IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA

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UNITED STATES OF AMERICA, ET AL., )
        Plaintiffs, )
        ) CV No. 20-3010
        vs.
GOOGLE LLC,
    Defendant.
) Washington, D.C.
) October 3, 2023
                                ) Day }1
                                ) Morning Session
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TRANSCRIPT OF BENCH TRIAL PROCEEDINGS
BEFORE THE HONORABLE AMIT P. MEHTA
UNITED STATES DISTRICT JUDGE

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        P R O C E E D I N G S
    COURTROOM DEPUTY: All rise. This Court is in
    session. The Honorable Amit P. Mehta now presiding.
    THE COURT: Good morning, everyone.
    COURTROOM DEPUTY: Good morning, Your Honor.
    This is Civil Action 20-3010, United States of
America, et al., versus Google LLC.
    Kenneth Dintzer for the DOJ.
    William Cavanaugh on behalf of Plaintiff States.
    John Schmidtlein on behalf of Google.
    THE COURT: All right. Good morning, everyone.
    Mr. Ramaswamy, good morning to you.
    All right. Are we ready to proceed?
    MR. SMURZYNSKI: Yes, Your Honor.
    THE COURT: All right. Mr. Smurzynski.
    MR. SMURZYNSKI: Thank you, Your Honor.
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SRIDHAR RAMASWAMY, WITNESS FOR THE PLAINTIFFS, HAVING BEEN PREVIOUSLY SWORN, RESUMED THE STAND AND TESTIFIED FURTHER AS FOLLOWS :

## CROSS-EXAMINATION (CONTINUED)

BY MR. SMURZYNSKI:

Q Good morning, Dr. Ramaswamy.

A Good morning, sir.

Q There came a time when Neeva developed its own search engine as opposed to relying on the Bing API; is that right?

A That's correct. The efforts started late 2019 . And we were gradually replacing Bing with the results of our own search engine.

Q And part of doing that was developing a system to crawl and index the web; is that right?

A That's correct.
Q And you believed that Neeva could build a web index that allowed it to compete with Google; is that right?

A Yes, I definitely did believe that in 2019, and over the space of the next two years we went about doing exactly that.

There were things like international coverage that we needed to work on because we had been releasing the product in the United States first and then in western

## Europe.

But, yes, we definitely believed that we could crawl the web and build an index which is roughly to figure out sort of where the most useful pages out of the crawl and then be able to serve it, so to say, which is hold it in such a way that you could answer user queries off of it.

Q And at least with respect to the United States, Neeva accomplished building such an index that would allow it to compete with a search engine like Google?

A That is correct.

Q Neeva also developed its own techniques for ranking web results?

A That's also correct.
Q And at least by 2022, Neeva was in a position where, for the vast majority of its -- the queries it received, it would use its own systems to respond?

A That's correct.

We, if $I$ remember correctly, had crossed 60-odd percent, and we felt very confident that we could get that number to 80,90 percent off the queries that we received.

And there were specific projects that we had to do to take care of quality in different verticals as it's called, different classes of queries.

But by 2022, we also realized that by, you know,
using language models and AI technology, we could change the nature of the search product itself. So from 2022, our efforts went on a dual track off not only increasing coverage and serving more queries but also using our systems and building additional software systems to be able to generate AI-powered answers.

Q And I'll get to the AI-powered answers in a moment. I do want to talk to you about that.

But before we get there, there came a point when you've done this work where you thought Neeva's results were, in fact, better than Bing's; is that right?

A In certain categories. We can get into that if you like.

But as a small and more nimble search engine, we had more flexibility in how we innovated and for, you know, classes of queries, especially technical queries, we believed that our quality was better than that of Bing and very comparable to Google.

THE COURT: Sir, when you say "technical queries," what do you mean?

THE WITNESS: So these are queries having to do with technical fields, software engineering, programming.

And the nature of these queries is a little bit different from other fields. There's a lot of information, for example, about programming that is online. And software
engineers, they just approach search engines slightly differently from, say, you know, a non-software engineer.

So these queries would often be long. People look for error messages, very arcane documentation.

And so being good at that is its own little specialized skill in itself.

THE COURT: Thank you.
BY MR. SMURZYNSKI:

Q As you looked out at the landscape, you believed that if you could get to 2.5 percent of the users that Neeva would have a sufficient scale that it could successfully compete as a search engine in the markets you were focused on; is that right?

A So the 2.5 number is exceptionally specific. So there, you know, you need additional context. I'm reluctant to a comment to a number like that without the specifics. But roughly speaking, we felt that if we had several million subscribers as opposed to users, then, you know, like our estimate was that if we made between, call it like 200 - to $\$ 300$ million in annual revenue; or if we had a clear path for getting there, we could be more self-sustaining, and this revenue would support both a somewhat larger engineering team than the one that, you know, we had. We were about 50 people at the time, and my estimate was that we would need to roughly between double
and triple. So, you know, not thousands but 100 to 150 engineers.

But also being able to run a search system that would at least serve the United States and western Europe well, and running that has its costs. And so the 2.5 percent number likely needs to be looked at with the lens of like fraction of U.S. investor in Euro population. If you roughly assume that that's about 800 million people, the 2.5 percent then gives you about 20 million subscribers at $\$ 50$ a year, you know, then you end up with a certain amount of revenue.

So these are sort of rough numerals that we had in mind with regards to how we thought about the business of Neeva, and we used it to also answer questions like, "Hey, should we be raising another round."

We were funded to continue to operate until like the middle of this year, so this was last year. So these were some of the calculations that we would use in order to figure out whether there was a viable path forward for the company.

Q And I appreciate that 2.5 sounds more specific than perhaps you were thinking about it, but at roughly that scale, you believe Neeva could compete successfully with Google, correct?

A Yes.

Q In front of you in the black binder -- excuse me, not in the black binder. Let me get for you a document.

MR. SMURZYNSKI: Your Honor, may I approach?

BY MR. SMURZYNSKI:

Q Dr. Ramaswamy, we have in front of you a document that's been marked as DX690.

A Yes, sir.

Q And we won't show all of it on the screen, we can show some of the pages.

Do you recognize that deck?
A You should give me like at least the -- like the rough time when this was used. I can guess, but it's easier for me if you tell me the time frame when this document was prepared.

Q I believe this is circa 2019.

A Okay.
Q Does that help you place it?
A It establishes context for the document certainly. Please go ahead.

Q And you recognized this as a presentation that Neeva put together?

A Yes, sir.

MR. SMURZYNSKI: Your Honor, we move DX290 into evidence. Excuse me, 690. My apologies.

MR. DINTZER: Your Honor, we have no objection to
this exhibit, admitting it.

THE COURT: Okay. So 690 is admitted.
(Defendant's Exhibit DX690 received into evidence.)

BY MR. SMURZYNSKI:

Q And if you would turn to the page 15 on the bottom center, you'll see there are certain, what we call Bates numbers, and at the page . 015.

A Yeah, okay. It's in front of me. Yes, sir.

Q And this is a slide entitled "The Tech Vision"?

A Yes.

Q And in the bottom bullet, you write, "Reimagine search ranking using modern ML."

A Yes.

Q And then below that, "Use learn to rank and deep learning in lieu of traditional information retrieval"?

A Yes.

Q And below that, "Use deep learning NLP for content understanding and personal language models."

My first question is very simple. What does "NLP" mean in that sentence?

A It's natural language processing.
Q And what were you communicating would be different about Neeva's approach to search ranking in that slide?

A See, we spoke yesterday about the part of scale
and how scale was important to develop a search engine which uses things like query ClicData in order to figure out the most popular domains in order to figure out the best pages for search queries.

Investors understand that. And so one of the questions that they always have is how an upstart -- how a startup, which definitely has no users to start with, is able to create a search experience that can compare with both the years of software expertise that, say, a Google or a Bing has put in but also needs like the data from users and usage.

And directionally what, you know, this slide talks about are the techniques that we thought at the time, 2019, that we could use in order to catch up with Google so as to have a realistic chance of having a good product of acquiring more users and setting off, you know, what you can think of as a virtuous flywheel of user acquisition and comments are increases in the quality of the search engine.

Natural language processing, it's not -- you know, has gone more into things like language models that we all hear about.

Offered the tantalizing possibility, this is now four years ago, that it could be used as a short circuit to make ranking better in ways that Google and Bing did not -did not do.

And so that was the rough idea. And as I said, in a number of cases, for example, when it comes to figuring out concepts for a query, related queries, or correcting misspellings that people often have when they type in or speak queries, we were able to very, very successfully do that.

We were also able to use content understanding, which is roughly to understand what the main intent of a pretty long page is. Documents are often, you know, 1500, 2,000, sometimes longer words and more. And it's a formidable problem to figure out whether a document is relevant to a query. And so content understanding becomes very useful because it gives you a way to succinctly talk about what's in a document.

So we've used a number of these techniques to -in order to make the quality of the search experience better.

So like many of the technical hypotheses up here were things that we proved over the course of the following three years after this presentation.

Q And Neeva grew that with its own talent and staff; is that right?

A That's correct.

Q And in growing those models, Neeva didn't have access to the click-and-query data that, say, a Google had
or a Bing had; is that right?

A So we were able to license some anonymous information that served as basically a bootstrap for some of these models. And so -- but this is widely accessible, certainly, to, you know, to Google and Bing. And in that sense, these were small datasets, these were not special. And definitely much of the software, the rating systems that we use, the data that we got from raters, these were all things that we invested in ourselves.

Q And you mentioned licensing a certain dataset. Approximately how much did Neeva pay to license that dataset?

A I need to confirm that it is. I'm pretty sure it was several million dollars a year.

Q Okay.
But some number under, say, 5 million a year?
A I think that's a pretty reasonable bet.
You know, we had raised our -- startups are exceptionally conscious about how much money they have to spend because they have limited amounts to spend, you know, spend at it. And so honestly we could not offer to spend very large amounts, so it was -- I'm pretty sure it's in the small single-digit millions.

Q And there came a point in time, and you've mentioned this, where Neeva launched what it called Neeva

AI?
A Yes, sir.
Q And that was released in early 2023?
A That was like the first week of January this year.
Q And what was the functionality that Neeva AI added that the regular Neeva did not have?

A So Neeva, generally speaking, search engines, for the past 25 years, have been the business of providing links to users. Google used to famously be proud of how little time people spent on its search result pages.

But, you know, people that work in search have always known that this was actually a, you know, an approximation to the thing that people really wanted which is that for many, many queries, they wanted the answer to the question that they asked. You can imagine for factual queries, I don't know, how tall is Mount Everest, you might just want the answer, you might not want to click on, you know, on a link.

And especially like these days where many pages that you go to have unpleasant experiences, lots of ads and stuff like that, there's more intuition to believe that people would prefer answers whenever possible. Obviously if you're in the business of buying a shoe, you want to go to a place that can sell you that shoe.

And so Neeva AI takes this to the next sort of --
you know, takes the next logical step here, which is by deeply understanding the web, by being able to index and retrieve the best pages for a query, and by understanding the content of these pages.

We -- and using AI models, language models, we would be able to generate a succinct. We, you know, we shot for about 80 or so words. But we would be able to generate a succinct answer for the question that people were asking.

And I'm sure all of you are familiar with things like ChatGPT which has similar functionality, but because it does not use a retrieval system is very prone to, well, you know, what we as computer scientists euphemistically call hallucination which is making up stuff.

But so we wanted Neeva AI answers to be believable so we develop technology where we would cite every sentence that we would write in the answer to the source where it came from. And by virtue of the fact that we continuously crawl the web in real time, we would also be able to answer topical questions, for example, about breaking news.

So that was Neeva AI, which is for 50,60 percent of queries, we would generate this single summary answer that would answer the question that the user was looking to get more information about.

And by all accounts, this was an amazing experience and both the anecdotal feedback as well as the
stats that we measured showed that people are very happy with this experience.

You know, we talked earlier about why an upstart search engine would even want to come into existence. It was because of this firm belief that we had that we could in fact create a better search experience if we were open to doing it and opportunistic about it. And in my mind, UII represents the culmination of that belief that there was a better way to search and that there was a better way for users to get at what they were looking for.

MR. SMURZYNSKI: If I may approach, Your Honor? BY MR. SMURZYNSKI:

Q Dr. Ramaswamy, you have a document in front of you that's been marked as DX299. Is this the blog post that Neeva issued in connection with the launch of Neeva AI?

A That's right. I co-wrote this blog post.

MR. SMURZYNSKI: Your Honor, we offer DX299 into evidence.

MR. DINTZER: No objection, Your Honor.

THE COURT: Okay. It will be admitted.
(Defendant's Exhibit DX299 received into evidence.)

