 6025/13 6025/15 6028/12 6032/1 6051/10 6051/11 6081/1 6081/14 6081/15 6081/21 increased [16] 6023/16 6024/21 6025/15 6025/23 6026/19 6027/2 6027/3 6027/10 6027/18 6027/18 6032/18 6032/20 6050/21 6051/1 6064/5 6081/22 increases [5] 6020/5 6020/6 6025/10 6025/23	6050/16 increasing [3] 6061/5 6061/8 6064/1 increasingly [2] 6064/9 6064/14 independent [1] 6019/4 index [22] 6018/21 6018/25 6019/15 6019/16 6019/18 6019/18 6019/21 6019/21 6019/24 6020/12 6020/22 6020/24 6021/5 6022/9 6022/10 6022/15 6022/18 6023/5 6023/6 6023/10 6025/18 6025/19 indicate [2] 6026/4 6030/16 indicative [1] 6017/17 individual [1] 6045/8 indulgence [1] 6036/12 industrial [1] 6100/5 inferior [2] 6048/7 6048/11 inform [1] 6085/21 information [3] 6030/22 6032/17 6033/21 initial [3] 6027/12 6053/9 6087/3 innovating [1] 6024/8 innovation [1] 6027/17 innovations [2] 6023/25 6024/4 input [1] 6089/17 Instagram [1] 6017/6 instance [2] 6027/16 6065/23 instances [3] 6027/1 6055/8 6065/22 instead [10] 6044/13 6044/14 6044/21 6084/24 6095/20 6104/24 6105/1 6105/3 6105/8 6105/10 instituted [1] 6046/14 intended [1] 6079/3 intent [3] 6028/20 6029/2 6063/13 intention [1] 6063/21	interest [4] 6052/10 6052/12 6105/22 6105/24 interested [5] 6060/14 6105/11 6105/16 6105/17 6106/3 interesting [1] 6077/18 interface [1] 6103/24 interpretation [1] 6110/2 interrupt [2] 6016/19 6110/1 into [24] 6019/10 6023/13 6033/15 6038/5 6038/11 6039/10 6039/17 6040/7 6053/7 6053/9 6055/14 6072/2 6075/1 6077/24 6078/21 6087/12 6091/19 6097/7 6102/6 6102/8 6102/10 6102/20 6108/8 6110/2 introduce [2] 6024/18 6098/22 introduced [6] 6023/25 6024/4 6024/16 6027/16 6052/23 6058/20 intrusions [1] 6109/7 invents [1] 6098/7 investment [9] 6022/24 6023/4 6023/8 6034/9 6034/13 6034/17 6034/20 6034/25 6035/1 investments [2] 6035/4 6090/10 involve [1] 6088/24 involved [3] 6033/24 6053/10 6089/11 involves [1] 6030/20 involving [1] 6056/2 iOS [1] 6060/1 iPads [2] 6051/19 6051/25 iPhone [2] 6065/18 6074/20 iPhones [2] 6051/19 6051/25 issue [1] 6017/10 issued [1] 6087/6 issues [4] 6037/12 6037/12 6037/13 6107/25
H	Hal [1] 6034/4 hand [1] 6060/7 handing [1] 6061/11 happen [3] 6058/24 6067/10 6100/22 happened [6] 6024/25 6036/5 6059/15 6082/9 6090/12 6094/2 happening [4] 6043/5 6050/9 6057/19 6082/14 happens [3] 6094/5 6094/6 6094/14 happy [2] 6043/17 6043/25 hard [8] 6024/24 6051/7 6054/16 6076/17 6076/18 6087/14 6087/15 6100/16 harm [3] 6043/15 6044/5 6085/6 harmed [4] 6043/18 6043/22 6044/1 6048/2 head [1] 6067/19 heard [3] 6017/20 6017/20 6105/23 help [2] 6094/17 6110/9 helpful [2] 6018/18 6032/17 hesitant [1] 6056/25 hey [4] 6053/10 6053/11 6053/11 6104/9 hiding [1] 6068/21 Higgins [1] 6105/23 high [5] 6032/14	HONORABLE [1] 6013/10 HOOK [3] 6014/23 6111/3 6111/10 hope [1] 6101/1 hoping [1] 6061/1 horrible [1] 6090/22 hotseat [1] 6103/3 hour [1] 6109/25 huge [1] 6095/23 hundred [1] 6053/18 hypothetical [2] 6090/16 6093/10	I icon [1] 6104/17 idea [5] 6020/6 6020/12 6060/3 6077/4 6104/1 ideally [2] 6085/11 6085/17 identified [5] 6027/1 6027/15 6046/20 6093/12 6094/23 identify [1] 6027/9 IE [1] 6047/12 ignore [3] 6077/11 6077/14 6077/14 iGSA [2] 6074/10	

J	6027/17 6029/18 6029/19 6029/24 6029/25	6088/6	6048/16 6051/9 6057/13 6059/3 6059/4 6065/21 6071/18 6082/11 6088/8	6033/17 manifestation [1] 6066/19 manner [1] 6052/10 manufacturer [1] 6052/12 manufacturers [1] 6057/5 many [9] 6029/18 6029/25 6031/15 6054/8 6054/15 6061/10 6061/10 6066/15 6080/1
jeopardizing [1] 6108/14	launcher [10] 6103/18 6103/19 6103/21 6103/23 6104/1 6104/4 6104/10 6104/12 6104/17 6106/11	line [6] 6066/15 6076/19 6077/24 6077/25 6078/5 6103/16	looking [11] 6023/10 6032/6 6039/22 6070/12 6071/13 6075/16 6078/14 6082/10 6082/24 6083/1 6084/4	marked [2] 6015/11 6068/4 market [73] 6017/9 6017/10 6017/15 6017/16 6017/16 6017/25 6018/1 6018/3 6018/9 6025/24 6026/4 6026/22 6028/16 6028/16 6028/18 6029/3 6029/4 6029/5 6037/11 6037/12 6037/22 6037/23 6038/1 6038/2 6038/7 6038/8 6038/16 6038/17 6038/25 6038/25 6039/3 6041/10 6046/21 6046/23 6047/1 6047/1 6050/8 6050/18 6051/18 6051/19 6051/24 6051/25 6052/1 6052/3 6052/3 6052/5 6059/12 6059/13 6059/16 6059/18 6059/18 6077/25 6078/7 6078/18 6078/19 6079/2 6079/4 6079/5 6079/7 6080/8 6082/12 6085/7 6088/19 6089/22 6089/23 6089/25 6090/1 6090/4 6091/20 6093/11 6094/18 6098/13 6099/25
job [1] 6054/18	launchers [2] 6103/12 6103/18	links [2] 6031/20 6079/19	lost [6] 6038/16 6038/21 6038/24 6039/3 6099/2 6099/5	maintaining [1] 6036/25
JOHN [2] 6014/7 6016/4	launching [1] 6104/12	listed [1] 6068/16	lot [8] 6032/6 6059/4 6060/18 6066/3 6083/16 6090/11 6090/11 6094/14	major [1] 6088/4
JONATHAN [1] 6014/2	Law [1] 6014/3	listen [1] 6042/9	looks [1] 6031/2	majority [5] 6067/19 6076/2 6080/5 6080/10 6083/16
JR [1] 6013/22	lawyer [1] 6065/20	lists [2] 6069/8 6069/8	lose [2] 6099/2 6099/6	makes [7] 6025/14 6026/8 6029/12 6033/21 6045/9 6100/16 6109/13
JUDGE [2] 6013/11 6105/23	leads [4] 6032/18 6088/17 6088/18 6097/24	little [13] 6016/11 6047/10 6048/17 6048/23 6056/25 6057/19 6067/4 6067/10 6068/11 6075/13 6078/11 6083/12 6088/21	loud [1] 6075/18	making [7] 6033/10 6064/14 6078/13 6078/25 6086/8 6109/6 6109/13
jump [2] 6084/11 6097/7	least [6] 6037/5 6060/12 6060/13 6072/13 6093/25 6094/11	load [8] 6044/12 6047/11 6047/16 6049/12 6065/12 6065/14 6108/11 6108/19	low [2] 6018/10 6079/9	manages [1] 6032/14
jumps [1] 6051/21	leave [5] 6017/19 6054/17 6054/19 6081/12 6094/18	loaded [6] 6057/6 6058/17 6096/4 6104/24 6105/1 6105/25	loyal [1] 6045/5	managing [1]
June [1] 6061/11	legally [3] 6065/23 6066/16 6104/7	loading [7] 6102/12 6102/15 6103/1 6104/4 6105/7 6106/20 6107/3	lunch [2] 6109/18 6110/11	
June 6th [1] 6061/11	length [1] 6088/18	locking [2] 6085/10 6085/16		
Justice [3] 6013/14 6013/17 6013/19	less [10] 6029/7 6036/6 6081/10 6081/10 6088/3 6090/1 6091/7 6091/19 6092/15 6109/25	long [5] 6021/17 6028/2 6056/25 6068/23 6100/25 6100/25		
K	lets [1] 6060/1	long-term [1] 6100/25		
keep [4] 6076/17 6077/2 6092/6 6094/8	letter [1] 6109/8	look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
