BEFORE THE UNITED STATES DISTRICT COURT 1 FOR THE DISTRICT OF COLUMBIA 2 3 UNITED STATES OF AMERICA, et al., . Case Number 20-cv-3010 • 4 Plaintiffs, 5 vs. Washington, D.C. 6 . September 18, 2023 GOOGLE LLC, 1:35 p.m. • 7 Defendant. 8 9 SEALED TRANSCRIPT OF BENCH TRIAL, DAY 5 (AFTERNOON SESSION) 10 BEFORE THE HONORABLE AMIT P. MEHTA UNITED STATES DISTRICT JUDGE 11 12 **APPEARANCES:** 13 For DOJ Plaintiffs: DAVID DAHLQUIST, ESQ. United States Department of Justice 209 South LaSalle Street 14 Suite 600 15 Chicago, Illinois 60604 16 For Plaintiffs State of Colorado and State of 17 Nebraska: WILLIAM F. CAVANAUGH, JR., ESQ. Patterson Belknap Webb & Tyler LLP 18 1133 Avenue of the Americas Suite 2200 19 New York, New York 10036 20 For the Defendant: JOHN SCHMIDTLEIN, ESQ. Williams & Connolly LLP 21 680 Maine Avenue Southwest Washington, D.C. 20024 22 23 -- continued --24 25

APPEARANCES (CONTINUED): For the Defendant: MICHAEL SOMMER, ESQ. Wilson Sonsini Goodrich & Rosati 1301 Avenue of the Americas 40th Floor New York, New York 10019 Official Court Reporter: SARA A. WICK, RPR, CRR 333 Constitution Avenue Northwest Room 4704-B Washington, D.C. 20001 202-354-3284 Proceedings recorded by stenotype shorthand. Transcript produced by computer-aided transcription. 

C O N T E N T S TESTIMONY Direct Examination..... 1168 JERRY DISCHLER Direct Examination..... 1229 Direct Examination..... 1253 Direct Examination..... 1281 Cross-Examination..... 1286 EXHIBITS RECEIVED PSX191..... 1188 UPX2001..... 1258 

1	PROCEEDINGS
2	(Call to order of the court.)
3	THE COURT: All right. I hope everybody had a nice
4	lunch break.
5	Mr. Dahlquist, we are ready to go when you are.
6	MR. DAHLQUIST: Thank you, Your Honor.
7	JERRY DISCHLER, WITNESS FOR THE PLAINTIFFS, RESUMED STAND
8	DIRECT EXAMINATION (Continued)
9	BY MR. DAHLQUIST:
10	Q. Mr. Dischler, welcome back from lunch.
11	Mr. Dischler, during the lunch break, did you speak with
12	anyone about your testimony today?
13	A. No.
14	Q. Thank you. Mr. Dischler, I would like to talk to you about
15	the various types of advertisements that can be purchased on
16	Google.
17	Companies, advertising agencies, and even individuals can
18	purchase advertisements from Google; correct?
19	A. Yes.
20	Q. Even I could purchase an advertisement on Google; correct?
21	A. You could.
22	Q. Anyone who wants to buy an ad on Google starts with one of
23	Google's advertising front doors; isn't that correct?
24	A. Not necessarily.
25	Q. Let me be more specific. Anyone who wants to buy an ad can

1	start with one of Google's front doors such as Google Ads,	
2	ads.google.com, Search Ads 360, or other tools; correct?	
3	A. Correct.	
4	Q. An advertiser can also work with an advertising agency	
5	partner to begin the process of purchasing an ad on Google;	
6	correct?	
7	A. Yes.	
8	Q. The benefit of advertising on Google Search is the prospect	
9	of receiving additional traffic to your business or website;	
10	correct?	
11	A. Not necessarily.	
12	Q. Would you agree that a benefit of advertising on Google's	
13	search engine results page is the prospect of receiving	
14	additional traffic to your business?	
15	A. A benefit? Yes.	
16	Q. A search query that's entered into the Google Search bar is	
17	an example of user intent; correct?	
18	A. Typically, yes.	
19	Q. And Google's long-term let me start again.	
20	Google's long-term success is based upon satisfying that	
21	user intent; correct?	
22	A. Can you be more specific?	
23	Q. Certainly. Sir, you believe that Google's long-term	
24	success is based on the long-term user success, as well as the	
25	long-term success of an advertiser; correct?	
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1	Α.	Correct.
2	Q.	If the user's not satisfied, they're not going to come back
3	to G	Google anymore; correct?
4	Α.	Correct.
5	Q.	And if an advertiser's not satisfied, they're not going to
6	keep	advertising on Google; correct?
7	A.	Correct.
8	Q.	Google does not show an ad in response to all user queries;
9	corr	rect?
10	Α.	Correct.
11	Q.	Google only shows an ad in response to queries that are
12	call	ed with commercial intent; would you agree?
13	Α.	That's correct.
14	Q.	And Google defines commercial intent as any query that an
15	adve	ertiser is willing to advertise on and that a user is willing
16	to c	click on; correct?
17	Α.	Not necessarily.
18	Q.	Let me restate the question. Would you agree that
19	comm	nercial intent is when an advertiser is willing to place an
20	adve	ertisement in response to a query and when a user is willing
21	to c	click on that ad?
22	Α.	No.
23	Q.	Mr. Dischler, if I could ask you to take a look at your
24	depo	osition from September 28, 2020, and we can try to put it up
25	on t	he screen to make it well, the nonpublic screen, I guess.

1	Not p	possible? Okay. Then we're going to do this on the paper
2	route	e.
3		Mr. Dischler, if I could ask you to look at your deposition
4	binde	er in front of you, and let's turn to the September 28,
5	2020,	, deposition, page 183, line 3, through 183, line 9. So
6	Septe	ember 28, page 183, line 3, and 183, line 9. Let me know
7	when	you're there.
8		Are you on page 183, sir?
9	Α.	I am.
10	Q.	Great. Can you please take a look at page 183, line 3 to
11	line	9.
12		On September 28, were you asked the following question and
13	did y	you give the following answer:
14		"Question: At this time are you trying to determine
15	wheth	her there is commercial intent?
16		"Answer: Commercial intent, we resolve definitionally,
17	whick	h is if an advertiser is willing to advertise on it, we
18	thin	k a user is willing to click on it. Then it has commercial
19	inter	nt."
20		Did you testify accordingly, sir?
21	Α.	I did.
22	Q.	Thank you. You can put that aside.
23		Sir, do you agree that a commercial search query is one
24	that	an advertiser is willing to pay for?
25	Α.	A commercial search query is typically one that an

1	advertiser is willing to pay for, but not exclusively.
2	Q. One of Google's goals is to increase the number of
3	commercial queries; correct?
4	A. Yes.
5	Q. Google has previously put in place specific projects that
6	are aimed at increasing commercial queries; correct?
7	A. That's correct.
8	Q. And without going into details, was one such project called
9	Project Mercury?
10	A. Yes.
11	Q. And a goal of Project Mercury was to increase commercial
12	queries; correct?
13	A. Correct.
14	Q. Sir, I would like to now show you an example of some search
15	ads on Google, if we could go back to UPX12, please. That's in
16	your other binder. It was the same document we looked at
17	earlier, but UPX12 at .003. And it's on the screen in front of
18	you as well or in your binder.
19	The title of the slide 3 is "The Search Results Page." Let
20	me know when you're there.
21	A. I am.
22	Q. Sir, do you agree that in front of you, UPX12, page 003, is
23	an example of a search engine results page, or a SERP?
24	A. Yes.
25	Q. This is from the same UPX12 is the December 2020 search

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1	ads	overview presentation; correct?
2	А.	It appears to be in the same document, yes.
3	Q.	Sir, do you agree that Google offers two types of search
4	ads,	text ads and shopping ads, which are reflected here on
5	UPX1	.2?
6	А.	Two types of search ads are on UPX12. Those are not the
7	only	v two offered by Google.
8		Let me restate the question.
9		Sir, do you agree that on UPX12 in front of you it's
10	show	ving an example of a SERP, shows two types of search ads that
11		returned, text ads and shopping ads; correct?
12	Α.	Correct.
13	Q.	A search ad is an advertised display let me restart the
14		stion.
15	1	A search ad is an advertisement that's displayed on a
16	sear	cch engines result page in response to a user query; correct?
17		Yes.
18	Q.	And because a search ad is in response to a specific user
19		ry, it's a more targeted form of advertising; correct?
20	A.	No.
21	Q.	Sir, would you agree that because a search ad is in
22		ponse to a user query, it is a more focused type of
23	advertising?	
24	A.	I don't think I can make that determination, no.
25	Q.	Let me ask one more time. Sir, in comparison to broad or
_ 0	Σ.	

1 diffuse general types of advertising such as TV, a search ad, 2 because it's in response to a query, is a more focused type of 3 advertising? I can't answer that question. It's not precise. 4 Α. 5 Let's go down to your deposition, September 28, 2020, in Ο. 6 front of you in the other binder again. And we're not able to 7 do this on the screen? It will make it faster. No? Okay. 8 We're going to go the slow route, Your Honor. I apologize. 9 THE COURT: That's all right. I think we're technologically limited. 10 11 BY MR. DAHLQUIST: 12 If we could take a look at September 28, page 13, line 7, Q. 13 through page 13, line 16. Please let me know when you're there. 14 Yes. Α. 15 Sir, on September 28, were you deposed -- were you asked Q. 16 the following question, and did you give the following answer: 17 "Question: Are there any down sides where a search engine 18 results page is not as good a place to advertise as some other 19 form of media? 20 "Answer: If you want to get very broad, reach a diffuse 21 audience like someone used for TV, the search results page is a 22 less optimal channel because it is a more focused. In order to 23 search advertise, it's in response to a query." 24 Sir, on that date, were you asked that question, and did 25 you give that answer?

1 Α. Yes. 2 MR. DAHLQUIST: Your Honor, at this point, with 3 this -- with respect to this one -- I don't have to do this with all of them, but with respect to this one, I would like to move 4 the deposition testimony, page 13, line 7, to page 13, line 16, 5 6 as a party admission. 7 THE COURT: Okay. 8 MR. DAHLQUIST: I'm happy to proceed however you want, 9 Your Honor. We can move each individual in. We can submit it 10 as a designation later. But for specific Q and As, we do think 11 it's important that it be moved in. 12 MR. SOMMER: I'm confused, because the witness just 13 acknowledged the question and answer. So I don't think there's 14 any dispute about his answer. 15 THE COURT: No, there isn't. I think the question is, 16 does it come into evidence as a deposition document or 17 transcript. 18 MR. SOMMER: If it's coming in on the basis of an 19 inconsistent statement, on that basis, we would object. But the 20 witness has been asked, and he's given his answer. I think you 21 have your record. 22 I leave it to Your Honor. 23 THE COURT: Okay. I'll admit it as a prior consistent 24 Why don't we do this -- well, just let me know when statement. 25 you want to introduce the ones that you want to substantively.

1 They're all substantive anyway since they're prior statements. 2 MR. DAHLQUIST: Understood. Thank you, Your Honor. Ι 3 appreciate it. BY MR. DAHLQUIST: 4 5 Q. Sir, you can put that deposition aside. 6 Sir, do you agree that the search ads that appear on a 7 search engine results page such as the one in front of you on 8 UPX12 are typically sold on a cost-per-click basis? Correct? 9 Α. Yes. 10 Sir, again, if I can ask you to close the deposition. Ο. Are 11 you looking at the exhibit or the deposition? 12 I'm looking at the exhibit. Α. 13 Ο. Oh, I'm sorry. I apologize. I thought you were still 14 looking at the deposition. I wanted to make sure we move 15 forward. 16 UPX12 is where we're at, page 3. Are you there? 17 Α. Yes. 18 Great. And let me restate the question. Q. 19 Sir, a search ad is an advertisement that's displayed on a 20 search engine results page in response to a user query; correct? 21 Yes. Α. 22 And because a search ad is in response -- I apologize. Q. Let 23 me go backwards. 24 Advertisers pay Google on a cost per click, and Google 25 makes money as a result of those clicks; correct?

1 Α. Yes. 2 Both text ads and shopping ads are formats of a search ad; Q. 3 correct? 4 Α. Yes. 5 Search ads sold on the search results page are not sold on Q. 6 the basis of impressions; correct? 7 Α. That's correct. 8 Ο. And we're going to go to another document in your binder, 9 UPX1, and if we can put UPX1 up on the screen, Your Honor. It's 10 in evidence, and there's no confidentiality with respect to 11 UPX1. 12 THE COURT: Sir, can you clarify what you mean by "not sold on the basis of impressions"? I didn't understand what 13 14 that meant. 15 THE WITNESS: So display ads and some other ads are 16 charged -- the advertiser pays just when it's showing up on the 17 screen. For search ads, the advertisers only pays if the user 18 clicks on a link within their ad. 19 So the event of paying -- the transactible event isn't 20 merely viewing the ad, it's interacting with the ad. 21 THE COURT: Okay. And so does Google -- are there a 22 category of advertisements for which Google receives revenues 23 just for the display of the ad? 24 THE WITNESS: Yes. 25 THE COURT: There are? Okay.

1		THE WITNESS: Yes.
2		BY MR. DAHLQUIST:
3	Q.	Sir, on UPX1 right in front of you this may be some more
4	info	ormation to address the Court's question. Around page 11 of
5	the	document, the Bates stamp ends in 538, and the label of this
6	is "	Impressions."
7		Let me know when you're there.
8	Α.	Yes.
9	Q.	Great. The title of this is "Impressions: An impression
10	is c	counted each time your ad is shown."
11		Do you see that?
12	Α.	Yes.
13	Q.	And at the very bottom, one of the comments says,
14	"Imp	pressions in paid search are free."
15		Do you agree, sir, that impressions in paid search are
16	free	?
17	Α.	I do.
18	Q.	In response to a user query, the search ads that appear, no
19	adve	ertiser is charged just for showing their ad; correct?
20	Α.	That's correct.
21	Q.	A user has to click on it in order to be charged; correct?
22	Α.	Yes.
23	Q.	On the next page of the same document, UPX1, the heading is
24	"Cli	ck: When someone clicks your ad, like on the blue headline
25	of a	text ad."

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1		Do you see that page?
2	Α.	Yes.
3	Q.	At the very bottom, the comment is, "It's worth noting that
4	in s	earch you only get charged when someone actually clicks on
5	your	ad, not when an impression is shown."
6		True?
7	Α.	True.
8	Q.	Google sells some ads based on impressions; correct?
9	Α.	It does.
10	Q.	However, search ads are not sold based on impressions;
11	corr	ect?
12	Α.	Correct.
13	Q.	I would like to turn to a specific let's go back to
14	UPX1	2 again, back to the same page we've been on, and talk about
15	text	ads. Actually, we're going to go in a little bit to, I
16	thin	k, page 6 and talk about text ads, and I'm looking at the
17	page	specifically .005, "anatomy of an ad."
18		Let me know when you're there.
19	Α.	I am.
20	Q.	Sir, UPX12.005, is this an example of a text ad?
21	Α.	It is.
22	Q.	And a text ad contains the ad content and the text
23	incl	uding possibly one, the URL, two, one to three headlines,
24	and	three, a one to two description line; is that correct?
25	Α.	That's correct.

1	Q.	And as depicted on UPX12.005; correct?
2	A.	It is.
3	Q.	Now, an advertiser can choose to add extensions onto that
4	text	ad such as site links, call extensions, or other types of
5	info	rmation; correct?
6	Α.	That's correct.
7	Q.	And, sir, do you agree that any type of advertiser can
8	purcl	hase a text ad on Google?
9	Α.	No.
10	Q.	Okay. We're going to talk in a minute about shopping ads
11	and s	shopping ads which are focused on products. So let me
12	resta	ate my question.
13		Any type of advertiser who is interested in selling a
14	prod	uct or a service or any other type of anything else they
15	want	to sell can purchase a text ad on Google?
16	Α.	No, they need to comply with our policies. We don't allow
17	some	advertisers to advertise on Google.
18	Q.	Google moderates some content that it deems inappropriate
19	or u	nacceptable for displaying on the Google web site; correct?
20	Α.	That's correct.
21	Q.	Other than those that are deemed in conflict with your
22	poli	cy, any type of advertiser can purchase an ad on Google;
23	corre	ect?
24	Α.	That's correct.
25	Q.	Approximately 80 percent of the search ads that are sold by

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1	Goog	le are text ads; correct?
2	Α.	I'm not sure of the exact figure today.
3	Q.	Sir, how about at the time of your deposition in 2020? Was
4	the	percentage of search ads that were sold by Google
5	appr	roximately 80 percent?
6	Α.	Yes.
7	Q.	And do you believe that number has gone up or down since
8	2020	?
9	Α.	I imagine it's gone down.
10	Q.	Do search ads I'm sorry.
11		Do text ads still represent the majority of search ads sold
12	by G	oogle?
13	Α.	Yes.
14	Q.	Still staying on UPX12, we're going to go back up a couple
15	page	es to page 4. I'd like to talk about shopping ads.
16		Sir, are shopping ads also known as PLAs, or product
17	list	ing ads?
18	Α.	Yes.
19	Q.	They're synonymous? They mean the same thing; correct?
20	Α.	Yes.
21	Q.	And a product listing ad or a shopping ad is a search ad
22	that	includes a picture, together with a price or other
23	desc	riptive information about a product; correct?
24	Α.	Yes, a picture and other structured data.
25	Q.	Shopping ads are purchased by retailers who want to sell a

1 product; correct? 2 Α. Yes. 3 And as depicted on UPX12, in front of you at .003, there's Q. a demonstration of a shopping ad versus a text ad; correct? 4 5 Yes, three shopping ads versus a text ad. Α. 6 The largest purchasers of shopping ads on Google are Ο. 7 Amazon, Kohl's, Walmart, Macy's, Target, and other retailers; correct? 8 9 The largest purchasers of shopping ads are retailers, yes. Α. 10 Is Amazon one of the largest purchasing -- purchasers of Ο. 11 shopping ads on Google? 12 Α. Yes. 13 Ο. Does Google advertise for its search services on Amazon? 14 Α. No. 15 Advertisers who sell services, something other than Q. 16 products, are not eligible to purchase a shopping ad; correct? 17 Α. On Google? 18 Correct. Q. 19 Α. Yes, that's correct. 20 Let me restate the question. Advertisers who sell Ο. 21 services, something other than products, are not eligible to 22 purchase shopping ads on Google; correct? 23 That's correct. Α. 24 If an advertiser wants to sell a service, they have to Ο. 25 purchase a text ad on Google; correct?