BY MR. SMURZYNSKI:

Q And I think, Dr. Ramaswamy, you described much of what's in this blog post already but I'd like to focus you on the second page of it and then the -- the bottom portion and in the paragraph that writes, "Neeva integrates search and AI deep in its core."

And you write, "Thanks to Neeva's independent search stack as we look at a page, we understand its contents, incoming links, and other authority signals that tell us whether the page is important and useful."

Do you see that?

A Yes, sir.

Q And there, you're referring to the documents that have been stored in Neeva's index; is that right?

A That's right.
Q And you are using these large language models to understand the contents of those documents, correct?

A That's right.
Q I want to switch topics now.

You recall yesterday talking about the visibility of Neeva on Apple Safari browser or the lack thereof?

A I would not use the word "visibility" since there was none, perhaps "accessibility" is a more appropriate word.

Q Understood.

Let's put up, we have a demonstrative we used before, DXD6.

And, Dr. Ramaswamy, this is a collection of screenshots from an iOS device. Do you recognize that?

A Yes, I do.
Q And I want to focus on the right-most screenshot.

A Yes, sir.

Q And make sure I understand your testimony.

Your request of Apple was that Neeva be listed along with the other five search engines that are currently listed on that screenshot; is that correct?

A That's correct.

Q And Apple did not agree to that; is that right?
A All our discussions just didn't go anywhere.

Q And to your knowledge, there was nothing about any agreement between Google on the one hand and Apple on the other hand that would have prevented Apple from listing Neeva as the sixth search engine on that page?

MR. DINTZER: Objection; foundation. THE COURT: Just rephrase the question.

BY MR. SMURZYNSKI:

Q To your knowledge, is there anything about any agreement between Google and Apple which would prevent Apple from listing Neeva on that page with the other five search engines?

A Look, I don't know the point of this question. Yes, of course, to my knowledge, there is not. But a lack of my knowledge doesn't imply anything about the presence or absence of any such agreement. I'm not sure I follow what you're asking.

Q My only question is your knowledge, sir.
A Yes, to my knowledge, there is nothing that would prevent Apple from adding Neeva there. You know, I'm one person, my knowledge is limited.

Q Let me change topics.
You testified that in May of 2023, Neeva was --
THE COURT: Could I interrupt?

I want to ask a follow-up.
MR. SMURZYNSKI: Certainly.

THE COURT: What's your understanding of why Apple did not advance the discussions to include Neeva in the list of alternative search engines?

THE WITNESS: I honestly don't know.
You know, some of these -- there is not a clear process.

Again, this is hearsay, you should take it for what it is.

THE COURT: We've had a lot of that.
THE WITNESS: It's not even -- you know, it is not even clear, by the way, that all of the people that were
listed there have commercial agreements with Apple.

We were perfectly willing to enter a commercial agreement, pay Apple money, if that's sort of what it would take, because it was, you know, it was important for Neeva as a company.

It's one of these situations in which, you know, you spend sometimes months negotiating and things sort of peter out and somebody doesn't want to engage.

And I'm well connected with Apple, but it doesn't mean that $I$ can get answers.

MR. SMURZYNSKI: If Your Honor's questions are answered, let me switch topics.

BY MR. SMURZYNSKI:

Q Dr. Ramaswamy, in May of 2023 , Neeva was sold to Snowflake; is that right?

A Yes, sir.

Q And the amount that Snowflake paid for Neeva was \$185 million, correct?

A That is a confidential transaction between Neeva and Snowflake and I'm not, you know, I'm not at liberty to disclose the amounts.

Q Let me hand you a document which is Snowflake's $10 Q$ to assuage your concerns about talking about the number.

A Sure.

MR. SMURZYNSKI: If I might approach, Your Honor.

THE WITNESS: I'm sure you're going to tell me which page $I$ should be looking at.

BY MR. SMURZYNSKI:

Q Dr. Ramaswamy, I'll represent to you that this is Snowflake's Form 102 for the period ended -- for the quarter ended July 31, 2023. Do you see that?

A That's right.
Q And if you would turn, please, to page -- it's page 28 of the document, and it's got a -- it actually has a page 23 on the bottom, they're sort of two-page systems.

A Yep.
Q And this 10Q of Snowflake's indicates that Snowflake acquired all the outstanding stock of Neeva, Inc. for a total preliminary consideration of 185.4 million in cash. Do you see that?

A I do.

Q And it says "preliminary consideration."
Is there potentially further consideration?
A There's -- this is largely correct.

There is, as I'm sure you likely know, a bunch of accounting conditions that happen at the end of every transaction, but they changed this amount in very minor ways.

Q And I believe you testified yesterday that Neeva's -- the capital that Neeva raised was approximately
\$80 million; is that right?
A I don't recall testifying that.

Q Okay.

Let me ask you a different question.
Did Neeva raise approximately $\$ 80$ million in its
lifetime?

A It was somewhat more than that but that's in the rough ballpark.

Q Rough ballpark.
And doing the math, when Neeva sold to Snowflake, there was at least a 2 X return on the investment, correct?

A So the way that venture funding works is that the investors get what is called, you know, a preference in the return.

And the -- if the amount paid for a company is between the preferred amount that was invested into the company and the valuation of the previous round, which we have publicly said was $\$ 300$ million, if the company sells for between the amount raised and the 300 million, the investors just get their money back, and the remaining money is allocated to the common, which is the employees, including me, of the company.

So the investors themselves, and as I've testified yesterday, I was one of the investors in the first round, the investors basically got their money back. And in the
realm of venture investing that is not considered a success, and so -- but it was not a complete failure in the sense that investors got their money back.

Q I don't want to focus on the waterfall or the specifics of the preference --

A Oh, no. There's a black-and-white difference between a $1 X$ return and a $2 X$ return. I'm merely pointing out that this was a $1 X$ return for investors.

Q For investors.

But in the aggregate, Neeva was sold for more than twice as much as had been cumulatively invested in the company; is that correct?

A That is correct.

Q And Snowflake's business is an enterprise business, correct?

A That is correct.

Q And what Snowflake -- the reason Snowflake stated it was acquiring Neeva was because of Neeva's enterprise search capacity; is that right?

A It was a number of things.
One is definitely the technology that we had built in the area of word crawl and search.

Crawl, it turns out, is an important asset in the business of language models which clearly has become an important and hot field.

Sit was for our expertise in crawl, definitely our expertise in search.

But just as importantly, in the last 18 -ish months of Neeva's existence, we dialed up both expertise and software for being able to use language models effectively, inexpensively, and accurately.

As I said earlier in the testimony, the techniques that we dial up for Neeva AI, for example, that you hopefully showed the blog post for, are ones that mainstream search engines are still in the process of launching.

And similar techniques, especially having to do with retrieval, are pretty valuable even in an enterprise context.

So Neeva was -- Snowflake acquired Neeva both for the technology that we had developed in a way that was applicable in its business but also for the team that we had assembled.

You know, we have experts in a number of areas, including crawl and search and language models, and Snowflake was very keen on having them work at Snowflake on these technologies.

So this represents consideration both for the technology as was the talent that was part of Neeva.

MR. SMURZYNSKI: Thank you, Your Honor. I have no further questions.

THE COURT: All right. Thank you.
Before we begin the redirect, let me -- can I follow-up on a topic we covered yesterday?

THE WITNESS: Yes, sir.

THE COURT: We talked about defaults, and you expressed your views about defaults and the importance of defaults.

Let me ask you a question that has been sort of central to this case and that is why Google pays for defaults, your understanding of why it pays billions of dollars a year to secure default search engine. You know, what's your understanding of the business justification for that, making those payments?

THE WITNESS: Basically, when it comes to a number of things in our online lives, on the phone or on a computer, the defaults that these devices ship with are the ones that the vast majority of people are going to simply stick with, they're not going to change them.

And so being the default in that sense is enormously powerful because, you know, pious prose around "competition being a click away," notwithstanding in practice, they don't change. And so it is a very powerful place to be.

Not that there's anything wrong in being in powerful places, but it is a very powerful place to be, and
it's across the board. And search is one of the most profitable businesses ever. And so defaults in search, therefore, have a very meaningful impact on, you know, Google's top and bottom line. That's part one.

The payments that are made to various entities, whether it is Apple or the mobile carriers or browsers, provide an incredibly strong incentive for the ecosystem to not do anything.

Is it hard for Firefox, which, you know, came off age as a user first, privacy focused browser, is it really hard for them to offer a choice screen that says, "Hey, pick your search engine. We understand this is important for you. And Neeva is no longer there."

But, you know, Duck -- because it's different, we can quibble with exactly how much privacy it offers, but it's a real company and they try really hard to do the right thing.

Is it hard for Firefox to offer this choice screen? Absolutely not. It is a matter of a few days of work, but it represents a disruption to, you know by all accounts, several hundred million dollars of payments that they receive every year. And so there's a strong incentive to not do anything.

So you ask about what do the payments accomplish? The payments effectively make the ecosystem exceptionally
resistance to change.
And all of these things can happen with no mal-intent whatsoever.

It's like do you really want to disturb the things that makes most of your money. I'm sure there are other ways to innovate. It's the rough thinking that prorates the ecosystem.

And then when it comes to mobile operating systems, these payments are shrouded in exceptionally complicated contracts that will basically freeze even the exec staff of most of these companies into not wanting to touch it, because if you wanted to --

I think, I told you folks earlier, that we had a pretty senior exec from one of the mobile carriers that, you know, he truly fell in love with Neeva, loved the product, he's like, I'm going to make this happen. You know, he goes, talks to like his superiors and to his lawyers, and they're like "this is a headache, drop it," you know; and he drops it.

And so that's the net effect of the -- of the payments. They basically freeze the ecosystem in place effectively.

THE COURT: Thank you.
Any follow-up to the questions?
MR. SMURZYNSKI: No, Your Honor.

THE COURT: All right.
Mr. Dintzer, redirect?

MR. DINTZER: Thank you, Your Honor.

REDIRECT EXAMINATION

BY MR. DINTZER:

Q I just want to follow-up, sir, on the 2.5 percent number. That was the number of subscribers that Neeva would have; is that right?

A Roughly, yes.
Q The number of users would be a good deal greater than that?

A Again, the -- sort of the time component is important. You know, that document in 2019 was written at a time when we had not contemplated a premium model. The premium model came later.

But, you know, roughly speaking, in order to sustain a company that's in the business of running a search task for, you know, a billion people and also support an engineering and product staff that can create and maintain that, our estimate was that it would be several hundred million dollars to get to that point and then things like the 2.5 percent are honestly reverse engineered from, you know, approximately $\$ 250$ million.

MR. DINTZER: Okay. No further questions,

Your Honor.
MR. CAVANAUGH: No questions, Your Honor.
THE COURT: Dr. Ramaswamy, thank you very much for being here and your time --

THE WITNESS: Thank you.
THE COURT: -- and safe travels home.
All right. Are plaintiffs prepared to call their next witness?

MS. TRAGER: Lara Trager for the United States.
The United States --
THE COURT: Is it -- remind me what --

MS. TRAGER: L-a-r-a, T-r-a-g-e-r.
The United States calls Joshua Lowcock.
COURTROOM DEPUTY: Before you have a seat, could you please raise your right hand.
(Witness is placed under oath.)
COURTROOM DEPUTY: Thank you.
THE COURT: Mr. Lowcock, welcome.
THE WITNESS: Thank you.
MS. TRAGER: Your Honor, we've prepared binders. May I approach?

THE COURT: Sure.

JOSHUA LOWCOCK, WITNESS FOR THE PLAINTIFFS, SWORN

DIRECT EXAMINATION

BY MS. TRAGER:

Q Good morning, Mr. Lowcock.
A Good morning.
Q My name is Lara Trager. I represent the United States, and I'll be asking you some questions this morning.

Would you please say and spell your full name for the record.

A My name is Joshua Lowcock. It's spelled J-o-s-h-u-a. Lowcock is $\mathrm{L}-\mathrm{O}-\mathrm{w}-\mathrm{C}-\mathrm{O}-\mathrm{C}-\mathrm{k}$.

Q And, Mr. Lowcock, we haven't met before, have we?

A No.

Q Mr. Lowcock, where do you work?

A I work for Universal McCann, part of Interpublic Group.

Q And could you please describe Universal McCann's and Interpublic Group's business?

A So Interpublic Group is a holding company. It holds mobile advertising and media agencies.

I work for Universal McCann, otherwise known as UM. UM is a media agency. We buy advertising on behalf of clients. I always like to distinguish a media agency from a
creative agency. So we buy ads; we don't make, create.
Q So IPG purchases and places advertisements on behalf of its clients?

A That's correct.