keeps [1] 6063/5	level [9] 6017/12 6034/24 6036/9 6067/24 6083/12 6084/4 6090/13 6090/14 6091/13	long-term [1] 6100/25		
KENNETH [3] 6013/13 6014/7 6016/3	levels [1] 6090/6	look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
kept [1] 6092/5	liberty [1] 6068/11	locking [2] 6085/10 6085/16		
kind [12] 6020/6 6033/18 6045/17 6065/9 6089/14 6097/25 6099/3 6100/5 6100/14 6103/15 6103/15 6107/16	license [4] 6107/8 6107/11 6107/15 6107/18	long [5] 6021/17 6028/2 6056/25 6068/23 6100/25 6100/25		
knobs [4] 6026/9 6028/6 6028/12 6029/7	licenses [1] 6047/16	long-term [1] 6100/25		
knows [1] 6060/16	licensing [1] 6107/8	look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
Korea [1] 6055/12	lifted [1] 6080/18	locking [2] 6085/10 6085/16		
L	light [3] 6017/25 6075/9 6076/22	long [5] 6021/17 6028/2 6056/25 6068/23 6100/25 6100/25		
labeled [1] 6073/24	likelihood [2] 6032/18 6032/20	long-term [1] 6100/25		
Labs [1] 6107/19	likely [5] 6033/21 6085/9 6085/15 6088/4	look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
language [3] 6086/2 6103/15 6104/6		long-term [1] 6100/25		
large [3] 6080/5 6080/10 6092/23		look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
larger [5] 6033/20 6046/21 6046/24 6068/15 6088/3		long-term [1] 6100/25		
LaSalle [1] 6013/20		look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
last [5] 6024/10 6059/12 6059/13 6063/1 6100/19		long-term [1] 6100/25		
later [3] 6023/20 6039/17 6101/21		look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
latest [2] 6060/1 6109/14		long-term [1] 6100/25		
latter [1] 6058/25		look [30] 6018/13 6018/16 6019/24 6020/3 6026/7 6026/13 6035/13 6037/14 6037/17 6039/25 6061/13 6068/3 6071/7 6071/15 6072/23 6076/5 6077/3 6080/11 6083/4 6084/8 6086/18 6086/22 6087/8 6088/24 6090/24 6092/19 6093/7 6097/2 6106/14 6106/15		
launch [6] 6027/9		long-term [1] 6100/25		

M	6026/9 6028/5 6028/12 6029/17 MEHTA [1] 6013/10 memory [1] 6021/24 men's [1] 6031/21 mentioned [3] 6041/12 6074/25 6106/8 merits [1] 6051/13 messed [1] 6068/2 MICHAEL [2] 6015/3 6016/25 Microsoft [34] 6028/5 6028/8 6028/11 6028/15 6028/17 6028/20 6028/21 6028/24 6028/24 6028/25 6029/2 6029/3 6029/7 6030/14 6035/7 6035/20 6042/5 6047/10 6047/14 6047/20 6057/4 6057/12 6057/16 6061/1 6102/24 6103/21 6103/24 6104/4 6104/9 6106/8 6106/14 6107/6 6107/11 6107/22 Microsoft's [9] 6028/13 6048/1 6048/5 6048/9 6056/15 6057/21 6099/9 6103/23 6106/15 mid [1] 6084/9 mid-2016 [1] 6084/9 middle [2] 6070/17 6098/5 midst [1] 6098/20 might [11] 6033/11 6034/2 6041/14 6045/10 6045/10 6055/22 6060/4 6070/25 6090/18 6093/14 6097/7 mindful [1] 6076/12 misheard [1] 6018/1 missed [2] 6040/20 6105/3 misspoke [1] 6040/23 mixed [1] 6021/9 mobile [30] 6020/22 6040/15 6041/8 6049/17 6049/21 6049/24 6050/1 6050/2 6050/6 6050/13 6050/15 6050/17 6050/21 6050/25 6051/3 6051/11	6057/5 6057/7 6057/21 6069/24 6071/19 6078/14 6078/15 6078/19 6078/22 6079/8 6096/20 6096/21 6096/21 6096/22 mode [2] 6059/21 6059/24 modeled [1] 6088/7 modification [2] 6068/13 6069/4 modified [1] 6068/13 moment [9] 6036/13 6058/18 6063/23 6067/9 6074/25 6076/6 6093/9 6095/2 6109/22 Momiji [1] 6029/10 money [6] 6032/6 6043/12 6053/10 6054/7 6054/8 6066/3 moneys [1] 6047/15 monopolist [1] 6037/5 monopoly [10] 6017/10 6018/9 6037/1 6037/22 6038/12 6038/13 6041/16 6093/6 6100/2 6100/8 month [1] 6019/22 more [62] 6023/9 6024/1 6026/13 6029/7 6032/2 6032/10 6032/11 6032/12 6032/14 6032/15 6032/17 6032/17 6032/23 6032/25 6032/25 6033/2 6033/3 6033/8 6033/9 6033/11 6033/12 6033/13 6033/16 6033/19 6033/20 6033/21 6034/1 6034/11 6034/15 6034/16 6034/20 6034/20 6035/5 6035/5 6035/6 6035/20 6045/24 6048/8 6049/5 6049/8 6049/11 6049/16 6049/21 6049/24 6049/25 6050/7 6050/23 6051/3 6051/5 6064/9 6064/9 6064/23 6077/2 6087/21 6104/23 6105/9 6106/24 6107/5 6109/6 6109/24 6110/2	6110/9 morning [4] 6013/7 6016/6 6016/13 6067/3 most [3] 6040/14 6041/7 6079/21 motivation [1] 6063/13 motives [1] 6053/24 Motorola [1] 6105/7 move [3] 6101/22 6102/4 6110/7 moving [2] 6088/22 6096/11 Mozilla [31] 6040/1 6040/1 6040/6 6042/18 6042/22 6043/7 6043/16 6043/17 6044/5 6054/16 6054/17 6055/14 6055/15 6055/19 6055/19 6057/2 6068/24 6079/10 6079/15 6079/24 6080/4 6081/2 6081/21 6082/5 6082/8 6082/16 6082/17 6082/18 6082/20 6083/1 6084/5 Mozilla's [4] 6043/14 6044/4 6056/21 6081/24 Mozilla-Yahoo [1] 6042/22 Mr. [19] 6016/14 6016/16 6016/20 6025/6 6025/9 6036/18 6036/23 6037/3 6058/1 6058/6 6059/1 6059/3 6059/6 6064/16 6100/12 6105/23 6106/11 6109/17 6109/24 Mr. Cue [1] 6059/6 Mr. Cue's [2] 6059/1 6059/3 Mr. Dintzer [2] 6036/23 6037/3 Mr. Dischler [2] 6025/6 6025/9 Mr. Giannandrea [1] 6064/16 Mr. Higgins [1] 6105/23 Mr. Nadella's [1] 6100/12 Mr. Schmidtlein [4] 6016/14 6016/20 6109/17 6109/24 Mr. Schmidtlein's [1] 6016/16 Mr. Severt [2]	6058/1 6058/6 Mr. Severt's [1] 6036/18 Mr. Tinter [1] 6106/11 Ms. [1] 6064/16 Ms. Braddi [1] 6064/16 much [35] 6019/25 6020/3 6023/9 6029/3 6034/25 6048/24 6049/16 6049/23 6054/6 6064/18 6067/14 6072/7 6072/7 6077/24 6078/3 6078/7 6078/16 6086/15 6094/6 6094/6 6094/7 6094/10 6094/12 6095/4 6095/10 6095/12 6095/13 6095/19 6097/17 6098/23 6099/6 6101/6 6106/3 6109/24 6110/9 Murphy [1] 6086/8 must [1] 6085/6 myself [1] 6096/8 <hr/> N <hr/> Nadella's [1] 6100/12 name [2] 6090/22 6106/2 nature [1] 6057/15 Nebraska [1] 6013/22 necessity [1] 6027/24 need [1] 6110/6 needs [1] 6100/9 negotiation [1] 6099/13 negotiations [1] 6043/5 neither [1] 6063/17 nervous [1] 6016/11 networks [2] 6050/12 6050/16 new [7] 6013/24 6027/17 6027/17 6061/23 6093/13 6098/15 6098/22 next [16] 6020/2 6020/2 6020/4 6020/8 6025/5 6026/7 6035/10 6058/14 6059/20 6072/23 6076/5 6076/21 6099/12 6099/21 6099/22 6101/5 Nokia [1] 6057/6 non [12] 6046/9 6069/17 6069/21
----------	---	--	---	--

