

**UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD**

**GOOGLE LLC,
Petitioner,**

CERTIFIED COPY

v.

**WILDSEED MOBILE LLC,
Patent Owner.**

Case IPR2023-00248 (US Patent No. 7,376,414)

VIDEOCONFERENCE DEPOSITION OF

DR. SAM MALEK

INDIVIDUALLY AND ON BEHALF OF

WILDSEED MOBILE LLC

NOVEMBER 2, 2023

Page 1 - 114

10:05 a.m. - 1:29 p.m. CST

REPORTED BY:

Tamara L. Houston

CA CSR No. 7244, RPR, CCRR No. 140

Job Number 129895

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REMOTE VIDEOCONFERENCE DEPOSITION OF DR. SAM
MALEK, taken on behalf of the Petitioner, commencing
from 10:05 a.m. to 1:29 p.m., Thursday, November 2,
2023, before Tamara L. Houston, CSR No. 7244, CCRR, RPR.

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INDEX TO EXAMINATION

WITNESS: DR. SAM MALEK

EXAMINATIONS	PAGE
MR. BAJAJ.....	6

QUESTIONS INSTRUCTED NOT TO ANSWER

Page Line

None

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

INDEX TO EXHIBITS		
DR. SAM MALEK		
GOOGLE vs. WILDSEED MOBILE LLC		
NOVEMBER 2, 2023		
Tamara L. Houston, CSR No. 7244, CRR No. 140, RPR		
EXHIBIT	DESCRIPTION	PAGE
	None marked.	
	--o0o--	

1 Thursday, November 2, 2023, 10:05 a.m. CST
2 --o0o--
3 All counsel present stipulate
4 that the witness shall be sworn remotely
5 by the court reporter
6 * * *
7 Whereupon, DR. SAM MALEK, having been
8 called as a witness was duly sworn
9 to tell the truth, the whole truth,
10 and nothing but the truth testified
11 as follows:
12 EXAMINATION BY MR. BAJAJ:
13 Q. Good morning Dr. Malek.
14 A. Good morning.
15 Q. Could you please state your full name for
16 the record?
17 A. Sure. Sam, S-A-M, and my last name is
18 Malek, M-A-L-E-K.
19 Q. You've been deposed before; is that
20 correct?
21 A. I have, yes.
22 Q. Approximately how many times?
23 A. Approximately, I would say, 50 times.
24 Q. So you generally know how these depositions
25 work; is that fair?

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1 A. Yes.

2 Q. And you know that you must provide verbal
3 answers to my questions so that the court reporter
4 can make an accurate transcript, correct?

5 A. Yes. Understand.

6 Q. And because we're forming a record here,
7 it's important that we don't talk over each other.
8 So if you'd let me finish my question, I'll let you
9 finish your answers; is that okay?

10 A. Yes. Understood.

11 Q. You understand that your counsel might
12 object to a question but that you still must provide
13 an answer to that question unless instructed
14 otherwise, correct?

15 A. Yes.

16 Q. And if you're confused as to a question
17 that I ask, please let me know that so that I can
18 maybe ask it in a different way. Can we agree on
19 that?

20 A. Sure. Will do.

21 Q. You're connecting to the deposition today
22 on a personal computer, correct?

23 A. Yes.

24 Q. Aside from Zoom, are there any other
25 applications running on your personal computer today?

1 A. Just Adobe Acrobat where I have the -- my
2 report and the assigned exhibits open.

3 Q. You mentioned that you have your report
4 open. Is that Exhibit 2009 in this proceeding?

5 A. Yes. That's true.

6 Q. Are there any notes or comments in that
7 copy of Exhibit 2009 that is open on your computer?

8 A. No.

9 I also have the printed material. I have
10 my report and the patent and the key references
11 printed as well. And I don't have any notes in any
12 of them. These are all clean copies.

13 Q. Okay. Are there any Web pages or messaging
14 programs open on your personal computer today?

15 A. No.

16 Q. Do you have any other electronic devices in
17 the room with you?

18 A. I have my mobile device, my phone.

19 Q. Okay. If you don't mind turning that off
20 or at least putting it on silent during the
21 deposition, just so that it doesn't interrupt us, I'd
22 appreciate that.

23 A. Okay. It's on silent.

24 Q. Now, is there any reason that you can't
25 provide full and accurate testimony today?

1 A. No.

2 Q. And you understand that the testimony you
3 are providing today will be used in Inter Partes
4 review proceeding IPR 2023-00248, correct?

5 A. Yes.

6 Q. And you understand that your testimony will
7 be publicly filed if -- in this proceeding?

8 A. I'm not sure what that really means, but I
9 think -- I don't know what it means to publicly file
10 testimony.

11 Q. You understand that your testimony will be
12 available to the public when filed in these
13 proceedings, correct?

14 A. Okay. I understand.

15 Q. And IPR 2023-00248 concerns U.S. Patent
16 Number 7,376,414; is that correct?

17 A. Yes.

18 Q. If I say "the '414 patent," will you
19 understand that to be referring to U.S. Patent Number
20 7,376,414?

21 A. Yes.

22 Q. And just some other definitions for today.

23 If I use the acronym "POSITA," will you
24 understand that to mean a person of ordinary skill in
25 the art in 2001, which is the earliest alleged

1 priority date of the '414 patent?

2 A. Yes, I will do that.

3 Q. And if I say "time of the invention" or
4 "time of the '414 patent," will you understand that
5 to mean May 11th, 2001, which is the date of U.S.
6 Provisional Application 60/290592?

7 A. Yes, I'll do that.

8 Q. And if I say "your declaration," will you
9 understand that I'm referring to Exhibit 2009 filed
10 in this IPR?

11 A. Yes.

12 Q. And I probably should have gotten to this
13 first. If I refer to "this IPR," will you understand
14 that to mean IPR 2023-00248?

15 A. Yes.

16 Q. And just as a note, I like to take a break
17 every hour or so. But if you need a break more
18 frequently than that, please let me know, and if a
19 question isn't pending, we can do so.

20 A. Sure.

21 Q. How many IPRs have you worked on in your
22 experience?

23 A. You know, I haven't counted them, but I'm
24 estimating about ten.

25 Q. Have you provided expert consulting

1 services for Wildseed Mobile prior to this case?

2 A. No, I haven't.

3 Q. And have you been engaged by the Kramer Day

4 firm prior to your engagement for this case?

5 A. I've worked with the law firm before, yes.

6 Q. When did you begin working on this matter

7 for Wildseed?

8 A. I don't recall exactly when I was engaged.

9 I think I was engaged before the IPRs, so I think

10 either earlier this year, at the beginning of this

11 year, or sometime late last year.

12 Q. Dr. Malek, who wrote your declaration?

13 A. I wrote it with the help from the counsel.

14 Q. Were you provided with a first draft?

15 A. I drafted portions of it myself, and I

16 don't know whether my first draft -- I think I

17 created the first draft.

18 Q. Okay. And who came up with the positions

19 in your declaration?

20 A. Those are all my positions.

21 Q. Approximately how long did you spend

22 preparing your declaration?

23 A. I'd have to refer to my invoices to give

24 you a precise answer, but I'm estimating about 100

25 hours.

1 Q. What did you review in preparation for your
2 deposition today?

3 A. So I reviewed my declaration and the patent
4 and the cited references and also Dr. Houh's
5 declaration.

6 Q. And when you say "the cited references," do
7 you mean the Frerichs reference, the Kawasaki
8 reference, and the Kauffman reference?

9 A. Yes.

10 Q. Did you review anything else in preparation
11 for your deposition today?

12 A. Yeah. I mean, I think I reviewed all the
13 documents that are -- that are associated -- that are
14 exhibits, basically, to my report at some point. But
15 those are the ones that I clearly remember reviewing
16 most recently.

17 Q. Okay. Are there any errors in your
18 declaration that you're aware of?

19 A. No. I'm not aware of any substantive --
20 substantive errors or anything like that. Nothing
21 that would affect the substance. There might be some
22 small typos here and there.

23 Q. And do you still stand by all of the
24 opinions that you've provided in your declaration?

25 A. Yes, I do.

1 Q. The '414 patent generally relates to
2 techniques with mobile telecommunications devices,
3 correct?

4 A. So the title of '414 patent --
5 (Court Reporter requested
6 clarification.)

7 THE WITNESS: I said the title of
8 '414 patent is "Method and System for Inserting
9 Advertisements Into Broadcast Content."
10 BY MR. BAJAJ:

11 Q. You would agree that the invention is
12 related to mobile telecommunication devices, correct?

13 A. So on -- on the first column of
14 '414 patent, it says, "The present invention is
15 related to mobile telecommunication devices."

16 Q. Is that a statement that you agree with?

17 A. Yeah, I agree with that.

18 Q. So you would agree that the '414 patent is
19 related to mobile communication -- strike that.

20 You would agree that the '414 patent
21 invention is related to mobile telecommunication
22 devices, correct?

23 A. Yes, that's -- yes, I agree with that
24 statement.

25 Q. Would you agree that a cellular device is a

1 type of mobile telecommunication device?

2 A. A cellular mobile device, yes, it could be
3 an example of a mobile telecommunication device.

4 Q. What makes a mobile device a cellular
5 device?

6 A. I would say -- I mean, generally speaking,
7 I would say it's the fact that it has cellular
8 capabilities.

9 Q. So would it be fair to say that a mobile
10 device that communicates over a cellular network is a
11 cellular device?

12 A. A mobile device that communicates over a
13 cellular network would be an example of a cellular
14 device.

15 Q. And cellular telephones are one example of
16 a cellular device, correct?

17 A. Sorry. I didn't catch that. Can you
18 repeat it?

19 Q. Cellular telephones are one example of a
20 cellular device, correct?

21 A. That's what we were just talking about,
22 yes. Cellular mobile devices or cellular telephones
23 would be examples of cellular devices.

24 Q. At the time of the '414 patent, the
25 functionality of cellular telephones was increasing,

1 correct?

2 A. I don't really know what you mean by
3 "functionality." But generally speaking, I agree
4 that the capability of mobile devices and -- yeah, I
5 think I agree that advances were being made in mobile
6 device technology.

7 Q. And by the time of the '414 patent,
8 cellular telephones were capable of advanced
9 features, correct?

10 A. I don't know what you mean by "advanced
11 features."

12 Q. Well, how about playing streamed content?
13 Is playing streamed content an advanced feature?

14 A. I understand that depends. In column 1,
15 does talk about -- it says, "More advanced features"
16 or -- "more advanced features are becoming more
17 widely available, such as playing streamed content
18 and broadcasts."

19 And I agree with that statement. That is a
20 fact.

21 Q. Okay. So you agree that cellular
22 telephones were capable of advanced features at the
23 time of the '414 patent?

24 A. So I do -- the same in the patent that says
25 more advanced features --

1 (Court Reporter requested
2 clarification.)

3 THE WITNESS: More advanced features, such
4 as playing streaming -- sorry -- such as playing
5 streamed content and broadcasts, are becoming more
6 widely available.

7 BY MR. BAJAJ:

8 Q. And cellular devices, at the time of the
9 '414 patent, used batteries for power, correct?

10 A. Cellular mobile devices, is that what
11 you're asking?

12 Q. Cellular devices, yes, at the time of the
13 '414 patent.

14 A. I think cellular mobile devices used
15 battery, yes.

16 Q. Other types of cellular devices did not use
17 batteries; is that correct?

18 A. I don't know what other cellular devices
19 you have in mind. I haven't formed an opinion about
20 other cellular devices. But it is true that cellular
21 mobile devices used battery at the time of the
22 invention.

23 Q. So you mentioned cellular mobile devices
24 use batteries.

25 A. Yes.

1 Q. What is a cellular nonmobile device?

2 A. I -- I haven't investigated that aspect of
3 the invention. I don't know. I mean, that's not
4 really related to the proceedings in this issue.

5 Q. Well, I'm just asking your opinion as a
6 person of skill in the art.

7 And you used the phrase "cellular mobile
8 device." Is there such a thing as a cellular
9 nonmobile device?

10 A. It is potentially, but I wouldn't be able
11 to give you an answer off the cuff. I would have to
12 analyze it to be able to give you an answer.

13 Q. Okay. So was it known for cellular mobile
14 devices to be provided power using an AC adapter?

15 A. I mean, you could have your mobile device
16 connected to an AC adapter to charge the battery.
17 But, you know, as long as you're connected to the
18 power outlet, then it's not a mobile device anymore
19 because you're kind of stuck with the -- with the --
20 you know, the line going to the power port or the
21 power port going to the power outlet.

22 But, yeah. I mean, so you would have to
23 connect the device to the power outlet at some point
24 to charge the battery.

25 Q. In that example, it would still be a

1 cellular device, though, correct?

2 A. I mean, yeah. Like I said, you would have
3 to connect your cellular mobile device at some point
4 to a power outlet to charge the battery. But if
5 that's how you have to use the mobile device, then it
6 wouldn't be really a mobile device because you
7 couldn't move around with it.

8 Q. So cellular devices were provided power
9 using AC adapters at the time of the '414 patent?

10 A. I wouldn't frame it like that. I would
11 agree that the battery would be charged by connecting
12 to the power outlet. But I think mobile devices
13 are -- were designed, and still are designed, to work
14 on battery.

15 Q. And we discussed earlier that a mobile
16 device that communicates over a cellular network is a
17 cellular device, correct?

18 A. A mobile device that is working on a
19 cellular network is a -- yes, a cellular device.

20 Q. And a cellular telephone was one example of
21 a cellular device, correct?

22 A. A cellular telephone, like a cellular
23 mobile device, is an example of a cellular device,
24 yes.

25 Q. Is a laptop computer a mobile device?

1 A. Yeah, a laptop could be an example of a
2 mobile device.

3 Q. Can a laptop computer be a cellular device?

4 A. A laptop computer connected to a cellular
5 device -- having cellular capabilities, that is -- it
6 could potentially be an example of a cellular device.

7 Q. And a personal computer is also a type of
8 mobile device, correct?

9 A. A personal computer? No, I wouldn't view
10 that as a mobile device.

11 Q. Okay. Can a personal computer be a
12 cellular device?

13 A. I -- I mean, I guess -- I mean, I -- I
14 think, if it is connected to the cellular network and
15 it has cellular capabilities, it could be an example
16 of a cellular device.

17 Q. I'm going to put into the chat, so that we
18 can share exhibits, Exhibit 1001. I know you have a
19 copy of it as well, but just for the benefit of
20 everybody else here. Exhibit 1001 is the
21 '414 patent.

22 If you could let me know when you have
23 pulled that up.

24 A. Okay.

25 Q. You're very familiar with the '414 patent;

1 is that fair to say?

2 A. Yes, I've reviewed this extensively.

3 Q. Okay. The '414 patent uses various sources
4 to generate information about a user for targeted
5 advertisements, correct?

6 A. It talks about -- so the '414 patent talks
7 about -- so the '414 patent discusses the flowchart
8 that shows the actions used for generating
9 information regarding the user of the mobile device.

10 Q. As you were answering, I noticed you were
11 looking at a few documents. Could you let me know
12 what documents you were referring to in forming your
13 answer to that question?

14 A. Sure. So I was looking at basically, for
15 example, Figure 8 of the '414 patent.

16 Q. Anything else?

17 A. No. I think I -- I was -- yeah, I was
18 basically looking for this figure in the patent.

19 Q. Okay. So you would agree that the
20 '414 patent uses various sources to generate
21 information about a user for targeted advertisements,
22 right?

23 A. Well, in this Figure 8, it talks about
24 several types of information, and it has the word
25 "other sources." Again, that could be used for

1 obtaining that information.