Q And what is your current title?
A I'm the global chief media officer at UM.

Q And how long have you held that position?

A I've had that position for about three years.

Q And could you describe your responsibilities as global chief media officer?

A My responsibilities, I'm an advocate on behalf of clients, I negotiate with media partners, I advise clients on where to invest their advertising budgets.

Q And prior to your current role, what was your previous role?

A My previous roles at UM, I was the chief digital officer. I was the global brand safety officer. Prior to UM, I worked at Mediavest, which is part of Publicis Groupe, another holding company, a competitor to IPG where I worked on a number of other accounts.

THE COURT: And, I'm sorry, just to make sure I have all the acronyms.

THE WITNESS: Apologies.

THE COURT: No, no. It's all right.

So Universal McCann is UM.

And then IPG?

THE WITNESS: Is Interpublic Group.

THE COURT: Interpublic. Okay. I missed the
"inter" part. All right. Thank you, sir. BY MS. TRAGER:

Q At this point, how long have you worked in the business of digital advertising?

A About 20 years.

Q So we'll be talking about digital advertising today. Could you tell us how you define "digital advertising"?

A Digital advertising is any advertising that is bought and sold on digital properties, whether that be search engines, online websites, social media platforms, but also includes connect to television and other digital delivery channels.

Q And those delivery channels -- let me start over.

For digital, I heard you mention search; is that right?

A That's correct.

Q Could we focus on search advertising for a moment? How do you define "search advertising"?

A Search advertising can be defined as advertising that you buy in response to people conducting a search on a search engine or platform.

Q And search advertising appears on a search engine results page or $S E R P ?$

A That's correct.
Q And could you describe for us, what is the primary use case of search advertising?

A The primary use case of search advertising is to capture users' intent.

Q So could you elaborate on what you mean by "capturing users' intent"?

A So when an individual goes to a search -- a search engine, as an example, they type in a query. When they type in a query, they're expressing intent. A search engine results page, SERP, will load in response to that, and we can bid on advertising to appear at the top of the search engine results page.

Q And how are search ads priced?

A Search ads are priced in an auction format. So you bid in an auction that's conducted in real time and they're priced on a CPC, a cost per click.

Q So the advertiser only pays if the user clicks?

A That's correct.

Q Okay.
And what is the typical role that you and your business play in determining the objectives and budgets for your clients?

A That's a two-part question.

So clients determine the objectives of their advertising campaign on a campaign basis and they set an overall budget for their entire advertising spend.

And then what we do on search specifically is, we determine the budget allocation to search and then the keywords that are going to be used that we're going to bid on because when people type something in, we bid on the key words that they type in and we determine what the budget thresholds we're prepared to pay for a keyword.

Q So let's pull up a document to help ground our discussion.

MS. TRAGER: Could we please pull up UPX926. BY MS. TRAGER:

Q And, Mr. Lowcock, I've handed you a binder; it's tabbed by exhibit number. Could you turn, please, to UPX926.

Do you recognize this document?
A Yes, I do.

Q What is UPX926?

A It's an internal document for Reprise, which is our agency that specializes in search advertising and it's information for employees on how to set up a paid search campaign.

Q And do you oversee Reprise's work for your
clients?
A Yes, I do.
Q Please direct your attention to Section 1.3 on page 3 of UPX926 at the header labeled "Campaign."

It's the page with Bates stamp ending 2683, and it should also be on the screen in front of you.

The first sentence there, reads, "Depending on the goal, there are different types of campaigns you can select."

And you mentioned that clients set their objectives.

The types of campaigns that you recommend to your clients, could you explain how those depend on their objectives or goals.

A Yes.
So within search, there's mobile campaign types that you can buy.

I'll ground it again. Regardless of the campaign type you're buying, you're paying on a CPC, a cost-per-click basis, but you can optimize for share of voice. And so what that means is based on the number of queries, you want to maximize an amount of time that you appear in the search results as a paid search result.

You can optimize for clicks, so you're optimizing for them, the number of clicks that you receive, so you want
more clicks on your ads.

You can optimize for conversion events, and so a conversion event is, there will be data on your client's website, someone clicks on an ad, you're expecting an action to occur on the website so you're actually -- you're paying for the click but you're optimizing for some behavior on the end website, maybe to complete a transaction or download a file, something like that.

Q And let's actually take a step back and turn to page 5, the tiles at the top of that page of UPX926, it has the Bates stamp ending 2685?

MR. SOMMER: I'm sorry to interrupt, Your Honor.

Is this in evidence since it's up on the screen and we're reading from it? I don't have the list in front of me.

MS. TRAGER: No, it is not.

Move to admit UPX926.

MR. SOMMER: No objection.
THE COURT: 926 will be admitted.
(Plaintiffs' Exhibit UPX926 received into evidence.)

BY MS. TRAGER:

Q And do you see the boxes at the top under the header "Select Campaign Type" that break out search, display, shopping, video, and discovery separately?

A Yes, I do.

Q So broadly speaking, what are some examples of the overarching goals an advertiser might have for an ad campaign, whether it be search or other --

A I mean --

Q -- tasks?

A -- in search campaigns, the primary goal is always to obtain a click and drive it to the advertiser's own website or destination that the advertiser has determined.

In the other examples that are on here, they get into sort of very specific detail. So if I take as an example the shopping ad, if a client had products for sale, then they were retailing them to consumers directly.

One of the things might be to do is to surface specific products to drive someone not to the home page of the website, but to a specific product page on a website. BY MS. TRAGER:

Q And you just -- so are there different types of search ads? You mentioned shopping. Is that another type of search ad?

A Shopping is another type of search ad.

The examples on here are different types of -- on this page 5, are different types of search ads.

Q Would you like some water, Mr. Lowcock?
A I'm good. Thank you.

Q So let's turn for a second to the second tile here that's labeled "display."

These are not search ads, are they?
A No, they are not.

Q Okay.
Let's focus first before we turn to the display ads on the two that you mentioned are search ads, the first tile and the third tile, labeled "Search and Shopping."

Do you see where underneath search it says, "Reach customers interested in your product or service with text ads"?

A Yes, I do.

Q What is a text ad?

A I'll have to walk through an example.

So if you start on a search engine, you type in a search query, the page loads, the page essentially is divided into two parts, the top part of the page will have paid search ads, they appear as text so that's what a text ad is.

Below the fold is organic results which are determined by the search engine based on their algorithm. So a text ad is just simply text, there's no image, there's no video, it is text only.

Q And perhaps if it would be helpful to have something to ground this visually.

MS. TRAGER: Could we please pull up page 5 of UPX12. We've marked that page as UPD12. This page is in evidence.

MR. SOMMER: I'm sorry. Just one moment. Our screen is not working here so $I$ want to be able to follow along.

We're good. Thank you.

BY MS. TRAGER:

Q And you spoke to this a bit a moment ago, but visually how do the text ads compare to the organic links that a general search engine returns?

A So that's an excellent question.

So text ads, the advertiser determines the content of the text ad. So if we use the example that's on my screen here, in the blue box which is labeled "Text Ads," every line item there is determined by the advertiser, in my case, the agency and my teams.

It also has the descriptor "ad" next to it.
The organic results -- red is content that's determined by the search engine itself, and that content is obtained from the web pages in the search engine's index or the database that the search engine is using to surface results.

Q And what can text ads be used to advertise?

A Text ads can be used to broadly advertise any
product or service.
Q Assuming that they meet the policy requirements of the platform, are there any categories of advertisers unable to advertise with text ads?

A No.
Q And focusing on the second search ad category that we looked at, the shopping ads, are those sometimes referred to as product listing ads or PLAs?

A That is correct.
Q And could you describe the characteristics of shopping ads?

A So shopping ads, there's a number of requirements for shopping ads.

Shopping ads require you to provide a data feed to the search engine. And so what that means is, and I'll say a retailer as an example, a retailer needs to provide access to the search engine of what inventory they have available. They also provide images as well.

The difference with shopping ads is it's not broadly available to all advertisers because, again, you need to provide a fee to the search engine.

Q So in order for an advertiser to use a shopping ad, the advertiser needs to sell a product?

A Yes.
Q And the Court has heard some testimony on this
before, so we'll try to keep this brief, but you mentioned the text ad "Auction." For shopping ads, how are shopping ads sold?

A There's two parts to the way shopping ads are sold.

So shopping ads can be sold on an auction basis.
In certain times like during the pandemic, shopping ads were serviced all organically at the time.

Q And when shopping ads are sold in an auction, is that the same auction or a different auction than the auction for text ads?

A It's a different auction.
Q How does the auction for shopping ads differ from the auction for text ads?

A They're two separate auctions.
Q If we could turn for a moment back to UPX926 at page 18?

THE COURT: I'm sorry, could I ask a question quickly?

With respect to shopping ads, would it be fair to draw the conclusion that advertisers with greater means and greater advertising budgets are in a better position to place shopping ads than, say, a small mom-and-pop retailer?

THE WITNESS: That would be an oversimplification. It requires a level of sophistication to be able
to run a shopping ad because you have to upload product inventory into Google.

It's more likely that a more sophisticated business would be able to -- would do that. So it's not necessary precluded from mom-and-dad -- -pop advertisers, it's just less likely to occur.

THE COURT: And the software to provide inventory information, how is that acquired?

THE WITNESS: Google provides tools to do that, and there's third-party tools available to do that as well. THE COURT: Okay. Thank you. BY MS. TRAGER:

Q So if we could focus on page 18 of UPX926 at the header 1.11.1. Let me know when you're there.

A I'm there.

Q The third sentence following the shopping header reads, "It is not keyword based so it is fundamentally different from standard search campaigns." Do you see that?

A Yes.

Q Could you -- well, first, is standard search campaigns there, what is that referring to?

A Standard search campaigns refer to, I'll say, non-shopping based campaigns where people enter a keyword and we bid in the auction environment.

Q So the text ads we've been discussing?

A That's correct.

Q And what does it mean that shopping ads are not keyword based?

A So shopping ads rely on product information to actually occur and exist.

And, I mean, we're getting into now details of the way the search engines work.

Search engines have, if you think about a search engine result page at the top, there'll be different tabs or buttons, one of the buttons will be shopping. Shopping ads can appear sometimes only in the shopping tab.

Q Let's turn for a moment to page 4 of this same document, UPX926. It's the page with Bates stamp ending 2684 and take a look at the top of the page under the header "Campaign Structure."

Do you see that?

A Yes, I do.
Q The second sentence there reads, "Orienting these campaigns with the customer journey is critical so that you can align all assets housed within the campaign to a common and consistent goal."

Do you see that?
A Yes, I do.
Q How would you describe the customer journey in the
context of your work at IPG?
A It's a great question.

The customer journey is complex. Consumers don't consume media in a silo, so they experience media across all channels.

The purpose of advertising is to capture consumers' attention and drive them through to a point of conversion, and conversion is to purchase a product or service.

So the customer journey, if you think about it, is capturing their awareness -- like oversimplifying: Driving awareness, capturing intent, driving consideration, and driving a decision to purchase.

Q And are you familiar with the marketing funnel?
A That is essentially what $I$ described.

Q Okay.

Does a customer need to be aware of a product before they can buy it?

A Yes.

Q And how is that reflected in the marketing funnel?

A Awareness is -- so if -- and I'm grossly
oversimplifying. If you think of attention, interest consideration, and decision is the marketing funnel with decision the narrowest point of the funnel, awareness is driven through brand campaigns.

Q And in terms of the marketing funnel, where do brand campaigns fall?

A I'm not sure $I$ understand the question.

Q So are you familiar with the terms "upper funnel" and "lower funnel"?

A Yes.

Q For advertising that as a tool is designed to drive awareness, as you just mentioned, where in the funnel is that type of advertising most effectively used?

A To drive awareness is an upper funnel campaign type.

THE COURT: Mr. Lowcock, can I ask you a question? The document that we're looking at is an internal document. Would you agree that the descriptions that are contained here of digital advertising are sort of unique to your company and your approach or do you think they are more widely understood within the industry?

THE WITNESS: I've worked at other agencies and holding companies, it's consistent with what occurs across the industry.

THE COURT: Okay. Thank you.
BY MS. TRAGER:

Q So as an advertising tool, where does search advertising fall in terms of the marketing funnel?

A Search advertising sits in the lower part of the
funnel.
Q Is advertising aimed at driving brand awareness? You referred to that as brand advertising. Did I hear that right?

A That's correct.
Q And for search and lower funnel, are those types of advertisements often referred to as performance advertising?

A That's correct.
THE COURT: Could we just back up a second.
I think you sort of went through the points of the funnel relatively quickly. Could you restate how you view that construct and what the stages are at a very high level?