N	6013/5 odds [1] 6064/17 OEM [10] 6044/11 6102/6 6102/12 6102/15 6102/19 6103/13 6104/4 6104/11 6108/7 6108/11 OEMs [9] 6044/17 6047/14 6048/6 6048/10 6056/15 6102/8 6108/4 6108/20 6109/9 off [2] 6044/14 6059/16 offer [11] 6037/18 6055/24 6056/12 6058/16 6058/19 6059/23 6060/1 6061/6 6063/11 6087/3 6088/22 offered [40] 6018/9 6030/2 6030/7 6030/11 6037/20 6037/25 6038/4 6038/10 6038/15 6038/23 6039/2 6039/15 6041/15 6041/20 6041/24 6042/11 6044/9 6044/22 6045/3 6047/7 6051/17 6051/23 6052/2 6052/21 6055/2 6058/6 6058/21 6062/12 6062/14 6062/22 6063/17 6064/2 6081/13 6081/20 6084/21 6086/17 6086/21 6087/10 6087/18 6087/22 offering [5] 6039/8 6058/15 6059/20 6060/21 6063/21 offers [1] 6103/21 Official [2] 6014/23 6111/3 often [2] 6032/21 6077/2 omnibox [1] 6069/14 omnibox where [1] 6069/14 once [3] 6068/2 6076/17 6080/4 one [47] 6016/16 6017/4 6018/8 6020/7 6021/4 6021/15 6026/7 6029/24 6031/6 6031/7 6031/8 6032/8 6034/16 6035/13 6035/15 6036/12 6040/8 6045/24 6048/8	6049/8 6049/25 6050/23 6052/13 6055/12 6064/23 6069/22 6073/6 6073/14 6076/15 6080/24 6081/11 6083/18 6086/3 6087/21 6088/9 6090/4 6098/6 6098/11 6098/12 6098/15 6098/18 6098/20 6099/4 6099/7 6099/10 6101/16 6108/12 only [13] 6017/24 6026/5 6028/24 6039/5 6051/6 6053/5 6055/1 6068/22 6092/19 6093/23 6095/22 6098/16 6105/4 onto [1] 6075/6 opening [4] 6036/20 6036/23 6061/12 6087/6 operate [2] 6096/13 6108/4 operating [3] 6050/15 6109/8 6109/14 opined [1] 6084/24 opinion [44] 6018/9 6030/2 6030/7 6030/11 6037/20 6038/4 6038/20 6039/2 6039/8 6039/15 6041/15 6041/16 6041/20 6041/24 6042/11 6044/9 6044/22 6045/3 6047/7 6047/19 6047/19 6047/23 6050/9 6052/2 6061/7 6062/12 6062/14 6062/22 6063/17 6064/3 6064/19 6064/24 6081/13 6081/20 6084/21 6084/23 6086/21 6087/10 6087/18 6087/22 6093/4 6093/5 6097/11 6097/16 opinions [18] 6018/8 6037/18 6037/25 6038/10 6038/15 6038/23 6039/4 6039/19 6047/24 6051/17 6051/23 6055/2 6056/1 6058/5 6058/12 6086/17 6088/22 6110/8 opportunity [1] 6107/6 option [4] 6043/4 6044/19 6044/21	6104/25 organic [1] 6074/24 organization [1] 6100/6 orient [1] 6073/3 original [1] 6071/9 Originally [1] 6032/3 others [2] 6075/15 6094/12 otherwise [3] 6022/16 6064/4 6094/1 ought [1] 6016/7 ourselves [1] 6098/1 out [15] 6022/12 6026/8 6054/16 6054/17 6055/8 6055/11 6060/3 6063/5 6075/18 6076/9 6076/10 6076/10 6081/8 6095/6 6096/3 outcome [1] 6093/19 output [2] 6036/9 6051/10 outside [9] 6065/5 6065/13 6067/16 6075/23 6076/2 6077/4 6077/5 6109/6 6109/21 over [12] 6022/20 6023/16 6024/20 6041/10 6046/16 6057/4 6059/16 6064/8 6068/1 6069/23 6074/4 6075/19 overall [18] 6019/25 6050/22 6051/1 6051/9 6071/10 6077/25 6078/7 6078/18 6078/19 6079/4 6079/5 6079/7 6081/24 6082/11 6082/21 6087/9 6088/13 6091/8 overlap [2] 6039/14 6039/17 overnight [1] 6017/3 overruled [1] 6099/19 oversimplifying [1] 6094/16 overwhelming [3] 6041/12 6076/2 6083/16 overwhelmingly [4] 6040/14 6041/7 6077/10 6077/12 own [3] 6061/5 6064/2 6076/23	P p.m [1] 6110/11 page [6] 6015/2 6032/2 6069/6 6073/3 6073/14 6073/23 pages [3] 6028/1 6061/10 6062/13 paid [3] 6047/14 6052/15 6107/20 panel [1] 6022/6 paragraph [5] 6061/13 6061/14 6061/20 6061/22 6086/16 paragraph 808 [1] 6061/14 part [15] 6025/9 6028/18 6045/2 6048/4 6059/8 6063/6 6067/13 6068/15 6068/22 6080/20 6081/6 6108/20 6109/8 6109/11 6109/12 particular [4] 6027/9 6055/8 6081/14 6108/8 partner [1] 6069/8 Patterson [1] 6013/23 pause [1] 6036/14 pay [11] 6032/15 6032/15 6033/12 6033/13 6033/16 6033/19 6033/19 6056/6 6066/8 6107/18 6107/18 paying [1] 6066/2 payment [2] 6087/5 6109/12 payments [3] 6087/2 6108/14 6109/9 pays [1] 6108/20 PC [5] 6047/14 6048/6 6048/10 6048/23 6056/15 PCs [11] 6020/21 6020/22 6047/12 6047/17 6047/21 6048/20 6048/21 6049/5 6049/11 6069/23 6078/14 people [24] 6028/11 6045/10 6045/13 6045/18 6046/9 6048/13 6051/2 6054/11 6054/15 6054/17 6054/19 6074/25 6075/5 6077/6 6077/7 6077/10 6082/8 6082/23 6083/6 6083/16 6083/17 6083/18 6084/1 6091/16
non... [9] 6070/3 6070/7 6071/23 6075/11 6076/16 6076/24 6102/13 6102/16 6108/12 non-default [2] 6076/16 6076/24 non-Google [5] 6046/9 6075/11 6102/13 6102/16 6108/12 non-Safari [5] 6069/17 6069/21 6070/3 6070/7 6071/23 nor [1] 6063/18 notion [1] 6031/24 November [2] 6040/3 6040/8 November 2014 [2] 6040/3 6040/8 Nowhere [1] 6062/5 number [18] 6019/13 6044/6 6046/22 6066/12 6066/14 6067/19 6069/9 6070/4 6077/19 6078/5 6078/17 6079/7 6091/9 6094/17 6094/18 6096/19 6097/14 6097/24 numbers [14] 6019/10 6067/18 6068/1 6073/18 6073/19 6077/24 6078/8 6078/20 6079/4 6079/5 6082/4 6082/6 6096/23 6096/25 numerically [1] 6030/12 NW [3] 6013/14 6013/17 6014/24 NY [1] 6013/24	O Objection [2] 6062/18 6099/17 Objection's [1] 6099/19 obligated [1] 6056/6 obligation [1] 6056/8 obviously [5] 6017/11 6017/12 6018/2 6069/8 6086/16 occur [1] 6082/7 occurred [1] 6051/10 occurs [2] 6029/22 6098/6 October [1]			

P				
per [10]	6019/10	pertained [1]	6040/6	positions [2]
6020/25	6021/20	6068/22		6021/13 6021/25
6023/7	6032/12	pertains [1]		positive [2]
6033/2	6033/13	6068/22		6054/24 6054/25
6033/14	6033/19	phone [1]	6109/6	possibility [1]
6104/13		phones [2]		6036/4
percent [37]		6020/22	6051/3	post [2]
6025/14	6027/10	pick [1]	6028/2	6092/2
6041/10	6041/14	picking [1]		potential [2]
6046/17	6046/21	6054/22		6021/16 6063/12
6076/10	6076/11	pie [3]	6073/24	potentially [4]
6078/4	6090/1	6076/23	6076/24	6026/6 6063/5
6091/8	6091/12	piece [7]	6026/5	6090/9 6105/11
6091/16	6091/19	6026/21	6026/24	power [32]
6093/10	6093/12	6075/17	6075/17	6017/10 6017/25
6093/14	6094/13	6080/24	6094/8	6018/9 6025/25
6094/17	6094/18	piecing [1]		6026/4 6026/22
6094/20	6094/22	6081/8		6028/16 6028/18
6094/24	6095/6	pitch [1]	6061/3	6028/25 6029/3
6095/14	6095/18	place [7]	6065/4	6029/4 6037/11
6095/23	6096/7	6066/22	6071/16	6037/22 6037/22
6096/15	6097/8	6098/22	6100/21	6038/1 6038/7
6097/8	6097/14	6104/17	6108/3	6038/8 6038/12
6097/17	6098/1	placement [2]		6038/13 6038/17
6098/12	6098/17	6107/16	6107/16	6038/25 6039/3
6098/24		places [3]	6017/6	6041/16 6051/19
percentage [18]		6063/3	6072/8	6051/24 6052/3
6029/21	6045/13	placing [1]		6088/17 6089/4
6045/22	6046/1	6107/20		6089/5 6089/9
6046/20	6068/17	Plaintiff [2]		6093/6 6099/25
6070/16	6070/17	6014/2	6016/4	powerful [4]
6071/1	6071/2	plaintiffs [6]		6049/16 6090/17
6072/13	6072/14	6013/4	6013/13	6090/19 6099/10
6075/18	6075/19	6013/21	6016/8	pre [20]
6075/22	6078/21	6036/24	6086/9	6047/11 6047/16
6078/22	6085/20	plaintiffs' [2]		6049/12 6057/6