2 Q. And so in that example, the '414 patent
3 selects an advertisement based on information taken
4 from a message sent to a first user by another user
5 on a different mobile device, and that message
6 identifies characteristics of the user of the first
7 mobile device. Right?

8 A. Well, I'm sorry. That question was really
9 long. Could you give me -- break it into --

10 Q. Sure. I'll repeat it.

11 So in the example that you mentioned about
12 other sources, the '414 patent selects an
13 advertisement based on information taken from a
14 message, correct?

15 A. So, yeah, if you look at column 10, line
16 18, of the patent, it talks about -- it says, "Other
17 source module 606 enables other user -- enables other
18 sources to be used to provide information regarding
19 the user. Example, a message from another user of
20 another mobile device that identifies characteristics
21 of the current user of the mobile device."

22 Q. Okay. And in the '414 patent, a server
23 selects advertisements, correct?

24 A. So the patent talks about -- for example,
25 in the context of Figure 7, it's talking about an

1 advertisement application server. So I think the
2 '414 patent discusses server selecting the
3 advertisements.

4 But I'm not really quite -- I'm not really
5 quite sure that it excludes other embodiments. But
6 at least one embodiment is that the server selects
7 advertisements.

8 Q. Okay. So the server, to select
9 advertisements, receives information taken from a
10 message, correct?

11 MR. ALBERTI: Objection to form.

12 THE WITNESS: So the Claim 1, for example,
13 part (a), talks about "autonomously providing to a
14 server, by the cellular device, information
15 associated with a user of the cellular device, the
16 information taken by the cellular device from a
17 message sent to the cellular device from another user
18 of another cellular device."

19 BY MR. BAJAJ:

20 Q. Is your answer complete? I just want to
21 make sure I'm not interrupting you.

22 A. Yes. That answers your question, right?

23 Q. Okay. So the server receives information
24 taken from a message to select advertisements,
25 correct?

1 A. The cellular device is providing to a
2 server information -- information associated with the
3 user of the cellular device where that information is
4 taken by the cellular device from the message sent to
5 the cellular device from another user of another
6 cellular device.

7 Q. So the server doesn't have to receive
8 information from the cellular device?

9 A. I'm just reading this claim limitation
10 that -- that -- that -- that is in Claim 1(a).

11 So supposedly the information that is sent
12 from the client is received by the server.

13 Q. Okay. What is your understanding of the
14 phrase "autonomously providing to a server"?

15 A. Are you asking me about a specific part in
16 my declaration?

17 Q. Well, you were mentioning Claim Element
18 1(a), which says "autonomously providing to a
19 server," and I'm just asking what your understanding
20 of the phrase "autonomously providing" is, since you
21 mentioned it.

22 A. But it's not something that I formed an
23 opinion about in my declaration, right? I don't
24 recall that being discussed in my declaration.

25 Q. You're very familiar with the '414 patent,

1 correct?

2 A. I am, but I'm not ready to offer any random
3 opinion about every aspect of it. So, I mean, if it
4 is something that I've discussed in my declaration,
5 I'm ready to -- to provide additional clarification
6 about it. But if it's something that I have not
7 defined, then I would need more time to analyze it.

8 If it is in my report and you point me to
9 it, I'm happy to answer questions about it.

10 Q. You earlier answered that Claim 1, for
11 example, part (a), talks about autonomously providing
12 to a server by a cellular device.

13 And so I'm just asking what your
14 understanding of autonomously providing to a server
15 by the cellular device is.

16 MR. ALBERTI: Objection to scope.

17 THE WITNESS: Well, I was reading the claim
18 language to answer your previous question. But
19 you're asking me about some part of the patent that I
20 don't think I've offered an opinion about in my
21 report.

22 If I have -- I mean, I haven't memorized my
23 report. If there is an opinion that I provide in my
24 report and if you point me to it, I'm happy to review
25 it and then clarify it.

1 BY MR. BAJAJ:

2 Q. Okay. So the scope of the claim is not
3 something you considered in forming your report?

4 A. Well --

5 MR. ALBERTI: Object to form.

6 THE WITNESS: I just -- again, you are
7 asking me something that I haven't offered an opinion
8 about in my report.

9 BY MR. BAJAJ:

10 Q. Okay.

11 A. I mean, I spent 100 hours preparing my
12 report. So it's not something that I can go on the
13 fly to give you additional opinions.

14 Q. So let's talk about the '414 patent more
15 generally. Does the '414 patent describe providing
16 information to a server from a client device?

17 A. Sorry. Your question is does it generally
18 describe providing information from the client to the
19 server device? Is that what you're asking?

20 Q. Yes.

21 A. I mean, I think the patent speaks for
22 itself. It has a lot of disclosures and details in
23 it. If you point me to a specific part of the
24 patent, I'm happy to review and answer your
25 questions.

1 Q. Sure.
2 So if you turn to Column 9, line 24.
3 A. There.
4 Q. So that sentence reads, "Advertisement
5 client 504 is located on mobile device 502 and
6 determines the information about the user for that
7 particular mobile device and provides this
8 information to advertisement server 508 located on
9 server computer 506."
10 Correct?
11 A. Yes, it says that.
12 Q. And you've read this sentence multiple
13 times; is that fair?
14 A. That sounds reasonable, yes.
15 Q. So does the user for that particular mobile
16 device have to take an action for the advertisement
17 client 504 to provide the information to
18 advertisement server 508?
19 MR. ALBERTI: Objection to scope.
20 THE WITNESS: I -- I don't think this is an
21 opinion that I provided in my declaration. I would
22 need to -- at least I don't recall. If I have, if
23 you can point me to it, I'm happy to discuss it.
24 BY MR. BAJAJ:
25 Q. Okay. Your declaration provides a claim

1 construction with the phrase "information taken from
2 a message," correct?

3 A. I have provided opinions about information
4 taken by a cellular device from a message, yes.

5 Q. And you've stated that, in the '414 patent,
6 if a given type of data exists, then that actual data
7 is added to information about a user, correct?

8 A. So my opinions about information taken from
9 a message are on pages 33 to 44 of my declaration.
10 What specific part of this are you asking questions
11 about?

12 Q. I'm just asking about your opinion. And
13 you've stated that, if a given type of data exists,
14 then that actual data is added to information about a
15 user, correct?

16 A. Yes. As I basically say here in this
17 section of my report, the specification teaches
18 directly using information that is in the message.

19 Q. And your report goes through a number of
20 other examples in the '414 patent, correct?

21 A. Yes. I discuss Figure 8 in this section of
22 my report.

23 Q. One example of information about a user
24 that might be available is location data, correct?

25 MR. ALBERTI: Objection to form.

1 THE WITNESS: So as I discuss here, my --
2 in my report, in the context of Figure 8, which I
3 think is on page 34, it talks about -- the patent
4 talks about adding location to information about user
5 of mobile device.

6 BY MR. BAJAJ:

7 Q. So location data may be available to add to
8 information about a user, correct?

9 A. It says, "Add location to information about
10 user of mobile device."

11 Q. So location data is not one of the types of
12 data that may be available to add to information
13 about a user?

14 A. No. I mean, I think that's -- I mean, I
15 just read you what the language says. It says, "Add
16 location to information about user of mobile device."

17 So location is information that could be
18 used.

19 Q. So location data is information that could
20 be available about a user?

21 A. It's information that could be available
22 that could be taken -- yes, that could be -- that
23 could form part of the information. Yes.

24 Q. And if location data exists, that exact
25 location data is added to the information about the

1 user, correct?

2 MR. ALBERTI: Objection to form.

3 THE WITNESS: Well, the patent, as I
4 expressed on page 34, says, "The location may be
5 manually entered by the user and/or provided from a
6 GPS, assisted GPS, wireless signal triangulation, and
7 the like, to determine the location of the user of
8 the mobile device."

9 So that -- that suggests that, you know,
10 exact location information is being used.

11 BY MR. BAJAJ:

12 Q. So the exact location data that exists is
13 added to the information about the user, correct?

14 A. So on paragraph 6, I say, "Thus, if
15 location data exists, that exact data -- example, the
16 location data entered by the user or provided from
17 GPS -- is added to information about the user."

18 Q. So there's no change between the location
19 data that exists and the location data that is added
20 to information about the user, correct?

21 A. I don't follow -- I don't understand that
22 question.

23 Q. Well, your declaration and your testimony
24 just said "that exact data," and I'm just trying to
25 understand what "that exact data" means.

1 A. Well, I clarify it in front of it. I say,
2 "Example, the location data entered by the user or
3 provided from GPS."

4 Q. So location data provided from a GPS may be
5 latitude and longitude coordinates, correct?

6 A. Yes.

7 Q. So if GPS latitude and longitude
8 coordinates are available, those exact GPS latitude
9 and longitude coordinates are added to the
10 information about the user, correct?

11 A. Yes, that's possible.

12 Q. There is no change in the data between
13 what's available and what's added to information
14 about the user, correct?

15 A. I don't know what you mean by changing. I
16 mean, the claim doesn't talk about changing here --
17 or the patent doesn't talk about changing.

18 The patent is talking about it's supposed
19 to be taking this data that is either entered by the
20 user or provided from the GPS to add it to the
21 information about the user.

22 Q. I'm trying to understand your meaning of
23 "that exact data." And so if that exact data is
24 available, is the same data added to information
25 about the user, or is there a change to the data

1 before it's added to information about the user?

2 A. I -- I never talk about change here in this
3 section of my report, so I'm not really sure what
4 you're asking me. No, I don't mention change.

5 What I'm saying is that the location
6 entered by user or provided by GPS is added to
7 information about the user. I don't talk about
8 change here.

9 Q. Okay. So there's no change to the data
10 that is available and the data that's added to
11 information about the user?

12 A. I don't know what you mean by "change."
13 I'm not offering an opinion about change here in this
14 part of my report.

15 I'm just literally providing opinion that
16 is, I think, pretty clear that, if location did
17 exist, that exact data -- which could be location
18 data entered by the user. For example, the user's
19 address or GPS information -- is added to information
20 about the user.

21 Q. So if the user enters 123 Main Street, then
22 the information about the user that's added is 123
23 Main Street, correct?

24 A. That would be the location data entered by
25 the user, yes.

1 Q. So exactly what the user enters is added to
2 information about the user?

3 A. That's what the specifications is saying.

4 Q. Another example of information about a user
5 that might be available is demographic data, correct?

6 A. Yes.

7 Q. And if demographic data exists, that exact
8 demographic data is added to information about the
9 user, correct?

10 MR. ALBERTI: Objection to form.
11 Incomplete hypothetical.

12 THE WITNESS: So, again, here I'm reading
13 from the spec. It says, "A determination is made as
14 to whether at least one" --

15 (Court Reporter requested
16 clarification.)

17 THE WITNESS: "A determination is made as
18 to whether at least one demographic piece of
19 information regarding the user is provided. If true,
20 the process steps to block 816 where the demographic
21 information is added to other information regarding
22 the mobile device user."

23 BY MR. BAJAJ:

24 Q. So there's no modification between the
25 demographic data that exists and the demographic data

1 that is added to information about the user, correct?

2 A. I -- I don't think the -- the spec talks
3 about modifying the demographic information, and I
4 don't recall this being something that I've offered
5 an opinion about, about modification. That's not an
6 opinion that I've provided.

7 What I've -- what I've said here is that
8 the data is -- the data is not derived. The data is
9 what is being provided. And so that's sort of the
10 distinction that I'm drawing here.

11 Q. So your phrasing is "that exact data," and
12 I just want to understand what "that exact data"
13 means to you.

14 Does "that exact data" mean identical data?

15 A. So the exact data means the same data.
16 It's not some kind of derivation of the data. It's
17 the data. So it's this GPS information or the
18 location data entered by the user, not location of
19 your neighborhood. It's not the location of
20 something that is derived from it but rather the
21 information that is entered by the user or provided
22 by the GPS.

23 Q. And is it the entirety of the data?

24 A. I don't -- what data are you talking about
25 now?

1 Q. So we gave the example of the user's
2 address. And if the user enters 123 Main Street, the
3 entirety of that string is added to information about
4 that user, correct?

5 MR. ALBERTI: Objection to scope.

6 THE WITNESS: So in these certain bodies --
7 so let me just step back.

8 So the '414 talks about situations wherein
9 the exact data that is provided is used in -- is
10 added to information about the user, and it also
11 talks about, in certain cases, derived data being
12 used.

13 But in this example that we're looking at,
14 I believe it's talking about exact data being used.

15 BY MR. BAJAJ:

16 Q. Where does the '414 patent talk about
17 derived data being used?

18 A. If you look at paragraph 65 of my
19 declaration, I say that, "The '414 patent
20 specification does not state that everything in user
21 preferences is data taken from a message. Instead,
22 the specification teaches that user preferences can
23 include data that was in a message and can also
24 include other data that was not in a message,
25 including information derived from other data, such

1 as determinations made using behaviors or answers to
2 surveys."

3 And so the spec talks about both. But what
4 is claimed is information taken from a message, so
5 the claim is claiming the aspect of the invention
6 where the information is directly taken from the
7 message, not derived from the message.

8 Q. So for information to be directly taken
9 from the message, it must be identically included; is
10 that fair?

11 A. So when you take -- yes, when you are
12 taking information from a message, as the claim --
13 when we're talking about the claim part of the
14 admission. So as the claim requires, you are taking
15 the exact information and using it.

16 Q. The exact message is added to information
17 about the user, correct?

18 MR. ALBERTI: Objection to form.

19 THE WITNESS: I wouldn't say the exact
20 message. The exact -- talking about information
21 taken -- the information taken by the cellular device
22 from a message sent to the cellular device from
23 another user from another cellular device.

24 So the information is that same exact, you
25 know, fuel data, for example, is taken from the

1 message and used.

2 BY MR. BAJAJ:

3 Q. So is it your opinion that, if message data
4 exists, the exact data doesn't need to be added to
5 information about the user?

6 MR. ALBERTI: Objection to form.

7 THE WITNESS: I don't think I said that. I
8 don't understand what you're saying.

9 So a message has certain amount of data in
10 it. Right. So the information taken from the
11 message means you've taken some information, some
12 data, from that message.

13 And we're talking about, you know, the
14 information that is in the message -- or the data
15 that is in the message, not some derivation of some
16 other information from it.

17 BY MR. BAJAJ:

18 Q. So you'd have to extract some data from the
19 message; is that your opinion?

20 A. I don't think it's required to extract, but
21 it says the information taken by the cellular message
22 from -- sorry -- by a cellular device from a message.
23 So it could be that you are taking some information
24 from the message.

25 Q. So stepping back, if location data exists,

1 that exact location data is added to information
2 about the user, correct?

3 A. Yes. In the context of the claim or the
4 specification language we were looking at earlier, if
5 you have -- if the location exact data is entered by
6 the user or provided from GPS, that information is
7 used or is added to the information about the user.

8 Q. And if demographic data exists, that exact
9 demographic data is added to information about the
10 user, correct?

11 A. Yes. At least in one aspect of the -- what
12 has been discussed in the specification, which is the
13 part that is claimed in this patent.

14 Q. And if message data exists, that exact
15 message data does not need to be added to information
16 about the user, correct?

17 A. Are you asking -- I'm trying to discern
18 what you're asking. Are you asking if the entirety
19 of the message data has to be used? Is that what
20 you're asking?

21 Q. Dr. Malek, I'm trying to understand your
22 meaning of "exact data." You've used that phrase
23 multiple times in your declaration, and I just -- I
24 want to understand what -- what that means.

25 A. I mean, I've given examples. I'm reading

1 from my report, which I think is pretty clear.