THE WITNESS: Yes, not a problem.
So, again, simplifying, awareness is at the top end of the funnel. So the purpose of awareness is to make people aware of a product or a service.

The next step of the funnel is to drive, like, intent and consideration, which is sort of the middle part of the funnel. So if you think -- imagine an advertising campaign, and it's best to talk in examples, you would run a brand campaign to announce a new motor vehicle or a new movie, getting people excited about it.

The middle part of the funnel is to try and drive some sort of -- like getting them closer to driving some
sort of behavior so to learn more about the product or service.

And then the last step of the funnel, you know, the decision phase, is driving that conversion. So you're trying to get them to actually take that final action. So you want them to go to a retailer, either physically or online, or purchase a ticket or do something that actually leads to that final sale.

THE COURT: Got you. Thank you.

THE WITNESS: Not a problem.

BY MS. TRAGER:

Q And turning back to the tiles on page 5, let's focus briefly on the second box that was labeled display.

How would you define display advertising?
A Display advertising is -- it's also called banner advertising. Display advertising consists of a visual image displayed as a graphic in various sizes and formats.

It requires you to create a display advertising banner and it can be bought in multiple different ways.

Q And how does IPG use display ads -- well, actually first, could you give an example of what one might see out there on the Internet of a display ad?

A So I'll give an example of a display advertisement. If you imagine that you visit a website, not a search engine but a general publisher that has other
content and information, you may be familiar with -typically there's a large banner at the top of the page with an advertisement or there will be rectangular boxes on the page featuring advertisements, say, solid images, graphics, it'll have images, text.

Q And in terms of the marketing funnel we were just discussing, where in the funnel is display advertising most effectively used?

A It's an upper funnel brand awareness tactic.
Q As an advertising tool, what does display advertising do with demand in the market?

A Display advertising is primarily intended to drive or create demand and drive awareness.

Q And as an advertising tool, what does search advertising do with demand in the market?

A Search advertising is there to capture intent after you have driven awareness.

Q Okay. THE COURT: Can I ask a different question? I'm on thewashingtonpost.com website, there's a banner at the top. How is -- can you help me understand how that banner appears there and what the relationship is between a Google or a Bing and The Washington Post that's actually hosting or seemingly hosting the ad? THE WITNESS: Yes.

So that's a great question. There's a lot to unpack there.

So display ads can be bought on a direct basis, and so direct basis is the agency negotiates directly with the publisher to buy inventory.

Display advertising can also be bought on a programmatic basis, and that's a very complex system of demand and supply and real-time bidding to determine where the advertising gets placed.

The relationship between Google and Bing in those environments, it's unrelated -- it's broadly unrelated to search.

Google may be the ad service so when display advertising is served or delivered, it's delivered by an ad server so the publisher is not putting the ad on the page, and ad server is putting the ad on the page, and Google operates in ad service, so we might be serving the ad through Google's ad server products.

THE COURT: So if you were on an ad server product, could an advertiser designate the publishers that it would like to put display ads on or categories of publishers?

THE WITNESS: It can be done. It's complex, but it can be done.

THE COURT: Okay. Thank you.

BY MS. TRAGER:

Q And speaking still of display ads, are display ads priced CPC, cost per click?

A Display ads are priced in a myriad of different ways.

Q What is the most common way that display ads are priced?

A The most common way that display advertisers is priced is on CPM, or cost per thousand.

Q Cost per thousand what?
A Cost per thousand impressions.
Q And could you explain what an impression is.

A An impression is the delivery of an ad.
Q So when a user sees that ad?
A It doesn't necessarily -- it doesn't necessarily mean a user sees the ad. There's a whole industry debate about viewability.

Q Understood.
A But it means that there's a high probability that the user has seen the ad.

Q Are there impressions served on search ads that the advertiser never pays for because they're not clicked on?

A That's correct.
Q And turning back one -- for one last moment to
these tiles on page 5 of UPX926, do you see where under "Discovery," it says YouTube and Gmail. Is it your understanding that this screenshot is from a Google product?

A That's correct.

Q Okay. We can set that one aside. And if you would turn to UPX 449 in your binder.

A I have that document.

Q Do you recognize UPX449?
A Yes, I do.

Q What is UPX449?

A So in a public group received a questionnaire out of Europe regarding, I'll say, Google's practices in Europe.

Q And were you involved in the preparation of the process to respond to this request for information?

A Yes, I was.

Q What was your involvement in that process?
A I was the primary drafter of the document.
Q And were the responses in UPX449 the final versions that were submitted ultimately to the European commission?

A Yes, they were.

Q And was it important to you that the contents of these responses be accurate?

A Yes, it was.

Q Let's turn to page --
MR. SOMMER: Sorry, is this being offered?
MS. TRAGER: Yes, we offer.
MR. SOMMER: I object, Your Honor. This is not -it's hearsay. It's also irrelevant. It's not a business record. It was created in response to a request from the European commission. So it was not made in the ordinary course. And it involves proceedings and issues in Europe, not in the United States, which is the subject matter in this case.

MS. TRAGER: So, Your Honor, we do have a 902 declaration and we have the primary drafter here on the stand, he has personal knowledge. And --

THE COURT: So I understand there's a declaration, but this almost by definition is not a regular course document. So I don't -- notwithstanding the declaration, I don't think it qualifies as a business record.

I understand he has personal knowledge of the contents and he can certainly testify about that, but whether you're actually seeking to introduce the document itself, $I$ think I'm not -- it is hearsay, and it doesn't qualify as a business record.

MS. TRAGER: I'll endeavor to lay some foundation for its relevance.

THE COURT: If there's another basis I'm not
thinking of, I'm happy to consider it, but those are the obvious ones.

MS. TRAGER: We would offer it under Rule 807. It has all the indicia of reliability and I can lay some foundation with respect to his process and its relevance.

MR. SOMMER: Your Honor, I think Your Honor's suggestion to counsel is the right one. I'm not objecting to her making inquiry on the subject matters in there, but it's plainly hearsay, and it's also irrelevant. It involves proceedings in Europe, not in the United States. As I said, I'm not objecting to the --

THE COURT: Let's proceed. Why don't you ask him -- try and elicit the information you're seeking without relying on the document. If there is something you need to point out to him to refresh his memory or jog his memory, it would be appropriate to do that. But I'm just not convinced yet that the document is admissible.

MS. TRAGER: Thank you, Your Honor.

BY MS. TRAGER:

Q Mr. Lowcock, could you explain the differences in your mind between "search" and "display" and whether or not they are substitutable from your perspective in your business?

A Display advertising is primarily to drive awareness, what we would call brand advertising. Search
advertising is lower funnel, primarily intended to capture intent.

I would not consider them substitutable.

MS. TRAGER: And, Your Honor, in the event that we offer this not for the truth of the matter, may $I$ utilize it in my questioning?

MR. SOMMER: I move that --

THE COURT: I'm not sure what other purpose it would be offered for that's relevant.

MS. TRAGER: Okay.
BY MS. TRAGER:

Q And, Mr. Lowcock, if the price of Google's text ads increased by 5 percent, would you recommend to your clients to move their ad spend elsewhere?

A No.

Q Why not?

A Because search advertising captures intent, the consumer intent is -- advertising is always about reaching an audience, and increasing price in search ads doesn't mean that the audience has left the platform because that's -pricing is independent of where, like -- if a price went up, the audience is not going to shift away, they would still continue to use a search engine, we would want to continue to capture that intent.

Q And, in fact, during your time at IPG has the

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price of Google's text ads, even adjusted for inflation,
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increased by more than 5 percent?

A We haven't done that depth of analysis.

Q Have you seen a trend with respect to CPCs of Google's text ads?

A There has been an increase in price of $C P C$ on text ads.

Q And have your clients moved their ad spend away from Google Search?

A No.

Q Mr. Lowcock, could you please explain whether you consider any particular ad inventories or platforms to be must haves for an online ad campaign?

A I would go so far as search would be mandatory in any advertising campaign.

Q And why is that?

A Because it captures user intent and search behavior can be driven by other advertising channels.

Q And for what proportion of your advertisers do you recommend that they --

THE COURT: I'm sorry. What do you mean "search behavior driven by other channels"?

THE WITNESS: So as an example, you might see an ad on television or you might see an out-of-home advertisement or hear an ad on the radio about a product or
service. Then when you have an opportunity to be in front of a computer or on your mobile phone, you'll actually conduct a search to discover more information about the product or service.

THE COURT: I see. All right. Thank you. So the difference in your -- this isn't the days of when you'd see an ad for a car on TV and you'd go to the dealership. Today, you see an ad for a car on $T V$ and the first thing you do is go to your computer to get more information.

THE WITNESS: Yeah, or your mobile phone, correct. THE COURT: Okay. Got you.

BY MS. TRAGER:
Q And for what proportion of your advertisers do you recommend that they advertise on Google Search?

A Every advertiser.

Q And what proportion of your advertisers do, in fact, advertise on Google Search?

A Every client.

Q And despite the trend in increasing CPC that you referenced, do you plan to continue recommending that your clients purchase Google Search ads?

A Yes.

Q And you mentioned the auction environment that Google's text ads are sold in. Are you familiar with the
concept of "reserve price"?

A Yes.

Q What is the reserve price in the text ad auction?
A The reserve price is the minimum price you need to bid and to be able to participate in the auction.

Q And what determines the reserve price? To your knowledge?

A The honest answer of what determines reserve price is it's -- it's two factors, which is the platform itself can determine the reserve price, and, separately, the auction environment itself, the demand that other advertisers have for the keyword can determine the price.

Q What effect --

THE COURT: Sorry to interrupt.
You said that you've noticed a trend of increasing prices without quantifying what it may be.

Help me understand how you're able to identify an increase in price when the price of an ad is then auction driven -- is auction driven and not necessarily set by the platform or perhaps there's a combination of the two factors.

THE WITNESS: There's a combination of factors that determine the price at an auction, specifically for search.

So plat -- it's best to sort of -- we need to go
in -- apologies, but we need to go into detail to do it justice.

So when you conduct a search query and a page -the search engine results page loads and the auction occurs and you're bidding on keywords. The search platform itself -- and this is documented on the platform's own websites -- determines the legitimacy of you bidding on a keyword.

So if you're trying to buy a keyword that's unrelated to the content on your page, you might be required to pay more to appear in that result because search engines want to drive a relevant paid result.

The platforms also then have their own cost basis to participate in the auction. We have no visibility in how they determine that cost basis, but there's that cost basis.

THE COURT: What do you mean "cost basis," a floor?

THE WITNESS: They have their own floor.
And then the auction environment, while dynamic, because it's an auction, you have the same advertisers typically bidding on the same set of keywords because all competitors sort of focus on the same set of keywords. So you can see -- we get reports and we get reports when the campaign runs showing the average price we paid for a click, and we can see that prices have gone up over time.

THE COURT: And what do you attribute that to?
THE WITNESS: I mean, I could speculate, but
it would be --

THE COURT: You can speculate.
THE WITNESS: I mean, it could be for a myriad of reasons. It could be because the platforms have increased the floor price.

It's possibly because people are deciding to pay a lot more for keywords.

It can be changes in the way the platforms run the bidding system.

There have been changes -- like in my time working in the industry, there's been changes by the platform to consolidate or change the way that you bid to sort of consolidate demand. Consolidating demand around certain keywords can drive inflation in prices independent of actual advertisers driving an increase in price.

THE COURT: So number of factors. THE WITNESS: There's a number of factors, correct.

THE COURT: Thank you.

BY MS. TRAGER:
Q So, Mr. Lowcock, I think you just touched on a number of these, but to be clear, would you expect more bidders in an auction -- or what effect on CPC would you
expect an increase in bidders in an auction to have?

A It would increase the -- it should increase the price.

Q And what effect, if any, would you expect the ability to increase the reserve price or that pre-determined auction floor you referenced have on the CPC paid by advertisers in the text ad auction?

A It would force a price increase.

Q I'd like to pivot now and focus for a moment on scale issues in advertising.

Are you familiar with the concept of scale in the context of search advertising platforms?

A Yes.
Q Could you explain that?

A The primary purpose of advertising is to reach audiences and to reach people at scale like -- and "scale" means large audience sizes. And so the more scale a search engine has the more important it is to buy advertising on that platform.

Q And what types of search advertising platforms does IPG purchase and place search advertisements on, on behalf of its clients?

A I mean, we -- primarily, we buy search advertising on Google, but we also buy advertising on Bing and Yahoo!.

Q And do you -- and what are the main factors you
consider when determining on which general search engine to buy text ads on behalf of your clients?

A There's two factors that come into that. The first one is always scale. The second one is audience and data available to us about that audience.

Q You mentioned scale. Do you have sources that you consult for search engine market share analysis in your work?