percentages [2]		6016/21	6037/4	6065/12 6065/14
6076/13	6077/6	platform [2]		6096/4 6102/12
Perfect [1]		6033/6	6033/8	6102/15 6103/1
6016/23		Play [3]	6107/8	6104/4 6104/24
perform [1]		6107/15	6107/19	6105/1 6105/7
6019/4		please [4]	6017/3	6105/25 6106/20
performance [5]		6038/9	6062/20	6107/3 6108/11
6031/20	6043/21	6109/22		6108/19
6043/25	6050/13	plus [1]	6046/21	pre-load [8]
6109/14		pocket [2]	6051/4	6044/12 6047/11
period [28]		6051/8		6047/16 6049/12
6019/22	6020/2	point [11]	6017/4	6065/12 6065/14
6020/4	6020/8	6025/17	6032/4	6108/11 6108/19
6023/7	6024/8	6035/3	6046/6	pre-loaded [5]
6024/21	6027/5	6062/9	6067/23	6057/6 6096/4
6037/14	6037/17	6086/8	6090/15	6104/24 6105/1
6038/6	6038/7	6098/18	6099/21	6105/25
6038/12	6039/13	points [9]		pre-loading [7]
6042/17	6044/10	6066/12	6067/16	6102/12 6102/15
6053/8	6064/8	6068/18	6069/18	6103/1 6104/4
6081/17	6083/7	6069/21	6072/15	6105/7 6106/20
6092/1	6092/10	6085/10	6085/16	6107/3
6092/13	6092/18	6090/12		preceded [1]
6092/19	6092/22	popular [2]		6092/16
6093/1	6098/21	6040/14	6041/7	preceding [2]
period's [1]		portion [1]		6092/18 6092/19
6020/2		6075/2		precision [1]
personal [1]		position [6]		6077/24
6050/14		6021/9	6021/14	predicate [1]
perspective [1]		6022/6	6034/3	6110/4
6033/6		6034/5	6034/6	predicted [1]
		position's [1]		6029/23
		6032/13		prefer [4]
				6045/4
				6045/22 6046/2
				6077/12
				preference [1]
				6077/5
				preferred [2]
				6045/10 6046/9
				present [8]
				6039/6 6039/15
				6040/11 6050/11
				6064/5 6086/3
				6092/20 6109/23
				presentation [1]
				6080/16
				presented [1]
				6046/17
				pretty [1]
				6081/24
				prevent [4]
				6102/12 6102/15
				6104/4 6107/2
				prevented [1]
				6045/6
				prevents [2]
				6103/6 6104/11
				previous [2]
				6035/13 6035/15
				previously [2]
				6032/5 6084/16
				price [36]
				6018/21 6019/18
				6019/18 6019/21
				6019/21 6019/24
				6019/25 6020/5
				6020/6 6020/12
				6020/21 6020/22
				6020/23 6021/5
				6022/2 6022/9
				6022/10 6022/15
				6022/18 6023/5
				6025/13 6025/15
				6025/18 6025/19
				6025/23 6026/11
				6026/13 6026/21
				6027/2 6027/19
				6032/1 6032/12
				6033/13 6033/14
				6033/17 6033/18
				priced [1]
				6021/2
				prices [5]
				6018/11 6020/9
				6020/10 6021/10
				6028/13
				pricing [16]
				6021/1 6024/19
				6026/9 6026/9
				6028/5 6028/5
				6028/12 6028/12
				6029/6 6029/13
				6029/13 6030/18
				6030/20 6031/24
				6034/9 6036/1
				primary [3]
				6040/5 6054/3
				6058/12
				principle [1]
				6108/16
				prior [11]
				6038/12 6039/10
				6039/21 6073/14
				6074/1 6074/1
				6074/6 6074/11
				6074/15 6076/23
				privacy [1]
				6056/14
				private [5]
				6059/21 6059/23
				6060/3 6060/4
				6060/10
				pro [1]
				6085/3
				pro-competitive
				[1] 6085/3
				probably [3]
				6028/2 6047/25
				6058/4
				problem [3]
				6070/15 6076/20
				6102/2
				problems [2]
				6081/5 6081/6
				proceedings [1]
				6111/5
				produced [1]
				6068/6
				producer [2]
				6019/18 6019/21
				product [10]
				6025/21 6027/17
				6028/22 6035/8
				6051/14 6052/10
				6054/23 6059/12
				6103/21 6104/12
				production [1]
				6051/15
				products [1]
				6028/23
				Professor [10]
				6016/10 6016/12
				6017/2 6017/14
				6036/16 6067/13
				6067/22 6068/8
				6086/8 6109/19
				Professor's [1]
				6097/5
				profit [2]
				6034/25 6052/13
				profits [4]
				6039/23 6100/2
				6100/3 6100/8
				prohibit [2]
				6066/11 6106/20
				Project [1]
				6029/10
				projecting [1]
				6046/4
				projection [3]
				6077/20 6091/11
				6091/15
				promote [2]
				6065/5 6104/8
				promotes [3]
				6079/10 6079/15
				6079/17
				promotions [2]
				6079/19 6079/20
				proof [1]
				6026/22
				proper [1]
				6097/14
				properly [1]

P	6048/14 6051/14 6052/7 6053/22 6054/2 6054/7 6054/9 6054/11 6054/14 6054/22 6055/10 6055/15 6081/3 6081/15 6081/22 6088/4 6090/6 6090/14 6090/19 6091/13 6091/23 6092/7 6092/9 6092/23 6093/23 6098/7 6098/9 6101/5 6101/13	read [3] 6021/6 6086/2 6110/4 reading [2] 6100/12 6107/25 ready [3] 6016/10 6016/14 6067/8 reality [1] 6057/18 realized [1] 6032/6 really [17] 6034/6 6044/19 6083/12 6088/11 6088/11 6090/5 6090/17 6090/25 6091/1 6093/21 6095/15 6095/16 6100/13 6100/20 6103/11 6103/16 6110/7	referred [6] 6028/19 6030/23 6074/12 6097/16 6107/9 6108/4 referring [8] 6057/9 6071/6 6071/12 6073/12 6084/3 6092/15 6105/13 6109/2 refers [1] 6051/14 reflect [1] 6022/16 reflects [3] 6069/18 6069/20 6084/1 refusal [2] 6063/2 6063/11 regard [1] 6047/25 regarding [4] 6030/2 6030/13 6039/4 6058/12 regular [3] 6032/13 6034/21 6035/20 related [1] 6044/7 relatedly [1] 6041/24 relating [3] 6061/7 6062/7 6063/1 relative [4] 6078/19 6079/7 6085/11 6085/17 released [5] 6052/17 6053/2 6053/4 6053/5 6053/21 relevant [10] 6017/9 6017/9 6017/16 6018/9 6024/1 6024/5 6024/9 6037/12 6038/2 6046/23 remedy [1] 6107/14 remember [31] 6018/21 6021/6 6022/14 6030/1 6052/20 6053/3 6056/23 6058/23 6059/8 6059/13 6059/14 6061/9 6068/10 6068/16 6068/19 6068/23 6070/23 6070/24 6076/18 6078/12 6078/13 6078/14 6078/18 6079/1 6079/6 6096/19 6105/18 6106/1 6106/2 6107/25 6108/2 remembering [6] 6025/11 6053/19 6059/4 6062/8 6063/24 6081/23	remind [3] 6019/14 6031/2 6067/25 renewal [2] 6042/24 6101/5 reorient [1] 6097/25 repeat [18] 6024/2 6030/5 6034/12 6038/9 6044/16 6045/24 6048/8 6051/21 6052/23 6055/25 6064/23 6085/14 6086/14 6087/21 6092/3 6092/5 6096/9 6106/24 rephrase [1] 6062/19 replace [2] 6044/23 6104/13 replaces [1] 6103/24 replay [1] 6017/19 reply [1] 6068/15 report [28] 6023/2 6023/10 6027/12 6027/20 6061/12 6061/12 6061/22 6068/9 6068/15 6070/17 6071/19 6072/25 6073/16 6080/18 6080/19 6086/25 6087/3 6087/6 6087/10 6088/7 6096/5 6096/12 6096/24 6097/1 6097/2 6097/13 6097/19 6097/21 Reporter [3] 6014/23 6014/23 6111/3 reports [24] 6037/20 6037/25 6038/4 6038/10 6038/24 6041/21 6041/25 6042/11 6044/9 6044/11 6051/18 6051/24 6055/2 6061/6 6061/10 6062/13 6062/15 6078/1 6084/20 6086/17 6087/23 6089/3 6089/4 6097/12 represent [2] 6068/8 6069/13 represented [1] 6083/22 representing [1] 6074/2 represents [1] 6097/17 reputation [2] 6043/22 6043/24 required [1] 6063/6