2 So example of exact data, I mean, I
3 literally say, "That exact data -- e.g." -- examples
4 of exact data -- "the location data entered by the
5 user or provided from GPS."

6 Q. So in those examples, location data, exact
7 data is added, correct?

8 A. Those are examples of exact data.

9 Q. In the message example, exact data is not
10 added, correct?

11 MR. ALBERTI: Objection to form.

12 THE WITNESS: I don't understand what you
13 are asking. Sorry.

14 BY MR. BAJAJ:

15 Q. So an example of a message from another
16 user may be, "I love Metallica." Is that a fair
17 example to give?

18 A. That could be a message, but that message
19 doesn't have location data in it.

20 Q. And we're not talking about location data
21 right now. We're just talking about messages from
22 other users. This is discussed in your declaration
23 at paragraph 61.

24 A. Okay.

25 Q. All right. If the message "I love

1 Metallica" is a message from another user that is
2 added to the information about the user, what, in
3 your opinion, is added from that message?

4 A. Well, I'm confused because I don't really
5 know what is the context of what you are asking in
6 your question. But maybe I'll give you something
7 that's maybe more clear.

8 So if there was a message that says, "Hey,
9 see you at 7:00 p.m. Here is my address," and I type
10 in my address in there and that address, whatever is
11 the address -- so mine is at 17 Cervantes Court,
12 Irvine -- if that is the address that is taken from
13 that message, then that would -- I would say that
14 would satisfy -- if that specific address is taken
15 from the message, then that would satisfy the
16 limitation 1(a).

17 Q. So if data is extracted from the message,
18 it would satisfy limitation 1(a)?

19 A. Yes. So in this case, it's the data that
20 is part of the message, and it's the data that is
21 taken from that message.

22 Q. So it doesn't have to be the exact data in
23 the message. It can be some subset of the data in
24 the message?

25 MR. ALBERTI: Objection to form.

1 THE WITNESS: It doesn't have to be the
2 entirety of the message, if that's what you're asking
3 me. So the claim requires the information taken from
4 a message. It doesn't have to be the entirety of the
5 data of the message.

6 BY MR. BAJAJ:

7 Q. So if message data exists, there is no
8 requirement that that exact data be added to the
9 information about the user?

10 MR. ALBERTI: Objection to form.

11 THE WITNESS: I'm sorry. I didn't
12 understand that question. Can you restate it?

13 BY MR. BAJAJ:

14 Q. Sure.

15 If message data exists, there is no
16 requirement that that exact data be added to
17 information about the user?

18 A. I think that's confusing. No. So what I'm
19 saying is that the claim requires taking exact data
20 from the message. So there has to be something in
21 the message, some data in the message like the
22 address that I just gave, and the address is the
23 exact data that is taken from the message.

24 The claim doesn't require the entirety of
25 the message to be taken; it just requires the

1 information to be taken from the message.

2 Q. Is there a minimum amount of information
3 from the message that must be taken?

4 MR. ALBERTI: Objection to scope.

5 THE WITNESS: Yeah, I don't think I've
6 offered an opinion about this. But just looking at
7 the claim, I mean, I don't think it mentions minimums
8 or maximums.

9 BY MR. BAJAJ:

10 Q. Well, you said the claim doesn't require
11 the entirety of the message to be taken; it just
12 requires the information to be taken from the
13 message.

14 And I'm just trying to understand what that
15 means. Is there a certain amount of information that
16 must be taken from the message, in your opinion?

17 A. I think it's just the plain and ordinary
18 meaning of what those words mean. "Information taken
19 by the cellular device from a message sent to the
20 cellular device from another user of another cellular
21 device."

22 And then, you know, the specification uses
23 specific examples such as, you know, user-provided
24 addresses or GPS.

25 Q. So one letter can be taken from a message

1 to satisfy information taken from a message?

2 A. I haven't offered an opinion about those.
3 If it is in my report and you can point me to it, I'm
4 happy to discuss it.

5 Q. Well, your declaration says, "The actual
6 data in a message from another user is added to
7 information about the user."

8 A. Yes. On their one -- on their -- on
9 their -- some aspects of what is disclosed in the
10 specification. Yes.

11 Q. And a single letter, the letter A, is
12 actual data in a message, correct?

13 A. It could be, but it wouldn't be an address.
14 It wouldn't be GPS information.

15 Q. And it's your opinion that a location must
16 be in a message from another user for it to be added
17 to information about the user?

18 MR. ALBERTI: Objection to form.

19 THE WITNESS: I -- I don't know what you're
20 asking me.

21 Am I saying that the claim requires the
22 location? No. The claim doesn't state that. At
23 least Claim 1 doesn't require location to be the
24 information that is taken.

25 MR. BAJAJ: Think we've been going for

1 about an hour. So ten-minute break?

2 THE WITNESS: Sure.

3 (Recess: 9:09 a.m. to 9:21 a.m.)

4 BY MR. BAJAJ:

5 Q. Dr. Malek, could you please turn to the

6 '414 patent at column 10, line 18.

7 Let me know when you're there.

8 A. Okay. I'm there.

9 Q. What is a characteristic as used in this

10 sentence?

11 A. I think it would be the plain and ordinary

12 meaning of what that term means.

13 Q. What is the plain and ordinary meaning of

14 the term "characteristic"?

15 A. I mean, I think that's an English word.

16 So, you know, I would have to look it up in the

17 dictionary. But I think it would be things along the

18 lines of, you know, attributes.

19 Q. Is location a characteristic?

20 A. It could potentially be, yes.

21 Q. The sentence reads, in part, "A message

22 from another user of another mobile device that

23 identifies characteristics of the current user of the

24 mobile device."

25 Can you give me an example of such a

1 message?

2 A. Sir, where did you read from?

3 Q. This same portion of the '414 patent,
4 column 10, line 18 through 22, in part, says, "A
5 message from another user of another mobile device
6 that identifies characteristics of the current user
7 of the mobile device."

8 A. And your question is to give you an example
9 of this?

10 Q. Yes.

11 A. I mean, an example might be -- you know, I
12 haven't thought about this too long. I would need to
13 think about it more.

14 But, you know, just sort of on the fly, I
15 guess, one possible example would be, you know, "Is
16 this still your phone number, (949) 357-3501?"

17 So that would be -- that might be an
18 example of a message.

19 Q. In that message, what identifies
20 characteristics of the current user of the mobile
21 device?

22 A. In that message, for example, the phone
23 number that I mentioned would be an example of
24 information that would qualify for that.

25 Q. So that phone number would be added to

1 information about the user of the mobile device?

2 A. As an example.

3 Q. And that phone number would then be used to
4 select an advertisement consistent with the claims?

5 A. It maybe could be any other types of -- I
6 mean, it could be other types of information. I gave
7 the phone number as an example, but it could be -- it
8 could be other kinds of information as well.

9 Q. What other types of information can you
10 think of?

11 A. I mean, there are some examples for what is
12 in independent Claim 3. So, for example, things
13 like -- you know, like radio station broadcasts,
14 television station broadcasts.

15 So, for example, there might be a message
16 saying, "Hey, are you watching the USC versus UCLA
17 game at 7:00 p.m. on CBS?"

18 Q. And so in that message, "Hey, are you
19 watching the USC versus UCLA game at 7:00 p.m. on
20 CBS" --

21 A. And then I would say -- there could be
22 something else in there. "I know you are a USC fan"
23 or something like that. So, I mean, there could be
24 lots of information in that message.

25 Q. Okay. So let's take that portion of the

1 message, "I know you are a USC fan."

2 What portion of that message is information
3 associated with a user of the cellular device that is
4 provided to a server?

5 A. So -- so, you know, the fact that the
6 message says that you are a USC fan, I know you went
7 to USC or something like that.

8 Q. So are the letters "USC" provided to the
9 server, or is something else provided to the server?

10 A. So, I mean, basically the message would
11 contain some information that it received from
12 another user of another mobile device that identifies
13 characteristics of the current user of the mobile
14 device.

15 So it could be a message containing, like I
16 said, a phone number, email address, you know, things
17 of that nature, or, you know, could be information
18 that is specific to that user.

19 Q. I'm going to go back to the example. You
20 said there could be something else in there. "I know
21 you are a USC fan."

22 And so what portion of that message would
23 be provided to a server?

24 A. So the message has multiple pieces of
25 information in it. The language that you are reading

1 in claim -- on column 10 is giving that as an
2 example. Right.

3 So the actual game itself, right, is
4 information that can be taken from the message. And
5 so it's not being an example of maybe information
6 that is characteristic of the user, but it would be
7 an example of information that is taken from a
8 message. That's the example that I was giving.

9 In addition, the message could have
10 information as an example because, as an example, it
11 could also have information that identifies
12 characteristics of the current user of the mobile
13 device.

14 But in the broader context of taking
15 information out of a message, there could be other
16 kinds of information that are also in the message.

17 Q. Right. And -- and the claim requires
18 information taken by the cellular device that is
19 provided to a server.

20 And I'm asking: What is provided to a
21 server from that message?

22 A. It depends on the specific implementation
23 of the information. It depends on the specifics of
24 what is being done in that system. I won't be able
25 to really give you any specifics on that because it

1 could differ from -- it could differ from one system
2 to another.

3 Q. So even though the claim requires providing
4 to a server information associated with the user of a
5 cellular device, the information taken by the
6 cellular device from a message, you can't tell me
7 what information would be provided to a server?

8 A. It would be data taken from the message.
9 And what specific data is taken from the message
10 could depend on the objectives of the system and how
11 the system is implemented.

12 That's a -- I think, you know, so the claim
13 requires information taken by the cellular device
14 from a message sent to the cellular device from
15 another user of another cellular device, and then the
16 message identifying characteristics of the user of
17 the cellular device, as long as those limitations are
18 met, there could be different implementations of what
19 exact data you are taking from the messages.

20 Q. Right. And I'm asking you for an example
21 of that.

22 I take it you understand what the
23 limitation means and have an example in mind, I would
24 think, of such a message and such information that
25 would be provided to a server. Is that not a fair

1 assumption?

2 A. Yeah. I think I gave you some examples
3 already.

4 Q. I don't think you answered my question.
5 You gave an example of a portion of a message that
6 say -- says, "I know you are a USC fan."

7 And all I'm asking, which I think would be
8 helpful to the board, is: What part of that is
9 provided to a server?

10 A. Well, the message was longer than that.
11 You cut my message into pieces. So there was
12 information about a game that is being played. There
13 was information that you are a USC fan. It could be
14 an information like, "Is this still your email? I'm
15 going to send you the invitation."

16 You know, there could be lots of
17 information in the message. And so the claim
18 requires taking information from the message. It
19 could be the email address. It could be, you know --
20 you know, "You are a USC fan." It could be the game
21 information, you know.

22 The information is taken from that message,
23 and that message identifies characteristics of the
24 user of the device. I mean, you can think of many
25 messages -- you can think of different kinds of

1 messages that would satisfy that limitation.

2 Q. Right. And I'm asking you to -- to please
3 provide me with an example of a message that
4 satisfies that limitation.

5 A. Yeah. And I think I just gave you. I
6 mean, it could be a message about a game that you
7 want to watch. It can have information about the --
8 that -- you know, that, "Hey, I know you went to USC.
9 You are a USC 2022 graduate. Here's the game that
10 I'm gonna watch. Is there an email address where I
11 can send the invitation so we can watch it together?"

12 Something like that.

13 Q. Okay. So let's take that message that you
14 provided as an example.

15 What portion of that message would be
16 provided to a server consistent with Claim 1?

17 A. It depends on what is the objective of the
18 system, what kind of ads you're trying to serve and
19 what objective you have in the system based on that
20 certain information from the message to be taken and
21 sent to the server.

22 So it depends. It depends on the context
23 of what is being performed.

24 Q. Well, the information has to be taken by
25 the cellular device from a message. And so what

1 information is taken by the cellular device? This
2 is --

3 A. Well, I mean, the message has data, right?
4 Like I just explained to you. It has information
5 about the game. It has information about the user's
6 email address. It has information about the fact
7 that you just graduated from USC in a certain year,
8 for example.

9 And what specific information is taken from
10 the message is specific to the system. Depends on
11 what you are trying to do in that system.

12 Q. So the information that is taken doesn't
13 have to be a characteristic of the user?

14 A. So the claim says, "The information taken
15 by the cellular device from a message sent to the
16 cellular device from another user of another cellular
17 device, the message identifying characteristics of
18 the user of the cellular device."

19 So the claim requires the message to have
20 identifying characteristics of the -- characteristics
21 of the user of the cellular device.

22 Q. But the claim doesn't require that the
23 information taken from the message be the
24 characteristic of the user of the cellular device,
25 correct?

1 A. In Claim 1(a)? In Claim 1, I mean?
2 Q. In Claim 1.
3 A. Yeah, the Claim 1 says -- the claim says,
4 like what I just read, "Autonomously providing to a
5 server, by the cellular device, information
6 associated with a user of the cellular device, the
7 information taken by the cellular device from a
8 message sent to the cellular device from another user
9 of another cellular device, the message identifying
10 characteristics of the user of the cellular device."
11 Q. Right. So information taken by the
12 cellular device from a message does not have to be a
13 characteristic of the user of the cellular device,
14 correct?
15 A. Yeah, not in the context of Claim 1. I
16 think we were talking earlier about some specific
17 statement that you were focusing on in the spec.
18 But the Claim 1 just requires the message
19 to identify characteristics of the user of the
20 cellular device.
21 Q. So the information taken by the cellular
22 device can be unrelated to the user of the cellular
23 device?
24 A. So the information has to be taken from the
25 message, but there is no requirement informing that

1 the information that is taken from the message is the
2 identifying characteristics of the user of the
3 cellular device.

4 Q. All right. What is the difference between
5 directly using information and using information?

6 A. Is this related to something that I've
7 offered in my -- in my declaration? Is this part of
8 my declaration?

9 Q. Yes. So you opine that the claims require
10 using information that was, quote, "taken," end
11 quote, from one or more messages, i.e., directly
12 using information that is contained within a message.

13 And the sentence uses the phrase "using
14 information" and "directly using information." And I
15 want to understand what the difference is.

16 A. So I think what I'm basically saying, as
17 I've said in other parts of my report, that there was
18 a difference between using information that is taken
19 from the message versus deriving some other
20 information from the message, such as what Kawasaki
21 does.

22 Q. So what is the difference between using
23 information and directly using information?

24 A. I'm not sure if that's an opinion I put in
25 my declaration.

1 What my declaration is saying is that the
2 claims require taking information from a message.
3 And that means, in my opinion, that it take exact
4 data from the message. And what Dr. Houh has pointed
5 to is Kawasaki. And in Kawasaki not taking any data
6 from the message, you are deriving some other
7 information about the message.

8 And so what I'm opining in my declaration
9 is that those are -- those are very different from
10 each other.

11 Q. Right. But I'm asking about the sentence
12 in paragraph 79 where you've used two different
13 phrases, "using information" and "directly using
14 information."

15 And I'm just asking -- this is a sentence
16 that you wrote. Do the two phrases mean different
17 things, or do they mean the same thing?

18 A. I'm -- here in this paragraph 79, I'm
19 emphasizing that information taken from a message
20 means you're directly using information. And by
21 that, I mean you are using exact data -- some exact
22 data from the message versus Kawasaki, which is, you
23 know -- you know, deriving some other information
24 from the message. So I'm disting- --

25 I'm trying to use this language to clarify

1 the difference between what the patent requires and
2 what Kawasaki does.

3 Q. So going back to Claim 1, how does the
4 server determine an advertisement from the
5 information taken by the cellular device?