1	Α.	That's not correct.
2	Q.	If an advertiser is not eligible let me strike the
3	ques	tion.
4		An advertiser who is not selling a product but still wants
5	to a	dvertise on Google would purchase a text ad; correct?
6	Α.	Not necessarily, no.
7	Q.	There's other types of ads they could purchase; correct?
8	Α.	That's correct.
9	Q.	If an advertiser who doesn't sell a product but sells a
10	serv	ice but still wants to purchase a search ad in response to a
11	quer	y, their only option would be a text ad; correct?
12	Α.	No.
13	Q.	Okay. We'll move on. Google has lots of advertisers who
14	buy	text ads but do not buy shopping ads; correct?
15	Α.	That's correct.
16	Q.	And the majority of advertisers on Google cannot buy
17	shop	ping ads or PLAs because they're not actually selling
18	phys	ical products; correct?
19	Α.	That's correct.
20	Q.	An advertiser can have an ad for both a let me strike
21	the	question.
22		An advertiser can have an ad for the same product appear in
23	both	the shopping ad or the PLA section, as well as in the text
24	ad s	ection of a search engine results page; correct?
25	Α.	Yes.

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1	Q. And I think we covered this, but just in case, a shopping	
2	ad, similar to a text ad, is sold on a cost-per-click basis;	
3	correct?	
4	A. Yes.	
5	Q. Not based on impressions; correct?	
6	A. That's correct.	
7	Q. However, shopping ads are more automated because they draw	
8	on a product feed; correct?	
9	A. A shopping ad is typically more automated, and it does draw	V
10	on a product feed.	
11	Q. For a shopping ad, the advertiser creates the let me	
12	strike the question.	
13	For a shopping ad, Google creates the content that is then	
14	displayed on a SERP in response to a query; correct?	
15	A. I'm not sure what you mean. Can you clarify?	
16	Q. Let's start with text ads, which might be a little easier.	
17	For an advertiser to place a text ad, the advertiser	
18	creates the copy or the advertisement and places it with Google;	!
19	correct?	
20	A. They create creative fragments, and Google combines the	
21	creative fragments based on a machine learning algorithm	
22	typically.	
23	Q. We'll use "creative fragments." So in a text ad, the	
24	advertiser is the one that creates the creative fragments that	
25	are displayed in the text ad in response to a query; correct?	

1	A. Yes.
2	Q. But in a shopping ad, Google is the one that creates the
3	creative fragments as opposed to the advertiser; correct?
4	A. No. The advertiser provides product attributes and product
5	imagery, and we essentially do the same combination using
6	machine learning. It's a similar process.
7	Q. The advertiser uploads their product feed, their inventory,
8	other products that they'd like to advertise as a shopping ad,
9	and Google draws from that inventory in order to display it as a
10	<pre>shopping ad; correct?</pre>
11	A. That's correct, similar to what we do with the creative
12	fragments and text ads, yes.
13	Q. Would you agree that a text ad gives an advertiser more
14	control when their ad appears on a search engine results page?
15	A. It does.
16	Q. For a text ad, an advertiser can select a set of keywords
17	to direct the text ad to appear in response to specific user
18	queries?
19	A. A specific set of user queries, yes.
20	Q. But for a shopping ad, the advertiser does not select
21	keywords that will respond to a query; correct?
22	A. That's correct.
23	Q. And as an example, on UPX12, page 3, the PLAs or the
24	shopping ads are displayed alongside of other products, similar
25	products in sort of a carousel or a is that correct?

A. The PLA unit is a carousel format with similar products on
it, yes.
Q. And could you define a carousel for the Court?
A. It's a scrollable horizontal unit on the page.
Q. And that's different from a text ad, where an advertiser
gets a full line to themselves in order to promote their product
or service; correct?
A. A horizontal and vertical space of their own, yes.
Q. Sir, do you agree that shopping ads are much cheaper than
text ads?
A. Not necessarily.
Q. Sir, do you agree that in general shopping ads are much
cheaper than text ads?
A. No.
MR. DAHLQUIST: Your Honor, I have a confidential
document that I would like to show the witness. We will not
display it on the screens.
THE COURT: Okay.
BY MR. DAHLQUIST:
Q. Sir, I've handed you a document marked PSX-191. It's
confidential, so we're not going to read a lot of details of
this. But I would like to ask you a question in response to the
question and answer we just had.
If you could turn to the second page, and this is a long
e-mail chain, as you can see, that's initiated by you in

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1	June	of 2017.
2	A.	Okay.
3	Q.	It's all the way in the back on page 724. But I'm really
4	goin	g to focus on page 2. And sort of in the top quartile of
5	the	page, there's an e-mail from you dated Friday, October 13,
6	2017	, at 6:02 a.m.
7		Do you see that e-mail, sir?
8	A.	Yes.
9	Q.	And in that, there's two items, item 1 and item 2.
10		Item 2, can you please read the sentence in item 2, and
11	then	I will re-ask my question.
12	Α.	Yes.
13	Q.	Sir. Do you agree that PLAs are much cheaper than text
14	ads?	
15	Α.	Today, it's not clear.
16	Q.	Okay. Let me ask a different question. Sir, as of the
17	time	that you wrote this e-mail, which is in PSX191, dated
18	Octo	ber 13, 2017, did you agree and do you believe that PLAs are
19	much	cheaper than text ads?
20	Α.	In on October 13, 2017, I thought that PLAs were cheaper
21	than	text ads.
22	Q.	Thank you, sir. You can put that document away.
23		MR. DAHLQUIST: Your Honor, at this time I don't think
24	this	document is in evidence yet. So I will do a favor for my
25	plai	ntiff states and ask that we move in PSX191.

1	THE COURT: Is there any objection?	
2	MR. SOMMER: No objection.	
3	THE COURT: All right. It will be admitted.	
4	(PSX191 received into evidence.)	
5	BY MR. DAHLQUIST:	
6	Q. Sir, do you agree that members within the search teams ad	
7	believe that shopping ads and text ads are different products	
8	with different goals?	
9	A. Can you repeat that question?	
10	Q. Sure. Let me ask you, sir, do you believe that shopping	
11	ads and text ads are different products with different goals?	
12	A. Not necessarily. Shopping ads and text ads often have the	
13	same goal. They are a different product.	
14	Q. So you agree, sir, that text ads and shopping ads are	
15	different products; correct?	
16	A. Yes.	
17	Q. Okay. Do you agree that shopping ads and text ads have	
18	different goals?	
19	A. The advertiser often has the same goal. The teams have	
20	slightly different goals because they're slightly different	
21	product.	
22	Q. From the perspective of Google, do you believe that	
23	shopping ads and text ads are different products with different	
24	goals?	
25	A. Shopping ads from the perspective of Google, shopping	

1 ads and text ads are different products. The teams have 2 different goals. The advertisers often have the same goal, 3 which is to sell products on their websites or apps. I'm asking from your perspective in your chair at Google as 4 Q. 5 VP and GM of search ads, do you believe that search ads and text 6 ads have different goals? 7 MR. SOMMER: Objection, Your Honor; asked and answered 8 twice. 9 THE COURT: I will sustain it. I think he did answer 10 the question. 11 MR. DAHLQUIST: Thank you, Your Honor. I will move 12 on. BY MR. DAHLQUIST: 13 14 Sir, do you agree that text ads and PLAs or shopping ads Ο. 15 don't compete with each other? 16 Α. No. 17 Sir, would you agree that members of your team at search Ο. 18 ads at Google believe that the two formats, shopping ads and 19 text ads, are in their own world and don't compete? 20 Members of my team have outlined with -- in great detail Α. 21 that the two use two separate auctions. But from the 22 perspective of the advertisers, those two products compete with 23 each other for advertiser budgets. 24 Sir, I'm asking from your perspective as general manager Ο. 25 and VP of search ads, do you and your team believe that text ads

1	and shopping ads are two different formats that are in their own
2	world and do not compete?
3	A. I'm not sure how that question is different than your last
4	question, but I can answer it again, that shopping ads and text
5	ads use two separate auctions, and the customers that often use
6	both shopping ads and text ads have the same business objective
7	for those products, and therefore, the two products compete for
8	a singular advertiser budget.
9	Q. All right, sir. Let's look at the document, same document
10	in front of you, PSX191.
11	A. This document?
12	Q. Yes, correct, Your Honor I'm sorry, correct,
13	Mr. Dischler. I'm on page 4, that ends in Bates stamp 723.
14	A. Yes.
15	Q. And in the bottom quartile of the document, there's an
16	e-mail from a gentleman with the first name Shiv on Friday,
17	June 23, 2017.
18	Do you see that?
19	A. Yes.
20	Q. And I'm sorry. Who is Shiv?
21	A. Shiv at the time was the head of engineering for search
22	advertising, including shopping ads.
23	Q. And he reported directly to you?
24	A. He did.
25	Q. And he's a part of the search ads team, correct, at this
	и

1	time?
2	A. Actually, in 2017, I believe he was a peer of mine.
3	Q. He was on the search ads team; correct?
4	A. He was, yes.
5	Q. And looking at the second sentence in PSX-191, Bates stamp
6	723, do you agree that your colleague, Shiv, stated, "Today
7	these two formats are siloed in their own world and don't
8	compete. It will be worth looking at pricing from that point of
9	view"? Correct?
10	A. Yes. He said exactly what I was saying, which is that the
11	two options don't compete, but the whole reason that we were
12	having this e-mail thread is because the same advertiser had the
13	same objective and was using two separate products to achieve
14	that objective. We were trying to figure out what to do.
15	Q. Sir, my question is very simple. On that date, did your
16	peer, Shiv, state that the two ad formats, shopping ads and text
17	ads, are siloed in their own world and don't compete? Yes or
18	no?
19	MR. SOMMER: Objection; asked and answered.
20	THE COURT: Hang on. I'm not sure he answered that
21	precise question, but it's pretty clear what he's written. So
22	we can move to the next question.
23	MR. DAHLQUIST: Okay. Thank you, Your Honor.
24	BY MR. DAHLQUIST:
25	Q. Mr. Dischler, we're done with that document.

1	Mr. Dischler, in addition to the search ads that are still
2	displayed on UPX12, page 3, in front of us, Google also sells
3	other types of advertisements; correct?
4	A. That's correct.
5	Q. It sells something called display ads; correct?
6	A. It does.
7	Q. And anybody can buy a display ad from Google? I could buy
8	a display ad; correct?
9	A. Subject to the advertiser restrictions we have, yes.
10	Q. Hopefully, I wouldn't put any illegal content. Understood.
11	A display ad is a pictorial or image ad that can run
12	anywhere on the Internet; correct?
13	A. No.
14	Q. Would you agree that a display ad is a picture or an image
15	that can run across the Internet on any one of your owned and
16	operated properties? Correct?
17	A. No.
18	Q. Okay. If we can please take a look at your deposition, the
19	September 28, 2020, deposition, page 20, line 24, through
20	page 21, line 5. So September 28, 2020, page 20.
21	A. Okay. What page again? Apologies.
22	Q. Certainly. No problem. It's page 20 of your September
23	deposition, and it starts on line 24. It's over towards the
24	bottom.
25	Sir, would you agree on September 28 you were asked the

following question and you gave the following answer: 1 2 "Question: What's a display ad? 3 "Answer: It's not a particularly useful term anymore. Typically, what it refers to is a pictorial image-based ad that 4 5 runs across the Internet off one of the large owned and operated properties." 6 7 Were you asked that question, and did you give that answer? 8 Α. Off of one of the large owned and operated properties, yes. 9 And I apologize if I was imprecise in my question. Ο. 10 Α. Yeah. Not on, yes. 11 And what does "off of one" of your properties, what does Q. 12 that distinction mean, sir? 13 Α. That means that the properties are not owned by Google. 14 It's not running on the entire Internet. It's only Internet 15 sites that are supported by the display networks that we operate 16 or other networks that we have access to, which is not the 17 entire Internet. Many websites don't have display advertising 18 on them. So --19 A display ad does not appear on a SERP, which is on UPX12, Ο. 20 in response to a user query; correct? 21 That's correct. Α. 22 And the ads that are appearing on UPX12 in front of you, Q. 23 none of these are display ads; correct? 24 That's correct. Α. 25 Google has never included display ads on a SERP in response Ο.

to a user query; correct? 1 2 Α. That's correct. 3 THE COURT: Sorry. What was the last question and answer again? 4 5 MR. DAHLQUIST: Certainly. 6 BY MR. DAHLQUIST: Google has never included display ads on a search engine 7 Ο. 8 results page in response to a query? 9 THE COURT: Thank you. 10 BY MR. DAHLQUIST: 11 And I believe the answer is no. Correct, sir? Ο. 12 We have never put a display ad in response to a user query. Α. 13 Ο. Google generally sells display ads based on impressions; 14 correct? 15 Impressions or clicks. Α. 16 In general, the primary way that Google sells display ads Q. 17 is based on impressions; correct? 18 I actually don't have the current stats. It's pretty close Α. 19 between impressions and clicks, I think, at this point. 20 As of the time of your deposition, was the primary method Ο. 21 that people purchased display ads --22 Α. Yes. 23 -- by impressions; correct? Q. 24 Yes, by impressions. Α. 25 And Google sells display ads -- by impressions, it's sold Q.

on a cost per mill or cost per thousand basis; correct? 1 2 Yes. Α. 3 And this is different than how search ads are sold, which Ο. are based primarily on a cost-per-click basis; correct? 4 5 Α. That's correct. 6 THE COURT: Sorry. Can you explain what you mean by 7 cost per mill/cost per thousand? Is that a quantity? 8 THE WITNESS: Let's say that you're on The New York 9 Times, and there are a thousand people who view a page on The 10 New York Times, and that includes an ad. Then you would pay a 11 certain rate for 1,000 impressions of the ad, 1,000 people who 12 may or may not be seeing the ad but it's being rendered on the 13 page. 14 In contrast, if you're on a cost-per-click basis, that 15 means that you have to actually click on the ad, interact with 16 the ad in order to pay for it. 17 THE COURT: Understood. Thank you. 18 BY MR. DAHLQUIST: 19 Another type of a display ad is also called a banner ad? Q. 20 You're familiar with banner ads? 21 Yes. Α. 22 And a banner ad is another type of picture or display ad; Q. 23 correct? 24 It's -- a banner ad is just a pictorial format, which is a Α. 25 type of display ad.

1	Q.	And I'm from Chicago. So it's the display ad that shows up
2	ever	y time I click The Chicago Tribune home page; correct?
3	Α.	You know, I haven't read The Trib in a while.
4	Q.	No problem. I try to read it every once in a while.
5		Google sells banner ads based on impressions or cost per
6	mill,	; correct?
7	Α.	Often, yes.
8	Q.	Again, banner ads are not sold on the basis of a click;
9	corre	ect?
10	Α.	Sometimes, yes, but most often not.
11	Q.	The predominant way or I guess the predominant way in
12	whicl	h banner ads are shown or sold is on a cost per mill or
13	impre	essions, not based on clicks; correct?
14	Α.	That's right.
15	Q.	Google also sells ads called discovery ads; right?
16	Α.	Yes.
17	Q.	And a discovery ad is based on a type of a feed; correct?
18	Α.	It's an ad that shows up on feed services.
19	Q.	Would you agree that a discovery ad is a little bit more
20	akin	to a social media advertising? Correct?
21	Α.	It's somewhat similar, yeah.
22	Q.	Discovery ads are not shown in response to a user query on
23	a SEI	RP; correct?
24	Α.	They're not, no.
25	Q.	And Google modeled discovery ads are a more a newer

1	type of ad that is sold by Google; correct?
2	A. They are.
3	Q. And Google modeled the format of discovery ads after
4	Instagram and Facebook; correct?
5	A. Partially, yeah.
6	Q. Sir, I think you hit on this a little bit before, but
7	Google sells search ads through an auction process; correct?
8	A. Yes.
9	Q. And I believe you stated that the auction for text ads is
10	different than the auction for shopping ads or PLAs; correct?
11	A. It is.
12	Q. They're completely separate auctions; correct?
13	A. They are.
14	Q. Now, it's possible, because we talked about that some
15	advertisers purchase both shopping ads and text ads, a single
16	advertiser can enter both auctions; correct?
17	A. Yes. Typically, they do.
18	Q. Google designs an auction that determines the prices that
19	are charged to advertisers for their ad; correct?
20	A. The auction determines the prices that advertisers are
21	charged for their ad up to their maximum willingness to pay. So
22	the advertiser specifies either their maximum bid or the
23	business event that they want to achieve, and that represents
24	their maximum willingness to pay.
25	Q. Sir, let me re-ask the question. Would you agree that

1 Google designs an auction, and within the context of that 2 auction, the advertiser's ads are priced based on the results of 3 that auction? 4 Α. Yes. So the auction determines which ads are shown; correct? 5 Q. It is the final determination of which ads are shown. 6 Α. Yes. 7 There are other systems that do policy enforcement and disabling 8 and other things like that that also determine which ads are 9 shown. 10 Let me just make sure we're clear. The auction Ο. 11 determines -- the auction and other components that are running 12 behind the scenes at Google determines which ads are shown in 13 response to a query; correct? 14 Correct. Α. 15 And the auction, as well as other computations at Google, Q. 16 determine the prices that are charged the advertiser; correct? 17 Α. They -- the pricing is the result of the auction process. 18 And Google's search ads auctions are different from what Q. 19 I'm used to, an in-person charity auction or an online eBay 20 auction, because it happens millions of times per second and 21 billions of times per day; correct? 22 Probably not millions of times per second, but definitely, Α. 23 we run a lot of them. 24 Approximately how many times per second would an ad auction Ο. 25 run?