A Yes.
Q What sources do you typically consult for search engine market share analysis?

A There's independent research services like eMarketer. There's open publicly available sources like Statista.

Q Do you also consult Nielsen?
A We consult Nielsen generally for advertising. It's not so relevant for search.

Q Do you consult Comscore?
A For general advertising, not necessarily for search.

Q Do you consult StatCounter?

A Yes.
Q And for search, do you consider StatCounter reliable?

A Yes.

Q And you mentioned eMarketer and Statista, do you consider those reliable resources?

A Yes.
Q Mr. Lowcock, let's turn to UPX450 in your binder. Do you recognize UPX450?

A Yes, I do.
Q What is UPX450?
A It's a document that was prepared for one of our clients to educate them on search basics and how the paid search works.

Q And could you describe your familiarity with this type of document?

A This document is prepared to educate clients. I've been involved in both the preparation of this document and the presentation of it to clients, and we use this similar sort of document to educate other clients who want to be educated on paid search.

Q And how many times would you say approximately you've given this type of presentation to clients?

A Dozens of times.
MS. TRAGER: Move to admit UPX450.
MR. SOMMER: No objection.
THE COURT: Okay. 450 will be admitted.
(Plaintiffs' Exhibit UPX450 received into evidence.)

BY MS. TRAGER:

Q And let's turn to page 17 of $U P X 450$, which is the page with Bates stamp ending 016.

Do you see the graph with header "Market Share for Search Engines in the U.S.A. ... It Isn't Even Close" on page 17?

A Yes, I do.

Q Why does IPG include this information in a deck to educate its clients on search advertising?

A The purpose of this is to indicate why we always buy Google Search ads.

Q And according to page 17 of UPX450, what was Google Search share during the period November 2018 through November 2019?

A 88.43 percent.

Q And what was Bing's search share during that same period?

A 6.21 percent.
Q Does that have an effect on what your clients could profitably spend on Bing?

A I'm not sure I understand the question.
Q So is there a limit to what your clients could profitably spend on Bing?

A The profitability question part of the question is difficult to answer, but based on market share, there's a
limit to the amount of keywords we could buy on Bing.

Q And in your experience, does the fact that Google has more users and more queries make the platform more attractive to IPG's clients?

A Yes.

Q Why is that?
A There are a number of factors with that one is, as the document is titled, the market share of Google makes it more attractive.

There's some other factors specifically with Google. Google, as a platform, has other data available that, because of its -- like the user base and that other data means we can get more insight so be more effective in the way that we buy advertising.

Q Before we leave this document, if we could please turn to page 7 of UPX450 which has the Bates stamp ending 006 .

On the left-hand side of page 7 of UPX450, is this an example of the marketing funnel we discussed earlier?

A It's a simplified example, yes.

Q And in UPX450, what does this indicate is the goal of upper funnel advertising?

A The goal of upper funnel advertising in this document is to drive awareness.

Q And what does this indicate is the goal of low
funnel advertising?
A The goal of lower funnel advertising is to drive conversion.

Q And if you see the green language sort of in the middle of the page near the bottom, what part of the funnel does page 7 of UPX450 indicate paid search ads are operating in?

A It indicates that page search advertising is operating in the lower funnel to capture any demand driven from upper funnel activity.

Q And next to the language that reads "Operating in the lowest part of the funnel," there's a picture of a phone. Does paid search here refer to text ads?

A Yes, it does.

Q And those images are text ads on the phone, right?

A That's correct.

Q Do you recommend to your clients that they use search advertising for building awareness or branding?

A Not necessarily.

Q Why not?

A It's not an effective method for driving awareness. If people aren't aware of a product, they're not going to search for it.

Q And is search advertising used by your IPG clients for branding?

A No, not generally.

Q And would it be cost effective to use search advertising for building a brand?

A It would be highly ineffective.

Q Let's pivot again.

THE COURT: Before you do, why don't we take our morning break. It's 11:00. We'll resume at 11:15.

Mr. Lowcock, I'll just ask you not to discuss your testimony with anyone during the break. Thank you, sir. THE WITNESS: Thank you. COURTROOM DEPUTY: All rise.

This Court stands in recess.
(Recess from 11:00 a.m. to 11:18 a.m.)
COURTROOM DEPUTY: All rise. This Honorable Court
is again in session. Be seated and come to order.

THE COURT: Thank you, everyone. Please be seated.

Ms. Trager, go ahead.

BY MS. TRAGER:

Q Mr. Lowcock, let's focus for a moment on social advertising.

Could you define social advertising for us.
A Social advertising is advertising that's bought on social-media platforms such as Meta.

Q And in your view, can social advertising
effectively be used in place of search advertising?
A No.

Q Why not?
A The primary user behavior on social media platforms is to scroll through what's described as a feed. So it's a page, you scroll through the page.

Advertising is inserted in the page, similar to a display advertising.

Q And do you have campaigns for which you would not recommend using social advertising?

A Yes.

Q Could you give us an example.

A Social advertising can occur across a number of social platforms, so Snapchat, Pinterest, Facebook, Instagram. We might not recommend social advertising because the product -- social advertising can involve users' audiences having discussions or commenting on the advertising. We might not recommend that advertisers advertise on social platforms because we don't want to engage in a conversation about the ad or product or service offering.

The advertiser might not have a presence on certain social platforms, and to advertise on social platforms ostensibly you should have a presence because you should be engaging with the community.

It's not -- there's not a specific category or reason why, it's just, it's a whole host of decisions that weigh into why we might not recommend it.

Q And for those campaigns that you do not recommend social advertising for, would you recommend that those campaigns use general search advertising?

A We would always recommend general search advertising.

Q Do social ads reach consumers that are not on the social network?

A That's a good question. It's a complicated answer.

Some social media platforms do have the ability to target the users off the platform through open web programmatic buys.

Q When that occurs, is the ultimate ad that's served considered a display ad?

A The ultimate ad is --

MR. SOMMER: Objection to the leading, Your Honor, just maybe a little less.

THE COURT: Just rephrase the question, please. BY MS. TRAGER:

Q What type of ad is served off of the social platform when it's done programmatically as you just said?

A If a social media ad is served off the social
media platform, it would be a display-type advertisement to drive awareness.

Q And how does the audience available on, for example, you mentioned Meta or the social network Facebook, how does the universe available there compare to the universe of consumers searching on Google Search?

A There's a smaller subset of users on social platforms relative to general search.

Q When you say "subset," can you elaborate on what you mean?

A In general terms, everybody uses a search engine, not everybody is present on social media platforms.

Q And how in your business at IPG, are you able to confirm that the audience on Facebook is a subset of the audience available on Google Search?

A We can use third-party sources like Nielsen and Comscore which rank the amount of traffic or users that websites have, whether it be a search engine or a publisher or a platform.

Q And I have the same question for TikTok. What's your understanding of how the universe of consumers available on TikTok compares to the universe of users available searching on Google Search?

A It's a smaller and different subset audience.
Q And what's your understanding as to whether or not
it's completely contained within the universe available on Google Search?

A Google Search is the entire universe of user -like users, notwithstanding market share.

Q So a little bit of a separate question. Would your recommendation to an advertiser in terms of recommended channels or recommended budget for channels, differ based on the size of the advertiser?

A Can you define "size of the advertiser"?
Q So, for example, for a Fortune 500 company versus a, say, medium-sized company.

A Yes, broadly speaking.

Q How so?
A The larger your advertising budget, the more choices available to you because some advertising channels are precluded from certain types of advertisers.

So, for example, television advertising is not necessarily available to all advertisers because it requires a larger budget to be able to purchase television advertising.

Q I see.

But for all sizes of advertisers, do you recommend advertising on Google Search?

A Yes.

Q Let's pivot for a moment and focus on Google's
search ad auctions for a moment.

In your experience and to your knowledge, does Google make changes to the mechanisms of its search ads auctions?

A Yes.
Q How, if at all, are those changes communicated by Google to you and your business?

A They're communicated to us by -- we have Google account managers, which are employees of Google, who will point us to Google blog posts announcing changes.

Q And in your experience, how much advanced notice has Google provided when it made changes to its auction mechanics?

A It can vary depending on the change.

Q On average?
MR. SOMMER: Objection.
THE COURT: It's overruled.
THE WITNESS: There's not really a rule of thumb. It can vary from four to six weeks to several months. BY MS. TRAGER:

Q And in your experience, how far in advance do your advertising clients typically plan campaigns, including allocating budgets?

A So campaigns are typically planned three to four months in advance.

Q In your experience, how, if at all, would your clients benefit from having more advanced notice of auction changes by Google?

A That's a reasonable question. It's difficult to answer.

Q Has IPG requested that Google provide advanced notice of expected auction changes?

A We've requested additional time once we've been notified of a change.

Q And what was Google's response when you asked? MR. SOMMER: Objection, Your Honor. Is this a specific request? Is it something we're generalizing? I just don't think this is probative.

THE COURT: It is probative.
I think the issue is what you're talking about. So, I mean, I need you focus -- I'll ask you to focus on a particular time frame, an instance, a particular change; otherwise, it doesn't really have a whole lot of meaning. BY MS. TRAGER:

Q Have you personally had discussions with Google regarding the amount of advanced notice at any point in time?

A Yes.

Q Approximately when were those communications?
A We've -- I mean, you're testing my memory.

Several years ago, there were changes when Google merged desktop and mobile search together so that those channels weren't -- once upon a time, we were able to bid separately between desktop and mobile. They converted it to one single auction. Had a conversation with them at a time that we required more notice to adjust our campaign strategy.

Q And in that particular instance, what was Google's response to the request for more advanced notice?

A Google denied the request.
Q Has Google --
THE COURT: How much notice did you get and how much would you have liked to have had?

THE WITNESS: Typically, we would like more than six months' notice. I honestly can't recall the amount of notice that we had at the time.

THE COURT: Thank you.
BY MS. TRAGER:
Q Has Google made changes to the ad auction process without providing any notice?

A Not that $I$ can recall.
Q And what information, if any, is not available to you about Google's auction processes that would be helpful to you in your business?

THE COURT: I'm sorry. Can you repeat the
question?
BY MS. TRAGER:

Q Sure.
What information, if any, that is not available to you about Google's auction would be helpful to you in your business?

A I mean, because there's a -- there's a lot of changes that have occurred in a way that the auction process work or how Google determines ranking.

And I need to sort of go down a different path momentarily because there's organic results that appear organically on the page and there's paid results that appear that we buy as an advertiser.

Changes to organic results can determine the way we change and structure the way we think about paid search. So some of the information that would be important or useful for us is changes to organic and how they think about organic in servicing organic results because that can change the way we think about how we participate in paid search.

Q Are you familiar with the term "SEO" or "search engine optimization"?

A Yes, I am.
Q Briefly, what is SEO?
A So SEO, search engine optimization, is the process of attempting to optimize your page, your website, so that
it appears organically in search results.
So "organic" is someone types in a query and you want to surface on the first page of search results, preferably in the top three or four positions.

Q Do you ever recommend that your clients rely on SEO in lieu of purchasing search ads?

MR. SOMMER: Objection; leading.
THE COURT: I'll allow that question. Go ahead.

THE WITNESS: Sorry. Can you repeat the question? BY MS. TRAGER:

Q Do you ever recommend that your clients rely on SEO in lieu of purchasing search ads?

A No.

Q In your experience, how long does it take for an SEO campaign to change an organic listings' position on the SERP?

A It can take months, years. It might not even have an impact.

Q In your experience, how real time an impact can a search ads campaign have on where an advertiser appears on the SERP?

A Immediate.
Q Turning for a moment to performance, understanding ads performance, does Google provide something called a "search query report" to its advertisers?

A Yes.

Q What is a search query report?

A A search query report, or $S Q R$, shows the number of times a keyword is searched for.

Q Does it include any other information?
A It includes volume. It can include pricing indicators.

Q And how, if at all, is the $S Q R$ used to help better understand the performance of a search ad campaign?

A It's used to determine what terms we should be bidding on and whether we're getting an effective result for our clients.

THE COURT: I'm sorry. Can you help me?
You've referenced this concept of bidding on
terms. I'm not quite sure $I$ understand what you mean by that.

THE WITNESS: So when I say the word "terms," I'm talking about keywords.

THE COURT: Right.
THE WITNESS: And so it's always better to talk in real examples, rather than --

THE COURT: Sure.
THE WITNESS: -- hypothetical examples.
So if you go to a search engine and you search for "flowers," the search term you might bid on is the term
"flowers."
And so we will buy mobile keywords because people might search for flowers or florist or red roses, and then people can also add other terms or keywords to search so you might say flowers near me or flowers in Washington, D.C., and so we would add those to the keyword list, a list of terms that we're bidding on.