6 A. So, I mean, Claim 1 requires the server to
7 do this. As far as how the patent describes it's
8 being performed, I would have to review the patent to
9 be able to provide you an opinion on it, and I don't
10 think this is an opinion that I provided in my
11 report.

12 So it would take a while to give you a
13 complete answer to that question.

14 Q. But the server doesn't have to determine an
15 advertisement based on characteristics of the user of
16 the cellular device, correct?

17 A. The claim says -- so the claim is
18 describing information from the perspective of -- in
19 Claim 1 from the perspective of the cellular device.

20 It says, "Wherein at least one received
21 advertisement is determined by the server based at
22 least in part on the provided information."

23 And the provided information, information
24 that is taken from the message, as we talked about
25 earlier. And the message having identifying

1 characteristics of the user of the cellular device.

2 Q. But we just agreed that the identifying
3 characteristics of the user of the cellular device
4 doesn't need to be provided to the server, correct?

5 A. The claim requires information to be taken
6 from the message where the message has identifying
7 characteristics of the user. The claim doesn't
8 require the information that's provided itself be the
9 identifying characteristics of the user.

10 Q. So the server doesn't have to select an
11 advertisement -- sorry. Strike that.

12 The server doesn't have to determine an
13 advertisement based on characteristics of the user,
14 correct?

15 A. I don't think the claim goes quite to that
16 level of detail. The claim -- the claim requires the
17 server to select advertisements based at least in
18 part on the provided information.

19 Q. And the provided information is just any
20 information in a message, correct?

21 A. It's information taken from the message,
22 which could be identifying characteristics of the
23 user, but it's not required. Just the message is
24 required to have the identifying characteristics of
25 the user. But the provided information could also be

1 identifying characteristics.

2 And I would just add one other thing. The
3 provided information should also be information
4 associated with the user of the cellular device. So
5 that's, you know, not identifying characteristics,
6 but it should be information that's associated by the
7 user of the cellular device.

8 (Court Reporter requested clarification.)

9 BY MR. BAJAJ:

10 Q. Associated by the user or associated with a
11 user?

12 A. Excuse me. Associated with a user of the
13 cellular device. Yes.

14 Q. The '414 patent talks about process, in
15 Figure 8, that determines that at least one behavior
16 of the user is available and, if so, behavior
17 information is added to information about the mobile
18 device user.

19 Do you recall that?

20 A. No. Where are you -- where are you reading
21 from?

22 Q. This is at column 10, line 60.

23 A. Okay.

24 Q. And so if a behavior of the user is
25 available, then behavior information is added,

1 correct?

2 A. The text speaks for itself. It says, "When
3 the process determines that at least one behavior of
4 the user is available, it moves to block 808 where
5 behavior information is added to other information
6 about the mobile device user."

7 Q. And because it says "behavior information,"
8 it doesn't have to be exactly what was available,
9 correct?

10 A. Available where? I don't quite understand
11 that.

12 Q. Well, the sentence reads, "The process
13 determines at least one behavior of the user is
14 available, it moves to block 808 where behavior
15 information is added."

16 So at least one behavior of the user is
17 available, but behavior information, something
18 different, is added, correct?

19 A. So you are distinguishing from behavior and
20 behavior information?

21 Q. The text is distinguishing that, is it not?

22 A. I'm not really sure what the distinction
23 is, no. I mean, to -- I mean, it's the plain and
24 ordinary meaning of language, so it's information
25 about the behavior, so...

1 Q. What is the plain and ordinary meaning of
2 behavior?

3 A. I don't know. I haven't thought about it.
4 So maybe an example would be watching T.V. is a
5 behavior.

6 Q. If -- if that behavior is available, what
7 is added to information about the mobile device user?

8 A. Well, that's the part where I don't think
9 that, you know, it goes into that level of detail. I
10 think it's just watching T.V. So behavior of --
11 behavior information about watching T.V. is watching
12 T.V.

13 Q. Okay. So the data that is available, that
14 exact data is added to the information about the
15 mobile device user?

16 A. I -- I don't know what you mean. What
17 exactly are we talking about?

18 Q. Well, you said that, if the behavior data
19 that is available is watching T.V., then the behavior
20 information is watching T.V., right?

21 A. I think we were just talking in abstract
22 here, so I'm not really sure -- what specific data
23 are you talking about? Are you talking about a
24 message, or are you talking about some other form of
25 data?

1 Q. Does this passage talk about a message?

2 A. I mean, I think some parts of it are, but I

3 don't think all of it is necessarily talking about

4 messages.

5 Q. So this portion of column 10 is talking

6 about messages from line 60 to 63?

7 A. It's unclear if it's talking about messages

8 or not. I think it could be, but it doesn't have to

9 be.

10 Q. Okay. So going back up to column 10 at

11 line 18, sentence that starts with "additionally" --

12 A. Okay.

13 Q. Says that, "Other sources to be used to

14 provide information regarding the user, e.g., a

15 message from another user of another mobile device

16 that identifies characteristics of the current user

17 of the mobile device."

18 A. Yes.

19 Q. What is the information regarding the user

20 that other source module 606 enables?

21 A. I'm not really sure if I understand the

22 question.

23 What is the question?

24 Q. So the sentence states that, "Other source

25 module 606 enables other sources to be used to

1 provide information regarding the user, e.g., a
2 message from another user of another mobile device
3 that identifies characteristics of the current user
4 of the mobile device."

5 What in that sentence is the information
6 regarding the user?

7 A. So I -- I don't think this sentence is
8 giving an example of information about a specific
9 user. I'm not sure I fully understand the question.
10 I don't think -- I don't think it's giving a specific
11 example of information.

12 It's just saying that -- it's just
13 clarifying what these other sources are. And so it
14 says an example of another source could be "a message
15 from another user of another mobile device that
16 identifies characteristics of the current user of the
17 mobile device."

18 Q. So this sentence is giving an example of
19 another source, not an example of information
20 regarding the user, correct?

21 A. Well, I mean, the information regarding the
22 user would be part of the message that it is talking
23 about in the example. But the example is for the
24 other source module component. And --

25 And, of course, it's implied that this

1 message would have provide -- would provide
2 information regarding the user. So it has that
3 information. But it doesn't give a specific example
4 of that information.

5 Q. So an example of other source information
6 is a message from another user of another mobile
7 device that identifies characteristics of the current
8 user of the mobile device; is that fair?

9 A. Yes. So the first one, it says, (As read)
10 "Other source modules enable other sources to be used
11 to provide information regarding the user."

12 As an example of that, it identifies a
13 message from another user of another mobile device
14 that identifies characteristics of the current user
15 of the mobile device.

16 It doesn't give the details of the message.
17 It doesn't have an example of the message itself.
18 But rather it clarifies that these other sources
19 could be messages that would contain these
20 identifying characteristics of the user of the mobile
21 device.

22 Q. Okay. And if we look at Figure 8 of the
23 '414 patent.

24 A. Okay.

25 Q. So we talked about before that, if location

1 data is available, that exact location data is added
2 to information about the user of the mobile device,
3 correct?

4 A. Yes.

5 Q. And that's consistent with steps 802 and
6 804 of Figure 8, right?

7 A. Yes.

8 Q. Similarly, if demographic data is
9 available, that exact demographic data is added to
10 information about the user of the mobile device,
11 correct?

12 A. Yes. That's possible, yes.

13 Q. And that's consistent with 814 and 816 in
14 Figure 8, right?

15 A. Yes.

16 Q. And is that because the label in Box 814 is
17 "demographic," and the text in 816 is "demographic"
18 as well?

19 A. No. Because of the -- the language that is
20 in the spec that describes these. So, you know, it's
21 in the language. The language doesn't say
22 "information derived." Right. The language suggests
23 that it's information that is taken.

24 Q. And -- and that's because it uses the same
25 word, right? "Demographic" and "demographic"?

1 A. No. I don't think it's -- that's quite how
2 I would put it.

3 So it says, "A determination is made as to
4 whether at least one demographic piece of information
5 regarding the user is provided. If true, the process
6 steps to block 816 where the demographic information
7 is added to other information regarding the mobile
8 device user."

9 So it's -- you know, that language or the
10 demographic of -- you know, demographic piece of
11 information is provided, you know. And that whole
12 paragraph suggests to me that it's -- you know, it's
13 talking about taking that information and putting it
14 into the information about the user and not deriving
15 some other information from it.

16 Q. Right.

17 And your declaration says "that exact
18 data," correct?

19 A. Yeah. The "exact data" phrasing is
20 actually more in the context of the location where I
21 say, "If location data exists, that exact data -- for
22 example, the location data entered by the user or
23 provided from GPS -- is added to information about
24 the user."

25 Q. Right. And you also state that, "If

1 demographic data exists, that exact data is added"?

2 A. I don't use that exact phrase that you just
3 mentioned. But I think, reading that paragraph, it
4 suggests to me that the patent spec is talking about
5 demographic information is provided and that is being
6 added to other information.

7 It doesn't use the word "derive" or "infer"
8 or anything along those lines.

9 Q. So you're stating that you don't use the
10 exact phrase "if demographic data exists, that exact
11 data is added"?

12 A. No, I don't say that. I'm just saying the
13 words "exact data" is used in the context of my
14 discussion of the location data.

15 Q. If you'll refer to Exhibit 2009 at
16 paragraph 60.

17 A. Okay.

18 Q. The third line there says, "If demographic
19 data exists, that exact data is added," correct?

20 A. Oh, I see. Yeah. I was reading the
21 previous paragraph. Yeah, I basically say that as
22 well here. That's true.

23 Q. Basically say that or say that?

24 A. I say that.

25 Q. Okay. So location data is available, exact

1 location data is added; demographic data is
2 available, and exact demographic data is added as
3 well, correct?

4 A. Yes. I mean, that's what the language
5 states. That's what the plain and ordinary meaning
6 of what those sentences mean to a POSA.

7 Q. And that's consistent with Figure 8 and the
8 description of Figure 8 in the specification,
9 correct?

10 A. Yeah. I think it's also consistent with
11 Figure 8.

12 Q. Okay. And so if other source information
13 is available, exact other source information is added
14 to information about the user, correct?

15 A. Well, I mean, these are the teachings in
16 the spec. And then you look at the claim, and the
17 claim says information taken from the message.

18 And, you know, the totality of this opinion
19 makes it very clear that it is talking about taking
20 exact data from the message and -- and, you know,
21 adding it to the information about the user.

22 Q. And I'm just looking at column 11, where it
23 says, "The process steps to decision block 818 where
24 a determination is made as to whether other sources
25 have provided information regarding the mobile device

1 user."

2 You skip down three lines --

3 A. Sorry, hold on. Where are you? Column 11,
4 what line?

5 Q. Column 11, starting at line 9.

6 A. Okay.

7 Q. "The process steps to decision block 818
8 where a determination is made as to whether other
9 sources have provided information regarding the
10 mobile device user."

11 And if you skip down to line 15, "At
12 decision block 818, when the determination is true,
13 the process advances to block 820 where the other
14 source information is added to other information
15 regarding the mobile device user."

16 So just like location data and demographic
17 data where exact data is added to information about
18 the user, for other source data, exact other source
19 data is added to information about the user. Fair?

20 A. Well, except that you're also eliminating
21 the claim language. So the claim language is really
22 important. Right?

23 The claim language says, "The information
24 taken by the cellular device from a message sent to
25 the cellular device," and the spec also discusses

1 messages in the context of the other source.

2 And, again, the totality of that
3 information tells me that the claims are talking
4 about taking exact data from the messages.

5 Q. So you're not willing to tell the board
6 whether Figure 8 means that you add exact data with
7 respect to other source information?

8 A. Well, what I'm saying is that I'm
9 considering the totality of the patent, including the
10 claim language. The claim language, together with
11 the specification, together with the discussions in
12 Figure 8 --

13 I mean, as I said earlier, the patent talks
14 about two ways of obtaining information. One is
15 exact data that is -- that is taken and included
16 above the information about the user, and one is
17 derived data.

18 So it does also include the derived data,
19 but the part that is claimed, the claims are
20 targeting the embodiment where you are taking
21 information from the message. You are taking exact
22 data.

23 Q. And I think, if I can understand your
24 position, there's three types of data that might be
25 added to information about the user. There is

1 derived data, which is not in the claims, correct?

2 A. That's correct.

3 Q. So we'll ignore that for a second.

4 There's exact data, like location data and
5 demographic data, correct?

6 A. I'm not really sure what you mean by "exact
7 data." So the word "exact data" is what I'm using to
8 say that -- to distinguish taking data from a message
9 or taking data -- when you are taking data, to a
10 POSA, it means you take the data -- you take the
11 exact data and distinguishing that from inferring
12 some other information from the data.

13 Q. Right. For location data and demographic
14 data, you agree that that exact data is added to
15 information about the user, correct?

16 A. In the context of specific places where
17 I've discussed it in the context of my report, yes,
18 in my report, in certain places, I've offered that
19 opinion.

20 Q. But when it comes to other source
21 information, some portion of that exact data only
22 needs to be added to information about the user,
23 correct?

24 A. No. I don't really follow the question.
25 So we're talking about apples and oranges.

1 So Figure 8 is in the spec. I'm describing what that
2 Figure is talking about, and I'm talking about
3 exclusions in the specification. The --

4 Taking information from the message is in
5 the claim language, and so I'm not really sure I
6 follow that question. These are different.

7 So I'm looking to the spec for what is
8 disclosed in the spec, and I've offered opinions as
9 to what is the meaning of information taken by the
10 cellular device from a message. And that opinion is
11 informed by the claim language itself as to what it
12 means to a POSA and also the disclosures in the spec
13 itself.

14 Q. And I'm talking about the specification as
15 well, and I believe it's getting a little confused
16 that you keep referring to the claims.

17 And if we're just talking about the
18 specification and other source information -- which
19 is not recited in the claims, correct? Other source
20 information is not in the claims?

21 A. Yes, those words don't show up in the
22 claim.

23 Q. So when the specification talks about other
24 source information and adding other source
25 information to the profile -- I'm sorry, adding other

1 source information to information regarding the
2 mobile device user, it uses the same phrase, correct?
3 "Other source information"?

4 A. Yes. And it gives -- as an example, it
5 gives the message that is sent from other -- the user
6 of another cellular device.

7 Q. Right. So other source information is
8 available, and other source information is added to
9 information regarding the mobile device user,
10 correct?

11 A. Yeah, in the context of the spec, yeah. It
12 talks about other sources and an example of that
13 being messages that we've talked about.

14 MR. BAJAJ: Okay. Great.

15 I think we've been going for just about
16 another hour. Another ten-minute break?

17 THE WITNESS: Yeah.

18 MR. ALBERTI: Yep.

19 MR. BAJAJ: Great.

20 (Recess: 10:15 a.m. to 10:24 p.m.)

21 BY MR. BAJAJ:

22 Q. Welcome back.

23 Dr. Malek, in the '414 patent, other source
24 module 606 enables other sources to provide
25 information regarding the user, correct?

1 A. I don't really follow what you're asking
2 me. What do you mean by "other sources"?
3 Q. So column 10, line 18, states, "Other
4 source module 606 enables other sources to be used to
5 provide information regarding the user."
6 Correct?
7 A. Well, that's what it says, yes.
8 Q. And one example that other source module
9 606 enables is a message from another user of another
10 mobile device that identifies characteristics of the
11 current user of the mobile device, correct?
12 A. Yes. That would be an example of another
13 source.
14 Q. Do any other modules in Figure 6 of the
15 '414 patent enable a message to be used to provide
16 information regarding the user?
17 MR. ALBERTI: Objection to scope.
18 THE WITNESS: I don't think I'm offering an
19 opinion about this in my declaration. I'm not ready
20 to offer new opinions on the fly.
21 BY MR. BAJAJ:
22 Q. You've reviewed the '414 patent at length,
23 though, correct?
24 A. I have, yes.
25 Q. And so you're familiar with what -- the

1 modules that are described and what their purposes
2 are?