1	A. I actually I can't tell you I can't break it down by
2	seconds, but we run billions of auctions per day.
3	Q. Billions of auctions per day are run for search ads for
4	search ad auctions; correct?
5	A. Yes.
6	Q. And Google employs data scientists, Ph.D.s, and auction
7	theorists in order to help design and improve these ad auctions;
8	correct?
9	A. Yes.
10	Q. I believe a witness that the Court is going to hear from,
11	Mr. Adam Juda, helps to lead the ad auction process at Google
12	for the search engines team; correct?
13	A. He doesn't lead the ad auction process at Google. He works
14	on the on designing the ad auction, along with a number of
15	other folks.
16	Q. And I believe Mr. Juda has a Ph.D.; correct?
17	A. He does, yes.
18	Q. Google built an ad auction that is highly automated and
19	highly complex; correct?
20	A. It's highly automated. It's reasonably complex.
21	Q. You need a Ph.D. in order to actually understand it; is
22	that correct?
23	A. We have lots of talented folks, some with Ph.D.s, some
24	without, who understand the auction.
25	Q. Google's ad auction or search ad auction is known as a

generalized second-price auction; is that correct? 1 2 It's a variant of a generalized second-price auction. Α. It's 3 been customized in ways that you likely know. And I'm going to try to be very basic here. 4 Q. So I will 5 probably get some of this wrong, and I'm sure you will correct 6 me. 7 But a variant of a generalized second-price auction, as you 8 describe, is one where multiple bidders enter the auction, and 9 the winner pays one cent above the first runner-up; correct? 10 That would be -- in a classic second-price auction, that is Α. 11 how they would pay. As you know, we have -- there are a number 12 of other factors that influence what the advertiser actually 13 pays. 14 And I'm just getting a generalized understanding of what a 0. 15 second-price auction is. A generalized second-price auction is 16 the winning bidder doesn't pay what their ultimate top bid was 17 but a little bit above what the first runner-up's bid was; is 18 that correct? Yes. In a normal second-price auction, it could either be 19 Α. 20 a penny above or the actual second price, because they were 21 willing to pay more than the second price. And because it's a second-price auction, the bid of the 22 Q. 23 runner-up is very important to determine the ultimate price that 24 is charged to the advertiser; correct? 25 Yes. Α.

1	
1	Q. And would you agree that Google seeks to have efficient
2	auctions, which means auctions with more than one participant?
3	Correct?
4	A. Yes.
5	Q. And Google believes that an efficient or a healthy auction
6	is one with more than one bidder; correct?
7	A. Yes.
8	Q. You believe that an auction that only has one person
9	interested is inefficient?
10	A. Not necessarily. It could be that there really is only one
11	participant who is relevant for the user. Ultimately, user
12	relevance is the most important thing, and if there's one
13	bull's-eye, then, you know, they should pay the reserve price.
14	Q. Google believes that an efficient or healthy auction is one
15	with more than one bidder; correct?
16	A. For most queries, the answer is yes; for the example I just
17	gave you, the answer is no.
18	Q. Sir, let me just make sure I get a clean answer to this.
19	You would agree that Google is interested in a healthy
20	auction, which is more than one bidder in an ad auction;
21	correct?
22	MR. SOMMER: Objection, Your Honor; asked and answered
23	a couple of times now. I think we've covered this.
24	THE COURT: Agreed. I understand what his answer is.
25	MR. DAHLQUIST: I will move on. Thank you, Your
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1	Honor.
2	BY MR. DAHLQUIST:
3	Q. Google benefits when there's more than one bidder in a
4	search ad auction; correct?
5	A. Yes.
6	Q. Google's revenue increases the more people that there are
7	in ad auctions; correct?
8	A. Not necessarily, no.
9	Q. Sir, do you agree that Google helps to meet its revenue
10	goals when there's more than one person in an ad auction?
11	Correct?
12	A. Sometimes; sometimes not.
13	Q. Sir, if you could take a look at your September 28th
14	deposition again in front of you, page 97, September 28, 2020,
15	page 97, line 16 through line 22.
16	MR. SOMMER: Your Honor, there's nothing inconsistent
17	about the transcript and what the witness just testified to.
18	MR. DAHLQUIST: I haven't asked the question, Your
19	Honor.
20	THE COURT: Why don't we go just ahead and ask the
21	question that was asked during the deposition.
22	MR. DAHLQUIST: Will do, Your Honor.
23	BY MR. DAHLQUIST:
24	Q. Sir, on September 28, 2020, in your deposition, page 97,
25	line 16 through line 22, were you asked the following question,

and did you give the following answer? 1 2 "Question: Right. But you really didn't answer my 3 question. My question is this: It helps Google to meet its revenue goals to have more people in their auctions; is that 4 5 correct? "Answer: Generally, having a healthy auction is beneficial 6 7 to Google." 8 Sir, did you give that answer to that question? I did. 9 Α. 10 Thank you. You can put the deposition away. Q. 11 Sir, Google does not tell advertisers if they're the only 12 bidder in an auction; correct? 13 Α. Advertisers can generally figure it out, but we don't have 14 a special determination to tell them that they're the only 15 bidder in an auction. 16 Let me ask my question again, and let me know if you don't Q. 17 understand it. 18 Sir, Google does not tell advertisers if they're the only 19 bidder in an auction; correct? 20 Deterministically, no. Α. 21 And since text ad auctions and shopping auctions are Q. 22 separate, any changes to the pricing in one auction does not 23 impact the pricing of another auction; correct? 24 That's correct. Α. 25 Sir, would you agree that Google defines the rules of the Q.

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1	search ad auction process? Correct?
2	A. Yes.
3	Q. And Google defines the terms under which the search ad
4	auction sets various components, including reserve prices;
5	correct?
6	A. Yes.
7	Q. And Google can raise prices in search ads by setting the
8	reserve prices; correct?
9	A. Within the constraints of not strictly correct, because
10	it's got to be within the constraints of the advertiser's
11	objective function. The advertiser determines their maximum
12	willingness to pay or their return on investment target, and if
13	the reserve price is above that, then the advertiser won't
14	participate in the auction. So we don't set the price.
15	Q. Sir, let me ask my question again. Do you agree that
16	Google can raise prices with the ability to define the terms of
17	the auction, including setting reserves and the auction
18	dynamics? Correct?
19	A. I believe I answered your question. I'm not sure how I
20	could answer it differently, and I'm not sure I could answer
21	it differently.
22	Q. Okay.
23	A. We yes.
24	THE COURT: And to be clear, I think we've touched on
25	this previously, but the reserve pricing is essentially the

1	floor?
2	THE WITNESS: Yeah, it's the floor, and we tend to set
3	them pretty low.
4	THE COURT: Okay.
5	BY MR. DAHLQUIST:
6	Q. Google can control the auction dynamics that can result in
7	a higher cost per click, or CPC, for search ads; correct?
8	A. A higher or lower CPC to be paid by a particular advertiser
9	for a particular search ad.
10	Q. But Google controls that, whether it's higher or lower;
11	correct?
12	A. Google controls Google controls the function that
13	determines the price of whether it's higher or lower, but
14	ultimately, it's whether the advertiser's relevant to the query
15	and their maximum willingness to pay and whether the user is
16	getting a good experience and all of those factors, as well as
17	the bids of the other advertisers that results in the eventual
18	price.
19	Q. Sir, you're familiar with the term "ad launches"; correct?
20	A. Yes.
21	Q. And a launch to the Google ad auction is a modification or
22	a change to the auction process in some way, shape, or form;
23	correct?
24	A. Yes. An auction-related ad launch would be a change to the
25	auction.

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1	Q. And you have the authority to approve launches that impact
2	pricing and other components of the search ad's auction process;
3	correct?
4	A. I'm one of the approvers, yes.
5	Q. And you personally have approved launches that have
6	impacted the pricing of the search ads of search advertising
7	auction; correct?
8	A. That have affected the prices, either positive or negative,
9	yes.
10	Q. Google does approximately a thousand launches per year to
11	change its ad auction process; correct?
12	A. Not just for the auction, no. But, I mean, we do roughly a
13	thousand experiments per year in search ads quality. I would
14	say 20 percent of them are related to the auction in some way,
15	and then only a fraction of those are actually launches.
16	Q. Google implements a large number of launches in order to
17	modify or change the search ad auction process on a given year;
18	correct?
19	A. Yes.
20	Q. In addition to launches, Google has pricing levers or
21	pricing knobs that it can use to tune or change aspects of a
22	<pre>search ad's auction; correct?</pre>
23	A. In addition to the launches? No.
24	Q. And let me make sure I understand definitionally. Do you
25	agree that a pricing knob or a tuning is the same as a launch or

different from a launch? 1 2 The way that a tuning would be implemented is through a Α. 3 launch. So you're talking about the same thing. And how about a pricing knob? Is that as a part of a 4 Q. 5 launch as well? 6 Pricing knob is an informal way of talking about a Α. 7 parameter tuning within the ad auction function. 8 Ο. So in talking about a launch, a launch is the umbrella 9 category, and below it can be a tuning or a pricing knob as 10 components of a launch; correct? 11 To be precise, a launch can include a tuning. Pricing knob Α. 12 is another way of saying tuning. 13 Q. Understood. So pricing knob and tuning are synonymous in 14 vour mind? 15 There's -- a pricing-oriented tuning could be informally Α. 16 referred to as a pricing knob. 17 Ο. Thank you, sir. And Google has pricing knobs or tunings 18 that it can use to impact search ad pricing; correct? 19 Α. Yes. 20 Sir, Google has used launches and pricing knobs to raise Ο. 21 the prices in search ads by 5 percent previously; correct? 22 Α. We have had the -- launches, no; experiment, yes. 23 Sir, would you agree that for some launches Google has set Q. 24 launches that have increased prices at 5 percent for the typical 25 advertiser on Google? Correct?

1	A. For the typical advertiser on Google? I don't believe I
2	know of a launch that increased prices by 5 percent for a
3	typical advertiser on Google. I know of an experiment that
4	affected prices by 5 percent for the typical advertiser on
5	Google but not a launch.
6	Q. Sir, if we could turn to your deposition on September 28,
7	2020, page 59, and I'm focused on page 59, line 18, through
8	page 60, line 2. Let me know when you're there.
9	Are you there, sir?
10	A. Yes.
11	Q. Sir, on September 28, were you asked the following
12	questions, and did you give the following answer:
13	"Answer: And in some cases.
14	"Question: And in some of the launches you recall have
15	increased prices 5 percent; is that correct?
16	"Answer: Yes; for the typical advertiser, yes. With every
17	advertiser, every advertiser behaves differently. So I'm not
18	going to say across the board."
19	Sir, did you give that answer on September 28?
20	A. I did.
21	MR. DAHLQUIST: Your Honor, this is one of those
22	pieces of testimony that we respectfully request it be admitted
23	as a party admission.
24	THE COURT: Okay.
25	MR. DAHLQUIST: Thank you, Your Honor.

1	BY MR. DAHLQUIST:
2	Q. Sir, would you agree that Google has raised search ad
3	prices by 10 percent for some queries? Correct?
4	A. By 10 percent for some queries? It's possible, yes.
5	Q. And when Google launched price increases of 5 percent on
6	search ads, it resulted in an increase in revenue to Google;
7	correct?
8	A. Typically, it would result in an increase in revenue.
9	Q. And when Google adopted a 5 percent price increase, it
10	resulted in fewer search ads being sold on Google; correct?
11	A. Fewer search ads being sold? I'm actually not I'm not
12	sure which launch you're referring to. It may have resulted in
13	more search ads being sold; it may have resulted in fewer search
14	ads being sold.
15	Q. I'm not referencing any specific launch right now. So let
16	me just re-ask the question.
17	When Google adopted a 5 percent price increase, it resulted
18	in fewer search ads being sold; correct?
19	A. Since I'm I'm having a hard time answering the question,
20	because I'm the framing of the question, when Google adopted
21	a 5 percent price increase, is vague. And then based on the
22	parameters of whatever launch you're referring to, you're not
23	referring to a launch, it would result in potentially fewer
24	search ads being sold or more search ads being sold, depending
25	upon the mechanism that pricing increased.

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1	For example, if there were more participants in an auction
2	because we improved our targeting, it could increase prices
3	because there are more participants in the auction, and also,
4	since there are more participants in the auction, it would
5	result in more ads being sold because there are more clicks.
6	Q. Sir, if we could turn to your deposition, September 28,
7	2020, page 61 of your deposition, and I'm looking at line 3
8	through line 8.
9	Are you there, sir?
10	A. Yes.
11	Q. Sir, on September 28, 2020, were you asked the following
12	question, and did you give the following answer:
13	"Question: Do you know if when you adopted the most recent
14	5 percent increase across general advertisers for search ads,
15	whether it resulted in fewer ads being sold?
16	"Answer: It likely resulted in fewer ads being sold, yes."
17	Did you give that answer, sir?
18	A. I didn't say for certain. I said "it likely."
19	Q. Sir, my question simply is, did you give that answer to
20	that question?
21	A. I gave that answer to that question.
22	MR. DAHLQUIST: Your Honor, this is one of the other
23	pieces we request be moved in as a party admission.
24	THE COURT: Okay. It will be admitted.
25	MR. DAHLQUIST: Thank you, Your Honor.

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1	BY MR. DAHLQUIST:
2	Q. Sir, would you agree that if Google implemented a
3	15 percent price increase on search ads it would keep enough
4	advertisers to increase revenue to Google? Correct?
5	A. I can't speculate on a hypothetical question like that.
6	I'm not sure.
7	Q. Sir, do you have any reason to believe that it's not true
8	that if Google implemented a 15 percent price increase, it would
9	not result in an increase in revenue to Google?
10	A. If we implemented a 15 percent price increase, it's very
11	possible that lots of advertisers would stop advertising on
12	Google and would instead reallocate their budgets to Facebook or
13	Tik-Tok or some other channel where they could get a better
14	return on investment.
15	So I think a 15 percent price increase would be a very
16	dangerous thing for Google to do.
17	MR. DAHLQUIST: Your Honor, I move to strike the
18	answer as nonresponsive.
19	MR. SOMMER: Objection.
20	THE COURT: I'm not going to strike the answer.
21	Re-ask him the question, and we'll move forward.
22	BY MR. DAHLQUIST:
23	Q. Sir, let me ask the question one more time. Would you
24	agree, do you have any reason to believe that if Google
25	implemented a 15 percent price increase that the revenue at

1	Google would not go up?
2	A. Yes.
3	Q. Sir, if we can look at your deposition again, September 28,
4	2020, page 67, line 3, through 67, line 10.
5	Are you there, sir?
6	A. I'm here.
7	Q. Page 67, sir. On September 28, did we ask the following
8	question, and did you give the following answer:
9	"Question: Would you keep enough advertisers so that your
10	revenue would go up if you implemented a 15 percent increase?
11	"Answer: I imagine that's what the author would say, yes.
12	"Question: Do you have any reason to think that that's not
13	true?
14	"Answer: No."
15	Did you give that answer to that question, sir, on
16	September 28?
17	A. I'm reading through the previous page to make sure that I
18	understand this in context.
19	Q. Sir, I'm only asking about this question. You are free to
20	look at the rest, but I'm asking for a yes or no answer to this
21	question.
22	Were you asked that question, and did you give that answer?
23	A. Am I allowed to read the previous page for 30 seconds?
24	Q. Sir, don't look at your counsel for instruction on that. I
25	would like you to look at me. I'm asking you a question and an

1 answer. 2 Yes, I was looking at you. Α. 3 MR. SOMMER: Judge, there is no basis for counsel's comment right now about where the witness was looking. 4 He was 5 looking at Mr. Dahlquist. So I don't think we need that kind of 6 colloquy. 7 MR. DAHLQUIST: Your Honor, I will re-ask the 8 question. 9 THE COURT: Just re-ask the question. 10 BY MR. DAHLQUIST: 11 Sir --Ο. 12 THE COURT: Hold on for a second. 13 BY MR. DAHLQUIST: Were you asked the following question and did you give the 14 Ο. 15 following answer on page 67, line 3, through 67, line 10 -- do 16 you see that, sir? 17 Α. I do. 18 So I'm going to re-ask it. Q. 19 "Question: Would you keep enough advertisers so that your 20 revenue would go up if you implemented a 15 percent increase? 21 "Answer: I imagine that's what the author would say, yes. 22 "Question: Do you have any reason to think that that's not 23 true? "Answer: No." 24 25 Yes or no, did you give that answer?