THE COURT: And who devises the related terms? Is that something that you come up with, you know, sort of the synonyms for flowers or is that something Google or a search engine provides recommendations?

THE WITNESS: There's a mix of art and science involved in that. So we have search specialists who specialize in identifying terms or querying. Like, Google and Bing provide tools that you can go in and understand the volume based on words.

Google specifically has, I mean, products like keyword matching and broad match modifier, which means the algorithm of a machine that the search engine is running can look for synonyms or understand what might be associated. So, for example, if you use flowers, you might write flower, but you don't have to add $S$ because it knows that flower and flowers are similar terms. So I don't have to necessarily add every keyword. The system itself can look for adjacent or similar keywords.

THE COURT: Okay. Thank you.

BY MS. TRAGER:

Q What is ROI in the context of advertising campaigns?

A ROI is return on investment.

Q And can ROI be compared across advertising channels?

A Not necessarily.

Q Why not?
A ROI is a metric, is typically used to look at the overall profitability of running advertising. So you're looking at your total advertising spend to determine if it was profitable for the company.

Q And turning back just for a moment to the SQRs, the search query reports, how, if at all, has Google changed over time the amount of information it provides clients in the SQRs?

A There have been limits, and Google has deprecated or limited certain types of information that's available.

Q And what was the explanation Google provided for the reason for this reduction in --

A It cited privacy reasons.

Q Did you find that explanation plausible?
A Yes and no.

Q Why?

A I can understand that there's privacy laws coming in and platforms can be concerned with obeying and complying with privacy regulations.

Separately and idly, the privacy function within UM, I know what is permissible to do, and it would be reasonable to continue to share that sort of information with us without breaching privacy regulations.

Q Broadly speaking, how would you describe the visibility into pricing on Google -- for Google Search ads?

A I would need you to define what you mean by "visibility."

Q Have you ever used the term "black box" to refer to Google Search?

A Yes.

Q Could you explain what you meant by that.
A I mean, we know what price we paid. We have no true visibility in the way that the price is determined and how the auction is conducted.

MS. TRAGER: No further questions, Your Honor.
MR. CHOKSI: Your Honor, Kunal Choksi from the state of North Carolina on behalf of the Colorado, Nebraska Plaintiffs.

THE COURT: Mr. Choksi.

MR. CHOKSI: Would you like me to spell that?
THE COURT: For the court reporter, please.

MR. CHOKSI: Yeah.
$\mathrm{K}-\mathrm{u}-\mathrm{n}-\mathrm{a}-1 . \quad$ Last name is $\mathrm{C}-\mathrm{h}-\mathrm{o}-\mathrm{k}-\mathrm{s}-\mathrm{i}$. DIRECT EXAMINATION

BY MR. CHOKSI:

Q Good morning, Mr. Lowcock. So I just want to start off, you spoke to Ms. Trager about advertisements that appear on a general search engine results page; is that right?

A That's correct.

Q All right. What are examples of those advertisements?

A It could be any type of advertisement. There's no restriction on -- aside from platform policy, there's no restrictions on the types of advertisements that can be --

Q So I think you mentioned text ads?
A Correct.

Q Shopping ads?
A Correct.
Q And I think you mentioned that they're otherwise known as PLAs; is that right?

A Correct.

Q Okay.
And you also gave Ms. Trager a definition of the funnel, the marketing funnel. Do you remember that?

A Yes, I do.

Q And you described the lowest part of the funnel. Can you describe that again?

MR. SOMMER: Objection; cumulative.
THE COURT: I'll allow it.
Go ahead.
THE WITNESS: The lowest part of the funnel is designed to capture consumer demand or intent. BY MR. CHOKSI:

Q Okay.
And you mentioned that you want to send a user to a place where they can purchase; is that right?

A That's correct.
Q Can a user purchase a product on Google itself?
A No.
Q Where do you send users to purchase?
A We send them to a client's website or we might send someone to a client's website with the intent of actually driving them to a physical location.

Q Okay.
Physical location, clients' website. Are there other sites on the Internet that person can purchase from?

A Yes.
Q What are those sites?
A Like a retailer's website.
Q What about an e-commerce site?

A Well, that's what $I$ would define as a retailer website.

Q Okay.
What's an example of a retailer website?

A An example would be Amazon or Walmart.
Q And these sites, do they have sort of a search function?

A Yes, they do.

Q And that search function, what does it search?

A So that people can find products that are available to purchase on the website.

Q And do these sites sell ads that are responsive to a search query?

A If you mean in response to a search query on that retailer's website, yes.

Q And which -- you mentioned a couple of sites. Which of these sites sell ads that are responsive to a search query?

A Amazon, Walmart. Most retailers now offer some sort of advertising product.

Q And do you have experience recommending the purchase of these ads on retailer sites that are responsive to a search query?

A Yes.

Q Which ones?

A Amazon and Walmart.

Q Okay.

So let's focus on Amazon. What are the names of these ads that they sell on Amazon?

A I mean, they call them search ads.
Q Okay.
"Sponsored search," have you heard that term?
A Sponsored search, correct.

Q And under what circumstances do you recommend to your clients that they purchase sponsored search ads on Amazon?

A There's a number of circumstances that apply.

First of all, the client needs to have their product or services available for purchase on these online retailer websites.

Q Okay.

A Yeah.

Q Anything else?
A The other one is based on the relationship that the advertiser might have with these retailers as well.

Q Okay.
We'll come back to the first point but just can you explain what you mean by the relationship these clients had with the retailer?

A I mean, retailing is a complicated business, like
brands and manufacturers require shelf space. Sometimes in exchange for getting quality shelf space in a physical digital environment, it's required to demonstrate some sort of commitment to the partnership so therefore you would buy advertising on the retailer's website.

Q Okay.
Is that a consideration that you have to take into account when you advertise on Google, for example?

A No.

Q And you also said you need to have a product being sold there, right?

A That's correct.

Q So I think you talked to Ms. Trager about search text ads that are available to every advertiser. Is that generally what you said?

A That's generally what $I$ said.

Q And for PLAs, you have to have a product to be sold, right?

A That's correct.

Q Do you have clients that sell products but choose not to sell on Amazon?

A Yes.

Q Okay. And why not?

A They might compete with Amazon.

Q Okay.
I mean, how, just generally? Can you name an example of a client who might compete with Amazon? You don't have to name a client, but just generally.

A Clients in the health care category, for example, Amazon offers a broad range of services in the healthcare. So some clients see that as a competitive threat and therefore determine not to buy ads or sell their products on Amazon.

Q Okay.
And do these same clients believe they compete with Google?

MR. SOMMER: Objection.
MR. CHOKSI: I can rephrase.
THE COURT: Basis?

MR. CHOKSI: Umm --
THE COURT: Hang on. I'm sorry.
MR. SOMMER: He's asking what the clients believe. I just -- maybe he could rephrase the question.

THE COURT: If you could just rephrase. It's just a matter of... BY MR. CHOKSI:

Q Based on your experience and discussions, you have discussions with these clients all the time, right?

A Correct.

Q And you understand what they view as their competition based on your discussions with those clients, right?

A Correct.

Q Okay.

So do these clients believe they compete with
Google on the same basis?

MR. SOMMER: Objection; hearsay.

THE COURT: Why don't you just ask him his own views on things.

MR. CHOKSI: Yeah, okay.

BY MR. CHOKSI:

Q Do these clients compete, in your opinion, with Google on the same basis?

A My clients do not see themselves as competitors with Google.

Q Okay.
When a user clicks a PLA on a general search engine, where is that user directed?

A It would be directed to e-commerce or retail destination.

Q Could it be the client's own website?
A It might be.
Q Okay.
Is that different than when a user clicks on an

Amazon-sponsored product ad?

A Yes.

Q How?

A Ads that you buy on retailers' own websites only direct them within the platform itself.

There's an industry term that we use called "walled garden" which means it's only available within the garden itself. So if you buy an ad on Amazon or Walmart and you click on that ad, it would drive you to another page within that retailer's website.

Q Does a difference matter to advertisers you work with?

MR. SOMMER: Objection.

BY MR. CHOKSI:

Q Do you think this difference matters to advertisers?

A This difference matters both to advertisers and to agencies.

Q Why does it matter to advertisers?

A Because you lose access to data and you lose access to your own customer.

Q Why does that matter?

A There's a number of reasons why that matters.
There's broad changes in the industry about access to data, the deprecation of cookies and mobile device IDs.

So there's a lot of talk in the industry about access to first-party data. It's important that advertisers have access to first-party data because they want to earn that customer relationship.

THE COURT: I'm sorry, when you say "access to data," in other words, there's greater access to data on a general search engine than there are on these retail search engines like Walmart and Amazon?

THE WITNESS: Correct.

THE COURT: And I take it, the other attributor here is that if you purchase on Amazon or Walmart versus a website, Amazon take a percentage of that -- from a purchase that otherwise would not be taken if it was done directly on the retailer's website.

THE WITNESS: I mean, there's -- what you're sort of talking about is direct to consumer versus retailing.

THE COURT: Right.

THE WITNESS: And so retailers always take a, like, take a margin.

So, like, brands, there's been a big shift in advertisers that can sell direct to consumers wanting to have people come direct and buy from them directly because it's more profitable for them.

THE COURT: Right. Okay.

THE WITNESS: As well as you get access to the
data.
BY MR. CHOKSI:

Q And that includes online and in person?
A Correct.
Q Okay.
So how do you view generally a potential consumer in terms of their probability of purchase when they're on a website like Amazon?

MR. SOMMER: Objection.
THE COURT: I don't quite understand the question. MR. CHOKSI: Yeah.

BY MR. CHOKSI:
Q So how do you -- let's just do this.
Users search on Amazon, right?
A Yes.

Q Do you view a user searching on Amazon as different than a user searching on a general search engine?

A Yes.
Q How?

A So if a user goes to a retailer's website, they've got a high probability and intent to buy. And if they type something into search, typically they type in the brand and product that they're specifically looking for. So they know what they're going to do.

On a general search engine, you could be doing
research into the product, so you're trying to learn more. So you're lower in the funnel but you might be trying to determine like what do $I$ do next, do $I$ need to go buy it, do I need to learn more about the product or service from the person who makes the product or service.

Q Got it.
Would you recommend that clients use these ads on retailer websites in place of general search ads?

A No.

Q Why not?
A There's a number of factors.
One is, brands sell through typically mobile
retailers so you don't want to favor one retailer over another that tends to be higher volume of search on general search engine. So you want to capture that as the first primary objective in terms of buying search ads.

THE COURT: I'm sorry, can you repeat that. I missed you -- I wasn't following from the beginning. Sorry about that.

THE WITNESS: Yeah, not a problem.
So on retailer websites, if you conduct a search and you have to step back a bit and think about the brand.

The brand doesn't just sell at Amazon, it might sell at Amazon, Walmart, CVS, and a host of other different retail destinations. And so you don't want to favor one
retailer over another because that can hurt your overall relationship for distribution of your product and services. THE COURT: I see.

THE WITNESS: And on general search, you know that there's -- like, we know from the data that's available to us, there's more volume of search on general search engines. And one of the things that we can do because clients want to obtain data about their users, we can -- if you search for a product on a general search engine, we can drive you through to our own website, our own website being the manufacturer's website, and then from that website, we can give you a list of retailers on which to then make your final purchase.

And because we're interested in understanding consumer behavior and collecting data, that can give the manufacturer more insights about what retailer relationships are more important, as well as data about that user and what's driving performance.

BY MR. CHOKSI:

Q Anything else?

A Not that $I$ can think of right now.
Q And do you remember you talked to Ms. Trager about substitutes of ads products, do you remember that?

A Yes, I do.

Q Okay.
So considering what you just said, do you view

Amazon ads as substitutes for shopping ads on general search engines?

A No.
Q Can you please turn to your binder to -Ms. Trager used this document with you, UPX926, and I believe she got it into evidence.

MR. CHOKSI: Yes, it's in evidence, Your Honor. BY MR. CHOKSI:

Q And we're going to go to page 21, if you don't mind.

THE COURT: I'm sorry. What was the number again? MR. CHOKSI: UPX926.

BY MR. CHOKSI:
Q Are you there?
A Yes.
Q And it's also on the screen.
Let's focus on the top chart there.
And you see at the bottom, there's something that says "brand name." Do you see that?

A Yes.
Q What does that mean?
A That means someone is searching for a specific brand by it's brand name.

Q Okay.
And do you have an understanding about why users
on general search engines search brand names?

A I mean, there's no polite way to define it. People typically search on brand names because they haven't added a website to their favorite or they're uncertain of what the actual brand's website is.