3 A. Yes, I am.

4 Q. Okay. Demographic module 612 enables the
5 demographics of a user to be determined, correct?

6 A. Yes. It's used to add demographic
7 information about the user of a mobile device.

8 Q. And so demographic module 612 is not
9 described as enabling a message to be used to provide
10 information regarding the user, correct?

11 MR. ALBERTI: Objection to form.

12 THE WITNESS: I don't think it precludes
13 messages to be used for that purpose.

14 BY MR. BAJAJ:

15 Q. It doesn't preclude it, but does it
16 describe that?

17 A. I would have to look at the spec to -- to
18 see what -- what other details are specified about
19 it, but I don't think this is something that I
20 offered an opinion about.

21 Q. Feel free to review the spec.

22 A. Okay. But, I mean, this is not something
23 that I'm offering an opinion, so I don't know how
24 long it would take me to render an opinion on the
25 fly.

1 Q. I understand that.

2 You have read the '414 patent and
3 understand it, though, correct?

4 A. I have, yes.

5 Q. In the description of demographic module
6 612, does it describe enabling a message from another
7 user to be used to provide information regarding the
8 user?

9 MR. ALBERTI: Objection to scope.

10 THE WITNESS: Yeah, I don't -- I don't
11 recall it precluding it. Beyond that, I mean, I
12 would have to -- you know, this would be a new
13 opinion. I would have to really read the spec with
14 that question in mind to able to give you, you know,
15 a complete answer.

16 BY MR. BAJAJ:

17 Q. Okay. So sitting here, you're not able to
18 answer questions about what the modules in the 6 --
19 in the '414 patent do?

20 MR. ALBERTI: Objection to the extent that
21 mischaracterizes prior testimony.

22 THE WITNESS: Yeah. That's not what I
23 said.

24 I -- I am ready to answer questions about
25 anything in my report. I have discussed Figure 8 to

1 some extent in my report, and I'm ready to answer
2 questions about the opinions that I formed about it.

3 But now you're asking for new opinions
4 about issues that I -- that were not within the scope
5 of what I've done. And so that would take me time to
6 do.

7 BY MR. BAJAJ:

8 Q. Well, this portion of the specification
9 from column 10, line 7 to 11, doesn't describe that
10 demographic module 612 does anything with messages,
11 correct?

12 A. Column 10, lines -- sorry. What -- you
13 said 7?

14 Q. 7 to 11, yes.

15 A. And I'm sorry. What is your question?

16 Q. The specification from column 10, lines 7
17 to 11, doesn't describe that the demographic module
18 612 does anything with messages, correct?

19 MR. ALBERTI: Objection to form.

20 THE WITNESS: No, I wouldn't agree with
21 that. It doesn't preclude it having -- having -- or
22 dealing with messages. It talks about questionnaires
23 or surveys that could be done through messages.

24 I wouldn't necessarily agree with that
25 statement.

1 BY MR. BAJAJ:

2 Q. Okay. In the context of Claim 1, the only
3 information provided to the server is information
4 taken by the cellular device from a message sent to
5 the cellular device from another user of another
6 cellular device, correct?

7 A. I'm sorry. You're saying is that the only
8 information that's taken? Is that what you asked me?

9 Q. That is the only information that is
10 provided to the server. And I'll repeat my question.

11 In the context of Claim 1, the only
12 information provided to the server is information
13 taken by the cellular device from a message sent to
14 the cellular device from another user of another
15 cellular device, correct?

16 MR. ALBERTI: Objection to form.

17 THE WITNESS: So Claim 1 involves a
18 cellular device sending information associated with
19 the user of the cellular device. That information
20 taken by the cellular device from the message sent to
21 the cellular device from another user of another
22 cellular device, the message identifying
23 characteristics of the user of the cellular device.

24 BY MR. BAJAJ:

25 Q. Is your answer to my question just

1 limitation 1(a) of Claim 1?

2 A. Yes. Basically -- yeah, I mean, that's --
3 the claim discloses what it discloses, which is what
4 I just read.

5 Q. So Claim 1 doesn't require providing
6 behavior information to the server, correct?

7 A. The word "behavioral information" is not in
8 Claim 1, if that's what you're asking me. Just the
9 word "information" is in the Claim 1.

10 Q. Claim 1 doesn't require providing a
11 behavior of the user to the server, correct?

12 A. Again, the word "behavior of user," those
13 words, that phrase is not in Claim 1.

14 Q. And my question is not whether the word
15 appears; it's what does the claim require.

16 And I understand that you've provided
17 testimony on the scope of the claim. Correct?

18 A. Yeah. Within the context of, for example,
19 what is the -- what would a POSA understand the
20 meaning of information taken by the cellular device
21 from a message, that -- that limitation, I would
22 offer an opinion about that.

23 Q. But you haven't understood the metes and
24 bounds of Claim 1 for the purposes of your opinion?

25 MR. ALBERTI: Objection to the extent that

1 it mischaracterizes the prior testimony.

2 THE WITNESS: Yeah, I didn't say that. I
3 understand Claim 1.

4 BY MR. BAJAJ:

5 Q. Okay. So do you understand Claim 1 to
6 require providing behavior of a user of the cellular
7 device to the server?

8 A. Those -- those -- that phrase doesn't show
9 up in Claim 1, so -- if that's what you're asking me.

10 Q. So does it require that or not?

11 A. Well, that -- that specific phrase does not
12 show up in Claim 1, but -- but if that data is -- you
13 know, is in the message and that data is taken from
14 the message -- so, I mean, that could qualify, but --
15 but that specific phrase is not in the message.

16 That the require -- the claim doesn't
17 preclude taking information from a message. You
18 know, going back to what I described, you know,
19 taking the exact data from the message where that
20 data maybe is behavior, potentially, describes some
21 behavior or whatnot.

22 I don't think that specific phrase,
23 however, shows up in the claim.

24 Q. Okay. Your declaration discusses neural
25 networks at length, correct?

1 A. I did, yes.

2 Q. And you've given an example that a neural
3 network output layer would typically have a single
4 neuron if the network is solving a binary
5 classification problem.

6 Do you recall that?

7 A. Yes, that one -- that is one possible
8 implementation.

9 Q. And in the example that you gave, the
10 output of the neural network might be a value from 0
11 to 1, correct?

12 A. Yeah. That would be one example of it.

13 Q. And is that example of a neural network
14 consistent with your view of the Kawasaki reference?

15 A. Yeah. I don't really know what you mean by
16 "consistent," but I do know that Kawasaki is
17 disclosing, you know --

18 (Court Reporter requested
19 clarification.)

20 THE WITNESS: -- feed-forward, three-tier
21 neural network technique, and that's what I'm
22 providing overview of in my -- in my declaration.

23 BY MR. BAJAJ:

24 Q. And so you stated that Kawasaki is
25 disclosing a three-tier, feed-forward neural network

1 of which you give an example in your declaration,
2 correct?

3 A. Yeah. Provided an overview of that in
4 my -- in my declaration.

5 Q. And that overview provides an example that
6 takes input data and outputs a value from 0 to 1,
7 correct?

8 A. Yes. That's part of the example.

9 Q. So the Kawasaki recognizer might take an
10 email as input and output a value from 0 to 1,
11 correct?

12 A. That's not quite how it works. More
13 precisely, it would receive a feature vector's input
14 where that feature vector is determined by the
15 features that are extracted from the email. So
16 receive a bunch of numbers, basically, and then
17 produce a number as an output.

18 Q. And that number as an output would indicate
19 whether -- the email corresponding to a given
20 category, right?

21 A. To a predefined category, yes.

22 Q. Now, you've also relied on the '664 patent,
23 Exhibit 2027, in support of your opinions, correct?

24 A. Yes. I think that's referenced in
25 Kawasaki, yeah.

1 Q. And then the '664 patent uses regular
2 expressions and assigned weights to category --
3 categorized content.

4 Do you recall that?

5 A. I recall the use of regular expressions,
6 yes.

7 Q. And in the '664 patent, the regular
8 expressions are generated using neural networks,
9 correct?

10 A. No, I don't recall that. I think it worked
11 differently, if I remember.

12 Q. Okay. What is a regular expression?

13 A. So a regular expression is where you are
14 searching for certain patterns.

15 So, for example, a document that has the
16 word "function" in it. And so you can specify a
17 regular expression where it would pick any word that
18 has the word "function" in it. So, for example, if
19 you pick "function" itself, it would also pick up
20 "functional" or "functionality."

21 I mean, that would be one example of a
22 regular expression. There are other ways of
23 specifying regular expressions. But a regular
24 expression would be a way of picking, you know,
25 patents in, for example, text.

1 Q. So like a pattern-matching rule, kind of?
2 A. Yeah. Potentially, yeah.
3 Q. Are regular expressions complex to execute?
4 A. They -- yes, they could be. I think I
5 would generally say they are --
6 (Court reporter requested clarification.)
7 THE WITNESS: I would generally say they
8 are computationally expansive to perform.
9 BY MR. BAJAJ:
10 Q. Going back to the example that you've given
11 in your declaration, the example feed-forward neural
12 network that you've provided takes data as input and
13 outputs a value from 0 to 1, correct?
14 A. Well, more specifically, it receives a set
15 of numbers or values, and it outputs one or more
16 numbers. Yes.
17 Q. The neural network example in your
18 declaration does not output another neural network,
19 correct?
20 A. Yeah. I don't -- I don't really know what
21 you mean by that.
22 No, what it's doing is that -- so in my
23 declaration, I'm providing an overview of an example
24 of a neural network where it sees inputs in the form
25 of numbers, values, and then it produces a number as

1 an output.

2 Q. We've been discussing Kawasaki a bit.

3 Let me drop that into the chat, and let me
4 know when you have that. Or if you already have it,
5 feel free to pull that up.

6 A. Okay.

7 Q. Where does Kawasaki describe the use of
8 artificial intelligence?

9 A. So it discusses -- in column 4, around line
10 16 to -- to 25, it's discussing three-tier,
11 feed-forward artificial neural networks. And, you
12 know, that's the classic technique in artificial
13 intelligence.

14 Q. Okay. And the neural network in Kawasaki
15 is referred to by Element 22, correct?

16 A. Yes. It appears that it's -- it appears
17 that that's what it's using to refer to it as.

18 Q. And Kawasaki also uses the label 23 to
19 refer to the recognizers, correct?

20 A. Yeah. It seems to me what's going on here
21 is that Kawasaki is describing the training of the
22 neural networks. And the output of the training of
23 the neural networks, which is 22, is algorithms and
24 rules, which are the recognizers, which are the --
25 the actual neural network -- the training neural

1 networks that recognize a match of incoming, unknown
2 data that is disclosed here.

3 Q. Yeah. My question was much simpler than
4 that.

5 Kawasaki uses the label 23 to refer to the
6 recognizers, correct?

7 A. Yeah. It's using label 23 to refer to
8 recognizers.

9 Q. You've stated an opinion that Apple didn't
10 provide support for execution of neural network
11 models on iOS devices until 2017, correct?

12 A. It didn't provide mainstream support in
13 terms of the software and hardware infrastructure
14 that was needed to make it practical for use.

15 Q. So it did provide support for execution of
16 neural network models on iOS devices prior to 2017?

17 A. That is not an opinion that I provided in
18 my report. I would have to go back in order to give
19 you a more detailed answer.

20 But what I do know is that 2017 is when
21 they -- they went mainstream; provided, you know,
22 support in hardware, software stack in iOS devices to
23 allow neural networks to -- to keep learning
24 techniques, which allows those neural networks to be
25 possible to execute in a practical way on iOS

1 devices.

2 Q. So you didn't offer an opinion whether iOS
3 devices, prior to 2017, could execute neural network
4 models?

5 A. I don't think I offered an opinion as to,
6 you know, what could be executed prior to 2017 on iOS
7 devices.

8 What I said is that the being mentioned and
9 the -- yeah, being mentioned is preceding iOS and
10 Android devices by 15, 16 years. And so it took
11 about 15 years for iOS, Apple, and Google to get to a
12 point where they determined that, "Oh, actually,
13 running neural networks on mobile devices is a
14 practical thing that could be of use for general
15 apps."

16 And so that happened many years later.

17 And so the extent of my opinion is that, in
18 the 2001 timeframe, it would not have been possible
19 to do the kinds of -- the kinds of -- run the kinds
20 of neural networks that Kawasaki is talking about and
21 Dr. Houh is referencing on mobile devices.

22 And it took 15 or so years before it
23 became -- it got to a point where technology advanced
24 to the point where Apple and Google could actually
25 provide mainstream support for running neural

1 networks on mobile devices through advancements in
2 the software and hardware that they input on those
3 devices.

4 Q. So it would be incorrect to state that it
5 was not until 2017 that Apple provided support for
6 execution of neural network models on iOS devices,
7 correct?

8 MR. ALBERTI: Objection to form. Misstates
9 prior testimony.

10 THE WITNESS: Let me put it this way. I'm
11 not saying that 2017 is the first time anybody was
12 able to run a neural network on a mobile device. I'm
13 not saying that.

14 What I'm saying is that, in 2001, nobody
15 would ever think about putting neural networks on
16 mobile devices. It just would not be in the realm of
17 things that a person would do. It was not possible
18 to do it.

19 And as far as when the technology got to a
20 point where it was something that a POSA would
21 consider, you know, somebody -- you know, somebody in
22 the art would realize, "Oh, I can run neural networks
23 on a device," would have been in 2017 timeframe where
24 Google and Apple provided actual support in the
25 hardware and software stack to be able to run

1 meaningful analysis using neural networks.

2 Whether it was possible to run it maybe a
3 couple years before that, possible. I didn't offer
4 an opinion about it. But I do know that, 15 years
5 earlier in 2001, it would have not been possible to
6 do it.

7 I mean, you have to consider that mobile
8 devices, 15 years ago, is -- so 15 years' difference
9 is -- makes a huge difference in mobile devices. So
10 the devices from 2001 to 2017, they are not even
11 comparable in terms of what they can do. So --

12 So the opinions that -- the technology got
13 to a point where it gradually had a meaningful
14 analyses, such as the kinds of things that Kawasaki
15 is talking about --

16 (Court Reporter requested
17 clarification.)

18 THE WITNESS: I forgot. I don't know.
19 Sorry.

20 Or maybe I said or the -- or what Dr. Houh
21 is pointing to. Dr. Houh is pointing to or running
22 on those devices.

23 Sorry, I don't recall exactly.

24 BY MR. BAJAJ:

25 Q. Was 2017 the first time anybody was able to

1 run a neural network on an iOS device?

2 A. No, that's not an opinion that I've
3 provided.

4 I don't think 2017 was the first time
5 anybody ever run any kind of a neural network on an
6 iOS device. But 2017 is when Apple provided support
7 in the software and hardware stack to make it
8 mainstream, to make it possible for -- for people to
9 actually run neural networks on those devices.

10 Q. What does support for execution mean? Was
11 it or was it not possible to run a neural network on
12 an iOS device prior to 2017?

13 MR. ALBERTI: Objection. Form.

14 THE WITNESS: So, again, I -- so support
15 for execution means to be able to execute something
16 on a device. And the opinion that I provided is not
17 that 2017 is the first time anybody was able to run
18 neural networks on iOS or Android.