properly... [1] 6026/12 prospect [1] 6056/2 protect [1] 6100/11 protecting [2] 6100/2 6100/16 protection [1] 6100/8 provide [3] 6030/21 6033/8 6110/3 provided [10] 6017/16 6018/14 6023/8 6032/9 6046/22 6055/15 6056/1 6064/19 6078/9 6079/2 provider [2] 6056/6 6087/24 provides [3] 6032/16 6032/17 6033/21 providing [1] 6026/12 provision [3] 6062/6 6062/14 6063/11 provisions [5] 6098/3 6104/3 6108/13 6108/22 6108/25 proxy [1] 6046/8 pull [2] 6031/1 6097/5 pun [1] 6079/3 purposes [4] 6037/10 6039/4 6046/22 6070/24 pushed [1] 6058/24 put [23] 6018/24 6023/13 6032/23 6035/1 6048/12 6061/13 6065/17 6067/9 6072/24 6079/22 6082/24 6089/3 6089/4 6089/21 6095/17 6097/1 6102/19 6102/19 6102/24 6102/24 6103/3 6104/8 6106/9 putting [1] 6018/17	quantify [1] 6045/12 quantitative [1] 6036/5 queries [42] 6052/19 6053/14 6064/9 6068/16 6068/17 6069/9 6069/20 6070/16 6070/18 6070/20 6071/1 6071/2 6071/10 6071/11 6071/13 6071/20 6071/23 6071/24 6072/2 6072/5 6072/13 6072/13 6078/22 6078/22 6080/5 6081/1 6083/6 6083/22 6085/21 6086/10 6095/5 6095/6 6095/22 6096/7 6096/16 6096/17 6096/22 6098/2 6098/2 6098/13 6098/17 6098/24 query [10] 6035/12 6035/13 6035/15 6047/21 6049/5 6049/11 6049/13 6069/9 6071/15 6079/22 quickly [2] 6076/9 6110/9 quite [6] 6021/25 6023/1 6045/18 6048/15 6068/23 6098/18 quote [2] 6021/14 6103/14	reason [6] 6028/18 6060/16 6066/3 6066/8 6077/18 6099/20 reasonably [1] 6086/4 reasons [5] 6032/8 6049/25 6054/14 6091/21 6101/9 rebates [1] 6047/15 recall [7] 6018/11 6025/7 6029/10 6029/13 6037/1 6037/5 6040/1 recess [2] 6067/6 6110/11 recognize [4] 6060/5 6065/3 6069/2 6096/24 recognizing [1] 6082/7 recollection [3] 6043/6 6060/13 6081/8 record [3] 6035/19 6067/7 6111/5 recounted [1] 6062/1 recounting [1] 6061/14 recovery [2] 6099/3 6099/9 red [1] 6076/19 redacted [3] 6018/17 6068/5 6080/12 redirect [1] 6016/22 reference [12] 6025/14 6026/8 6029/12 6030/17 6031/22 6055/23 6062/13 6071/7 6102/18 6105/12 6105/19 6105/22		
Q	raise [2] 6018/11 6026/21 rank [1] 6021/15 rapidly [1] 6041/13 rate [1] 6029/24 rates [2] 6024/17 6034/6 re [1] 6096/8 re-center [1] 6096/8 reach [1] 6029/1			

R	6022/17 6025/3	6075/15 6076/16	6074/7 6074/23	6089/25 6090/12
requires [2]	6026/9 6029/22	6077/8 6079/8	6075/1 6077/11	6091/10 6091/13
6102/19 6102/19	6030/18 6031/18	6086/5 6088/2	6077/14 6077/14	6091/15 6093/9
requiring [1]	6031/22 6032/18	6088/4 6090/7	6077/17 6078/16	6093/19 6093/22
6109/11	6034/1 6034/15	6090/9 6090/13	6087/20 6087/25	6094/1 6094/3
respect [2]	6036/21 6037/8	6090/14 6090/15	Safari's [2]	6094/8 6094/9
6037/11 6040/6	6037/18 6037/23	6090/17 6090/21	6059/21 6059/23	6094/11 6095/1
respects [1]	6039/4 6039/6	6090/25 6091/1	sales [4] 6050/16	6095/9 6095/10
6054/8	6040/2 6043/8	6091/14 6091/16	6050/21 6050/25	6095/12 6095/15
responded [1]	6044/15 6046/18	6091/24 6092/7	6051/11	6095/18 6096/3
6101/2	6046/23 6047/3	6092/8 6092/10	SALLET [1] 6014/2	6096/11 6104/13
response [2]	6047/12 6047/17	6092/24 6094/25	same [20] 6032/24	6104/18 6107/15
6036/17 6036/24	6053/2 6053/8	6095/13 6095/19	6034/10 6035/12	se [1] 6019/10
responsiveness [1]	6054/16 6054/22	6099/25 6103/11	6040/9 6044/3	search [169]
6018/10	6056/3 6058/6	6103/13	6046/5 6057/16	searches [2]
rest [4] 6025/11	6058/12 6059/16	rivals' [4]	6064/6 6069/6	6064/14 6073/1
6060/22 6060/24	6063/2 6063/11	6078/6 6090/19	6073/3 6074/6	searches' [1]
6103/13	6063/24 6065/8	6090/23 6098/9	6078/15 6080/12	6022/20
restricted [1]	6065/13 6067/19	ROAS [2] 6024/22	6080/17 6090/5	searching [6]
6106/5	6068/12 6068/24	6025/10	6091/14 6092/15	6048/7 6048/11
restriction [1]	6068/25 6069/10	ROI [6] 6024/22	6093/3 6098/8	6049/21 6049/25
6063/3	6069/18 6070/1	6024/23 6024/25	6101/15	6077/6 6084/13
restrictions [3]	6070/5 6070/11	6025/2 6025/10	Samsung [4]	seat [1] 6016/12
6065/4 6107/17	6070/18 6071/4	6025/16	6044/11 6105/6	second [9]
6108/23	6071/21 6072/6	rough [1] 6019/20	6105/15 6105/17	6021/15 6021/21
restrictive [2]	6072/8 6072/12	roughly [3]	saw [4] 6032/21	6021/21 6021/22
6036/6 6088/3	6072/21 6074/5	6053/8 6076/10	6033/24 6095/1	6034/5 6070/12
result [12]	6074/8 6074/13	6076/10	6100/12	6078/17 6090/21
6047/4 6049/11	6074/17 6074/21	row [2] 6070/10	saying [17]	6093/21
6051/10 6081/2	6075/7 6075/12	6070/13	6034/5 6049/18	Section [1]
6081/3 6081/20	6075/17 6075/20	rows [2] 6070/9	6053/10 6053/25	6014/3
6081/21 6082/1	6076/8 6077/8	6070/10	6054/5 6060/9	secure [1] 6109/6
6082/21 6083/15	6077/16 6077/23	RSA [5] 6070/4	6066/15 6078/24	securing [1]
6100/5 6107/7	6078/20 6080/2	6085/21 6108/9	6083/19 6084/12	6086/4
resulted [8]	6080/7 6080/23	6108/21 6109/9	6097/4 6098/4	security [2]
6043/15 6045/4	6082/9 6083/8	RSAs [1] 6108/3	6098/11 6098/15	6109/3 6109/5
6048/6 6048/10	6083/17 6084/13	Run [2] 6031/5	6099/5 6103/11	seeing [3]
6050/6 6050/16	6088/15 6088/21	6031/18	6104/18	6025/19 6061/16
6081/14 6096/6	6091/6 6092/20	runner [1]	scale [4] 6081/11	6070/22
results [5]	6093/16 6094/24	6031/12	6081/14 6081/21	seeking [2]
6032/2 6047/9	6097/1 6097/3	running [4]	6088/2	6026/25 6046/5
6063/8 6081/15	6097/4 6097/7	6031/10 6031/21	scenario [5]	seems [2] 6028/1
6081/18	6098/11 6098/24	6035/15 6063/1	6089/24 6095/21	6075/4
resume [2] 6067/4	6099/13 6102/9	S	6096/1 6096/11	segments [1]
6109/20	6102/21 6103/1	Safari [56]	6096/12	6059/3
return [11]	6104/17 6104/19	6043/3 6052/4	scenarios [1]	select [1]
6022/24 6023/3	RIM [2] 6057/5	6052/17 6052/22	6088/10	6046/17
6023/7 6034/7	6057/17	6052/23 6053/1	SCHMIDTLEIN [7]	selected [3]
6034/9 6034/13	rise [2] 6050/21	6053/4 6053/21	6014/7 6015/4	6055/3 6087/19
6034/16 6034/20	6050/25	6054/4 6055/4	6016/5 6016/14	6087/24
6034/24 6035/1	rival [27]	6058/17 6058/20	6016/20 6109/17	selecting [1]
6035/4	6044/12 6044/23	6059/7 6059/11	6109/24	6054/3
revenue [15]	6065/12 6065/19	6059/19 6064/10	Schmidtlein's [1]	sell [1] 6061/2
6034/25 6054/24	6088/9 6090/1	6064/15 6064/20	6016/16	seller [1]
6055/24 6056/3	6091/6 6093/10	6064/22 6064/25	score [1] 6021/15	6025/23
6056/5 6056/6	6093/22 6094/5	6065/2 6065/3	screen [50]	selling [1]