That is the answer I gave on September 28, 2020, yes. 1 Α. 2 Q. Thank you, sir. 3 MR. DAHLQUIST: Your Honor, this is another piece that we ask to be submitted as a party admission. 4 5 THE COURT: It will be admitted. 6 MR. DAHLQUIST: Thank you, sir. 7 BY MR. DAHLQUIST: 8 Ο. Mr. Dischler, would you agree that Google believes it can 9 implement a 15 percent price increase as long as it's done 10 gradually? 11 No. Α. 12 We'll return back to that question when we get to the Q. confidential session. 13 14 Sir, do you agree that Google uses launches to help meet 15 revenue targets? Correct? 16 Α. Yes. 17 Ο. I would like to show you a document, UPX522. 18 And, Your Honor, this is a redacted e-mail. Actually, we 19 should take it down, please. That's not the redacted version. 20 Do we have the redacted version? If not, we can do it on 21 papers. 22 MR. SCHMIDTLEIN: We're having a lot of problems with 23 redacted versions getting shown on the screen. 24 MR. DAHLQUIST: We're not here, sir. 25 THE COURT: Let's dial it down a little bit, so to

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1	speak. We've all got our knobs to dial down. I think it went
2	up and went down fairly quick.
3	BY MR. DAHLQUIST:
4	Q. Sir, in front of you in the binder is UPX522. Do you see
5	that document?
6	A. I do.
7	MR. DAHLQUIST: Your Honor, UPX522 is in evidence, and
8	it has limited redactions related to just the certain numbers.
9	BY MR. DAHLQUIST:
10	Q. Mr. Dischler, as we look at the document, let's be careful
11	not to read the numbers, but the rest of it is not confidential.
12	Sir, is 522 an e-mail that you sent to a variety of members
13	of your team, including your boss, Dr. Raghavan, on May 3, 2019?
14	A. Yes.
15	Q. Sir, do you see, I think, the you sent the e-mail, and
16	in the largest paragraph at the top, I'm going to focus on the
17	second sentence. Sir, did you write, "We are short X percent
18	queries and are ahead on ad launches, so are short X percent
19	revenue versus plan?" Did you write that in October of I'm
20	sorry, May of 2019?
21	A. I did.
22	Q. The next sentence states, "If we don't hit plan, our sales
23	team doesn't get its quota for the second quarter in a row, and
24	we miss the street's expectation again, which is not what Ruth
25	signalled to the street. So we get punished pretty badly in the

market." 1 2 Is that correct, sir? 3 Α. That is what I wrote. And I believe "Ruth" refers to Ruth Porat, your chief 4 Ο. 5 financial officer; correct? 6 Α. Yes. 7 The next line, you state, "We are shaking the cushions on Q. 8 launches and have some candidates in May that will help, but if 9 these break in mid- to late May, we will only get half a guarter 10 of impact or less, which means we need X percent excess to where 11 we are today and can't do it alone." 12 Did you write that, sir? I did. 13 Α. 14 And sir, the search ads team was shaking the cushion on Ο. 15 launches to find more revenue; correct? 16 What the search ads team was doing was to try to be Α. 17 creative to see if there were any quality changes that we could 18 make that would improve the user experience and also improve 19 Google revenue with reasonable advertiser trade-offs. 20 Part of your goal of shaking the cushions was to find more Ο. 21 revenue for Google; correct? 22 My goal was to get creative so that we could try to make Α. 23 our quarter, yes. 24 Continuing down in the e-mail, the next full paragraph Q. 25 states, "The question we are all faced with is how badly do we

want to hit our numbers this quarter? We need to make this 1 2 choice ASAP." 3 Do you see that sentence? Yes. 4 Α. 5 And the next sentence, you state, "I care more about Q. 6 revenue than the average person, but think we can all agree that 7 for all of our teams trying to live in the high-cost areas, 8 another \$100,000 in stock price loss will not be great for 9 morale, not to mention the huge impact on our sales team." 10 Did you write that, sir? 11 Sir, you just --Α. 12 MR. SOMMER: Hold on one second, Counsel. 13 Your Honor, may I? 14 MR. DAHLOUIST: I don't think that number --15 (Counsel conferred.) 16 MR. DAHLQUIST: Your Honor, I apologize. I was just informed that a number I read was redacted. So I apologize for 17 18 that fact. Let me re-ask the question without that. 19 BY MR. DAHLOUIST: 20 Mr. Dischler, did you write -- actually, I can ask the Ο. 21 question without redoing it. 22 Let me ask, Mr. Dischler, did you write in May of 2019 that 23 you care more about revenue than the average person? Correct? 24 Yes. As the leader of the ads team, I should care more Α. 25 about revenue than the average person.

1	Q. And we can move on from that document, then, sir.
2	Your Honor, I'm about to start another section. We can
3	push on or
4	THE COURT: We can go until 3:00 and then take our
5	break.
6	BY MR. DAHLQUIST:
7	Q. I would like to turn to talking about the ad auction
8	dynamics that are used at Google specifically with respect to
9	the search ads auction.
10	We hit it a little bit earlier about reserve pricing;
11	correct?
12	A. Yes.
13	Q. And I would like to talk more. Reserve pricing is the
14	minimum amount that an advertiser pays in order to win a search
15	ads auction; correct?
16	A. It's the minimum amount that an advertiser can pay in order
17	to participate in the auction. It's the lowest price that they
18	would pay for a given auction.
19	Q. And Google does not tell advertisers if the price they're
20	paying is based on the bid or reserve price; is that correct?
21	A. That's correct.
22	Q. And Google has made tuning adjustments or pricing changes
23	to the reserve pricing before; correct?
24	A. We have, typically to get bad advertisers out of the
25	auction.

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1	Q.	And we talked before about the thousand or so
2	laun	cheslet me strike that, the many launches that are made
3	to c	hange or update the search ad auction process throughout any
4	give	n year.
5		The search ad team generally gives code names or specific
6	name	s to those launches; correct?
7	A.	In some cases, yes.
8	Q.	Are you familiar with the text ad format pricing launch?
9	A.	Yes.
10	Q.	And there would be many
11	A.	There were several.
12	Q.	I agree. There have been many launches that change the
13	form	at pricing of a text ad; correct?
14	Α.	Correct.
15	Q.	And are the format pricing launches specific to text ads?
16	Corr	ect?
17	Α.	They are, yes.
18	Q.	And format pricing was an effort by Google to equalize the
19	valu	e between the text ad position and the space it takes up on
20	the	search engine results page; correct?
21	Α.	Yeah. It's just like not charging the same for a quarter
22	page	and a half-page newspaper ad. We charge people for space
23	in a	ddition to position.
24	Q.	And Google has adjusted the pricing based on the size of
25	the	text ad format; correct?

Yes, in order to equalize the effect so that people pay 1 Α. 2 fairly for either an ad that shows at the top of the page or an 3 ad that's of a certain size that gets the same amount of attention via clicks. 4 And in connection with text ad format pricing, Google has 5 Ο. 6 made tuning adjustments to increase the cost per click; correct? 7 In some cases, increase the cost per click; in some cases, Α. 8 decrease the cost per click. But the net has been to increase 9 because we weren't charging for formats before. 10 Are you familiar with a text ad auction launch named Q. 11 momiji? 12 Yes, but we'll have to look at the document, because there Α. 13 are many of them. 14 And is momiji related to search -- I'm sorry. Is momiji Ο. 15 related to text ad format pricing? 16 I believe so, but we should probably look at the launch Α. 17 document. 18 And I think the momiji launch occurred around 2017; Q. 19 correct? 20 I don't remember. Α. 21 And sir, would you agree that a momiji is a small painted Q. 22 doll with space in the base of the doll to hide secret messages? 23 Are you aware of that term? 24 No. We had a very creative Japanophile product manager. Α. Ι 25 didn't understand the provenance of Momiji.

1	Q. I had to look that up, and I got the same result on Google
2	and Bing, by the way.
3	Momiji text ad launch was eventually approved and launched
4	into the search ad auction process; correct?
5	A. A variant of it, perhaps. I'm not 100 percent sure.
6	Again, I would have to look at the launch document.
7	Q. Let me ask the general question.
8	Sir, do you agree that the momiji text ad launch resulted
9	in an increase in CPCs for advertisers?
10	A. I would you're asking me questions about a specific
11	launch in 2017 when we run thousands of experiments a year
12	without looking at the documentation associated with the launch.
13	So I'm afraid I'm not sure.
14	Q. We will come back to it in the confidential session, and we
15	will look at a document to give you a little bit more help.
16	A. Great.
17	Q. Are you familiar with the concept of squashing in reference
18	to the text ad auction?
19	A. I am.
20	Q. And squashing is an auction technique that compresses the
21	delta or the difference between the participants in a text ad
22	auction; correct?
23	A. It is, to try to prevent runaway winners and to create a
24	chance for smaller advertisers to participate in the auction.
25	Q. In squashing, the difference between the highest bidder and

1	the	next bidder is squashed or compressed; correct?
2	Α.	That's correct.
3	Q.	And Google has implemented squashing in its text ad auction
4	dyna	mics; correct?
5	Α.	It has.
6	Q.	And one of the effects of squashing text ads is that the
7	top	winner of the auction pays more; correct?
8	A.	In some cases, yes.
9	Q.	On average, the winner pays more; correct?
10	Α.	On average, yes.
11	Q.	And because sir, are you familiar with another text ad
12	laun	ch called either randomization or the highly technical term
13	RGSP	? Are you familiar with that launch?
14	A.	Yes.
15	Q.	And RGSP stands for randomized general second-price launch;
16	corr	ect?
17	Α.	Randomized generalized second-price auction.
18	Q.	All right. We're going to try to stay high level for this.
19	But	well, let me say this: RGSP is another text ad launch
20	that	Google made in relation to the search ad auction for text
21	ads;	correct?
22	A.	That's correct.
23	Q.	And while highly complex, the effect of the RGSP is that at
24	time	s the top bidder and the second-place bidder switch places;
25	corr	ect?

That's right. 1 Α. 2 And under RGSP, the runner-up can become the winner; Q. 3 correct? That's correct. 4 Α. 5 And under RGSP, the winning bidder may not actually be the Q. 6 highest bidder, because they flip places; correct? 7 Α. That's correct. 8 Ο. And in fact, under RGSP, the winning bidder may not have 9 the highest value or the highest-quality ad; correct? 10 Based on our -- based on our metrics, that's correct. And Α. 11 the reason we do it is so that we don't have biases and 12 winner-takes-all dynamics. 13 The problem that we were having is that you have these very 14 big, successful businesses like Amazon or Booking, and people 15 think that they're such high quality that nobody else ever shows 16 up in the first place. 17 And for a healthy auction, what we do is some percentage of 18 the time we flip them to see if actually somebody may be better 19 in a category in order to improve the user experience for the 20 user. Otherwise, Amazon always shows up on top, and you will 21 never be able to figure out if anybody is better than Amazon. 22 Sir, let me ask the question as simply as I can. Under Ο. 23 RGSP, the winning bidder may not have the highest value or ad

24 rank; correct?

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A. The highest ad rank is correct. It may have the highest

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1	value. We just may not be able to score it based on the
2	metrics, which is why we do RGSP, is to try to do some amount of
3	exploration.
4	Q. Under RGSP, if an advertiser wants to make sure they win
5	the auction, they need to bid higher in order to avoid the
6	randomization process; correct?
7	A. No, I don't believe that's the case.
8	Q. Sir, would you agree that in some cases, under RGSP, the
9	highest bidder needs to bid higher in order to get the top spot
10	to avoid the randomization; correct?
11	A. So I'm not 100 percent sure on this, but I'm pretty sure
12	that you can't avoid the randomization and that that's a part of
13	the mechanism.
14	Q. Sir, would Mr. Juda probably know more about the components
15	of RGSP than yourself?
16	A. Dr. Juda would be able to tell you all the details on RGSP.
17	Q. Okay. And I apologize. Dr. Juda.
18	Let me ask one more RGSP question. Under RGSP, if an
19	advertiser is the only participant in an auction, they may be
20	randomly dropped from the auction entirely; do you agree?
21	A. I'm not sure that effect if you're a single ton bidder.
22	Dr. Juda should be able to tell you if that's the case.
23	Q. Under RGSP, Google increased its revenue; correct?
24	A. I believe the answer is yes.
25	Q. You've mentioned it a few times, but Google does not have a

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single metric -- let me take a step back.

We talked about ad value or ad rank. Google does not have a single metric that's used to determine advertiser value; correct?

A single metric to determine advertiser value? No. 5 Α. 6 Advertisers have very different metrics that they use in order 7 to assess their value. It could be sales. It could be gross 8 merchandise value. It could be the lifetime value of a 9 customer. So we couldn't have a single metric to measure 10 They all have their own business objectives. advertiser value. 11 We try to help them achieve those objectives.

12 Q. And you try to equalize or approximate what the advertiser 13 value might be, but you really don't know what the value is to 14 the advertiser; correct?

15 Well, the advertisers tell us in some cases. We have Α. 16 automated bidding products that represent the majority of our 17 search ads revenue, and there, they're actually giving us an 18 advertiser value function. And so if our price is too high and 19 we can't achieve that advertiser value, which is a business objective, then they just don't participate in the auction. 20 21 We're trying to align our incentives with their incentives. 22 Sir, Google does not tell advertisers when it raises prices Q. 23 on search ad prices; correct? 24 Typically, we don't. There have been a few cases where we Α.

have. We also don't tell them when we lower prices.

1	Q. Google can make pricing changes to the ad auction that are
2	not noticed by advertisers; correct?
3	A. It's possible that advertisers won't notice them. It's
4	possible that they will.
5	Q. Google did not tell advertisers when it implemented the
6	RGSP randomization switch; correct?
7	A. I'm actually not sure on that one. We may have had a we
8	may have had a comms doc associated with it sorry, a
9	communications plan associated with it. I'm not sure.
10	Q. Based on your understanding, you do not believe that Google
11	informed advertisers when it implemented RGSP; correct?
12	A. I said I wasn't sure.
13	Q. Google did not tell advertisers when it implemented
14	squashing in the text ad bid process; correct?
15	A. I'm not sure on that one either. We sometimes do; we
16	sometimes don't. We tend not to tell advertisers about pricing
17	changes.
18	Q. Sir, if we could take a look at UPX461, which is another
19	document in your binder.
20	MR. DAHLQUIST: And Your Honor, I don't believe
21	there may be redactions on this. Do we have the redacted
22	version? We do? Okay.
23	BY MR. DAHLQUIST:
24	Q. I'm only focused on the first page of this one, sir.
25	A. Okay.

1	Q. And you have an e-mail at the bottom half of UPX461?
2	A. Yes.
3	Q. It's an e-mail from you to a gentleman named Sundeep Jain,
4	from April of 2016.
5	Do you see that?
6	A. Yes.
7	Q. And sir, your e-mail, the third full sentence states, "We
8	never really had market pressure to clean up advertising. Just
9	look at the state of ads and the particular search ads when
10	AdWords was announced."
11	Do you see that, sir?
12	A. I do.
13	Q. And do you agree that you never really had market pressure
14	to clean up advertising? Correct?
15	A. At the time of the point that I was making, at the time
16	when AdWords was released, the typical way of advertising was
17	through banner ads or pop-up ads that were obtrusive to the
18	user.
19	AdWords came in and created high-quality relevant
20	advertising that was relevant to the query and didn't just
21	accept the highest bidder but also had a user quality factor.
22	What I was saying was that there was no market pressure for
23	us to include the user quality factor in our advertising. It
24	was more of a moral imperative that we thought it was the right
25	thing for the user, even though we would make less money in the

short term because we believed that we would make more money in 1 2 the long term. 3 Sir, when you wrote in April of 2016, you believed that you Ο. never really had ad pressure to clean up advertising in 2016; 4 5 correct? 6 What I was saying was exactly what I explained, that we Α. 7 didn't have market pressure at the time when the product was 8 created in 2004 in order to clean up advertising, but we did it 9 anyway because we were focused on quality. 10 MR. DAHLQUIST: Your Honor, I think that concludes 11 what I can do in a open session. 12 And so I think at this time we're ready to move to a 13 confidential session, but I want to give my colleagues at the 14 states opportunity to question in the open session. 15 MR. CAVANAUGH: Your Honor, I probably have about a 16 half an hour of questions. 17 THE COURT: Okay. Let's go ahead and take our 18 afternoon break. It's a little bit before 3:00. We will resume 19 at 3:15. See you all shortly. 20 (Recess taken from 2:58 p.m. to 3:17 p.m.) 21 (Call to order of the court.) 22 THE COURT: Mr. Cavanaugh. 23 MR. CAVANAUGH: Thank you, Your Honor. Your Honor, 24 we've handed up some documents that I may refer to in my 25 examination.

1	DIRECT EXAMINATION
2	BY MR. CAVANAUGH:
3	Q. We've met before. My name is Bill Cavanaugh. I'm counsel
4	for Colorado and Nebraska.
5	Sir, in your current position as vice president and general
6	manager of ads, you are responsible for the teams that build
7	advertising products
8	A. Yes.
9	Q for Google? And that would include Google Ads and
10	SA360?
11	A. Yes.
12	Q. And in your prior position as vice president for ad
13	platforms and Google properties, you oversaw the product and
14	engineering teams that would work on those products; correct?
15	A. The product team or product and engineering teams, yes.
16	Q. Okay. Now, Google Ads is Google's native tool for
17	advertisers to bid for the placement of ads on Google's SERP;
18	correct?
19	A. That's correct.
20	Q. And every native tool has a number of features, does it
21	not?
22	A. It does.
23	Q. Could you explain to the Court what a feature is?
24	A. Some of the functionality for setting up ad campaigns for
25	managing the return on investment for configuring your ads,

measuring the value that you get, things of this nature, not 1 2 just for search ads but also for other ad types offered by 3 Google. It's the way that advertisers interact with the system. Now, one of the features in the Google Ads native tool is 4 Ο. 5 what is known as auction-time bidding; correct? That's correct. 6 Α. 7 Okay. And auction-time bidding is a -- it's a bidding Ο. 8 functionality that automatically adjusts the bid up or down in real-time at the time of the auction; correct? 9 10 That's correct. So for those billions of auctions per day Ά 11 that we were talking about, in a very short period of time, what 12 it does is it reacts to those auction dynamics in order to set its bids. Very technically complex. 13 14 And from Google's perspective, auction-time bidding is very Ο. 15 valuable to advertisers; correct? 16 It's beneficial to advertisers, because it's better than Α. 17 the other alternatives. It lets them act on the most up-to-date information within 18 Ο. 19 an ad auction; correct? 20 That's correct. Α. 21 And to distinguish that from traditionally intraday bidding Q. 22 where bidding strategies can only be updated every six hours; 23 right? 24 I'm not sure whether six hours -- I wouldn't anchor on six Δ 25 hours, but certainly less frequently than an ad auction.

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1	Q. Sure. And auction-time bidding can help advertisers get a
2	better return on their advertising investment than they would
3	with intraday bidding?
4	A. That's correct. It's one of the features that they can use
5	to get a better return on investment. There are lots of others.
6	Q. Auction-time bidding allows advertising customers to
7	optimize on their business objectives?
8	A. Yes. Any bidder allows customers to optimize based on
9	their business objectives.
10	Q. And advertisers have been able to use auction-time bidding
11	in the Google Ads native tool since 2016; correct?
12	A. I'm not sure of the exact date.
13	Q. But around that time frame?
14	A. I believe so.
15	Q. Auction-time bidding on Google Ads has had a high adoption
16	rate by advertisers; correct?
17	A. Yes, yes, it has had a high adoption rate.
18	Q. And Google's goal is to have all advertisers on Google Ads
19	using auction-time bidding; right?
20	A. Not all advertisers, but we would like the whole point
21	of bidding software is so that we can understand the
22	advertiser's underlying business objective so we can better
23	align our objectives with theirs. So if we can understand their
24	business objective and it's representative of their business
25	objective, then yes, we like them to use the bidding software.