19 Rather, the opinion is that, in 2001, it
20 was impossible to do it. Nobody would think of doing
21 it because they couldn't do it. And in 2017 is when
22 Apple and Google provided support in the operating
23 system and in the hardware to allow running neural
24 networks to become mainstream on mobile devices.

25

1 BY MR. BAJAJ:

2 Q. So I'm a little confused by your opinion.

3 You stated that support for execution means
4 to be able to execute something on a device, correct?

5 A. Yes.

6 Q. So without support for execution, you
7 cannot execute something on a device, fair?

8 MR. ALBERTI: Objection to form.

9 THE WITNESS: Yeah. Support for execution
10 is what I already described. It means to be able to
11 execute something on a device.

12 BY MR. BAJAJ:

13 Q. So without support for execution for neural
14 network models, you cannot execute a neural network
15 model, correct?

16 MR. ALBERTI: Objection to form.

17 THE WITNESS: So without support for
18 execution of something, you can't execute that
19 something. That is true.

20 But, again, I want to make sure that my
21 opinion is clear that what I'm saying is that in 2017
22 is when Android and Apple provided support in the
23 software and hardware to allow execution of neural
24 networks to become mainstream.

25 So an app developer could go and use the

1 libraries and use the hardware features on those
2 mobile devices to actually be able to run practical
3 analyses involving neural networks on mobile devices.

4 I haven't offered an opinion about, you
5 know, the year before or two years before that.

6 The other opinion that I provided is that,
7 15 years before that in 2001, which is 5 years before
8 iOS came to -- or 6 years before iOS come to exist
9 and 6 years or so before Android come to exist, at
10 that point in time, it was not possible to run neural
11 networks on -- on mobile devices, and somebody would
12 not consider that as a possibility.

13 BY MR. BAJAJ:

14 Q. So before 2017, there was no support for
15 execution of neural network models on iOS and Android
16 devices. Is that your testimony?

17 A. That Apple and Android did not provide the
18 kinds of support and features that they included in
19 the operating system and in the hardware to allow
20 running of neural networks on mobile devices to
21 become practical and be mainstream for app developers
22 until around 2017.

23 Q. And your declaration states, unequivocally,
24 it was not until 2017 that Apple and Google provided
25 support for execution of neural network models on iOS

1 and Android devices.

2 So are you qualifying that statement? Is
3 that statement not to be taken at face value?

4 A. I'm standing by that statement. And that
5 statement is consistent with what I'm saying right
6 now.

7 Q. Well, you've stated that support for
8 execution is required to execute a neural network
9 module, correct?

10 A. Well, generally speaking, yes.

11 But, I mean, you know, so when I say Google
12 and Android provided support for execution of neural
13 networks in 2017, it means that they provided
14 additional features in the hardware and in the
15 software to make it practical to run meaningful
16 analyses using neural network on those devices.

17 Q. So it was possible before 2017 for an Apple
18 iOS device to execute a neural network?

19 A. I haven't offered an opinion that, you
20 know -- before that, maybe a few years before that,
21 one or two years before that, it was not possible to
22 do it. But it was not mainstream. It was not
23 practical.

24 What I have offered opinion is that,
25 15 years before that, in 2001, which was years before

1 iOS and Android had even come to exist, it would have
2 been impossible to do it.

3 Q. So what you're saying is that you'd like to
4 qualify the statement in paragraph 135 to add the
5 word "practical"?

6 MR. ALBERTI: Objection to form.

7 THE WITNESS: No. I mean, if you look at
8 those references that I've cited there, they
9 essentially -- I mean, they state exactly what I'm
10 saying is that Apple and Google are finally providing
11 support for execution of these neural networks and
12 talks about the, you know, advancements and features
13 that are included in the operating system for doing
14 so.

15 BY MR. BAJAJ:

16 Q. Fair.

17 So let's take a look at one of those.

18 I'm dropping in the chat Exhibit 2025.

19 Let me know when you have that open.

20 A. Yes, I have it.

21 Q. So if you'll turn to page 2 of that
22 document, the paragraph in the middle, the second
23 sentence says, "The engine has circuits tuned to
24 accelerate certain kinds of artificial intelligence
25 software, called artificial neural networks, that are

1 good at processing images and speech."

2 Do you see that?

3 A. Yes.

4 Q. So if the circuits were tuned to accelerate
5 certain kinds of artificial intelligence software,
6 does that mean that the artificial intelligence
7 software could be executed before? Or not?

8 A. Well, like I've said, I haven't offered an
9 opinion that it was not possible to run neural
10 networks on iOS and Android a year or two before
11 2017. I haven't said that.

12 I'm saying that, as a matter of a practical
13 thing to do, as a matter of something that software
14 developers actually do, it didn't really become
15 possible until 2017, through the advancements that
16 Apple and Google incorporated into their devices.

17 Now, a year or two, a researcher, you
18 know -- you know, a man of extraordinary skill in the
19 arts goes in and runs the neural networks on a
20 processor of an iPhone, I don't know if such a thing
21 exists. It's possible. I wouldn't rule that out.

22 The other part of my opinion is that, in
23 2001, which is 15 years and many years before the iOS
24 and Android even existed, it would have not been
25 possible to do so.

1 Q. But you did offer an opinion that it was
2 impossible to run neural networks on iOS devices
3 before 2017.

4 MR. ALBERTI: Objection. Misstates prior
5 testimony.

6 THE WITNESS: I don't think I said that,
7 no.

8 BY MR. BAJAJ:

9 Q. Your testimony states that it was not until
10 2017 that Apple provided support for execution of
11 neural network models on iOS devices. And you stated
12 that support for execution is required for something
13 to execute it.

14 So either iOS devices didn't have support
15 for execution of neural network models before 2017 or
16 they did. One of the two must be true, correct?

17 A. No. It's not a black-and-white like that.

18 So as I've testified consistently today,
19 multiple times now, in 2017 is when Apple and Google
20 provided -- they realized that, "Oh, you know, these
21 devices have become a fashion of that. Now, you
22 know, you should actually try to incorporate features
23 that would be needed for solving practical problems
24 using neural networks."

25 So it became feasible to actually run the

1 neural networks in 2017 for solving real problems
2 such as the kind of problems that Kawasaki's talking
3 about. You know, analyzing emails and messages and
4 so on to be able to determine what is the scope of
5 the message or what is the topic of the message and
6 so on.

7 Whether it was possible for a man of
8 extraordinary skill in the arts, before Apple and
9 Android, to run neural networks on devices maybe a
10 few years before that? Possible. Was it practical?
11 No. Was it something that was done as a matter of
12 routine business in the industry? No.

13 But what is -- in my opinion, I'm certain
14 about is that, 15 years before that, which is --
15 which is a long period of time in technology,
16 especially in mobile technology and how fast it
17 advance -- 15 years before that, the devices were --
18 I mean, I've shown the examples of these devices
19 in -- in my declaration, the devices that Dr. Houh
20 has relied on.

21 These are devices that are plotting the
22 ability to display emails. And, you know, some of
23 them don't have color LCDs. Running neural networks
24 on those devices is not possible.

25 Q. So the black-and-white statement that

1 you've made in your declaration, though, isn't
2 entirely correct; is that fair?

3 MR. ALBERTI: Objection. Mischaracterizes
4 prior testimony.

5 THE WITNESS: You mean the LCDs that are
6 not color?

7 BY MR. BAJAJ:

8 Q. No. The statement that it was not until
9 2017 that Apple and Google provided support for
10 execution of neural network models. That statement
11 isn't entirely correct because it may have been
12 possible before 2017, but mainstream is your
13 qualification or practical, correct?

14 A. No. I mean, I stand by what I've said in
15 my -- in my report, and I've clarified it for you
16 today that Apple and Google actively provided support
17 for execution of neural network models starting in
18 2017.

19 Before that, somebody could go -- again, a
20 man of extraordinary skill in the art goes and
21 somehow gets a neural network running on those
22 devices, that's fine.

23 But the companies', actually as a matter of
24 the business, decision to now provide a new feature
25 on these devices, it was approximately 2017 when they

1 did that.

2 Q. Does the word "actively" appear in
3 paragraph 135 of your declaration?

4 A. Let me -- I think the word "actively"
5 doesn't show up, but I've cited the references. I
6 think, if you look at the references, the references
7 speak for themselves. I mean, they say exactly what
8 I'm saying.

9 Q. Does the word "practical" appear in
10 paragraph 135 of your declaration?

11 A. That word doesn't appear, but the
12 references make that very clear that that is what I'm
13 saying.

14 Q. In 2001, it would have been common for
15 cellular phones to receive text messages, correct?

16 A. You said in 2004 or 2001?

17 Q. 2001.

18 A. It was common to receive text messages?
19 Yes.

20 Q. And it was common to display text messages,
21 correct?

22 A. Yes, I think so.

23 Q. Would it be correct to say that, in 2001,
24 email messages were primarily text?

25 MR. ALBERTI: Objection to scope.

1 THE WITNESS: Yeah. I don't think I
2 offered an opinion about that. I'm not ready to
3 offer an opinion on the fly.

4 BY MR. BAJAJ:

5 Q. As a person of skill in the art, you can't
6 recall whether emails in 2001 were primarily text
7 based?

8 A. You said emails or text messages?

9 Q. Emails.

10 A. Yeah. I don't think I offered an opinion
11 about it. I don't know what was the percentage of
12 emails that were text versus HTML or any other
13 format. I would have to research that.

14 Q. As a person of skill in the art, you don't
15 recall whether emails were text based in 2001?

16 MR. ALBERTI: Objection to form.

17 THE WITNESS: Again, it's not something
18 that I've offered an opinion. I think emails could
19 have been text based, so text-based emails was a
20 format that was available then. But beyond that, I'm
21 not ready to offer an opinion about what was the
22 primary format for emails in 2001.

23 BY MR. BAJAJ:

24 Q. So it was known that emails were text in
25 2001, correct? Is that a fair summary of that

1 testimony?

2 A. I would say that it's fair to say that, in
3 2001, you could have emails that are text format,
4 yes.

5 Q. And if you had an email that was text
6 format, a cellular phone could display that
7 text-format email, correct?

8 MR. ALBERTI: Objection to form.

9 THE WITNESS: Well, you know, I don't think
10 I've offered an opinion about it. But, I mean, I do
11 recall, in my report, I've provided examples of the
12 mobile devices that Dr. Houh has relied on. And I
13 believe some of these devices could display email.

14 BY MR. BAJAJ:

15 Q. We were talking about text messages
16 earlier, and it was discussed that it was common for
17 cellular phones to display text messages.

18 Do you recall that?

19 A. Yes.

20 Q. Displaying text messages isn't particularly
21 sophisticated, is it?

22 A. I'm -- I'm not sure how to answer that
23 question. You're asking a very abstract question
24 that I don't know what you mean by "sophisticated."

25 Q. Well, you've stated that displaying email

1 was one of the most sophisticated tasks that a cell
2 phone could accomplish in 2001. And I'm wondering:
3 Is displaying a text message a sophisticated task?

4 A. Yeah. First of all, I didn't say -- I
5 mean, I'm saying that, the phones that Dr. Houh has
6 relied on, they -- even in the articles that he has
7 cited, they are highlighting the ability of these
8 phones to display emails.

9 And I think some of those devices also
10 could display text messages.

11 Q. You stated that displaying email was one of
12 the most sophisticated tasks that a cell phone could
13 accomplish in 2001, correct?

14 A. Yeah. I mean, according -- according to
15 the documents that -- that Dr. Houh has relied on in
16 the cell phones. He said he's focusing on certain
17 cell phones.

18 And I've also discussed them in my report,
19 and in some of these documents, he's discussing one
20 of the key features of these devices being able to
21 display email.

22 Q. Was displaying text messages one of the
23 most sophisticated tasks that a cell phone could
24 accomplish in 2001?

25 A. Yeah. The problem that I'm having is I

1 haven't offered an opinion about what so- -- what is
2 sophisticated and what is not sophisticated.

3 I think these devices could display text
4 messages. I haven't offered an opinion where I have
5 a ranking of what things are more sophisticated than
6 what other things. So --

7 I mean, particularly in light of the
8 questions you're asking in terms of text and email,
9 yes, there were devices in 2001 that could display
10 text and emails. I agree with that.

11 Q. And you're a person of skill in the art,
12 correct?

13 A. Yes.

14 Q. And you have used the word "sophisticated"
15 in your declaration, correct?

16 A. I think I've used it mostly, if I remember,
17 in the context of neural networks. And that's, in my
18 opinion, a completely different category than --
19 than, yeah, displaying text and displaying email
20 message.

21 Q. And you've used the word "sophisticated"
22 with respect to displaying emails in your
23 declaration?

24 A. Could you point me to it because I don't
25 recall right now.

1 Q. Paragraph 151 of your declaration.
2 A. Yes. I see that here.
3 Q. So I'll ask the question again.
4 Is displaying a text message a
5 sophisticated task for a cell phone to accomplish in
6 2001?
7 A. That's -- no, I haven't offered an opinion
8 about that. What I'm -- what I'm offering opinion
9 about here is displaying email.
10 Q. And you're not willing to offer an opinion
11 from the perspective of a person of skill in the art
12 that might help the board, correct?
13 MR. ALBERTI: Objection to form.
14 THE WITNESS: Yeah. I mean, I -- I agree
15 that cell phones in 2001 could display text messages.
16 I'm not ready to offer an opinion about the
17 sophistication that will be required for displaying
18 text messages.
19 BY MR. BAJAJ:
20 Q. Okay. So displaying email is
21 sophisticated, but you don't have an opinion as to
22 whether anything else on a cellular phone would be
23 sophisticated, correct?
24 A. Well, this is based on the discussion that
25 I had earlier, where I talked about the cell phones

1 that Dr. Houh has relied on. And in those
2 references, I'm discussing quotes from, you know,
3 documents that describe those devices. And it talks
4 about being able to check emails as a -- as a new
5 feature on those devices.

6 I don't recall them discussing text
7 messages in those references.

8 Q. And you don't have any background
9 experience as a software engineer that could tell you
10 one way or another whether displaying text messages
11 was sophisticated?

12 A. I could do that analysis. I would have to
13 go and research the 2001 devices to be able to offer
14 an opinion. I am just not ready to offer an opinion
15 on the fly.

16 The opinion that I've offered about emails
17 is based on the analysis of the devices that Dr. Houh
18 has relied on in his report. And so those references
19 talk about emails as the new feature, you know,
20 that that -- you know, they've highlighted being able
21 to check email from the road as the highlight of the
22 phone.

23 And so I'm saying, "Well, this was a
24 sophisticated feature that was being marketed at the
25 time for those devices."

1 Sitting here today, I don't recall a
2 discussion of text messaging, so I'm -- I'm -- I'm
3 inclined to not offer an opinion on the fly where I
4 haven't had a chance to research it.

5 Q. Sitting here today as a person of skill in
6 the art, can you form an opinion as to whether emails
7 were more or less complex than text messages at the
8 time of the invention?

9 A. It's -- it's more involved than that
10 because, you know, email and text messages can have a
11 lot of variations. So with emails, you have
12 different formats for emails, different protocols.
13 And with text messages, you have different formats,
14 different protocols.

15 I wouldn't be able to give you sort of a
16 wholesale opinion about text messages and emails
17 without the specifics that we're talking about. And
18 then I would probably have to really spend time to
19 investigate what format of SMS are we talking about,
20 what format of email are we talking about to be able
21 to give you an opinion about it.

22 Q. Okay. So sitting here today, you don't
23 know whether displaying email was more sophisticated
24 than displaying text messages?