6056/17 6056/22	6094/6 6094/10	6065/5 6065/13	6018/17 6046/4	6063/5
6057/22 6087/2	6094/11 6094/25	6065/22 6065/24	6046/5 6046/10	sells [2] 6051/19
6087/5 6087/12	6095/4 6095/7	6065/24 6067/15	6046/12 6046/14	6051/25
6099/6 6108/9	6095/10 6095/12	6067/17 6069/12	6047/4 6048/21	sense [9] 6020/4
6108/14	6095/13 6095/15	6069/17 6069/21	6052/21 6056/12	6040/21 6044/7
review [2]	6095/16 6095/21	6070/3 6070/3	6058/15 6058/16	6046/3 6060/13
6024/20 6059/1	6096/5 6096/14	6070/7 6070/7	6058/19 6058/22	6060/14 6072/6
revolutionized [1]	6097/17 6100/2	6071/2 6071/16	6059/7 6061/13	6103/10 6104/8
6053/25	6102/23	6071/23 6072/3	6061/17 6065/18	sensible [1]
right [97] 6016/6	rival's [1]	6072/7 6072/8	6077/21 6077/25	6086/11
6019/2 6019/5	6104/12	6072/14 6072/16	6078/2 6078/5	sent [6] 6052/19
6019/12 6022/6	rivals [31]	6073/24 6073/25	6088/25 6089/11	6053/14 6053/16
	6046/14 6046/15			6069/9 6069/20

S	6096/15 6096/20 6097/24	6058/14 6059/20 6068/4 6074/1 6074/11 6074/15 6074/17 6076/5 6076/21 6076/22 6076/23 6077/3 6080/12 6080/13 6097/6	6032/3 6033/8 speak [2] 6065/25 6071/9 speaking [4] 6019/23 6022/8 6034/24 6053/23 specific [1] 6020/23 specifically [3] 6043/24 6055/8 6071/12 specifics [1] 6059/4 specifying [1] 6066/7 spend [4] 6035/5 6035/6 6050/6 6100/8 split [1] 6072/6 sponsored [2] 6031/9 6031/17 spotlight [6] 6063/2 6063/8 6063/15 6063/18 6063/22 6093/24 spots [2] 6021/16 6021/16 spread [1] 6039/23 square [4] 6091/3 6093/11 6094/17 6094/22 squashing [6] 6029/13 6029/19 6029/22 6030/3 6030/9 6030/14 standard [1] 6100/5 start [3] 6076/18 6078/24 6087/17 started [7] 6016/7 6059/14 6070/25 6077/19 6077/21 6078/25 6082/2 starts [1] 6084/9 state [4] 6013/22 6013/22 6014/2 6073/6 stated [1] 6097/20 states [13] 6013/1 6013/3 6013/11 6016/2 6016/4 6040/15 6041/8 6047/22 6050/17 6050/25 6060/21 6086/9 6089/11 statistics [2] 6029/25 6078/1 stay [2] 6043/10 6054/12 stayed [1] 6064/6 step [1] 6109/21 stick [3] 6054/15 6093/12 6101/24 still [5] 6060/6 6060/7 6080/9	6082/19 6082/19 stop [1] 6045/1 stops [1] 6104/15 store [5] 6033/13 6033/15 6107/8 6107/15 6107/19 Street [3] 6013/14 6013/17 6013/20 streetlight [1] 6093/24 strength [1] 6093/15 strike [3] 6064/20 6080/20 6108/17 strong [3] 6094/25 6095/15 6095/16 stronger [9] 6094/7 6094/7 6094/10 6094/12 6095/4 6095/10 6095/12 6095/14 6095/19 struck [1] 6100/13 studied [10] 6028/7 6034/5 6050/8 6050/18 6052/1 6052/5 6059/19 6064/11 6091/22 6104/21 study [6] 6023/24 6024/3 6024/15 6045/12 6092/9 6105/5 studying [1] 6045/8 stuff [1] 6110/4 sub [1] 6069/18 subject [1] 6045/20 substantial [15] 6025/24 6026/4 6026/22 6028/16 6037/22 6038/1 6038/6 6038/8 6038/16 6038/25 6051/18 6051/24 6052/3 6062/9 6085/6 substantially [5] 6061/5 6061/8 6062/7 6062/9 6064/1 suggestions [5] 6061/5 6061/8 6064/2 6064/5 6064/14 suggests [1] 6096/5 Suite [2] 6013/20 6013/24 super [13] 6090/19 6090/22 6095/2 6095/17 6095/20 6095/21 6097/9 6098/6
sent... [1] 6080/5	shipped [1] 6105/5			
separate [1] 6056/13	shipping [1] 6057/18			
separately [1] 6060/2	shoes [3] 6031/10 6031/21 6035/15			
separating [2] 6060/3 6081/8	shop [1] 6031/21	slide 69 [1] 6030/18		
serve [3] 6024/1 6024/5 6024/9	short [1] 6028/1	slides [5] 6018/14 6018/14 6058/1 6080/13 6097/6		
served [1] 6086/6	shorthand [1] 6065/9	slot [9] 6021/9 6021/10 6021/21 6021/21 6021/22 6021/22 6022/1 6022/5 6022/8		
Session [1] 6013/7	shortly [1] 6067/5	slots [1] 6022/3		
set [6] 6026/3 6036/6 6056/10 6060/9 6065/18 6097/16	show [6] 6035/10 6054/6 6067/20 6088/13 6088/17 6089/4	small [1] 6081/24		
setting [2] 6060/6 6066/11	showed [3] 6024/11 6080/8 6082/19	SMURZYNSKI [1] 6014/7		
settings [1] 6103/20	showing [1] 6081/7	software [1] 6103/19		
settled [1] 6080/4	shown [5] 6020/16 6022/3 6031/25 6063/14 6073/4	somebody [5] 6060/9 6060/23 6072/2 6088/23 6098/7		
seven [1] 6099/11	shows [2] 6077/10 6080/22	somehow [1] 6045/14		
several [1] 6021/13	side [1] 6074/5	someone [2] 6033/16 6056/11		
SEVERT [3] 6013/16 6058/1 6058/6	significant [5] 6043/15 6044/5 6047/15 6050/1 6091/1	sometimes [4] 6017/24 6022/7 6076/17 6085/25		
Severt's [1] 6036/18	significantly [6] 6018/11 6018/17 6032/2 6041/17 6050/12 6078/6	somewhat [1] 6064/17		
share [46] 6029/5 6041/10 6046/15 6046/22 6047/1 6054/24 6055/24 6056/3 6056/5 6056/6 6056/17 6056/22 6057/23 6059/18 6071/11 6076/16 6077/25 6078/7 6079/5 6079/9 6082/11 6082/20 6082/21 6083/7 6083/9 6085/7 6087/2 6087/5 6087/12 6089/22 6089/23 6089/25 6090/1 6091/11 6091/20 6094/13 6094/18 6095/5 6096/6 6096/15 6096/20 6096/22 6097/24 6099/6 6108/9 6108/14	similar [4] 6034/3 6062/7 6062/9 6079/4	software [1] 6060/9 6060/23 6072/2 6088/23 6098/7		
share-shift [4] 6096/6 6096/15 6096/20 6097/24	similarly [2] 6052/2 6101/10	somewhere [2] 6071/3 6071/3		
shared [1] 6099/3	single [5] 6021/2 6027/16 6052/18 6088/8 6096/4	sorry [35] 6024/2 6026/20 6030/5 6031/5 6034/12 6034/16 6040/16 6041/1 6041/4 6044/16 6045/24 6051/21 6052/23 6055/17 6055/19 6058/10 6061/16 6066/2 6070/6 6070/13 6071/5 6073/12 6073/13 6076/14 6079/13 6083/23 6085/24 6092/3 6096/8 6098/14 6102/19 6102/25 6105/3 6105/12 6107/18 6069/6 6075/22 6076/22 6094/20		
shares [8] 6017/15 6017/16 6078/18 6079/2 6079/4 6080/8 6084/5 6084/7	Siri [5] 6063/1 6063/8 6063/14 6063/18 6063/21	sound [1] 6089/14		
sheds [1] 6017/25	Sitting [1] 6063/24	sounded [1] 6083/12		
shift [6] 6084/7 6089/25 6096/6	situation [1] 6048/23	sounds [3] 6023/23 6086/2 6097/1		
	six [1] 6059/20	South [1] 6013/20		
	size [1] 6030/22	space [3] 6032/2		
	slice [4] 6073/24 6075/9 6075/10 6075/13			
	slices [2] 6074/4 6074/23			
	slide [33] 6018/16 6018/20 6018/20 6018/24 6019/8 6023/13 6025/5 6025/17 6026/7 6026/8 6029/9 6029/9 6029/12 6030/18 6032/5 6035/10 6035/10 6058/5			