1	Q. And Google benefits in the long run by advertisers adopting
2	auction-time bidding; correct?
3	A. We believe we benefit in the long run, but it's a bit of a
4	bet. It's possible that when the advertiser sets their business
5	objective, that Google is not able to meet their business
6	objective, in which case their business will go elsewhere.
7	Q. But in the long run, if you're providing this advantageous
8	feature, that provides a potential significant benefit to
9	Google, does it not?
10	A. We hope it does, but again, it's a little bit of a bet. If
11	we can't achieve their business objectives, they might go to
12	Bing or Facebook or somewhere else.
13	Q. Let's turn to search engine management tools. If I refer
14	to them as SEM tools, you will understand that phrasing?
15	A. Yes.
16	Q. An SEM tool is a centralized tool used for management of
17	search ad campaigns across multiple platforms; right?
18	A. That's right.
19	Q. So an advertiser could use an SEM tool to place ads across
20	native tools like Microsoft Ads or Google Ads; right?
21	A. That's correct.
22	Q. And am I correct that for search engines like Yahoo! and
23	DuckDuckGo, they work through Microsoft Ads?
24	A. I believe that Yahoo! and DuckDuckGo both use Microsoft ads
25	as the underlying technology, but there are other search engines

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1	that have their own ad interfaces.
2	Q. But I'm talking in the United States, we have Yahoo! and
3	DuckDuckGo. They both work through
4	A. Microsoft Ad
5	Q Microsoft Ad; right?
6	A functionality, yes.
7	Q. And the other native tools you're referring to, those are
8	search engine platforms that operate outside the United States;
9	right?
10	A. Let's be very precise. So the SEM tools support a number
11	of search engines. Many of our advertisers operate in the
12	United States and globally. There are three search engines
13	the four search engines that you described are the primary ones
14	used in the United States, and there are other search engines in
15	other markets. But the underlying driver for the advertiser to
16	use across an SEM tool is so they can handle all of their search
17	engines and then also in many cases ads from Facebook and Amazon
18	using a single interface.
19	Q. And so to just summarize what I think you just said, an SEM
20	tool provides a centralized and integrated environment that
21	makes advertising across multiple platforms easier and more
22	accessible
23	A. That's correct.
24	Q for advertisers; right?
25	If we could put up PSX854.034, which is a I showed this

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1	in my opening.
2	Let me ask you, referring to the Google Search Ads 360,
3	this is Google's SEM tool; correct?
4	A. That's correct.
5	Q. And what we've depicted here is a basic overview as to how
6	an SEM tool operates?
7	A. I mean, it's not strictly this is not strictly correct,
8	but
9	Q. Close enough?
10	A. It depends on what point you're making. I'm not sure
11	Q. I'm simply making the point that SA360 or other SEM tools
12	simply you work through them to get to the native tools of
13	different search engines; correct?
14	A. That's not really how it works. How it works is the you
15	can buy on Google Ads or you can buy on Microsoft using a front
16	end like Google Ads or Microsoft advertising or through an API,
17	an application programming interface, which is a standardized
18	way for machines to talk to each other.
19	SA360 or another SEM tool will use the application
20	programming interface. They won't go directly in through the
21	front end and buy ads.
22	So that's the reason that the picture is not strictly
23	correct, that they wouldn't actually go through the native tool.
24	They'd use a separate interface.
25	Q. And they do that through multiple they can do that

1	through multiple native tools; correct?
2	A. They do that through multiple application programming
3	interfaces that are offered by the providers that also offer the
4	native tools, yes.
5	Q. Now, SA360 goes back to Google's acquisition of DoubleClick
6	in 2008; correct?
7	A. That's correct. I forget what year the DoubleClick
8	acquisition was, but SA360 was previously called DART Search,
9	which was a DoubleClick tool.
10	Q. And at the time of Google's acquisition of DoubleClick,
11	DoubleClick Search was the predecessor to SA360; correct?
12	A. That's correct.
13	Q. Okay. Peter, if we could go to PSX1109, which is already
14	in evidence, Your Honor.
15	Mr. Dischler, this is a I will represent to you this is
16	a public Google document from 2012.
17	You were employed by Google in 2012?
18	A. I was.
19	Q. All right. And you were aware of Google's acquisition of
20	DoubleClick at the time?
21	A. I was.
22	Q. All right. Now, if you would look at page 2, the second
23	full paragraph, it begins "we believe." "We believe in
24	analytics-based marketing on Google, Bing, Yahoo! or any other
25	network or platform that delivers accountable results online.

1 We want online advertising to continue its growth trajectory and 2 will always be a neutral third party, helping you achieve the 3 highest return on investment, regardless of the online channel." Sir, do you understand this to be Google representing to 4 5 advertisers that it will operate its SEM tool as a neutral third 6 party, regardless of what native tool is ultimately used? 7 Α. I'm not sure I understand the last part of your question. 8 Ο. Sure. 9 What native tool is ultimately used? Α. 10 "Regardless of the online channel," and there's a Q. Yes. 11 reference up there to Google, Bing, Yahoo!. Those are different 12 general search engines, are they not? That's correct. 13 Α. 14 All right. And so Google was representing that no matter Ο. 15 where an ad was going to appear, no matter what general search 16 engine it was, that if you used Google's SEM tool, it would be 17 a, quote, neutral third party; correct? 18 That's the aim of the product, yes. Α. 19 All right. And Google has continued to promote that to Ο. 20 advertisers to this very day, has it not? 21 I'm not sure what language they use today, but -- I'm not Α. sure what language they use today, but this is the aim of the 22 23 product, to be a neutral third party. 24 So the message hasn't changed since 2012? Google still is Q. 25 telling advertisers, Come to us on SA360 because we will -- we

1	are a neutral third party, no matter where you want to run your
2	ad, on Google, Bing, Yahoo!, or anywhere else; right?
3	A. Whatever supported platforms are available in the tool, we
4	try to be a neutral third party.
5	Q. Okay. Now, DoubleClick Search was renamed SA360 in
6	July of 2018; right?
7	A. I'm not sure what the timing was around that.
8	Q. Google charges a fee to advertisers for utilizing SA360;
9	correct?
10	A. It does.
11	Q. Okay. If an advertiser only wanted to bid for ads on
12	Google, there would be no reason to use SA360; right?
13	A. There might be a reason to use SA360, but most advertisers
14	buy across multiple engines.
15	Q. But if I was an advertiser and I just wanted to go I
16	recognize what Google's market share is, and I'm like, I'm only
17	going to advertise on Google, there would be no reason to use
18	SA360; right?
19	A. There's an advanced large advertiser functionality that we
20	have that makes your life easier if you use SA360. So it's
21	possible that we have advertisers using the platform who don't
22	benefit from cross-engine support. Most do.
23	Q. But if an advertiser wanted to just use Google Ads and they
24	went through SA360, they're incurring a fee they wouldn't
25	otherwise need to incur; right?

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1	A. Yeah, but I mean, large advertisers pay fees for all sorts
2	of things. Sometimes they want premium support. Sometimes they
3	want little additional features. Their time is very valuable.
4	Q. Now, you said SA I'm sorry. Google's auction-time
5	bidding feature was available on Google Ads going back a number
6	of years; correct?
7	A. Several years, yes.
8	Q. All right. And that was before it was available through
9	SA360; correct?
10	A. Yeah, that's correct, because it was so technically
11	complicated that we didn't know whether it would be possible to
12	actually move over to SA360, but we figured out a way to do it
13	after several years of development.
14	Q. And this was causing advertiser confusion; right?
15	A. It was.
16	Q. Advertisers were concerned about using the SA360 tool at
17	the time, because they thought they might get a better
18	performance if they went directly to Google Ads?
19	A. Using auction-time bidding, which in some cases they did
20	and some cases they didn't.
21	Q. And you had a project NYX?
22	A. Yes.
23	Q. How do you pronounce that?
24	A. NYX.
25	Q. That was the internal code name for the product that
l	

integrates Google Ads' auction-time bidding into SA360? 1 2 Α. Yes. 3 And you had a role in approving project NYX? Ο. I did. 4 Α. And project NYX -- you and others at Google viewed project 5 Q. 6 NYX as important because Google wanted advertisers to have the 7 best functionality across all search engines? 8 Α. We wanted -- we thought that it was important because we 9 wanted them to have the best functionality on Google. Google 10 was the first company in market with something like auction-time 11 bidding, which again, the auction-time bidding functionality was 12 very technically complex. Importing it over to a cross-engine 13 SEM tool was even more technically complex. 14 So since we were the first to market with that 15 functionality, we thought it was important. Advertisers gave us 16 good feedback on it. We wanted to support it in the product. And project NYX incorporated auction-time bidding only for 17 Ο. 18 Google Ads; correct? 19 That's correct, because we were the only player in the Α. 20 market who had auction-time bidding. 21 Microsoft Ads had real-time bidding going back to 2016, did Ο. 22 it not? 23 I don't believe Microsoft Ads had real-time bidding back to Α. 24 2016. 25 When do you think they incorporated that into their -- into Ο.

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1	Microsoft Ads?
2	A. I believe they did so after we did. I mean, the feedback
3	that I got was that we were market-unique at the time.
4	Q. Before you integrated auction-time bidding into SA360,
5	Microsoft Ads had real-time bidding on its native tool, did it
6	not?
7	A. That's correct.
8	Q. Now, when it was when auction-time bidding was
9	introduced for use through SA360, Google promoted the advantage
10	of that to advertisers, did it not?
11	A. It did. We said that we had auction-time bidding
12	functionality, and they knew that it was beneficial.
13	Q. So if we could turn to PSX909, which is in evidence.
14	And Jason Krueger is the project manager on Search Ads 360;
15	correct?
16	A. He is the product manager.
17	Q. Okay. So he would have been within your group?
18	A. Yes. He's the product manager for that particular feature
19	within Search Ads 360. He was not the product management lead
20	for Search Ads 360 at the time.
21	Q. If we could look at the last sentence on the first page, it
22	says, "During beta testing, hundreds of Search Ads 360
23	advertisers enabled Google Ads auction-time bidding and saw an
24	average lift in conversions of 15 to 30 percent at the same or
25	better ROI."

1	ROI is return on investment; correct?
2	A. That's correct.
3	Q. All right. And the 15 to 30 percent in conversions,
4	conversions is when the user clicks?
5	A. No.
6	Q. It's when they explain to the Court what a conversion
7	is.
8	A. A conversion is whatever event that an advertiser thinks is
9	significant. It might be something like selling a product or
10	visiting a store, filling out a web form, making a phone call.
11	It's basically a significant business event for the advertiser.
12	Q. So if I'm a retailer, in terms of a conversion would be not
13	only does the user click onto my link, but completes the
14	acquisition but then proceeds on the retailer's website to
15	purchase the product?
16	A. To purchase the product different advertisers set up
17	different conversion events, but just consider it a significant
18	business event.
19	Q. So 15 to 30 percent is a significant improvement?
20	A. It's a significant benefit relative to our previous bidder
21	for the set of customers that were included in the beta.
22	Q. And we can if you could now turn to PSX386.
23	It's also in evidence, Your Honor.
24	THE COURT: Can I just ask one clarifying question? I
25	think I know the answer, but just to be clear, when we talked

1	about search text ads and Google getting paid by click, click
2	literally just means clicking the ad? That's when Google gets
3	paid as opposed to when a conversion occurs?
4	THE WITNESS: That's correct.
5	THE COURT: Thank you.
6	BY MR. CAVANAUGH:
7	Q. This is a e-mail from Amit Varia to a number of
8	individuals. And I would ask you why don't we take it off
9	the screen, and if you could go to page 2.
10	Judge just take it off the screen.
11	If you see, there's some bolded language about a third of
12	the way down the page.
13	A. Okay.
14	Q. This Mr. Breese report on the level of adoption of
15	auction-time bidding, meaning SA360 advertisers?
16	A. Mr. Breese? Blake Reese?
17	Q. Yes.
18	THE COURT: I think you mean Mr. Krueger, it looks
19	like.
20	THE WITNESS: Yeah, Blake Reese just said
21	BY MR. CAVANAUGH:
22	Q. Oh, you're right. My apologies.
23	Does Mr. Krueger report on thank you, Your Honor.
24	Does Mr. Krueger report on the level of adoption? Does he
25	say "X percent plus of mixed customers are fully adopted"?

A. "80 percent of mixed customers are fully adopted." Yeah, I don't know what the -- so yes, I don't know what the denominator is here, though. I'm not sure if this means that 80 percent of the people who were in the couple hundred advertiser beta now are using it for all their campaigns.

Like I'm not sure what these depth and breadth metrics refer to. Like I don't think it's all -- because not all of the advertisers who use SA360 use our automated bidding functionality, and here, they rolled it out to a small percentage of the advertisers.

So I think the impressive metrics that he's reporting on are a relatively small population of folks using SA360. Well, at least as to those customers that participated in the beta testing, 80 percent of them were now fully adopted in utilizing auction-time -- the auction-time bidding feature in Google Tools through SA360; correct?

A. Yes.

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Q. Okay. And to the best of your understanding, have advertisers continued to utilize the auction-time bidding feature when utilizing SA360?

A. I mean, for the advertisers who have bidding adopted, they typically are going to use real-time bidding -- or auction-time bidding, which is a form of real-time bidding. The last stat that I ran suggested that the -- that the minority of our advertisers actually use our bidder within SA360. Some of them

use their own bidder. Some of them use manual bidders. 1 That 2 may have changed, though. So I don't have the current stats. 3 It's not like every single customer of SA360 uses our bidding 4 technology, though. Let me ask you to turn to PSX460 in the binder. 5 Q. 6 Your Honor, this again is admitted into evidence, and it 7 has redactions. And based on the metadata, Your Honor, this is 8 a December 17, 2020, document. 9 And if we go to page 4, there's a heading "why use an SEM tool." Now, in your position in 2020 in advertising -- this 10 11 document is entitled "New Business Pitch" -- would you have been 12 involved in hearing this presentation or in reviewing it? 13 Α. No. This is a sales presentation. 14 Okay. If we could move down to page 7, last sentence on Ο. 15 the page, it reads, "As the experiences between Google Ads, 16 Microsoft Advertising, and SA360 diverge over the last few 17 years, we have had the strong feedback from users that they 18 would prefer a common experience that would mean users would not need to learn two interfaces, allowing for a faster and more 19 20 seamless onboarding to new team members." 21 That's referencing to utilizing a SEM tool such as SA360 22 rather than an advertiser having to use separate native tools; 23 correct? 24 That's correct, although -- although the truth is, for many Α. 25 of our advertisers, they're often going into the native tools as

1 well. We haven't fully solved that problem. 2 But the messaging that you were sending out in this --Q. 3 Google was sending out in this pitch was utilize SA360, because you're getting feedback from users that they want -- advertisers 4 5 that they didn't want to use two separate tools? 6 That's right. I mean, they would prefer to use a single Α. 7 tool. We haven't fully solved the problem, however. 8 Ο. Well, one thing that would solve that problem would be 9 providing the same level of features for each of the native 10 tools so that you could work seamlessly across those tools; 11 correct? 12 That's not technically possible to do, though. Α. 13 Q. If we could turn to page 31. 14 Can you give me the number in the bottom right-hand corner? Α. 15 I'm not sure which is page 31. I need to find it. 16 Q. 17 THE COURT: 924. 18 THE WITNESS: Okay. "Our ongoing enterprise vision"? 19 BY MR. DAHLQUIST: 20 "Our vision." Ο. 21 "Our ongoing enterprise vision"? Α. 22 On page 31, third paragraph, "Our vision is to continue to Q. 23 invest heavily in improving the experience within individual 24 search engines and allow you to operate multiple search engines 25 with ease."

1	That's the mission that you're telling advertisers for
2	SA360; correct?
3	A. That's correct.
4	Q. Now, I believe you testified a moment ago that Microsoft
5	Ads has a similar feature to Google Ads called real-time
6	bidding; correct?
7	A. Correct.
, 8	Q. And at this time, Google does not offer real-time bidding
9	for Microsoft Ads through SA360; correct?
10	A. I believe it's in beta.
11	
	Q. But as of today, it's not available? It's in testing?
12	A. Yeah, I believe it's in beta. The reason that we don't
13	offer it is because of an unsolved technical problem.
14	Q. Counsel Mr. Dischler, why don't you just answer my
15	question.
16	Now, you are aware that Microsoft requested real-time
17	bidding support from Microsoft Ads on SA360 in the fall of 2019;
18	right?
19	A. I don't recall the date, but that sounds roughly right.
20	Q. And you were involved in discussions about whether SA360
21	whether Google would support real-time bidding for Microsoft Ads
22	through SA360; correct?
23	A. Yes.
24	Q. Okay. And you are aware of Microsoft's dissatisfaction
25	with the pace at which Google was approaching the issue of

1	adopting real-time bidding through SA360; correct?
2	A. I was.
3	Q. Now, you didn't have any of those discussions directly
4	with
5	A. Actually, let me revise my testimony.
6	Q. Sure.
7	A. I was aware that they were generally not pleased with the
8	progress of feature adoption for a set of features. I was not
9	aware that they were displeased with the support requests for
10	real-time bidding, again since that was an unsolved technical
11	problem that had yet to be discussed with them.
12	Q. Well, you are aware that project people at Google had
13	supported doing alpha testing in the fall of 2019, aren't you?
14	A. Pardon? I'm not sure what you mean.
15	Q. Were you aware that people working on SA360 at Google in
16	the fall of 2019 supported doing testing for real-time bidding
17	through SA360?
18	A. I believe that they were supportive of engaging with
19	Microsoft to do experimentation to see if it was technically
20	possible to support that feature. Again, the discussion that we
21	had on that feature was that we didn't know if it was possible
22	to actually support it.
23	Q. And one way to figure that out would be to do some initial
24	testing; correct?
25	A. Yes, which we subsequently did.