The general way $I$ would describe it is mostly because people are lazy and don't want to type in the brand name in the address bar of their browser.

Q Are you describing, like, navigation. They're trying to navigate to a website?

A Correct.

Q Okay. All right.

And do you recommend to advertisers that they purchase advertisements on those keywords, their brand name?

A It depends on the category.

Q Okay. Which categories do you recommend it?

A In categories where there might be competitor conquesting occurring.

Q What is competitive conquesting?

A Competitor conquesting is, and it's -- in this instance, it will be better to use absolute examples.

If you think of Netflix and Hulu as two examples, someone might search -- because they want to go to Netflix to watch content but rather than typing netflix.com into the address bar, they'll type Netflix into the search engine and
then click on the link to get to Netflix.
Hulu, as an example, might decide to buy paid search ads on that term in the hope that the user would click on that and go to Hulu instead.

Q So where does this practice of competitive conquesting, where does that generally occur?

A I'm not sure I understand the question.
Q On what websites do advertisers buy ads on their competitor's brand names?

A General search.
Q Why does it occur on general search?
A Because web browsers -- to navigate the web, you require a web browser. Web browsers typically default to a search engine page when you load it, and they -- and users -- getting back to my impolite comment about people being lazy rather than typing in the address bar -- they will type in the search engine box to get to the destination for the brand that they're looking to visit.

THE COURT: To be concrete is what you mean here that if I want to -- I'm a user, I want to buy Nike shoes, I type in Nike shoes instead of nike.com, and the advantage to a competitor of nike.com is Adidas could bid on the keyword Nike.

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THE WITNESS: Correct.
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BY MR. CHOKSI:

Q And in your view, if a user made the same search for a brand term on a retailer website, would that user be, in your view, the same as one on general search engine?

MR. SOMMER: Object to the form.
THE COURT: Rephrase the question.
MR. CHOKSI: Yeah.

BY MR. CHOKSI:

Q Is there any difference between a user who makes a search for a brand term on a retailer website and the same search for a brand term on a general search engine website?

A Yes, there's some difference.

Q What is that difference?

A The difference on a retailer website is it ultimately involves some sort of -- the intent of the consumers to spend money and make a transaction. So, therefore, if they type in a brand term already, they know what they're looking for, they intend to buy that product, they intend to open their wallet and make a transaction on that product.

Q And, yeah, how is that different than a general search engine?

A It gets back to the statement that $I$ said before about when a browser -- browsers open up to a search page by default, and people can type in a brand name, not
necessarily to make a purchase.

In the Netflix and Hulu example, they might already have a subscription to Netflix, they're simply typing it in so they can get to Netflix to watch content.

Q Got it.

I'm going to switch topics here.

You can take that down, please.
Are you familiar with search engine management
tools?

A Yes.

Q What are they?
A Search engine management tools, or SEM tools, they're used to buy keywords and manage search advertising campaigns.

Q And do you recommend to your clients they use search engine management tools?

A Yes.

Q Why?

A Because keyword lists and the ads associated with keywords are extensive and long, and it simplifies the process of both managing keywords, managing the advertising lists, and managing your campaign budget off flighting. And by "flighting," I mean the length, like making sure that the campaign runs for the right duration.

Q And you mentioned search as your management tools
helps purchase advertisements. On what platforms do search engine management tools help purchase advertisements?

A They help you buy advertisements on general search engines.

Q Okay.
Do you have particular search engine management tools that you recommend to advertisers?

A Not necessarily recommend, but we have tools that we use.

Q What are those tools?
A Historically, it's tools -- these tools constantly rename themselves, but Google has SA360. There's tools like Kenshoo or Marin.

Q Okay.
And Kenshoo, also known as Skai?
A Correct.
Q Okay.
THE COURT: I'm sorry. What was the other one?
You said Kenshoo and?
THE WITNESS: Marin, M-a-r-i-n.
BY MR. CHOKSI:
Q And you mentioned SA360, and your agency uses SA360?

A That's correct.
Q And you're familiar with it?

A Yes.
Q And do you view -- what's your general view of which -- if an advertiser asks you, "Which one should I use," what would you respond?

A I mean, as a general rule, SA360.
Q Okay.
Why?
A There's certain data that's only available within SA360.

SA360 is also integrated broadly into the rest of Google's stack, so it provides more data and ways to optimize your ads.

Q Okay.
So you said SA360 is better integrated in the rest of Google's stack. What do you mean by that?

A So stepping outside of search for a minute, Google has YouTube, it has the Android operating system, it has Gmail. And users can be logged in to those platforms. And so there's other data signals that Google obtains from those services that can be used to inform search advertising.

Q Got it.
Go ahead. Sorry.
Are you familiar with different bidding strategies you can utilize to purchase search ads?

A Yes.

Q What are the strategies?

A There's manual real time, auction based.

Q Okay.
What is real-time bidding?

A Real-time bidding is we set a price that we're prepared to pay, and the auction is determined in real time based on other people's bidding in the auction.

Q And does Google have a particular name for their real-time bidding strategy?

A I cannot recall it at the moment.

Q Okay.

Are you familiar with the term "auction-time
bidding"?

A Yes.

Q And is that a real-time bidding strategy?

A Yes, but there's additional data available in auction-time bidding.

Q What additional data is available in auction-time bidding?

A Google can layer in other -- they can layer in location data, time of day, device type as examples.

Q And when you say it's "available," you mean is it not available in the other bidding strategies?

A It's only available in SA360.
Q Okay.

Does Bing also have a form of real-time bidding to purchase ads?

A Yes.

Q Okay.
Is that strategy available in SA360 to purchase

Bing ads?

A With some limitations, yes.
Q What are those limitations?

A There's less availability of certain types of data.

Q And that's less availability as compared to buying it from Bing directly?

A Correct.

Q Okay.

Do your clients have a preference on which bidding strategy to use?

A Not generally.
Q Do they have one that they generally use?
A I mean, the auction, like the real-time auction-based bidding is generally preferred.

Q Why?

A Because the more data available, the more effectively we can optimize and determine whether we should be buying certain terms, keywords.

Q Is there an impact on an advertising campaign if
you're using a non-real-time bidding strategy versus using a
real-time bidding strategy?

A Yes.

Q What does that impact?
A It gets back to the fact that other media channels can drive search behavior. So the less real-time data that we have, the less either my teams or the systems can automatically optimize to changes in consumer behavior on general search engines.

Q Okay.

So you mentioned that auction-time bidding -well, let me rephrase.

You mentioned that SA360 did not fully support auction-time bidding to purchase Bing ads. Did I have that right? Correct me if $I$ am wrong.

A The products are called different things, but it doesn't support -- there's a difference between what we can do on SA360 on Google versus how we can use SA360 for Bing.

Q Okay.

Do you think your clients would benefit if SA360 fully supported real-time bidding on Bing?

MR. SOMMER: Objection.
THE COURT: It's overruled.

You can answer that.

THE WITNESS: Broadly, yes.

BY MR. CHOKSI:

Q Why?

A Because we would be able to make better -- it's a complicated answer. Because we would be able to make more informed decisions about how we buy ads on Bing.

The flip side is, while the data would be more useful, it wouldn't necessarily change usual behavioral dynamics.

Q And when you said you've been making better decisions, how does that translate into benefits for your clients?

A We can obtain better prices, we can capture more intent and demand, we can better drive performance or conversion actions.

Q You mentioned conversion. Do you share conversion data with the SEM tool provider you're using for a particular client?

A For some clients, yes.

Q Why do you share that data?

A To better optimize our bidding strategy.

Q Do your clients often switch between SEM tools?

A No.

Q Why not?
A There's cost barriers to switching. It involves labor, like. So our goal is to run ads, our goal is not to
switch platforms.

You can lose performance because the more consistently you use a platform, the more the search -- the SEM tool learns about what drives performance. So switching to a new platform means you effectively need to retrain the machine which comes at some risk.

There's all this sort of technical integration reasons why as well. So you might need to drop -- if you switch from SA360 to Marin, as an example, you might need to change the pixels that are available on your website. There's a whole governance process to deploying new pixels. It's a complicated process.

THE COURT: I'm sorry. Can I just -- may be a very simple question, but $I$ take it's your company that's running the 360 -- the $S A 360$ ad management tool, as opposed to the client?

THE WITNESS: So SA360 is a web-based platform that Google operates.

THE COURT: Right.
THE WITNESS: We will have a license to use that platform or the client might have the license to the platform and give us permission to use their license.

THE COURT: Right.

But the bottom line is, you're using the tool on behalf of -- to execute your client's marketing strategies?

THE WITNESS: That's correct.

BY MR. CHOKSI:

Q So going back to switching costs, you mentioned effort. Does it also take time?

A Yes.

Q Do you ever recommend that a single advertiser use multiple SEM tools at the same time?

A No.

Q Why not?
A It would be inefficient, it wouldn't make sense. It would have additional costs. It wouldn't drive performance or efficiency.

Q Okay.
And do you know how long it would typically take to switch SEM tools?

A It's a subject of labor and result -- like time and resources. So it's like how long is a piece of string? There's no reasonable answer $I$ can give you to that.

Q Okay.

But for that time it takes, is that an efficient use of an advertiser's time?

A No.

Q Why not?

A Because the benefits of switching are minimal or -- and the risk of loss of performance is high.

MR. CHOKSI: Your Honor, if I could just have one second. That's all the questions the States have for now. Thank you, Mr. Lowcock. I pass the witness to the defendant.

THE COURT: All right. Is Google ready to begin its examination?

MR. SOMMER: Yes, Judge. Just need a moment to set up.

THE COURT: Sure.
MR. SOMMER: Your Honor, before I begin my examination, IPG's counsel, John Schneider is in the courtroom. Virtually the entire deposition transcript was requested by IPG to be highly confidential. I'm not sure how much of it I'm going to use. I've given Mr. Schneider the transcript.

So what I'm going propose as a protocol is I will identify the page and lines before they're displayed.

Your Honor will be able to look at it because I'm going to hand you the transcript. And if Mr. Schneider has an objection, Your Honor can rule. If there's no objection, then I'll just proceed.

THE COURT: Okay.
MR. SOMMER: And I'll do the same thing if there's a confidential -- a document that's been marked confidential. I'll show him the portion $I$ intend to use.

And if there's heartache, he'll let us know.

THE COURT: Just so everybody knows, Mr. Schneider
and I have known each other for a long time. We were roommates in law school.

MR. SOMMER: Judge, if I may, I'll just hand you up a copy of the deposition transcript so you have it.

THE COURT: Is this something we expect to need?

MR. SOMMER: We'll find out.

It's a mystery.

BY MR. SOMMER:

Q Good afternoon, Mr. Lowcock.

A Good afternoon.

Q My name is Michael Sommer. We've never met before, correct?

A That's correct.

Q Good to see you.

I'm going to put up DX3038, which you'll be able to take a look at because -- Interpublic Group is affiliated with several companies, correct?

A That's correct.

Q Okay.

And I've not tried to list them all here but I've listed some here.