25 MR. ALBERTI: Objection to form.

1 Mischaracterizes prior testimony.

2 THE WITNESS: Yeah. Again, not without
3 additional details about what specific email are we
4 talking about, what specific protocol, what specific
5 format, the text. HTML. Which text. Is it -- what
6 kind of SMS are we talking about? Are we talking
7 about MMS or SMS? And what kind of features the SMS
8 has. Who are the providers?

9 There is a lot of factors that go into
10 providing an opinion like that.

11 BY MR. BAJAJ:

12 Q. Going to put into the chat Exhibit 1006,
13 which is Kauffman.

14 Let me know when you have that up.

15 A. Okay.

16 Q. If you'll turn to Figure 1 of Kauffman.

17 In Kauffman's Figure 1, the set-top Box 14
18 is coupled to the television 12, correct?

19 A. What do you mean by "coupled"?

20 Q. Well, does set-top Box 14 output
21 information to television 12?

22 A. Yes, it will be if they are connected to
23 work together.

24 Q. So there is a connection between set-top
25 Box 14 and television 12 to enable television 12 to

1 output streaming media, correct?

2 A. Yes, it could be. If they are connected to
3 work together, yeah. So then set-top Box 14 would
4 send data to T.V. -- television Number 12.

5 Q. And a person of ordinary skill in the art
6 would understand that set-top Box 14 could be a
7 communications device, correct?

8 A. I don't think I've offered an opinion about
9 that. Did I discuss that somewhere in my report?

10 Q. I'm just asking your opinion as a person of
11 skill in the art. I believe that you've read the
12 reference and can opine to technical knowledge of the
13 reference, I believe.

14 A. Yeah. But, I mean, I've spent hundreds of
15 hours to arrive at the opinions that I have in my
16 report. I -- I would have to think about that. I'm
17 not really sure if I am ready to offer an opinion
18 right now on that.

19 Q. So sitting here today, do you know whether
20 set-top Box 14 communicates?

21 A. I think it's fair to say that it
22 communicates, yes. It sends and receives data, if
23 that's what you mean. I would agree with that.

24 Q. Is it fair to say that set-top Box 14 is a
25 device?

1 A. So I would agree that it's a device.

2 Q. So if set-top Box 14 communicates and
3 set-top Box 14 is a device, is it fair to say that
4 set-top Box 14 is a communications device?

5 MR. ALBERTI: Objection to form.

6 THE WITNESS: Well, that's the part where
7 I'm hesitant because it kind of means -- what you
8 mean by "communication device."

9 I think just because something communicates
10 and something is a device doesn't necessarily make it
11 what somebody would consider to be a communication
12 device. That might have kind of a meaning associated
13 with it. But --

14 But I do agree that it sends and receives
15 data, and it's a device. I agree with that.

16 BY MR. BAJAJ:

17 Q. Okay.

18 A. I mean, I guess I'm missing sort of the
19 context of what you mean by "communication device"
20 because it could have -- it could have different
21 interpretations in different contexts.

22 That's why I wouldn't want to kind of go as
23 far as saying that it's a communication device. But
24 I do agree that it sends and receives data, and it is
25 a device.

1 Q. Does television 12 send and receive data?

2 A. I think television 12 receives data. I
3 would have to, I guess, examine the actual T.V. to
4 tell you whether it also sends data. But it
5 certainly does receive data.

6 Q. What about computer 16 in Figure 1? Does
7 computer 16 send data?

8 A. A computer could send data, yes. If it's
9 connected to a network and is network enabled, you
10 could send data.

11 Q. Is the computer in Kauffman connected to a
12 network?

13 A. So, I mean, I know that Kauffman is
14 describing a computer receiving media and playing it
15 and so on. So it receives data.

16 I would have to look through it more
17 carefully. And computers could send data in that
18 timeframe. They could connect over a network. I
19 just don't remember the computer of Kauffman doing
20 so.

21 I would have to, you know, look through the
22 reference to tell you whether it discloses it's
23 sending data. But it's receiving data.

24 Q. So computer 16 communicates, correct?

25 MR. ALBERTI: Objection to form.

1 THE WITNESS: It receives data. It doesn't
2 send data -- well, I take that back. I don't know if
3 it sends data or not. I would have to look at the
4 reference to tell you whether it's disclosing sending
5 data, but it's disclosed that it receives data.

6 BY MR. BAJAJ:

7 Q. And computers at the time of the invention
8 were known to send and receive data, correct?

9 A. Certain computers, yes. If a computer was
10 network enabled and it could connect, for example, to
11 the Internet, then, yes, it would be able to send and
12 receive data.

13 Q. So computers connected to a network could
14 send and receive data?

15 A. Yes. If they were network enabled, then
16 they were -- you know, if they were set up to send
17 and receive data over the network, then they would be
18 able to send and receive data.

19 Q. And the computer 16 is a device, correct?

20 A. Yes, I think it's a device.

21 Q. Okay. And Kauffman talks about the
22 computer 16 receiving and displaying streaming media,
23 correct?

24 A. Yes, I think Kauffman discloses that the
25 computer receives and displays multimedia. Yes.

1 MR. BAJAJ: I have no further questions.
2 Thank you, Dr. Malek.
3 THE WITNESS: Thank you.
4 MR. ALBERTI: No questions for me.
5 COURT REPORTER: Counsel, may I get
6 transcript requests on the record, please.
7 MR. BAJAJ: A rough and regular delivery.
8 MR. ALBERTI: Yes. Same here.
9 (Whereupon the proceedings concluded at
10 1:29 p.m.)
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ERRATA SHEET
NAME OF CASE: GOOGLE v. WILDSEED MOBILE LLC
DATE OF DEPOSITION: NOVEMBER 2, 2023
NAME OF WITNESS: DR. SAM MALEK

Reason Codes:

- 1: To clarify the record.**
- 2: To conform to the facts.**
- 3: To correct transcription error.**

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DECLARATION UNDER PENALTY OF PERJURY

I, DR. SAM MALEK, do hereby certify under penalty of perjury that I have read the foregoing transcript of my deposition taken on November 2, 2023; that I have made such corrections as appear noted on the Deposition Errata Page(s), attached hereto, signed by me; that my testimony as contained herein, as corrected, is true and correct.

This Declaration is executed this _____ day of _____, 20____, at _____, California.

DR. SAM MALEK

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STATE OF CALIFORNIA)
) ss.
)

I, Tamara Houston, RPR, CCRR, CSR No. 7244, a
Certified Shorthand Reporter in the State of California,
duly empowered to administer oaths, do hereby certify:

That, prior to being examined, the witness
named in the foregoing deposition was by me duly sworn
to testify to the truth, the whole truth, and nothing
but the truth;

That said deposition was taken down by me in
shorthand at the time and place therein named, and
thereafter reduced to typewriting by computer-aided
transcription under my direction;

That the dismantling, unsealing, or unbinding of
the original transcript will render the reporter's
certification null and void.

I further certify that I am not interested in the
event of the action.

In witness whereof, I have hereunto subscribed my
name.

Dated: 14th of November, 2023.



TAMARA L. HOUSTON
CSR 7244, RPR, CCRR 140

((a) 22:13 24:11 - --o0o-- 6:2 0 0 79:10 80:6,10 82:13 1 1 15:14 22:12 24:10 42:23 50:16 52:1,2,3, 15,18 55:3,6,19 76:2, 11,17 77:1,5,8,9,10,13, 24 78:3,5,9,12 79:11 80:6,10 82:13 105:16, 17 108:6 1(a) 23:10,18 39:16,18 52:1 77:1 10 21:15 43:6 44:4 47:1 57:22 60:5,10 72:3 75:9,12,16 100 11:24 25:11 1001 19:18,20 1006 105:12 10:05 6:1 10:15 71:20 10:24 71:20 11 66:22 67:3,5 75:9,14,17 11th 10:5	12 105:18,21,25 106:4 108:1,2 123 31:21,22 34:2 135 92:4 97:3,10 14 105:17,20,25 106:3,6, 20,24 107:2,3,4 15 67:11 85:10,11,22 87:4, 8 90:7 91:25 93:23 95:14,17 151 102:1 16 83:10 85:10 108:6,7,24 109:19,22 17 39:11 18 21:16 43:6 44:4 60:11 72:3 1:29 110:10 2 6:1 92:21 2001 9:25 10:5 85:18 86:14 87:5,10 88:19 90:7 91:25 93:23 97:14,16, 17,23 98:6,15,22,25 99:3 100:2,13,24 101:9 102:6,15 103:13 2004 97:16 2009 8:4,7 10:9 65:15 2017 84:11,16,20 85:3,6 86:5,11,23 87:10,25 88:4,6,12,17,21 89:21 90:14,22,24 91:13,17 93:11,15 94:3,10,15,19	95:1 96:9,12,18,25 2022 50:9 2023 6:1 2023-00248 9:4,15 10:14 2025 92:18 2027 80:23 22 44:4 83:15,23 23 83:18 84:5,7 24 26:2 25 83:10 3 45:12 33 27:9 34 28:3 29:4 4 83:9 414 9:18 10:1,4 13:1,4,8,14, 18,20 14:24 15:7,23 16:9,13 18:9 19:21,25 20:3,6,7,15,20 21:2,12, 22 22:2 23:25 25:14,15 27:5,20 34:8,16,19 43:6 44:3 57:14 62:23 71:23 72:15,22 74:2,19 44 27:9	5 5 90:7 50 6:23 502 26:5 504 26:5,17 506 26:9 508 26:8,18 6 6 29:14 72:14 74:18 90:8, 9 60 57:22 60:6 65:16 60/290592 10:6 606 21:17 60:20,25 71:24 72:4,9 61 38:23 612 73:4,8 74:6 75:10,18 63 60:6 65 34:18 664 80:22 81:1,7 7 7 21:25 75:9,13,14,16 7,376,414 9:16,20 79 54:12,18
--	---	--	---

THE SULLIVAN GROUP OF COURT REPORTERS

Index: (a)–79

7:00 39:9 45:17,19	92:24 93:4	31:19 34:2 39:9,10,11, 12,14 40:22 42:13 46:16 49:19 50:10 51:6	algorithms 83:23
	accomplish 100:2,13,24 102:5		alleged 9:25
8	accurate 7:4 8:25	addresses 41:24	amount 36:9 41:2,15
8 20:15,23 27:21 28:2 57:15 62:22 63:6,14 66:7,8,11 68:6,12 70:1 74:25	Acrobat 8:1	admission 35:14	analyses 87:14 90:3 91:16
802 63:5	acronym 9:23	Adobe 8:1	analysis 87:1 103:12,17
804 63:6	action 26:16	ads 50:18	analyze 17:12 24:7
808 58:4,14	actions 20:8	advance 95:17	analyzing 95:3
814 63:13,16	actively 96:16 97:2,4	advanced 15:8,10,13,15,16,22,25 16:3 85:23	and/or 29:5
816 32:20 63:13,17 64:6	actual 27:6,14 42:5,12 47:3 83:25 86:24 108:3	advancements 86:1 92:12 93:15	Android 85:10 88:18 89:22 90:9, 15,17 91:1,12 92:1 93:10,24 95:9
818 66:23 67:7,12	adapter 17:14,16	advances 15:5 67:13	answering 20:10
820 67:13	adapters 18:9	advertisement 21:3,13 22:1 26:4,8,16, 18 45:4 55:4,15,21 56:11,13	answers 7:3,9 22:22 35:1
	add 28:7,9,12,15 30:20 57:2 68:6 73:6 92:4	advertisements 13:9 20:5,21 21:23 22:3,7,9,24 56:17	anymore 17:18
9	added 27:7,14 28:25 29:13,17, 19 30:9,13,24 31:1,6, 10,19,22 32:1,8,21 33:1 34:3,10 35:16 36:4	affect 12:21	app 89:25 90:21
9 26:2 67:5	addition 28:4 66:21 70:24,25	agree 7:18 13:11,16,17,18,20, 23,25 15:3,5,19,21 18:11 20:19 69:14 75:20,24 101:10 102:14 106:23 107:1,14,15,24	appears 77:15 83:16
949 357-3501 44:16	additional 24:5 25:13 91:14 105:3	agreed 56:2	Apple 84:9 85:11,24 86:5,24 88:6,22 89:22 90:17,24 91:17 92:10 93:16 94:10,19 95:8 96:9,16
9:09 43:3	additionally 60:11	ALBERTI 22:11 24:16 25:5 26:19 27:25 29:2 32:10 34:5 35:18 36:6 38:11 39:25 40:10 41:4 42:18 71:18 72:17 73:11 74:9,20 75:19 76:16 77:25 86:8 88:13 89:8,16 92:6 94:4 96:3 97:25 98:16 99:8 102:13 104:25 107:5 108:25 110:4,8	application 10:6 22:1
9:21 43:3	address		applications 7:25
			approximately 6:22,23 11:21 96:25
A			apps 85:15
a.m. 6:1 43:3 71:20			
ability 95:22 100:7			
abstract 59:21 99:23			
AC 17:14,16 18:9			
accelerate			

arrive 106:15 art 9:25 17:6 86:22 96:20 98:5,14 101:11 102:11 104:6 106:5,11 articles 100:6 artificial 83:8,11,12 92:24,25 93:5,6 arts 93:19 95:8 aspect 17:2 24:3 35:5 37:11 aspects 42:9 assigned 8:2 81:2 assisted 29:6 assumption 49:1 attributes 43:18 autonomously 22:13 23:14,18,20 24:11,14 52:4 aware 12:18,19 B back 34:7 36:25 46:19 55:3 60:10 71:22 78:18 82:10 84:18 109:2 background 103:8 BAJAJ 6:12 13:10 16:7 22:19 25:1,9 26:24 28:6 29:11 32:23 34:15 36:2,17 38:14 40:6,13 41:9 42:25 43:4 57:9 71:14, 19,21 72:21 73:14 74:16 75:7 76:1,24 78:4 79:23 82:9 87:24 89:1,	12 90:13 92:15 94:8 96:7 98:4,23 99:14 102:19 105:11 107:16 109:6 110:1,7 based 21:3,13 50:19 55:15,21 56:13,17 98:7,15,19 102:24 103:17 basically 12:14 20:14,18 27:16 46:10 53:16 65:21,23 77:2 80:16 batteries 16:9,17,24 battery 16:15,21 17:16,24 18:4, 11,14 begin 11:6 beginning 11:10 behavior 57:15,16,24,25 58:3,5, 7,13,14,16,17,19,20,25 59:2,5,6,10,11,18,19 77:6,11,12 78:6,20,21 behavioral 77:7 behaviors 35:1 benefit 19:19 binary 79:4 bit 83:2 black-and-white 94:17 95:25 block 32:20 58:4,14 64:6 66:23 67:7,12,13 board 49:8 68:5 102:12 bodies 34:6 bounds	77:24 Box 63:16 105:17,20,25 106:3,6,20,24 107:2,3,4 break 10:16,17 21:9 43:1 71:16 Broadcast 13:9 broadcasts 15:18 16:5 45:13,14 broader 47:14 bunch 80:16 business 95:12 96:24 C called 6:8 92:25 capabilities 14:8 19:5,15 capability 15:4 capable 15:8,22 carefully 108:17 case 11:1,4 39:19 cases 34:11 catch 14:17 categorized 81:3 category 80:20,21 81:2 101:18 CBS 45:17,20 cell 100:1,12,16,17,23 102:5,15,25	cellular 13:25 14:2,4,7,10,11, 13,15,16,19,20,22,23, 25 15:8,21 16:8,10,12, 14,16,18,20,23 17:1,7, 8,13 18:1,3,8,16,17,19, 20,21,22,23 19:3,4,5,6, 12,14,15,16 22:14,15, 16,17,18 23:1,3,4,5,6,8 24:12,15 27:4 35:21,22, 23 36:21,22 41:19,20 46:3 47:18 48:5,6,13, 14,15,17 50:25 51:1,15, 16,18,21,24 52:5,6,7,8, 9,10,12,13,20,21,22 53:3 55:5,16,19 56:1,3 57:4,7,13 67:24,25 70:10 71:6 76:4,5,6,13, 14,15,18,19,20,21,22, 23 77:20 78:6 97:15 99:6,17 102:22 Cervantes 39:11 chance 104:4 change 29:18 30:12,25 31:2,4, 8,9,12,13 changing 30:15,16,17 characteristic 43:9,14,19 47:6 51:13, 24 52:13 characteristics 21:6,20 43:23 44:6,20 46:13 47:12 48:16 49:23 51:17,20 52:10, 19 53:2 55:15 56:1,3,7, 9,13,22,24 57:1,5 60:16 61:3,16 62:7,14,20 72:10 76:23 charge 17:16,24 18:4 charged 18:11 chat 19:17 83:3 92:18 105:12 check 103:4,21
--	---	---	---