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1	Q.	Subsequently, years later; correct?
2	Α.	I don't believe it was years later.
3	Q.	Okay. Well, was Microsoft told in March of 2020 that there
4	woul	d not be any testing done?
5	Α.	I'm not sure what Microsoft was told in March of 2020, I'm
6	afra	id.
7	Q.	Okay. Now, you're familiar with project amalgam?
8	Α.	Yes.
9	Q.	And that was a new SA360, was it not?
10	Α.	A new SA360? It was the next version of our product on
11	upgr	aded infrastructure.
12	Q.	All right. And it involves an integration of Google Ads
13	and	SA360 on the Google Ads stack?
14	Α.	Yes.
15	Q.	Okay. The intended benefit of the project was better
16	supp	ort for features within Google Ads?
17	Α.	That was the primary customer benefit. The primary
18	inte	rnal benefit was that we had roughly 50 engineers who were
19	reim	plementing existing Google Ads features for no particular
20	reas	on other than because it was on an SEM tool, and we thought
21	that	if we converged the infrastructure, we could then use those
22	engi	neers to build value-added features like for other engines
23	and	other features that our most sophisticated advertisers
24	want	ed more quickly.
25	Q.	And before this, features often in Google Ads needed to be
	1	

	I
1	engineered to work in SA360; correct?
2	A. That's correct. There's still a bit of engineering that
3	needs to happen on the back end even with amalgam.
4	Q. But now Google Ads features automatically work in SA360?
5	A. For the most part, yes, post-amalgam. We're going to be
6	done at the end of the year.
7	Q. Let's turn to a different subject. Now, Amazon is one of
8	the largest advertisers on Google SERP?
9	A. Yes.
10	Q. Okay. Google does not run ads on Amazon for Google Search?
11	A. That's correct.
12	Q. Now, if I do a search on Amazon for a product, I can
13	complete the transaction on the Amazon website; correct?
14	A. Yes.
15	Q. Okay. In fact, that's the function of the Amazon site, to
16	start and complete a transaction all in one place; right?
17	A. That's one function of the Amazon site.
18	Q. When I do a search for a product on the Google SERP, I have
19	to go to the website of the seller to complete the transaction;
20	correct?
21	A. Yes.
22	Q. Now, if I do a search based on a product name on Google, I
23	will get the names of companies that sell that product; correct?
24	A. The names of companies and potentially specific products
25	themselves and the names of manufacturers and review sites and

1	
1	all sorts of things.
2	Q. I might get newspaper articles about it?
3	A. Sure.
4	Q. Those companies that sell the product may not advertise on
5	Amazon because some of them directly compete against Amazon?
6	A. That's correct.
7	Q. Okay. For example, companies like Walmart and Target
8	advertise on Google, but they don't advertise on Amazon because
9	they compete against Amazon for the sale of many of those
10	products; correct?
11	A. That's correct. Instead, they advertise on places like
12	Facebook and Tik-Tok and others.
13	Q. And on Amazon, I can only see competitor products strike
14	that.
15	On Amazon, I can only see ads from sellers who are prepared
16	to sell their products through Amazon; correct?
17	A. That's not correct.
18	Q. I'm sorry?
19	A. There are other ad formats on Amazon that don't require
20	that you sell on Amazon. You can advertise a movie. You can
21	advertise your brand. In some cases, they direct traffic off of
22	Amazon onto merchant sites, which is kind of similar to how
23	Google Ads works.
24	Q. The basic function of Amazon, though, I think you just
25	testified to a moment ago, is to complete the transaction within

1	the Amazon website; correct?
2	A. That's most of their ads complete the transaction on
3	Amazon websites. Amazon is a big company. They have movies and
4	music, and they have seller tools, all sorts of things.
5	Q. Now, over the years, you've had many conversations with
6	advertisers, have you not?
7	A. Yes.
8	Q. All right. And that would include retailer advertisers?
9	A. Yes.
10	Q. Who run ads on Google?
11	A. Yes.
12	Q. Okay. And you've not had any conversations with
13	advertisers comparing Google ad products with products sold by
14	Amazon; correct?
15	A. We've had an enormous number of conversations with retail
16	advertisers and consumer packaged goods advertisers on the
17	relative effectiveness of Google versus Amazon advertising, as
18	Amazon has grown incredibly rapidly over the course of the past
19	five years.
20	Q. Let me ask you to turn to page 554 of your transcript. I
21	think that would be the December 8th.
22	Mr. Dischler, when you gave your deposition on January 8th
23	under oath, were you asked this question on page 554, line 5:
24	"Question: And so in talking to retail advertisers"
25	THE COURT: Hang on, Mr. Cavanaugh. You need to give

1 me a minute to get there.

±	me a minute to get there.
2	MR. CAVANAUGH: I'm sorry, Your Honor.
3	THE COURT: That's okay. You said 554?
4	MR. CAVANAUGH: Yes. Line 5, Your Honor.
5	BY MR. CAVANAUGH:
6	Q. You were asked this question:
7	"Question: And so in talking to retail advertisers, is it
8	your testimony you never compare Google's advertising to
9	advertising offered by other companies?
10	"Answer: That I never compare Google advertising to
11	advertising offered by other companies? I have talked about
12	Google advertising on Facebook. I don't believe I've had a
13	discussion on Google advertising relative to advertising on
14	Amazon for retail advertisers."
15	Were you asked that question, and did you give that answer,
16	sir, under oath?
17	A. I did.
18	MR. CAVANAUGH: Thank you. Your Honor, I don't have
19	anything further in the public portion. I have a few questions
20	in the confidential session.
21	THE COURT: Okay. All right. So we're going to go
22	into another confidential session once more. And so if you are
23	not affiliated with either of the parties, I'm going to ask you
24	to please leave the courtroom, and we will take a minute to

25 disconnect the public line.

1	(The following occurred under seal.)		
2	DIRECT EXAMINATION (Continued)		
3	BY MR. DAHLQUIST:		
4	Q. Mr. Dischler, I would like to move into talking about some		
5	of the confidential information that we couldn't talk about in		
6	the prior session. I would like to first return to the item of		
7	financials and specifically search ad financials.		
8	You receive regular reports and updates on the financial		
9	performance of search ads from the finance group at Google;		
10	correct?		
11	A. Yes.		
12	Q. As discussed, you're also responsible for reporting the		
13	search ads' revenue results to your CEO, Mr. Pichai, on a weekly		
14	basis; correct?		
15	A. It's something I do, yes.		
16	Q. And so you are familiar with the revenue and profits for		
17	the search ads business; correct?		
18	A. I am.		
19	Q. Sir, are you aware and do you agree that Google's profit		
20	margin for search ads has ranged between percent over		
21	the last five years?		
22	A. A number between percent, yes.		
23	THE COURT: Sorry. ?		
24	MR. DAHLQUIST: , correct. percent and		
25	percent, Your Honor.		

I would like to look at a couple of the reports that you 1 2 received from the finance group. 3 Your Honor, we are marking a new exhibit. We're going to call it UPX2001. Permission to approach. 4 5 THE COURT: You may. 6 MR. SOMMER: Judge, just so you're aware, this was 7 never on DOJ's exhibit list. It was just handed to me. 8 MR. DAHLQUIST: And two for the Court. 9 MR. SOMMER: I'm not necessarily objecting. I just 10 haven't had a chance to review the document since it was not on 11 the exhibit list and was just handed over. 12 THE COURT: Okay. To be clear, if there's no 13 objection, you're going to have the opportunity overnight to 14 take a look at it. 15 MR. SOMMER: I appreciate that. 16 BY MR. DAHLQUIST: 17 Ο. Sir, I've handed you a document that's marked UPX2001, and 18 it's also Bates stamped 32223546, and it's a couple of pages. 19 Please take a minute to review, and my question for you is, 20 is this an example of some of the financial reports and 21 information that you and your team receive from the finance 22 group at Google? 23 This particular doc was a one-off done for an exec on my Α. 24 team, but it's indicative of the information I receive on a 25 regular basis.

Q. And these types of reports were posted to a cloud where you	1
or someone on your team went and pulled it down from a cloud to	
look at? It wasn't really transmitted via e-mail; is that	
correct?	
A. I'm not sure, to tell you the truth.	
Q. The particular document, UPX2001, is addressed to Shiv, and	ł
I think we established before Shiv is a member of your search	
ads team?	
A. He was at the time.	
Q. And it's entitled "2021 Search Ads P&L Outlook V.3."	
Do you see that?	
A. Yes.	
Q. And sir, I would like to focus on the first line, which	
says, "Shiv, please see below the latest 2021 search ads P&L	
outlook. We expect a total search ads operating profit of	
billion for fiscal year '21, plus percent year over	
year, percent Y/2Y, with percent operating profit	
margin."	
Do you see that?	
A. I do.	
Q. Sir, do you recall if in 2021 Google was forecasting an	
operating profit of \$ billion and an operating profit margin	
of approximately percent?	
A. No. This is a report prepared in 2020, guessing how 2021	
would perform.	
	<pre>or someone on your team went and pulled it down from a cloud to look at? It wasn't really transmitted via e-mail; is that correct? A. I'm not sure, to tell you the truth. Q. The particular document, UPX2001, is addressed to Shiv, and I think we established before Shiv is a member of your search ads team? A. He was at the time. Q. And it's entitled "2021 Search Ads P&amp;L Outlook V.3." Do you see that? A. Yes. Q. And sir, I would like to focus on the first line, which says, "Shiv, please see below the latest 2021 search ads P&amp;L outlook. We expect a total search ads operating profit of billion for fiscal year '21, plus percent year over year, percent Y/2Y, with percent operating profit margin." Do you see that? A. I do. Q. Sir, do you recall if in 2021 Google was forecasting an operating profit of \$ billion and an operating profit margin of approximately percent? A. No. This is a report prepared in 2020, guessing how 2021</pre>

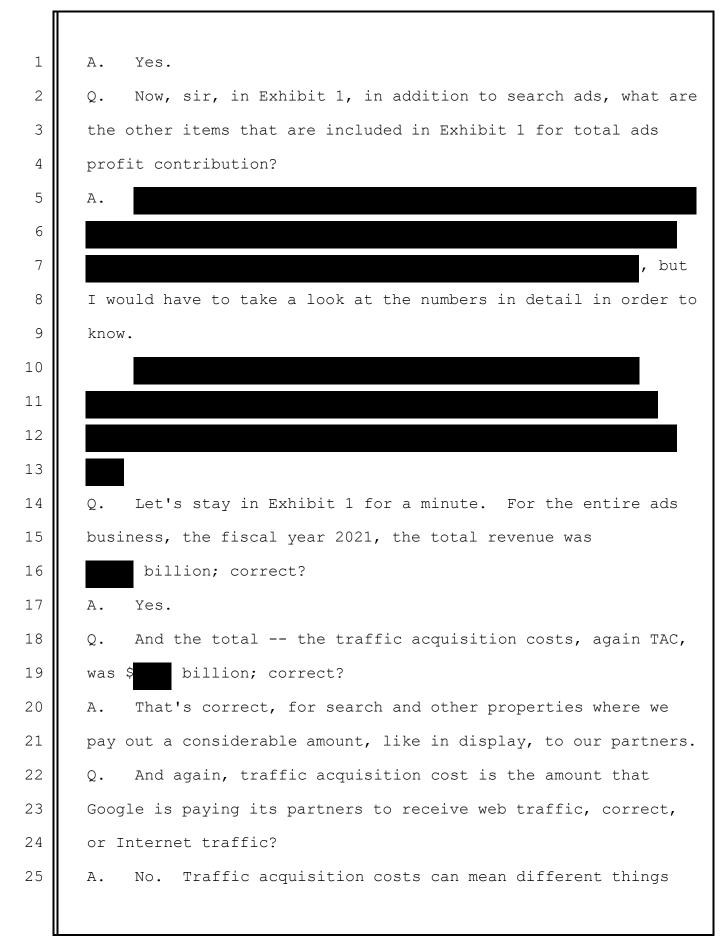
1	Q.	It was a projection; correct?	
2	Α.	It was a projection, yes.	
3	Q.	Let's turn to the second page and look at Exhibit 1 for	
4	sear	ch ads. I'll show you a few more as well, but this is	
5	indi	cative of the financial report that you and your other team	
6	members would receive from finance that would report a forecast		
7	as w	ell as compared to actuals; correct?	
8	Α.	Yes.	
9	Q.	And I would like to ask you about a couple line items on	
10	here	. In 2021 let's look at actual. In 2020, the actual	
11	serv	ed revenue of Google search ads was billion; correct?	
12	Α.	That's correct.	
13	Q.	And there's a separate line item, TAC, a couple lines down.	
14		Do you see that?	
15	Α.	Yes.	
16	Q.	TAC stands for total acquisition cost; correct?	
17	Α.	No.	
18	Q.	What does TAC stand for?	
19	Α.	Traffic acquisition costs.	
20	Q.	Thank you. Traffic. This is what happens when lawyers try	
21	to d	o finance.	
22		TAC stands for traffic acquisition costs; correct?	
23	Α.	Yes.	
24	Q.	And that is the cost that Google pays its partners in order	
25	to r	eceive query traffic; correct?	

		-
1	Α.	Correct.
2	Q.	And so in 2020, Google's traffic acquisition costs were
3		billion; correct?
4	Α.	Yes.
5	Q.	And in 2020, Google's actual gross margin, a couple lines
6	down	n, was approximately percent; correct?
7	Α.	Yes.
8	Q.	And all the way down at the bottom, in 2020, Google's
9	oper	cating profit was billion, for a profit margin of
10	p	percent; correct?
11	Α.	That's correct.
12	Q.	Now, Google was projecting or forecasting what it would do
13	in 2	2021; correct?
14	Α.	That's correct.
15	Q.	And it estimated or projected an operating profit of around
16	p	percent; correct?
17	Α.	That's correct.
18	Q.	And a gross margin of the search ads business around
19	p	percent, percent to be precise; correct?
20	Α.	That's correct.
21	Q.	And a total revenue of about billion forecasted for
22	2021	; correct?
23	Α.	Yes.
24	Q.	All right. You can put that down, and let's look at the
25	next	document, which is in your binder

MR. DAHLQUIST: I'm sorry, Your Honor. With your 1 2 permission, I request to move in UPX2001. 3 MR. SOMMER: If we have any objection, we will let you 4 know tomorrow, Judge. 5 THE COURT: So it will be provisionally admitted 6 subject to further objection. 7 (UPX2001 received into evidence.) 8 MR. DAHLQUIST: Thank you, Your Honor. 9 BY MR. DAHLOUIST: 10 In your binder, I would like to turn to UPX489. Ο. 11 Are we able to go on the screen because -- okay, great. 12 Because we're in a closed session, we can go on the screen. 13 UPX489 is the 2022 ads P&L, a similar report to what we 14 just looked at before. Let me know when you've found it in your 15 binder, sir. 16 I have. Α. 17 Ο. Great. And UPX489 is entitled "2022 Ads P&L Outlook -18 Preliminary"; is that correct? 19 Α. Yes. 20 This one is addressed to Philipp, Jerry, and another Ο. 21 gentleman. Can you help me pronounce his name? 22 Α. Prabhakar. 23 Q. Prabhakar, thank you. 24 These are individuals who are on your search ads team; 25 correct?

-		
1	Α.	No.
2	Q.	Who are Philipp and Prabhakar?
3	Α.	Philipp is the chief business officer of Google, and
4	Prab	hakar is the SVP of knowledge and information. He's my
5	mana	ger.
6	Q.	And similar to the other one, it states, "Please see below
7	a pr	eliminary view of 2022 ads P&L outlook based on the annual
8	oper	ating plan as of January"; is that correct?
9	Α.	Yes.
10	Q.	So the last one we looked at was a forecast of 2021, and
11	now	we're looking at a forecast of 2022; correct?
12	A.	Yes, except this one is for the entire ads business,
13	wher	eas the previous one was search.
14	Q.	Great. So the prior document that we looked at, UPX2001,
15	was	focused only on search ads?
16	Α.	That's correct.
17	Q.	And this document, UPX489, you say is focused on the entire
18	busi	ness?
19	Α.	That's correct.
20	Q.	And not only search ads?
21	Α.	That's correct.
22	Q.	I think it maybe has both, but let's dig a little deeper.
23	Α.	It has search ads it has search ads broken out.
24	Q.	Correct. It's a little more detailed, correct, sir?
25	Α.	That's correct. You can see it in the document.
	•	

1	Q.	Sure. About middle of the paragraph, in the introductory
2	para	graph, it states, "Overall, we expect a total ads operating
3	prof	it of \$ billion for fiscal year 2022, plus year over
4	year	, with a percent operating margin"; is that correct?
5	Α.	Yes.
6	Q.	And if we can go to the second full page where the charts
7	are,	there's Exhibit 1 and Exhibit 2, which has more detail.
8		Do you see Exhibit 1, the "Total Ads Profit Contribution"?
9	Α.	Yes.
10	Q.	And I'm on page I'm on UPX489 at page .002, Exhibit 1,
11	"Tot	al Ads Profit Contribution."
12		Same place?
13	Α.	Yes.
14	Q.	And this Exhibit 1 is focused on the ads business; correct?
15	Α.	Yes.
16	Q.	And the total search ads business; correct?
17	Α.	The total advertising business, including search and other
18	type	s of ads.
19	Q.	Search and other types of ads?
20	Α.	Yes.
21	Q.	The total served revenue for fiscal year 2021 was \$
22	bill	ion; correct?
23	Α.	That's correct.
24	Q.	And the projection for fiscal year 2022 was going to be
25	\$	billion; correct?
	1	



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1	depending upon what depending upon what product. So in		
2	YouTube, it would be payouts to creators. In the case of		
3	display ads, we would be paying the publishers on which the ads		
4	showed. In the case of search ads, it would be payment to		
5	partners. In the case of a product like AdSense for search, it		
6	would be payments to the property on which the ads are hosted.		
7	Q. For search ads, track acquisition costs is payments to your		
8	partners to receive Internet traffic; correct?		
9	A. That's correct.		
10	Q. Going down, the gross margin for 2021 was percent;		
11	correct?		
12	A. That's correct.		
13	Q. And the operating profit for 2021 was \$ billion, with		
14	an operating profit percentage of percent; correct?		
15	A. Yes.		
16	Q. Now, I believe you said this includes, in addition to		
17	search ads, other types of advertisements; correct?		
18	A. Yes.		
19	Q. What percentage of these numbers is search ads, to the best		
20	of your knowledge? The majority?		
21	A. I would have to what percentage of these numbers? Which		
22	number are you talking about?		
23	Q. Certainly. I'm asking about the revenue. Let's just look		
24	at the revenue in Exhibit 1 for fiscal year 2021. The served		
25	revenue, \$ billion, what amount of that is focused on		

1	sear	ch ads?
2	Α.	Served revenue fixed effects, it's billion out of
3	no.	Sorry. This is so I'm afraid we're going to need a
4	calc	ulator. I have to subtract billion from billion
5	and	then divide that by billion to give you a precise
6	answ	er. I can't do that in my head.
7	Q.	Maybe we can make this simpler for ourselves.
8		Let's go to Exhibit 2. Exhibit 2 is broken out in more
9	deta	il; correct?
10	Α.	Yes.
11	Q.	There's a category called ; correct?
12	Α.	Yes.
13	Q.	What is ?
14	Α.	
15		
16		
17		
18	Q.	
19		?
20	Α.	
21	Q.	
22		?
23	Α.	
24	Q.	What is your estimation as to the percentage of revenue in
25		that is search ads revenue?