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    Are each of these companies that are affiliated
with Interpublic Group that I've listed on this
demonstrative?
    A The -- yes.
    Q Okay.
    And the reason I listed these is some of the
documents I may show you are authored by --
    MS. TRAGER: May we have a copy? Is this a
demonstrative?
    MR. SOMMER: Yeah, sure, let me get counsel a
copy.
    You know what? Let me hand out the binders. It's
in this binder?
    MS. TRAGER: Yes.
    MR. SOMMER: May I approach the witness,
Your Honor?
                            THE COURT: You may.
BY MR. SOMMER:
    Q So 3038 is up on the screen.
            And Reprise, which is right in the middle in the
blue, do you see that there?
    A Yes.
    Q And am I correct that that is the entity that
specializes in advising clients on purchasing search and
social ads; is that right?
```

A Generally speaking, yes.
Q Okay.

And you oversee Reprise's work with clients, correct?

A That's correct.
Q Okay.
Now, Mr. Lowcock, in your examination earlier today in your testimony, you talked a little bit -- we can take that down -- you talked a little bit about this purchase funnel, correct?

A That's correct.

Q Okay.

I'm going to start there.
Let's put up DXD10.02 as a demonstrative or
10.002 .

This, Mr. Lowcock, is from the
Department of Justice's complaint in this case.

Do you recognize this as a version of the purchase funnel?

A It's a variant on the purchase funnel.

Q Okay.

And let's take a look next at DXD-10.003 which was from the State's opening statement.

Do you recognize this as a version of the purchase

## funnel?

A It's a very simplified version of the funnel.

Q Okay.

And you may recall in your deposition, you identified five levels as generally being in the purchase funnel. Those were awareness, intent, consideration, decision, and purchase. Do you remember that?

A Yes.

Q Okay. So we made a rendition of that. That's the next slide. That's slide 4. Can we advance to that, please. There we are.

And does that fairly depict how you described the

## funnel?

A Yep.

Q Okay.
And so if we go to the next slide -- and, again, I'm not trying to belabor this -- all of these different iterations of the funnel, even though they have different levels, three or five or seven, they're all essentially identifying a path from being aware of something, then considering it, and from the advertiser's perspective, hopefully, buying it. Fair to say?

A That's fair to say.
Q Okay.
Now, I take it from the images we see on the screen here, would you agree that there's no clear consensus on precisely how many levels are in the purchase funnel,
correct?

A I wouldn't necessarily agree with that.

Q Okay.
So do you think your, the one on the right, your version, is more accurate than either DOJ's or the States'?

A I wouldn't argue about the accuracy of either funnel.

Q Okay.

I think my only point is, I mean, I'll just ask you: Are there seven levels to the funnel, five levels to the funnel, three levels to the funnel? Some other number?

A There's a tendency to sometimes over-sophisticate the level of the funnel. It's always to drive intent and -like drive awareness and end in driving purchase.

Q Can we agree, sir --
MR. SOMMER: We can take that down.

BY MR. SOMMER:

Q Can we agree, sir, that however many levels one person or another says may be in the purchase funnel, it is not some rigid hierarchy in today's digital advertising world, correct?

A I wouldn't necessarily agree with that statement.
Q Well, let me ask it a different way.

Would you agree that the images of the purchase funnel depicted by both the Department of Justice and the

States relate to a traditional or historical perception of consumer purchase patterns that today are much more complicated. Would you agree with that?

A I would say similar to what I've said previously, that consumers don't consume media in a silo, so they can engage with different media formats at different times as part of their journey to purchase.

Q But would you agree that today in the digital advertising world, this concept of the purchase funnel is a traditional or historical concept that is today much more complicated?

A No.

Q Would you agree that people, consumers, can enter and exit the purchase funnel at any of those points that we see depicted on those images?

A People can enter and exit the funnel at any stage.

Q Okay.
MR. SOMMER: So I'm going to ask counsel to refer to page 76 of the deposition transcript of Mr . Lowcock at line 20 through 77, line 3. I'll just give counsel a moment to look at that.

THE COURT: I'm sorry, 76 what?

MR. SOMMER: Page 76, line 20, through page 77, line 3 , which was designated by IPG as highly confidential. No objection, great.

Let me put that up on the screen.

BY MR. SOMMER:

Q I'm going to read it to you, sir. This is a question at your deposition: How would you describe a customer journey in the context of your work at IPG.

Answer: Traditionally it was sort of like awareness, intent, consideration, decision, purchase. That is what you would call a traditional marketing funnel. These days in marketing, we appreciate and understand that purchase funnel is much more complicated and people can enter it and exit it at any point. Do you see that?

THE WITNESS: Yes.

MS. TRAGER: Objection, Your Honor. Improper impeachment; it's consistent.

THE COURT: Yeah, it doesn't seem -- I don't see a lot of variance between what he's already answered.

MR. SOMMER: I'll follow-up, Your Honor.

BY MR. SOMMER:
Q A moment ago you said you disagreed with me that these days, the purchase funnel is much more complicated. Do you remember giving me that answer just a moment ago?

A Yes.
Q So I'm just curious which is your answer. Is it, do you -- is it your position today that it's not more complicated, or are we going with it is more complicated,
which you told us last year under oath?
A I'll say --

Q Just tell me which one we're going with.

A I gave you the answer today that people can enter and exit the funnel at any point.

Q That part I'm not quibbling with you. I heard that one. I'm talking about the complicated. It's much more complicated today than the traditional purchase funnel concept. Do you agree with that?

A Yes.

Q Thank you.
And by complicated -- withdrawn.
Now, would you agree that the consumer journey is not necessarily a linear path from top to bottom that these various iterations of the purchase funnel depict?

A Yes.

Q Thank you. And would you also agree that the reason it's no longer linear is that consumers are exposed to various touch points in their consumer journey. Would you agree with that?

A People are exposed to multiple media channels in their journey.

Q I'm sorry. You lost me.
A People are exposed to multiple media channels in their journey.

Q And just to make clear to the Court what we mean by nonlinear, what $I$ mean by that -- so you'll tell me if you agree -- is that different types of digital ads can be used for multiple levels depicted in the traditional purchase funnel; is that right?

A That's an oversimplification.
Q Is it -- so are you saying that each ad format can only be used for one level?

Let's take the DOJ one.
MR. SOMMER: Could we put up Slide 2 for a second.
BY MR. SOMMER:
Q So I just want to understand your testimony.
Is it your position, Mr. Lowcock, that a particular ad format would only fit into one of these levels of the purchase funnel or can it fit into multiple levels?

A It may fit into multiple levels, but its primary purpose might not be effective at a different level.

Q Okay.
Would you agree, sir, that the goal of advertisers is to achieve a consumer purchase -- ultimately achieve a conversion? Would you agree with that?

A The ultimate purpose of advertising is to drive sales.

Q Okay.
Would you agree, Mr. Lowcock, that your company,

Universal McCann, seeks to break down traditional funnel thinking into more agile, fluid consumer journeys that meet consumers where they are and thereby know where best to take them next?

A I'm not really sure I understand the question.
Q Okay. Let's take a look at DX -- sorry -- 3002, which is in the binder. If you can find that.

And just, sir, it's organized numerically.

There's some prefixes before the numbers, but it goes numerically. That might make it a little easier.

Let me get out mine.

DX3002 is a document we received from IPG, and it's a UM document, correct?

A Correct. It comes from our website.

Q Okay.

And what is this type of document used for at UM?

MS. TRAGER: You said this was received from IPG.

I just don't see an IPG Bates stamp on it. Could you
clarify the source of this document?

MR. SOMMER: Sure. Maybe we printed it off the internet.

BY MR. SOMMER:

Q Do you see bottom, the www. umww? Do you see that?

A Yes, I do.

Q Is that the UM website?

A That is correct.
Q I may have misspoken that we got that from you because the ones we got say IPG.

MR. SOMMER: Thank you, Lara.
BY MR. SOMMER:

Q What is the purpose for $U M$ putting this type of document on its website?

A The purpose of this document is general marketing collateral that we prepare to secure our new clients.

Q Great.

MR. SOMMER: Your Honor, we offer DX3002 into evidence.

MS. TRAGER: We just received this for the first time. We'll have to take a look at it.

THE COURT: Okay.
MR. SOMMER: May I proceed subject to any objection?

THE COURT: You may. BY MR. SOMMER:

Q I'd like to put on the screen the very first page of this document.

And what's "future proof"?
A Future proof, which we've now deprecated, was our positioning statement about the way we approach marketing advertising for clients.

Q And do you see the sentence, the third sentence, I think, if I'm counting correctly. It says, "We break down traditional funnel-thinking into more agile, fluid consumer journeys that meet consumers where they are now and know where best where to take them next."

Do you see that?
A Yes, I see that.
Q And do you recall your company promoting its approach to the traditional funnel in this way?

A Vaguely.
Q Okay.
And is this -- was this an accurate statement at the time, UM had this on its website?

A I'll be honest, I don't regularly visit the UM website, so I assume it's accurately what was presented on our website.

Q Well, just to be clear, as you sit here, do have any basis for saying this statement is not accurate?

A It's one of our positioning statements.
Q Thank you.
Let me just explore for a moment what that -Let's leave that up, please.
-- what that statement means.
The point here that "meeting consumers where they are and knowing best where to take them," would that include
someone who was on a social media platform, you would try to reach those users on those platforms and try to take them to a purchase point?

A It might.
Q Now we can take that down.
I want to now discuss with you some different types of digital ads that you discussed with counsel this morning, okay?

The first thing you were asked about was different types of search ads. Do you remember that?

A Yes.
Q Let's see if we can agree on a list.
You told us text was a type of search ad, correct?
A Correct.
Q Then we have shopping ads/PLAs. They're search ads, correct?

A Correct.
Q Local search ads are also search ads, right?
A Yes. We didn't discuss it previously, but, yes.
Q I'm expanding the list now.
A Yes.
Q Video search ads are search ads, correct?
A I wouldn't -- that would be an oversimplification.
Q Okay. We'll get back to that one in a moment.
Travel search is a search ad?

A You mind need to define what you mean by "search ad."

Q Okay.
And would you agree retail search is a search ad?
A Again, you would need to define what you mean by search ad.

Q Okay.
Let's it -- do you have that transcript? Did I give you a copy of your transcript? I apologize. That was inadvertent.

MR. SOMMER: May I approach, Your Honor? BY MR. SOMMER:

Q Let's take a -- let's go to page 20 of your deposition.

And just to give counsel a chance to catch up, 20, line 5 to 6 to start.

Do you remember being asked at your depo, "What are the different types of search advertisements?"

Do you remember being asked that question?
A Yes.

MS. TRAGER: Objection. Is this impeachment?
MR. SOMMER: No, it's not impeachment. I'm trying to refresh his recollection.

MS. TRAGER: Did he not recall specifics?
MR. SOMMER: He didn't recall -- I went through my
list.

THE COURT: Hang on. Let's not talk over one another.

I just think if we're going to turn to the deposition, it would be helpful to signal how you're using it. And if it's to refresh his memory, please just indicate that. If it's otherwise, that'll be evident from the fact that you haven't indicated that it's being used to refresh.

MR. SOMMER: Okay.

BY MR. SOMMER:

Q Sir, let me -- I'm going to try to refresh your memory or at least eliminate the -- you said it depends on you define something so let me try to clarify that.

I'm going to ask you to look at page 21 to 22, starting at line 19 on page 21, and continuing on to page 22. And after you've had a chance looking at that, just look up and I'll know you've had a chance.

A Yeah.

Q Okay. Great.
So you recall at your deposition identifying text ads as a type of search ad, correct?

A That's correct.

Q Okay.
And then as we move to page 22, you also
identified shopping ads. That's at line 9, correct?

A That's correct.
Q And then you also at line 11 identified product listing ads, correct?

A Correct.

Q And then at line 19, you identified local search ads, right?

A That's correct.

Q Okay.

MS. TRAGER: Objection. Counsel is reading from the transcript and has it up on the screen.

MR. SOMMER: Well, I'm happy to take it down from the screen.

BY MR. SOMMER:

Q Do you disagree with any of the ones you've identified so far, sir?

A Not at this time.

THE COURT: Just to avoid any further objections here, if we're going to use it to refresh, let him look at it and then ask him the questions you're going to ask --

MR. SOMMER: I didn't know it was on the screen.

THE COURT: -- as opposed to --

MR. SOMMER: My screen is covered.

THE COURT: -- just reading from the transcripts.
If we follow those rules, we won't draw any
objections.

MR. SOMMER: Good.

BY MR. SOMMER:

Q And then if you turn the page to page 23.

A Yes.

Q You identified another type of search ad as a video search ad. Do you see that?

A Yes.

Q And do we stand by that one today?

A Yes.

THE COURT: I thought --

MS. TRAGER: Your Honor.

THE COURT: Why don't we take our lunch break and we can talk about how this should be done, at least in my courtroom.

MR. SOMMER: Sorry, Judge.

THE COURT: So, Mr. Lowcock, you're going to return at 1:30, and I'll ask you please not to discuss your testimony during the lunch break. Thank you, sir.

THE WITNESS: Okay.

THE COURT: You can step down. Thank you.

THE WITNESS: Thank you.

THE COURT: You can leave all that there. It will be waiting for you upon your return, I promise.

So, you know, the way I've -- the way I treat this is if you want to impeach, you can use the deposition to
impeach. If he has said something inconsistent with what he has said during his deposition, obviously you can use the testimony in the deposition.

If you simply want to refresh his memory, give him the opportunity to review whatever it is, whether it's the deposition or some other document to refresh, and then ask him, does it refresh your memory as to the previous question that you could not remember the answer to.

MR. SOMMER: Understood, Judge.
THE COURT: You know, I don't -- if you're seeking to use a deposition to refresh, I don't think it's appropriate to then essentially read the answers back to him from the deposition.

MR. SOMMER: Got it. THE COURT: Okay. All right. See everybody at 1:30. Thank you, all.

COURTROOM DEPUTY: All rise. This Court stands in recess.
(Recess from 12:30 p.m. to 1:30 p.m.)

## C ERTIFICATE

I, William P. Zaremba, RMR, CRR, certify that
the foregoing is a correct transcript from the record of proceedings in the above-titled matter.

Date:__October 3, 2023


William P. Zaremba, RMR, CRR

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