S	talked [20] 6018/3 6019/12 6022/11 6023/1 6024/19 6027/12 6028/21 6030/20 6047/10 6049/16 6054/14 6072/19 6074/24 6079/24 6083/11 6087/4 6088/18 6090/22 6091/9 6095/2	6038/20 thereafter [1] 6062/1 thinking [14] 6033/4 6033/24 6071/10 6087/9 6089/15 6089/16 6089/18 6090/7 6090/8 6093/17 6093/18 6094/4 6098/10 6100/6 third [5] 6021/15 6021/22 6021/22 6095/6 6095/22 though [3] 6055/4 6080/6 6090/18 thought [7] 6017/20 6032/22 6040/20 6040/21 6088/12 6091/6 6094/19 thoughts [1] 6055/21 three [4] 6058/5 6058/11 6069/18 6084/7 three days [1] 6084/7 throughout [2] 6024/7 6054/2 thus [1] 6108/12 tied [2] 6088/19 6093/20 timing [1] 6052/20 Tinter [1] 6106/11 to pay [1] 6033/12 today [11] 6031/21 6050/7 6081/25 6092/8 6092/15 6093/3 6097/10 6097/22 6098/9 6101/25 6108/3 today's [1] 6090/6 together [8] 6018/24 6020/4 6020/6 6048/12 6070/4 6070/8 6072/24 6082/24 told [1] 6036/23 took [3] 6018/25 6018/25 6078/21 top [21] 6021/3 6021/4 6021/8 6021/10 6021/11 6021/13 6021/20 6021/21 6021/21 6021/22 6021/24 6021/25 6022/3 6022/8 6031/8 6032/13 6034/3 6034/5 6070/4 6070/10 6070/13 topic [1] 6059/1 topics [1] 6067/1	total [5] 6033/2 6033/13 6069/9 6070/16 6070/18 totally [2] 6016/18 6104/7 track [2] 6052/24 6076/17 traffic [16] 6067/14 6067/15 6067/16 6067/23 6072/20 6074/7 6074/10 6074/19 6075/2 6075/7 6075/10 6085/22 6086/5 6086/7 6091/8 6101/14 transcript [2] 6013/10 6111/4 translates [1] 6091/19 treated [1] 6065/25 tremendous [1] 6029/4 trial [8] 6013/10 6031/10 6031/13 6059/2 6062/11 6062/17 6062/23 6064/3 tried [9] 6025/1 6029/6 6045/12 6071/14 6075/9 6076/21 6083/5 6090/15 6091/23 tries [1] 6072/25 trip [1] 6068/1 trouble [1] 6099/7 true [7] 6027/19 6040/9 6050/19 6051/7 6066/25 6084/14 6111/4 trust [1] 6072/18 try [9] 6032/23 6040/23 6041/4 6042/9 6067/14 6067/21 6072/6 6083/15 6089/21 trying [20] 6021/6 6022/12 6027/12 6027/13 6034/17 6046/8 6052/20 6056/23 6058/18 6058/23 6061/9 6070/22 6076/9 6083/14 6089/14 6090/5 6097/23 6100/10 6105/15 6105/17 turn [5] 6025/5 6029/9 6058/1 6058/5 6076/20 Turning [1] 6040/1 two [10] 6020/20 6029/12 6033/16 6065/24 6070/9 6070/10 6088/6 6090/3 6090/5	6093/16 tying [1] 6084/22 Tyler [1] 6013/23 type [4] 6071/7 6072/2 6074/25 6108/12 typically [2] 6021/11 6021/16
super... [5] 6099/13 6101/5 6101/6 6101/10 6101/12 superior [4] 6041/17 6041/22 6055/5 6101/13 suppose [1] 6093/13 supposed [1] 6061/16 supposedly [3] 6037/21 6038/6 6038/7 sure [31] 6017/4 6018/7 6030/6 6030/7 6035/22 6038/21 6041/11 6045/25 6049/9 6049/10 6050/3 6050/19 6051/2 6051/23 6052/24 6052/24 6073/7 6073/9 6073/10 6076/7 6078/15 6078/16 6079/14 6085/13 6086/15 6096/9 6098/14 6099/21 6109/13 6109/16 6110/5 surely [1] 6044/7 Surface [1] 6042/5 Sustained [1] 6062/19 SW [1] 6014/8 switch [18] 6034/16 6036/16 6041/25 6042/12 6043/7 6043/14 6043/18 6044/1 6044/4 6067/1 6079/25 6080/5 6082/1 6082/17 6082/23 6083/16 6084/10 6091/8 switched [12] 6042/18 6043/2 6080/1 6080/2 6082/2 6083/17 6083/18 6083/18 6084/1 6091/6 6096/2 6096/3 switches [1] 6082/20 switching [2] 6082/16 6084/5 system [2] 6109/8 6109/14	talked [20] 6018/3 6019/12 6022/11 6023/1 6024/19 6027/12 6028/21 6030/20 6047/10 6049/16 6054/14 6072/19 6074/24 6079/24 6083/11 6087/4 6088/18 6090/22 6091/9 6095/2 talking [16] 6023/12 6028/3 6037/12 6037/13 6039/23 6061/21 6065/22 6093/8 6093/20 6094/8 6097/10 6099/10 6099/22 6101/20 6101/24 6107/20 team [1] 6033/24 technological [2] 6023/25 6024/4 technology [4] 6022/20 6022/23 6026/18 6050/2 telling [2] 6084/18 6092/6 tells [6] 6046/12 6046/13 6077/5 6094/11 6095/10 6095/11 term [4] 6053/13 6065/9 6065/10 6100/25 terms [10] 6019/11 6019/20 6032/22 6033/25 6037/22 6057/1 6064/13 6093/25 6106/6 6110/8 testified [10] 6018/3 6026/24 6064/21 6080/1 6080/22 6082/8 6084/6 6097/9 6104/3 6106/12 testify [4] 6059/6 6060/12 6064/17 6083/2 testifying [1] 6036/3 testimony [26] 6022/4 6023/13 6024/11 6025/20 6027/1 6027/15 6027/21 6027/24 6028/10 6028/15 6036/17 6056/1 6058/6 6059/1 6059/3 6059/9 6060/14 6064/12 6082/8 6100/13 6103/7 6105/13 6105/19 6106/2 6109/20 6110/7 thanks [1] 6093/16 that it [1]	total [5] 6033/2 6033/13 6069/9 6070/16 6070/18 totally [2] 6016/18 6104/7 track [2] 6052/24 6076/17 traffic [16] 6067/14 6067/15 6067/16 6067/23 6072/20 6074/7 6074/10 6074/19 6075/2 6075/7 6075/10 6085/22 6086/5 6086/7 6091/8 6101/14 transcript [2] 6013/10 6111/4 translates [1] 6091/19 treated [1] 6065/25 tremendous [1] 6029/4 trial [8] 6013/10 6031/10 6031/13 6059/2 6062/11 6062/17 6062/23 6064/3 tried [9] 6025/1 6029/6 6045/12 6071/14 6075/9 6076/21 6083/5 6090/15 6091/23 tries [1] 6072/25 trip [1] 6068/1 trouble [1] 6099/7 true [7] 6027/19 6040/9 6050/19 6051/7 6066/25 6084/14 6111/4 trust [1] 6072/18 try [9] 6032/23 6040/23 6041/4 6042/9 6067/14 6067/21 6072/6 6083/15 6089/21 trying [20] 6021/6 6022/12 6027/12 6027/13 6034/17 6046/8 6052/20 6056/23 6058/18 6058/23 6061/9 6070/22 6076/9 6083/14 6089/14 6090/5 6097/23 6100/10 6105/15 6105/17 turn [5] 6025/5 6029/9 6058/1 6058/5 6076/20 Turning [1] 6040/1 two [10] 6020/20 6029/12 6033/16 6065/24 6070/9 6070/10 6088/6 6090/3 6090/5	tying [1] 6084/22 Tyler [1] 6013/23 type [4] 6071/7 6072/2 6074/25 6108/12 typically [2] 6021/11 6021/16	
T	table [2] 6070/22 6070/23 talk [6] 6023/11 6036/17 6088/21 6089/8 6101/25 6110/5	talked [20] 6018/3 6019/12 6022/11 6023/1 6024/19 6027/12 6028/21 6030/20 6047/10 6049/16 6054/14 6072/19 6074/24 6079/24 6083/11 6087/4 6088/18 6090/22 6091/9 6095/2 talking [16] 6023/12 6028/3 6037/12 6037/13 6039/23 6061/21 6065/22 6093/8 6093/20 6094/8 6097/10 6099/10 6099/22 6101/20 6101/24 6107/20 team [1] 6033/24 technological [2] 6023/25 6024/4 technology [4] 6022/20 6022/23 6026/18 6050/2 telling [2] 6084/18 6092/6 tells [6] 6046/12 6046/13 6077/5 6094/11 6095/10 6095/11 term [4] 6053/13 6065/9 6065/10 6100/25 terms [10] 6019/11 6019/20 6032/22 6033/25 6037/22 6057/1 6064/13 6093/25 6106/6 6110/8 testified [10] 6018/3 6026/24 6064/21 6080/1 6080/22 6082/8 6084/6 6097/9 6104/3 6106/12 testify [4] 6059/6 6060/12 6064/17 6083/2 testifying [1] 6036/3 testimony [26] 6022/4 6023/13 6024/11 6025/20 6027/1 6027/15 6027/21 6027/24 6028/10 6028/15 6036/17 6056/1 6058/6 6059/1 6059/3 6059/9 6060/14 6064/12 6082/8 6100/13 6103/7 6105/13 6105/19 6106/2 6109/20 6110/7 thanks [1] 6093/16 that it [1]	total [5] 6033/2 6033/13 6069/9 6070/16 6070/18 totally [2] 6016/18 6104/7 track [2] 6052/24 6076/17 traffic [16] 6067/14 6067/15 6067/16 