1	A. It's in the
2	Q. So approximately percent or more of the revenue in
3	is search ads revenue; correct?
4	A. Yes.
5	Q. Now let's look at Exhibit 2 on UPX489, which is titled
6	
7	"; correct?
8	A. Yes.
9	Q. Just for definition, what's
10	A
11	Q
12	A. Yes.
13	Q. So looking at and here, this is showing
14	actuals the far-left column is actuals for fiscal year 2022;
15	correct?
16	A. No. This is a forecast for 2022.
17	Q. Understood.
18	A. In order to get the actuals, you have to subtract out the
19	change as I described.
20	Q. And that was why you needed a calculator to answer my
21	question earlier; correct?
22	A. That's correct.
23	Q. So let's just look at what is reflected on Exhibit 2 of
24	UPX489.
25	Google projected that the total revenue for for

1	fiscal year '22 was going to be \$ billion; correct?	
2	A. Yes.	
3	Q. And do you know if you hit that revenue target in 2022?	
4	A. I don't have the final 2022 closed number.	
5	Q.	
6	?	
7	A	
8	Q. The gross margin for 2022 was projected to be	
9	<pre>percent; correct?</pre>	
10	A. It was.	
11	Q. And the operating profit was projected to be percent for	
12	fiscal year 2022 for ; correct?	
13	A. It was.	
14	MR. DAHLQUIST: Your Honor, all of the P&Ls are in the	
15	record, but we thought it would help to give a little bit of an	
16	explanation of what they are when we talk about them another	
17	time.	
18	THE COURT: Okay.	
19	MR. DAHLQUIST: Thank you, sir. Let me make sure	
20	we're done with that. Actually, I apologize. I preempted two	
21	questions.	
22	BY MR. DAHLQUIST:	
23	Q. Sir, on the same thing, Exhibit 2, looking at the operating	
24	profit, so we saw for the operating profit was	
25	percent; correct?	

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1	Α.	Yes.
2	Q.	The operating profit for was percent,
3		; correct?
4	Α.	Yes.
5	Q.	And the revenue for was projected at ,
6		; correct?
7	Α.	That's correct.
8	Q.	And for the operating profit was projected at
9	p	ercent and revenue at percent or billion;
10	corre	ect?
11	Α.	Yes.
12	Q.	
13		?
14	Α.	Yes.
15	Q.	Okay. I think we're done with that document, sir.
16		Sir, I'd like to go back to some of the topics we were
17	disc	ussing in the public session and specifically with reference
18	to te	ext ad pricing launches or text ad format launches and one
19	name	d momiji.
20		Do you remember that, those questions?
21	Α.	Yes.
22	Q.	And momiji was a format launch specifically focused on text
23	ads;	correct?
24	Α.	Yes.
25	Q.	And I'd like to show you a document, UPX36, which should be

in your binder.				
Sir, looking at the very top, UPX36 is it looks like a				
multi-day discussion that you and your search ads team had				
related to the momiji launch. It says momiji review 1 through 4				
occurring from various dates in June 2017; is that correct?				
A. Yes.				
Q. The very top of the document is marked "privileged and				
confidential."				
To your recollection, were there any lawyers included on				
your search ads team that would have taken part of this				
discussion?				
A. Yes, I imagine a lawyer would have been present in the room				
for the discussion.				
Q. We're going to walk through you participated and engaged				
in this discussion over the many days; correct?				
A. I imagine I was in every I may or may not have been in				
every meeting, but I was likely in.				
Q. The page that ends 063, and it starts momiji review 2 on				
June 8, 2017.				

Okay. Α.

And I apologize for the quality. This is the best that was Q. produced to us.

Are we on the right page that ends 063?

Yes. Α.

And, sir, just beneath the picture that we can't make out, Q.

it states "agenda." 1 2 Do you see that? 3 Α. Yes. There's a comment from " 4 Q. Would you agree that any time there's a " ," those 5 6 are comments that you made as a part of the discussion; correct? 7 That's -- yes, I mean, based on the -- I assume that I made Α. 8 these -- this is what the author wrote down me saying. I'm 9 unsure as to whether I said those words. They may be 10 summarizing. They may have misunderstood me. I haven't 11 reviewed this document for accuracy. 12 Do you recall who took the notes during all these meetings? Ο. 13 Α. I really don't. It could have been one of several people. 14 You were shown this document during your deposition, Ο. 15 correct, in this case? 16 Yes, I believe so. Α. 17 Between the time of your deposition and today, did you ask Ο. 18 who took the notes for this meeting? 19 Α. No. 20 Sir, it states, "Agenda. Do we want to raise prices?" Ο. 21 Is that correct? 22 Α. Yes. 23 So one of the purposes of the meeting on this day, Q. 24 June 2017, was to ask do we want to raise prices; correct? 25 Yes. That was the -- that was the output of a change that Α.

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7			
1	we wanted to make in order to fix an incentive issue that we had		
2	with the auction. One output of that would be to raise prices.		
3	So we were asking ourselves the question, do we want to actually		
4	raise prices.		
5	Q. And that's reflected here. "Is it okay to raise price and		
6	how would we roll out?" Those were some of the topic points		
7	that were discussed in this meeting?		
8	A. Yes.		
9	Q. It's reflected that your comments are " : Two		
10	points. One, advertiser paying less than value. Hard to		
11	define."		
12	Do you see that?		
13	A. Yes.		
14	Q. And do you agree that it's hard to define the value that an		
15	advertiser is paying in the ads auction for text ads? Correct?		
16	A. At the time of 2017, it was difficult to define because		
17	most of our advertisers weren't using automated bidding where		
18	they specify the value via business objective.		
19	Today, the majority of our advertisers specify the value		
20	based on their business objective. So at the time, it was hard		
21	to assess, but now it's not.		
22	Q. Sir, in 2017, in June of 2017, do you agree that it was		
23	hard to define advertiser value as reflected in UPX36, your		
24	comments?		
25	A. I believe that was the case in 2017 for the advertisers who		

1	weren't using automated bidding at that time, because we had low			
2	adoption of those features.			
3	Q.	Thank you, sir. If we can go to the next page, that's		
4	Bate	Bates stamped 064. About the middle of the page, there's a		
5	bullet point heading "10 percent is believed to be safe."			
6		Do you see that heading?		
7	Α.	Yes.		
8	Q.	If we could zoom in on that section. Thank you.		
9		A bullet point item was "10 percent is believed to be		
10	safe," and below, it says, "WOW."			
11		Does WOW stand for week over week?		
12	Α.	Yes.		
13	Q.	It says, "Week over week noise is high (50 percent by spend		
14	seeing more than 10 percent)."			
15		Sir, is that a reflection that over 50 percent of your		
16	adve	rtisers were seeing their spend increase by more than 10		
17	percent?			
18	Α.	No.		
19	Q.	The next line states, "We've launched things at 15 percent		
20	and	heard nothing"; is that correct?		
21	Α.	Yes, that's what it says.		
22	Q.	And, sir, do you agree that Google has done text ad pricing		
23	launches at 15 percent and heard nothing from advertisers?			
24	Corr	ect?		
25	Α.	I believe what's being said here is that week over week		

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1	noise is high. That means it could go up or down by 15 percent.	
2	And I believe the second point that's being made is that	
3	we've launched things that affect some advertisers with a	
4	15 percent fluctuation up or down, and we have not heard from	
5	those advertisers with a 15 percent fluctuation. The broader	
6	point is that the auction is very dynamic, and prices fluctuate	
7	a lot, and those are the points that were being made.	
8	Q. And the comment here is that previous launches have	
9	increased 15 percent for the average advertiser and you've heard	
10	nothing; correct?	
11	A. That's not what it says at all.	
12	Q. Let's go to the next line, "GY."	
13	GY is a launch called gamma yellow; correct?	
14	A. I don't know what GY was referring to.	
15	Q. And gamma yellow was a launch that was 20 percent on mobile	
16	on average; correct?	
17	A. That's what it says.	
18	Q. And do you agree that gamma yellow was a launch that	
19	increased prices by 20 percent on mobile search ads? Correct?	
20	A. I'm not sure I'm not sure what launch gamma yellow was,	
21	and I'm not sure if it increased it says "was 20 percent on	
22	mobile on average." It's quite vague. I don't know. I'm not	
23	sure.	
24	Q. Sir, since the time of your deposition in 2020, have you	
25	gone to ask if someone was wrong in reflecting these notes?	

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1	Α.	No.
2	Q.	Moving to the next line, there's a comment by actually,
3	let'	s go to your comment, your comment three bullets down,
4	"	. "
5		Do you see that?
6	Α.	Yes.
7	Q.	And it states, "The question is, how many of these do we do
8	a ye	ar?"
9		Do you see that?
10	Α.	Yes.
11	Q.	And two lines or one line above, there's a comment from
12	Sund	leep Jain, who states, "I think we need some form of cap."
13		Do you see that?
14	A.	Yes.
15	Q.	And the line up above is a comment from MMH.
16		Who is MMH?
17	Α.	Michael Hochberg.
18	Q.	And he stated, "I don't want to sign up for a cap on
19	effects because lots of confounding issues."	
20		Do you see that?
21	A.	Yes.
22	Q.	Sir, is this a discussion where you're deciding a
23	10 p	ercent price increase was believed to be safe, but you were
24	conc	erned about how many of those you could do in a single year;
25	corr	rect?

1	Α.	No.
2	Q.	Let's keep moving. At the bottom of the page Bates stamped
3	065,	there's a heading "what knobs to use?" Are you there?
4	Α.	Yes.
5	Q.	The notes reflect "what knobs to use," and the first bullet
6	says	, "Format pricing is just a mechanism among the ones we
7	have	."
8		Do you see that?
9	Α.	Yes.
10	Q.	And do you agree that format pricing is just one of the
11	pric	ing knobs that Google has to adjust the search ads auction?
12	Α.	Yes.
13	Q.	And if we could go to, I think, page 10 of this document,
14	ther	e's another comment from you. The bottom Bates number is
15	069.	Under "feedback," there's another comment from you. One
16	of t	he topics you discussed is can we highlight the feedback
17	poin	t, too?
18		It was feedback to the advertisers or advertising
19	comm	unity; correct?
20	Α.	No.
21	Q.	Okay. One of the comments you state is, "Let's set the
22	disc	ussion on setting transparency/reporting aside for now."
23		Do you see your comment there?
24	Α.	Yes.
25	Q.	And your intent was to focus the conversation on pricing
	1	

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1	and hold on a discussion of transparency of that price changes
2	for another day; correct?
3	A. Yes. The meeting was swirling.
4	Q. I'm sorry? I missed the answer.
5	A. The meeting was it seems like the meeting was unfocused.
6	So I wanted to focus the discussion.
7	Q. The meeting was supposed to be focused on pricing and
8	whether you should or shouldn't increase prices?
9	A. The meeting talked about lots of things, as you can see in
10	the transcript. I was just trying to get to a decision.
11	Feedback was the feedback heading was senior leadership
12	feedback to the team.
13	Q. And ultimately, sir, the momiji launch was approved and
14	<pre>implemented; correct?</pre>
15	A. A version of the momiji launch was approved.
16	Q. And the effect of the momiji launch for prices was an
17	increase; correct?
18	A. I imagine so, yes, but I don't know the statistics. It
19	would have been an increase for some advertisers, but
20	potentially not all advertisers.
21	Q. For the typical or average advertiser, there was a price
22	increase as a result of the momiji launch; correct?
23	A. For the typical advertiser, I believe the answer is yes,
24	but as advertisers are fond of telling us, none of them are
25	typical.

1	Q.	And it also resulted in an increase in revenue for Google
2	for t	the search ads business; correct?
3	Α.	It did.
4	Q.	We're done with that document. If we go to one more in
5	your	binder, it's 519, and the title is "Macro ROI
6	Inves	stigation."
7		Let me know when you've found it, sir.
8	Α.	Yes.
9	Q.	Do you recall in June of 2017 you and others reviewed a
10	docur	ment that was produced by your search ads team
11	enti	tled "Macro ROI Investigation"?
12	Α.	Yes.
13	Q.	And ROI stands for return on investment; is that correct?
14	Α.	Yes.
15	Q.	And who is the author of this document in the "at" symbol
16	at tl	ne top?
17	A.	Thomas Iljic, who at the time was our product manager on
18	the s	search ads quality team.
19	Q.	That's a part of your team, on the search ads team;
20	corre	ect?
21	Α.	It is, yes.
22	Q.	And you reviewed this document, as well as many others, on
23	your	<pre>team; correct?</pre>
24	Α.	I did.
25	Q.	And I think let's look real quick at actually, let's

1	go to the back. This is probably the easiest way to do this.
2	If we can go all the way to the end, on page .28 there is a
3	list of red-line comments there, and one of them is yours, about
4	middle of the page, page 2, "Jerry Dischler commented."
5	Do you see that?
6	A. In green, yes.
7	Q. Correct. So I just wanted to give you a context that
8	that's one of the comments you made on page 2, comment 7, and we
9	will see that when we get back to the front of the document.
10	But do you agree that you at least commented in June 2017
11	on this document; correct?
12	A. Yes.
13	Q. All right. Let's go back to the front, page 001, and I'm
14	sorry, Ms. Gatas-Johnson, I'm jumping all over the place.
15	Underneath the executive summary, there's a bold heading
16	that said "this study looked into the question."
17	Do you see that?
18	A. I apologize. Okay. Got it. Yes.
19	Q. And the purpose of this states, "This study looked into the
20	question, would format price increases on google.com influence
21	long-term spend allocation to Google? How should we think about
22	macro ROI in that context?"
23	Correct?
24	A. Yes.
25	Q. And that was a goal of this paper, to decide or to talk

1	about how to evaluate return on investment; correct?
2	A. Umm
3	Q. The next bold heading down states, "There is no good sense
4	both within Google and outside for what the true ROI of
5	advertising channels are and, consequently, how they compare."
6	Do you see that?
7	A. I do.
8	Q. And, sir, do you agree that there is no good sense of what
9	a true ROI for advertising channels are? Is that correct?
10	A. I disagree.
11	Q. Now, I said you made some comments on there. You did not
12	make a comment on this specific provision; correct?
13	A. I didn't make a comment on the specific provision. I made
14	it very clear in the review meetings and have made it very clear
15	since, and also, the answer to that question has changed over
16	time deeply in my favor between 2017 and 2023.
17	Q. So there's no other records of the review meetings that we
18	have where you disagreed with this statement; is that correct?
19	A. Of this particular review meeting? I'm not sure if there
20	are notes, but I imagine that you can find other comments from
21	me that would state that advertisers are perfectly capable of
22	calculating their ROI.
23	Q. With respect to UPX519 in front of you, you did not lodge a
24	comment with respect to whether there was no good sense of what
25	a true ROI of advertising channels is; correct?

1 I believe that the comment that you referred to, is this Α. 2 measured in terms of conversions per dollar, would actually be 3 lobbying a question of the methodology that they're using in order to calculate ROI. I was proposing a means of 4 5 equalization. 6 Let's go to that section. So on the second page, .002, Ο. 7 there's another bolded heading. "When it comes to ROI, 8 perception is really what matters today. Google and FB," which 9 I presume means Facebook; is that correct? 10 Α. Yes. 11 "Google and Facebook seem to be at par and ahead of other Q. 12 main players." 13 Do you see that? 14 T do. Α. 15 And do you agree when it comes to ROI, it's really the Q. 16 perception of the advertiser what matters? I do not. 17 Α. 18 Okay. And you did lodge a comment on this section, and Q. 19 your comment is, "Is this measured in terms of conversions per dollar?" 20 21 Correct? 22 Α. Yes. 23 And what did you mean by that comment? Q. 24 What I meant is I'm using a common currency in which to Α. 25 calculate ROI that was common back in 2017. But now advertisers use more sophisticated means.

2	What I'm saying is that for every dollar spent, how many
3	conversions, that is, business events that are meaningful to the
4	advertiser, are you getting? That would be the that was the
5	proposal that I had in order to normalize the results.
6	Q. So your definition of ROI is different today than it was in
7	2017; is that correct?
8	A. My so I don't have a definition of ROI. Every
9	advertiser has their own definition that they use to calculate
10	ROI. A common definition that was used back in 2017, which was
11	to measure conversions per dollar, which is why I asked the
12	question.
13	Q. The next heading states, "In terms of spend" and I'm on
14	the same page, on the next bullet. "In terms of spend
15	allocation to competition, ROI is not what we should be worried
16	about most."
17	Is that correct?
18	A. That's what the text says.
19	Q. And, sir, you did not lodge a comment or a question or a
20	disagreement with respect to that heading; correct?
21	A. I believe that the question that I did ask in line as well
22	as likely the comments that I had in review meetings which may
23	or may not have notes were sufficient in order to lodge my
24	objection to the methodology used in the document.
25	Q. Let's push forward to the next page, .003. There's another

1	heading which states, "For pricing, what seems to matter is
2	anchoring and advertiser perception as we move the current
3	baseline."
4	Do you see that heading?
5	A. I do.
6	Q. And do you agree with that heading?
7	A. No.
8	Q. The next line the next bullet point or bolded statement
9	is on the same page .003 of UPX519, is, "Nevertheless, a
10	percent CPC or cost-per-click change should be okay when it
11	comes down to the long-term budget decisions, as long as we are
12	smart about it"; is that correct?
13	A. That's what the statement says.
14	Q. Sir, do you agree that a percent cost-per-click change
15	is okay as long as Google is smart about it?
16	A. No, for the reason I described to your earlier question,
17	which was the same.
18	Q. The next bullet states, "A change of this magnitude
19	shouldn't affect a direct Facebook to Google comparison. The
20	CPC gap is already at an equivalent ROI perception without
21	precise measurement of incremental conversion differences."
22	Do you see that?
23	A. I do.
24	Q. Do you agree that the cost-per-click gap between Google Ads
25	and Facebook Ads is about as of 2017?

I'm not sure where he was getting that information from. 1 Α. 2 And the idea that you could make this evaluation without precise 3 measurement of incremental conversion differences, I don't agree 4 with that assumption. And the next bullet point states, "Looking at historical 5 Ο. 6 data, advertisers will be able to detect this change, but this 7 change is to put in perspective with CPC noise ( percent of advertisers seeing percent plus week over week CPC changes)." 8 9 Do you see that? I do. 10 Α. 11 MR. DAHLQUIST: Your Honor, if I may have a moment to 12 confer. 13 (Counsel conferred.) 14 MR. DAHLQUIST: Your Honor, at this time, I believe we 15 have no further questions, and I will turn it over to the 16 plaintiff states. 17 THE COURT: Mr. Cavanaugh? 18 DIRECT EXAMINATION (Continued) 19 BY MR. CAVANAUGH: 20 Mr. Dischler, you were asked some questions about UPX12, if Ο. 21 we could just put it up. And if we could go to chart "Search 22 Ads and O&O Revenue." 23 Α. Hold on. Which document are we referring to? 24 Sure. That would be in the white binder, UPX12. Ο. 25 UPX12, let me find it. Okay. What page are we going to? Α.

1	Q.	I believe it is page 002.
2	Α.	002, yes, sir.
3	Q.	Now, we were talking about these are I just want to be
4	clea	r, this is worldwide revenue?
5	Α.	That's correct.
6	Q.	If we were to look at the U.S., it would be if I look at
7	2019	, it would be roughly around percent?
8	Α.	Yes, something like that.
9	Q.	Okay. And in terms of search ad revenue, over 80 percent
10	of t	hat would come from text ads?
11	Α.	Yes.
12	Q.	And if I look at the
13		, for example?
14	Α.	I'm not sure what you mean by
15	Q.	?
16	Α.	
17		
18		
19	Q.	?
20	Α.	
21		
22	Q.	And if you look at the text underneath, now, it states,
23	"You	can see that the vast majority of our growth has come from
24	mobi	le search."
25		That's an accurate statement; correct?

1	Α.	That's correct.
2	Q.	Okay. And particularly in the last five years?
3	Α.	That was correct at the time.
4	Q.	
5		?
6	Α.	Yeah, yes, that's correct.
7	Q.	If we could turn to PSX267, "Google and Amazon in U.S.
8	reta	il," and if we could turn to page
9		THE COURT: Did you say 267?
10		MR. CAVANAUGH: Yes, Your Honor. It's already in
11	evid	ence.
12		BY MR. CAVANAUGH:
13	Q.	Turn to the heading are we all set?
14	Α.	Yes.
15	Q.	"Prime user slightly more likely to visit Google."
16	Α.	What page is this? "Prime user slightly more likely to
17	visi	t Google to research"
18	Q.	It's on the screen.
19	Α.	I like to look at my written copy. I see it here. Okay.
20	Q.	Now, Prime users, those are people that are members of
21	Amaz	on Prime?
22	Α.	That's correct.
23	Q.	I'm sorry?
24	Α.	Prime users are users of Amazon Prime, yes.
25	Q.	It's a membership group where you pay a fee?

1	Α.	I believe so, yes.
2	Q.	And this is an analysis of Prime users who utilize Google,
3	and	they provide three different categories; correct? One is
4	"res	search a category." Second is "evaluate products." And
5	thre	e is "compare prices."
6		And then they look at analysis of Prime and non-Prime
7	memb	pers; correct?
8	Α.	Yes.
9	Q.	And it's showing
10		
11		?
12	Α.	In 2016 when this study was done
13	Q.	Yes.
14	Α.	that was the case.
15	Q.	And if we could turn to the page heading " percent of
16	Prim	ne shoppers visit Google for shopping."
17	Α.	That's on the previous page?
18	Q.	Yes.
19	Α.	Based on the analysis, back in 2016.
20	Q.	And it's showing percent of Prime shoppers visit Google
21	for	shopping; correct?
22	Α.	That was correct then. It's a very dynamic industry.
23	Q.	Let me ask you, turning to SA360 for a moment, you
24	ment	ioned that there were technical challenges to adopting
25	real	-time bidding for Microsoft Ads through SA360; correct?

	-	
1	Α.	That's correct.
2	Q.	All right. Are you familiar with a company known as Sky?
3	Α.	Yes.
4	Q.	They sell an SEM tool, do they not?
5	Α.	They do.
6	Q.	All right. And were you aware that in the first quarter of
7	2020	, they were able to adopt real-time bidding for Microsoft
8	Ads	through their SEM tool?
9	Α.	I was not aware of that.
10	Q.	No one from your team came to you and told you that a
11	comp	peting SEM tool had done that for Microsoft Ads?
12	Α.	That's correct.
13	Q.	All right. And so Sky is a significantly smaller company
14	than	Google, is it not?
15	Α.	It is.
16	Q.	And it has a much smaller share of SEM tool revenue, does
17	it n	not?
18	Α.	I believe it does, yes.
19	Q.	All right. And Google has some of the best engineers in
20	the	world, does it not?
21	Α.	We do.
22	Q.	All right. So Sky was able to do this in 2020, and here we
23	are	three and a half years later, and
24	Α.	I don't know what
25	Q.	real-time bidding has not been adopted yet into SA360;

is that correct? 1 2 MR. SOMMER: Objection; no foundation. THE COURT: I guess that's fair. It will be 3 sustained. But he answered the question previously. 4 5 MR. CAVANAUGH: I'm sorry, Your Honor? 6 THE COURT: He answered the question previously about 7 the availability of real-time for Microsoft and SA360. 8 MR. CAVANAUGH: That's fine. 9 Thank you, Your Honor. Thank you, sir. 10 THE COURT: Okay. Why don't we begin with Google's 11 closed session cross, and we will go until about 5:00. 12 MR. SOMMER: I don't have any closed session. THE COURT: That makes life easier. 13 14 All right. Why don't we go ahead and reopen the courtroom, 15 and we will begin with Google's cross-examination -- or Google's 16 examination, I should say. 17 (End of sealed proceedings.) 18 THE COURT: All right, Counsel. 19 CROSS-EXAMINATION 20 BY MR. SOMMER: 21 Good afternoon, Mr. Dischler. Q. 22 Α. Good afternoon. 23 The Court learned a little bit about you. I'm going to ask Q. 24 a few more questions about your background to fill it out. 25 Okay?

1	A. Okay.
2	Q. Very briefly, describe your educational background.
3	A. I have a bachelor's degree from the University of Chicago,
4	and I have an MBA from the Wharton School at the University of
5	Pennsylvania.
6	Q. When did you start working at Google?
7	A. 2005.
8	Q. And when was it that you assumed your current role as vice
9	president and general manager of the ads team?
10	A. June 2020.
11	Q. Okay. Just briefly describe the jobs you held before that
12	at Google.
13	A. I was the product manager for three years, focused on
14	payments and commerce. Then in 2009, I switched over to the ads
15	team. I was a product manager on Google Ads qualities, the guts
16	of the search ad system. I then was responsible for search ads
17	product management. I took on the buying tools, YouTube ads
18	product management and engineering and search ads engineering,
19	and then the entire product sweep for advertising.
20	Q. Thank you. All right. So I'm going to ask you probably in
21	the course of my examination questions about all the topics that
22	were covered by both the DOJ plaintiff and the state plaintiffs.
23	I want to quickly sort of lay out those topics and get a ask
24	you a couple of questions.
25	The first topic you were asked about that I want to cover

1	is search ads and the importance of ads quality. What role does
2	quality play in Google's search ads products?
3	A. We discussed it a little bit before. The objective of the
4	search ads quality team is to show delightful ads to our users
5	that satisfy their user needs. If we're able to do that, then
6	the users will come back. Then we want to offer a good value to
7	our advertisers. And then if those two things happen in the
8	long term, then that leads to long-term revenue for Google.
9	Q. If one of those things or both of those things fail, what
10	happens then?
11	A. People will go to one of a number of other folks who
12	provide ad solutions on the Internet or otherwise.
13	Q. Okay. Another topic we'll discuss in a little more depth
14	tomorrow will be ads innovation.
15	Does Google innovate? We've heard a little bit about some
16	of these launches. Does Google innovate in the ad space?
17	A. Constantly.
18	Q. Okay. And why?
19	A. In order to be market competitive. We want to I mean,
20	there are two reasons. We want to offer good value to our users
21	and our advertisers, and the second is, we're not the only game
22	in town.
23	Q. Okay. Let me ask you about one innovation. I take it
24	you're familiar with something called performance max?
25	A. Yes.

Q. Can you describe to the Court what that is?
A. Performance max is a way to buy across a wide number of surfaces on Google and then elsewhere on the Internet. The idea is that through machine learning, the creatives can be generated using AI. The bidding can be done automatically based on an advertiser's business objective. And then the matching of user and advertiser intent can also be done through artificial intelligence.

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The idea is that an advertiser can come to us. 9 Thev can 10 provide us with a set of creative assets and a business 11 objective. And then we earn the right to dynamically create the 12 ad and show wherever it's most relevant for the user. 13 Q. And has performance max launched recently? 14 It launched about a year and a half, two years ago, and Α. 15 it's been our fastest growing ad product.

Q. You were asked various questions about advertisers measuring the value they get out of Google Ads. You heard terms like ROI and others.

Can you briefly describe your understanding of what advertisers find important when deciding how to spend their digital advertising budget?

A. Advertisers have various business objectives. If you're a local store, then you may care about foot traffic. If you're a gardener, then you may want the phone to ring. If you're an e-commerce retailer, then you want people to purchase. If you

sell subscription services, you may want them to be on your 1 2 subscription service for a long time. 3 So advertisers have different value functions, and what we try to do is to get their value function from them expressed via 4 5 business objective, and then achieve that business function so 6 we align their incentives for the long term. 7 And this term we used, the acronym ROI, return on Ο. 8 investment, how does that play an important role as you understand it for advertisers? 9 10 Advertisers are constantly looking at their return on Α. 11 investment, and they're doing it not only on Google, but also on 12 other channels like Facebook or Amazon or LinkedIn or Bing. 13 Ο. Let me throw out one other acronym. Are you familiar with 14 ROAS? 15 Α. That's the return on ad spend. Yes. 16 Okay. Is that another measure that advertisers will look Q. 17 at? 18 Basically what they do is they take a look at how Α. Yeah. 19 much they're spending on advertising, and they take a look at how much they get in sales or business, and they compare the 20 21 two. 22 And does Google provide advertisers with tools that allow Ο. 23 them to track their ROI or ROAS? 24 Absolutely. Not only can they track them, but actually, Α. 25 the majority of our advertisers bid based on those criteria. So

1 if we're unable to achieve their targets, then they will just 2 stop spending. 3 Okay. And how does Google know what their criteria are, Ο. what their ROI goals are? 4 5 Α. They tell us. 6 Okay. And again, if you're not giving advertisers the Q. 7 value they're seeking, based on your experience, what happens? 8 Α. They'll go someplace else, or they'll stop advertising. So 9 a good example of this was during the -- during the pandemic, 10 there was a lot of uncertainty because people didn't know 11 whether they could sell. And so they brought their targets down 12 in order to -- in order to preserve optionality, because nobody knew what the effects would be on business. 13 14 THE COURT: Sir, can I ask just a basic question? Can 15 you help me conceptualize what you mean by an advertiser tells 16 Google what its ROI goal is? What does that look like when 17 somebody sits down at a terminal to input information on behalf

THE WITNESS: What they will do is they will tell us that for every dollar -- for every dollar that they get in sales, they're willing to spend 10 cents on advertising, let's say. And that target may be different for different categories.

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of an advertiser?

23 So let's say that you have two different car models. One 24 is a basic car model which may have a lower margin, and one is a 25 fancy car model. What they'll do is they'll set targets that are depending upon their profit margin. More sophisticated advertisers do it based on customer lifetime value so that they have these very sophisticated statistical models where they say this customer is likely to be worth more in year 3 than another customer, and they're willing to pay more for that. So this is how they express those business objectives.

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And then we have a bidder that tries to achieve those objectives by buying certain ads in order to achieve their target. If we can't achieve their target, they stop spending. And often, they're taking a look across multiple channels. So they will just spend someplace else, like Facebook or Amazon or others.

13 THE COURT: If I'm a car person, I'm somebody who is 14 regularly searching for cars, the algorithms or the software 15 will detect that, and advertisers can make decisions -- the 16 inputs will make decisions for them as to what the ROI should be 17 for advertising to somebody like me?

THE WITNESS: That's correct. We have these machine learning algorithms that will try to predict how likely you are in order -- based on your query, as well as based on personalization, but primarily your query how likely you are to be able to achieve their business objectives. And then they will bid accordingly to achieve that objective.

BY MR. SOMMER:

Q. Another topic we'll get a little -- we'll get into a little

1 more tomorrow that you were asked about is the ads auction. At
2 a high level, is Google's search ads auction designed to account
3 for user quality?

A. Yes. So remember before I said that we had a variant in the generalized second-price auction. How the generalized second-price auction works is that the winner of the auction pays the runner-up or slightly more than the runner-up would pay.

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9 What that means, though, is that the advertiser who has the 10 highest willingness to pay would win. They need not necessarily 11 be relevant to the user. So it could be that somebody trying to 12 sell cars think that they would be the highest willingness to 13 pay on whether queries. If we just had a regular generalized 14 second-price auction, then they would be the highest bidder we 15 would show on whether queries.

16 Instead, what we do is we have a consumer cost component 17 which says how relevant is this likely to be for the user, and 18 then we only show the ads if they have a significant willingness 19 to pay and we think they'll be relevant for the user. 20 And that's what you refer to as user quality, that the user Ο. 21 is actually getting something relevant to their query? 22 Α. That's correct. 23 Q. Okay. And why is it that Google places such an emphasis on 24 user quality in the ad auction? 25 Because we want users to come back to Google and search for Α.

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1	lots of commercial topics, lots of topics generally, but
2	commercial topics are important, too, so that we can earn the
3	right to show great ads to them in the future.
4	Q. Is there a long-term value function that's built into the
5	auction process?
6	A. Yes.
7	Q. Can you describe that to the Court?
8	A. It's I mean, we have a function called LTV, which is
9	basically our best our best approximation of what the
10	long-term user costs are for any given point in time. It's
11	based on a series of machine learning models.
12	Q. Now, one additional thing related to this on user quality.
13	If you showed more ads in response to a query, wouldn't that
14	generate more revenue for Google?
15	A. It would.
16	Q. Okay. Why don't you do that?
17	A. Because it may not generate first of all, it may or may
18	not generate more long-term revenue for Google, because we're so
19	focused on quality.
20	And the second is, you know, we have four ads on top. We
21	have up to four ads on top for a few percentage of queries
22	that are highly commercial, we have four ads on top. We have a
23	few ads on the bottom. We no longer have ads on the right-hand
24	side. We want there to be a lot of organic value on the page in
25	order to deliver value for our users.

1 And at the end of the day, it's sort of a gut call of the 2 maximum that we're willing to show, which is, in fact, less than 3 the other search engines are willing to show in terms of overall ad load. 4 5 You anticipated my next question. Bing, for example, do Ο. they show more ads? 6 7 Α. They do, yes. 8 Ο. How about some of the search verticals like Yelp? 9 They show more ads on top. Α. 10 There are more and more I could list; correct? Ο. 11 Α. Yes. 12 Now, you were asked a lot about pricing --Ο. 13 THE COURT: Counsel, if I could interrupt. It sounds 14 like you're switching topics here a little bit. It's 5:00. 15 Unless you want to wrap something up quickly. 16 MR. SOMMER: No, that's fine, Judge. 17 THE COURT: Why don't we stop for the day. It's 5:00. 18 We will resume tomorrow at 9:30. 19 Mr. Dischler, we will see you tomorrow morning and will 20 continue your testimony. I ask you not to discuss your 21 testimony with anyone overnight. 22 MR. SOMMER: Judge, one thing I wanted to do before we 23 adjourn for the day is hand up Google's exhibits, which are 24 being offered without objection. 25 THE COURT: Mr. Dischler, feel free to step down.

All right. Any other housekeeping matters? MR. DAHLQUIST: No, Your Honor. MR. CAVANAUGH: No, Your Honor. MR. SCHMIDTLEIN: No, Your Honor. THE COURT: All right. See you in the morning. (Proceedings adjourned at 5:01 p.m.) 

1	CERTIFICATE OF OFFICIAL COURT REPORTER
2	
3	I, Sara A. Wick, certify that the foregoing is a
4	correct transcript from the record of proceedings in the
5	above-entitled matter.
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8	/s/ Sara A. Wick September 19, 2023
9	SIGNATURE OF COURT REPORTER DATE
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