6067/23 6072/20 6074/7 6074/10 6074/19 6075/2 6075/7 6075/10 6085/22 6086/5 6086/7 6091/8 6101/14 transcript [2] 6013/10 6111/4 translates [1] 6091/19 treated [1] 6065/25 tremendous [1] 6029/4 trial [8] 6013/10 6031/10 6031/13 6059/2 6062/11 6062/17 6062/23 6064/3 tried [9] 6025/1 6029/6 6045/12 6071/14 6075/9 6076/21 6083/5 6090/15 6091/23 tries [1] 6072/25 trip [1] 6068/1 trouble [1] 6099/7 true [7] 6027/19 6040/9 6050/19 6051/7 6066/25 6084/14 6111/4 trust [1] 6072/18 try [9] 6032/23 6040/23 6041/4 6042/9 6067/14 6067/21 6072/6 6083/15 6089/21 trying [20] 6021/6 6022/12 6027/12 6027/13 6034/17 6046/8 6052/20 6056/23 6058/18 6058/23 6061/9 6070/22 6076/9 6083/14 6089/14 6090/5 6097/23 6100/10 6105/15 6105/17 turn [5] 6025/5 6029/9 6058/1 6058/5 6076/20 Turning [1] 6040/1 two [10] 6020/20 6029/12 6033/16 6065/24 6070/9 6070/10 6088/6 6090/3 6090/5	U U.S [23] 6013/14 6013/17 6013/19 6014/24 6041/22 6042/1 6044/11 6045/22 6045/24 6046/1 6046/5 6046/17 6050/21 6060/24 6090/1 6091/12 6091/14 6091/19 6094/18 6095/7 6096/17 6096/22 6108/1 ultimate [1] 6044/7 ultimately [3] 6088/17 6093/18 6100/23 unavailable [1] 6086/5 unbundling [2] 6107/7 6107/15 unconditional [9] 6055/24 6056/3 6056/5 6056/16 6056/21 6057/22 6087/2 6087/5 6087/12 under [8] 6031/9 6031/17 6039/23 6039/24 6060/7 6061/22 6065/25 6069/25 underneath [2] 6069/12 6069/18 understandable [1] 6068/3 Understood [5] 6046/25 6073/21 6073/23 6076/20 6079/10 unhappiness [1] 6044/6 uniquely [1] 6028/24 UNITED [11] 6013/1 6013/3 6013/11 6016/2 6040/15 6041/8 6047/22 6050/17 6050/25 6060/21 6089/11 unlike [2] 6043/7 6079/21 unusual [2] 6033/5 6033/9 up [38] 6018/17 6020/1 6020/3 6020/11 6021/9 6023/7 6023/9

U	value [16] 6023/8 6023/16 6025/22 6025/24 6026/12 6026/16 6026/20 6026/21 6027/3 6027/10 6027/13 6027/18 6027/19 6032/9 6032/11 6032/16	6090/25 6091/1 6094/25 weaker [4] 6095/13 6095/16 6095/21 6097/17 Webb [1] 6013/23 week [1] 6100/25 weeks [1] 6018/15 Weinberg [3] 6060/11 6060/16 6060/18 Welcome [1] 6016/12 welfare [1] 6048/3 weren't [3] 6043/25 6099/10 6106/10 what's [13] 6020/14 6020/14 6050/9 6069/6 6073/4 6077/18 6090/25 6093/20 6094/1 6100/21 6103/16 6103/18 6109/5 whenever [2] 6067/8 6099/22 WHINSTON [7] 6015/3 6016/10 6016/12 6016/25 6017/2 6036/16 6067/13 white [1] 6058/4 Who's [1] 6031/12 whole [8] 6020/6 6047/1 6059/15 6066/3 6070/22 6070/23 6090/15 6101/16 widget [8] 6066/19 6066/23 6102/25 6104/10 6106/10 6107/9 6107/17 6107/20 widgets [1] 6066/17 WILLIAM [2] 6013/22 6016/4 Williams [1] 6014/8 willingness [2] 6032/15 6033/19 win [7] 6042/24 6099/13 6100/7 6100/9 6100/16 6101/6 6101/14 Windows [20] 6047/12 6047/14 6047/15 6047/17 6047/21 6048/2 6048/6 6048/10 6048/20 6048/21 6048/23 6049/5 6049/11 6052/22 6052/23 6056/15 6058/20 6059/11 6059/11 6059/19 winner [1]	6021/14 winning [1] 6098/17 wins [1] 6100/2 wireless [8] 6044/12 6050/12 6050/16 6102/9 6108/4 6108/7 6108/11 6108/20 withdrew [1] 6059/14 within [4] 6021/12 6021/14 6039/13 6084/6 without [9] 6019/10 6032/13 6034/10 6034/14 6034/21 6063/2 6086/7 6107/8 6108/14 WITNESS [2] 6015/2 6109/23 witnesses [1] 6064/13 women [1] 6031/21 wonky [1] 6083/12 word [6] 6035/14 6087/5 6089/13 6089/21 6097/4 6105/3 wording [1] 6017/7 words [9] 6019/4 6021/9 6022/5 6067/23 6070/20 6071/3 6076/23 6086/13 6098/20 work [4] 6045/2 6067/13 6067/21 6068/14 world [24] 6036/2 6036/10 6060/22 6060/25 6085/12 6085/17 6086/18 6086/22 6087/11 6087/19 6087/23 6088/7 6088/24 6089/10 6089/10 6089/13 6089/15 6089/20 6089/23 6090/8 6094/2 6095/20 6096/1 6096/3 worlds [3] 6036/4 6089/1 6089/3 worse [1] 6081/9 worth [1] 6081/23 write [2] 6022/9 6086/16 written [1] 6085/4 wrong [1] 6097/3 wrote [1] 6086/13	6043/20 6043/25 6044/1 6044/4 6045/5 6045/13 6045/14 6045/22 6046/2 6054/17 6054/18 6056/20 6056/21 6066/23 6079/25 6080/2 6081/1 6081/3 6081/4 6081/14 6081/15 6081/17 6082/1 6082/11 6082/14 6082/24 6105/8 6105/16 6105/24 6106/4 6106/20 6107/3 year [2] 6019/22 6041/11 years [3] 6054/2 6057/4 6106/19 yesterday [34] 6016/16 6017/4 6018/14 6028/19 6036/3 6036/18 6047/10 6049/16 6049/24 6053/25 6054/14 6058/2 6062/22 6064/3 6068/2 6073/17 6078/5 6080/9 6080/13 6083/4 6084/6 6087/13 6088/13 6088/18 6090/6 6090/16 6095/3 6097/6 6097/9 6097/22 6102/1 6102/18 6105/13 6105/20 York [1] 6013/24
up... [31] 6027/11 6031/1 6032/2 6033/14 6033/15 6036/4 6044/10 6056/11 6061/13 6062/17 6066/11 6068/2 6076/16 6082/18 6084/8 6084/8 6084/11 6085/10 6085/16 6088/20 6090/20 6093/20 6096/24 6097/5 6099/12 6101/5 6104/12 6106/4 6106/5 6106/9 6106/9 updates [1] 6109/1 upgrade [1] 6109/5 upgrades [2] 6109/3 6109/8 upon [2] 6063/7 6093/15 usage [2] 6048/20 6082/22 use [12] 6017/25 6028/12 6037/22 6045/14 6048/24 6053/11 6055/9 6060/23 6066/14 6089/13 6090/14 6104/9 used [12] 6029/7 6029/16 6036/6 6041/13 6048/21 6058/1 6065/9 6065/10 6080/17 6091/15 6103/15 6104/1 user [10] 6032/17 6032/18 6033/22 6043/19 6103/20 6103/23 6103/24 6104/9 6104/16 6104/18 users [18] 6028/20 6028/23 6045/4 6045/8 6046/20 6048/6 6048/10 6049/20 6049/25 6050/6 6061/6 6061/8 6064/2 6080/1 6082/2 6104/20 6106/13 6109/13 uses [1] 6035/8 using [8] 6031/15 6045/6 6051/2 6060/24 6072/25 6078/20 6082/2 6096/20	Varian [1] 6034/4 various [5] 6017/5 6057/5 6062/1 6068/17 6069/8 vast [2] 6067/18 6067/18 verb [1] 6079/14 Verizon [11] 6057/6 6057/17 6105/16 6105/22 6105/23 6105/24 6106/18 6106/20 6107/2 6107/3 6107/3 Verizon's [1] 6106/18 version [5] 6052/21 6058/21 6059/7 6060/1 6107/22 versus [14] 6016/3 6029/7 6034/5 6060/22 6067/15 6071/2 6071/16 6072/14 6078/22 6092/1 6092/11 6099/11 6099/11 6100/10 vertical [1] 6106/5 view [2] 6052/7 6055/20 viewed [1] 6046/7 virtue [1] 6094/23 volume [8] 6047/22 6049/5 6049/11 6049/13 6050/22 6051/1 6071/15 6084/15 volumes [1] 6049/18	W walk [1] 6069/5 wants [1] 6016/20 Washington [6] 6013/5 6013/15 6013/18 6014/9 6014/25 6033/7 watch [1] 6067/9 way [11] 6019/19 6032/10 6032/11 6032/21 6035/6 6054/16 6068/14 6075/1 6083/18 6095/17 6096/19 ways [1] 6026/13 weak [4] 6090/18		
V	valuable [1] 6034/1	winner [1]	Y Yahoo [39] 6028/5 6030/14 6040/2 6042/18 6042/22 6043/15 6043/18	