THE SULLIVAN GROUP OF COURT REPORTERS

Index: arrive–check

circuits 92:23 93:4	color 95:23 96:6	confusing 40:18	15:1,9 16:9,17 18:1,17, 21 19:8 20:5 21:14,23 22:10,25 24:1 26:10 27:2,7,15,20,24 28:8 29:1,13,20 30:5,10,14 31:23 32:5,9 33:1 34:4 35:17 37:2,10,16 38:7, 10 42:12 51:25 52:14 55:16 56:4,14,20 58:1, 9,18 61:20 63:3,11 64:18 65:19 66:3,9,14 69:1,2,5,15,23 70:19 71:2,10,25 72:6,11,23 73:5,10 74:3 75:11,18 76:6,15 77:6,11,17 78:25 79:11 80:2,7,11, 23 81:9 82:13,19 83:15, 19 84:6,11 86:7 89:4,15 91:9 94:16 96:2,11,13 97:15,21,23 98:25 99:7 100:13 101:12,15 102:12,23 105:18 106:1,7 108:24 109:8, 19,23
cited 12:4,6 92:8 97:5 100:7	column 13:13 15:14 21:15 26:2 43:6 44:4 47:1 57:22 60:5,10 66:22 67:3,5 72:3 75:9,12,16 83:9	connect 17:23 18:3 108:18 109:10	
claim 22:12 23:9,10,17 24:10, 17 25:2 26:25 30:16 35:5,12,13,14 37:3 40:3,19,24 41:7,10 42:21,22,23 45:12 47:1, 17 48:3,12 49:17 50:16 51:14,19,22 52:1,2,3, 15,18 55:3,6,17,19 56:5,7,15,16 66:16,17 67:21,23 68:10 70:5,11, 22 76:2,11,17 77:1,3,5, 8,9,10,13,15,17,24 78:3,5,9,12,16,23	comments 8:6	connected 17:16,17 19:4,14 105:22 106:2 108:9,11 109:13	
claimed 35:4 37:13 68:19	common 97:14,18,20 99:16	connecting 7:21 18:11	
claiming 35:5	communicates 14:10,12 18:16 106:20, 22 107:2,9 108:24	connection 105:24	
claims 45:4 53:9 54:2 68:3,19 69:1 70:16,19,20	communication 13:19 107:8,11,19,23	considered 25:3	
clarification 13:6 16:2 24:5 32:16 57:8 79:19 82:6 87:17	communications 106:7 107:4	consistent 45:4 50:16 63:5,13 66:7,10 79:14,16 91:5	
clarified 96:15	companies' 96:23	consistently 94:18	
clarifies 62:18	comparable 87:11	construction 27:1	counsel 6:3 7:11 11:13 110:5
clarify 24:25 30:1 54:25	complete 22:20 55:13 74:15	consulting 10:25	counted 10:23
clarifying 61:13	completely 101:18	contained 53:12	couple 87:3
classic 83:12	complex 82:3 104:7	content 13:9 15:12,13,17 16:5 81:3	coupled 105:18,19
classification 79:5	component 61:24	context 21:25 28:2 37:3 39:5 47:14 50:22 52:15 64:20 65:13 68:1 69:16, 17 71:11 76:2,11 77:18 101:17 107:19	court 6:5 7:3 13:5 16:1 32:15 39:11 57:8 79:18 82:6 87:16 110:5
clean 8:12	computationally 82:8	contexts 107:21	created 11:17
clear 31:16 38:1 39:7 66:19 89:21 97:12	computer 7:22,25 8:7,14 18:25 19:3,4,7,9,11 26:9 108:6,7,8,11,14,19,24 109:9,19,22,25	coordinates 30:5,8,9	CST 6:1
client 23:12 25:16,18 26:5,17	computers 108:17 109:7,9,13	copies 8:12	cuff 17:11
	concerns 9:15	copy 8:7 19:19	current 21:21 43:23 44:6,20 46:13 47:12 60:16 61:3, 16 62:7,14 72:11
	concluded 110:9	correct 6:20 7:4,14,22 9:4,13, 16 13:3,12,22 14:16,20	cut 49:11
	confused 7:16 39:4 70:15 89:2		

THE SULLIVAN GROUP OF COURT REPORTERS

Index: circuits—cut

D data 27:6,13,14,24 28:7,11, 12,19,24,25 29:12,15, 16,19,24,25 30:2,4,12, 19,23,24,25 31:9,10,17, 18,24 32:5,7,8,25 33:8, 11,12,14,15,16,17,18, 23,24 34:9,11,14,17,21, 23,24,25 35:25 36:3,4, 9,12,14,18,25 37:1,5,8, 9,14,15,19,22 38:2,3,4, 6,7,8,9,19,20 39:17,19, 20,22,23 40:5,7,8,15, 16,19,21,23 42:6,12 48:8,9,19 51:3 54:4,5, 21,22 59:13,14,18,22, 25 63:1,8,9 64:18,19, 21,22 65:1,10,11,13,14, 19,25 66:1,2,20 67:16, 17,18,19 68:4,6,15,17, 18,22,24 69:1,4,5,7,8,9, 10,11,12,13,14,21 78:12,13,19,20 80:6 82:12 84:2 106:4,22 107:15,24 108:1,2,4,5, 7,8,10,15,17,23 109:1, 2,3,5,8,12,14,17,18 date 10:1,5 Day 11:3 dealing 75:22 decision 66:23 67:7,12 96:24 declaration 10:8 11:12,19,22 12:3, 5,18,24 23:16,23,24 24:4 26:21,25 27:9 29:23 34:19 37:23 38:22 42:5 53:7,8,25 54:1,8 64:17 72:19 78:24 79:22 80:1,4 82:11,18,23 90:23 95:19 96:1 97:3,10 101:15,23 102:1 defined 24:7	definitions 9:22 delivery 110:7 demographic 32:5,7,8,18,20,25 33:3 37:8,9 63:8,9,17,25 64:4,6,10 65:1,5,10,18 66:1,2 67:16 69:5,13 73:4,6,8 74:5 75:10,17 demographics 73:5 depend 48:10 depends 15:14 47:22,23 50:17, 22 51:10 deposed 6:19 deposition 7:21 8:21 12:2,11 depositions 6:24 derivation 33:16 36:15 derive 65:7 derived 33:8,20 34:11,17,25 35:7 63:22 68:17,18 69:1 deriving 53:19 54:6,23 64:14 describe 25:15,18 73:16 74:6 75:9,17 83:7 103:3 describes 55:7 63:20 78:20 describing 55:18 70:1 83:21 108:14 description 66:8 74:5 designed 18:13	detail 56:16 59:9 detailed 84:19 details 25:22 62:16 73:18 105:3 determination 32:13,17 64:3 66:24 67:8,12 determinations 35:1 determine 29:7 55:4,14 56:12 95:4 determined 55:21 73:5 80:14 85:12 determines 26:6 57:15 58:3,13 developer 89:25 developers 90:21 93:14 device 8:18 13:25 14:1,2,3,4,5, 10,11,12,14,16,20 15:6 17:1,8,9,15,18,23 18:1, 3,5,6,16,17,18,19,21, 23,25 19:2,3,5,6,8,10, 12,16 20:9 21:5,7,20,21 22:14,15,16,17,18 23:1, 3,4,5,6,8 24:12,15 25:16,19 26:5,7,16 27:4 28:5,10,16 29:8 32:22 35:21,22,23 36:22 41:19,20,21 43:22,24 44:5,7,21 45:1 46:3,12, 14 47:13,18 48:5,6,13, 14,15,17 49:24 50:25 51:1,15,16,17,18,21,24 52:5,6,7,8,9,10,12,13, 20,22,23 53:3 55:5,16, 19 56:1,3 57:4,7,13,18 58:6 59:7,15 60:15,17 61:2,4,15,17 62:7,8,13, 15,21 63:2,10 64:8 66:25 67:10,15,24,25 70:10 71:2,6,9 72:10,11 73:7 76:4,5,6,13,14,15, 18,19,20,21,22,23 77:20 78:7 86:12,23	88:1,6,12,16 89:4,7,11 91:18 106:7,25 107:1,3, 4,8,10,12,15,19,23,25 109:19,20 devices 8:16 13:2,12,15,22 14:22,23 15:4 16:8,10, 12,14,16,18,20,21,23 17:14 18:8,12 84:11,16, 22 85:1,3,7,10,13,21 86:1,3,6,16 87:8,9,10, 22 88:9,24 90:2,3,11, 16,20 91:1,16 93:16 94:2,11,14,21 95:9,17, 18,19,21,24 96:22,25 99:12,13 100:9,20 101:3,9 103:3,5,13,17, 25 dictionary 43:17 differ 48:1 difference 53:4,15,18,22 55:1 87:8,9 differently 81:11 directly 27:18 35:6,8 53:5,11, 14,23 54:13,20 discern 37:17 disclosed 42:9 70:8 84:2 109:5 discloses 77:3 108:22 109:24 disclosing 79:17,25 109:4 disclosures 25:22 70:12 discuss 26:23 27:21 28:1 42:4 106:9 discussed 18:15 23:24 24:4 37:12 38:22 69:17 74:25 99:16 100:18 discusses
--	--	---	--

THE SULLIVAN GROUP OF COURT REPORTERS

Index: data–discusses

20:7 22:2 67:25 78:24 83:9	E	11:3,8,9	exclusions 70:3
discussing 83:2,10 100:19 103:2,6	e.g. 38:3 60:14 61:1	engagement 11:4	Excuse 57:12
discussion 65:14 102:24 104:2	earlier 11:10 18:15 24:10 37:4 52:16 55:25 68:13 87:5 99:16 102:25	engine 92:23	execute 82:3 84:25 85:3 88:15 89:4,7,11,14,18 91:8,18 94:13
discussions 68:11	earliest 9:25	engineer 103:9	executed 85:6 93:7
display 95:22 97:20 99:6,13,17 100:8,10,21 101:3,9 102:15	electronic 8:16	English 43:15	execution 84:10,15 86:6 88:10,15 89:3,6,9,13,18,23 90:15,25 91:8,12 92:11 94:10,12,15 96:10,17
displaying 99:20,25 100:3,11,22 101:19,22 102:4,9,17, 20 103:10 104:23,24 109:22	Element 23:17 83:15	entered 29:5,16 30:2,19 31:6, 18,24 33:18,21 37:5 38:4 64:22	Exhibit 8:4,7 10:9 19:18,20 65:15 80:23 92:18 105:12
displays 109:25	eliminating 67:20	enters 31:21 32:1 34:2	exhibits 8:2 12:14 19:18
distinction 33:10 58:22	email 46:16 49:14,19 50:10 51:6 80:10,15,19 97:24 99:5,7,13,25 100:11,21 101:8,19 102:9,20 103:21 104:10,20,23 105:3	entirety 33:23 34:3 37:18 40:2, 4,24 41:11	exist 31:17 90:8,9 92:1
disting- 54:24	emails 95:3,22 98:6,8,9,12,15, 18,19,22,24 99:3 100:8 101:10,22 103:4,16,19 104:6,11,12,16	errors 12:17,20	existed 93:24
distinguish 69:8	embodiment 22:6 68:20	essentially 92:9	exists 27:6,13 28:24 29:12,15, 19 32:7,25 36:4,25 37:8,14 40:7,15 64:21 65:1,10,19 93:21
distinguishing 58:19,21 69:11	embodiments 22:5	estimating 10:24 11:24	expansive 82:8
document 81:15 92:22	emphasizing 54:19	exact 28:24 29:10,12,15,24, 25 30:8,23 31:17 32:7 33:11,12,14,15 34:9,14 35:15,16,19,20,24 36:4 37:1,5,8,14,22 38:2,3,4, 6,8,9 39:22 40:8,16,19, 23 48:19 54:3,21 59:14 63:1,9 64:17,19,21 65:1,2,10,13,19,25 66:2,13,20 67:17,18 68:4,6,15,21 69:4,6,7, 11,14,21 78:19	experience 10:22 103:9
documents 12:13 20:11,12 100:15, 19 103:3	enable 62:10 72:15 105:25	EXAMINATION 6:12	expert 10:25
draft 11:14,16,17	enabled 108:9 109:10,15	examine 108:3	explained 51:4
drafted 11:15	enables 21:17 60:20,25 71:24 72:4,9 73:4	examples 14:23 27:20 37:25 38:3, 6,8 41:23 45:11 49:2 95:18 99:11	expressed 29:4
drawing 33:10	enabling 73:9 74:6	excludes 22:5	expression 81:12,13,17,22,24
drop 83:3	end 53:10		expressions 81:2,5,8,23 82:3
dropping 92:18	engaged		extensively 20:2
duly 6:8			

THE SULLIVAN GROUP OF COURT REPORTERS

Index: discussing—extensively

extent 74:20 75:1 77:25 85:17 extract 36:18,20 extracted 39:17 80:15 extraordinary 93:18 95:8 96:20 F face 91:3 fact 14:7 15:20 46:5 51:6 factors 105:9 fair 6:25 14:9 20:1 26:13 35:10 38:16 48:25 62:8 67:19 89:7 92:16 96:2 98:25 99:2 106:21,24 107:3 familiar 19:25 23:25 72:25 fan 45:22 46:1,6,21 49:6, 13,20 fashion 94:21 fast 95:16 feasible 94:25 feature 15:13 80:13,14 96:24 103:5,19,24 features 15:9,11,15,16,22,25 16:3 80:15 90:1,18 91:14 92:12 94:22 100:20 105:7 feed-forward 79:20,25 82:11 83:11 feel 73:21 83:5	figure 20:15,18,23 21:25 27:21 28:2 57:15 62:22 63:6,14 66:7,8,11 68:6, 12 70:1,2 72:14 74:25 105:16,17 108:6 file 9:9 filed 9:7,12 10:9 finally 92:10 fine 96:22 finish 7:8,9 firm 11:4,5 flowchart 20:7 fly 25:13 44:14 72:20 73:25 98:3 103:15 104:3 focusing 52:17 100:16 follow 29:21 69:24 70:6 72:1 forgot 87:18 form 22:11 25:5 27:25 28:23 29:2 32:10 35:18 36:6 38:11 39:25 40:10 42:18 59:24 73:11 75:19 76:16 82:24 86:8 88:13 89:8,16 92:6 98:16 99:8 102:13 104:6,25 107:5 108:25 format 98:13,20,22 99:3,6 104:19,20 105:5 formats 104:12,13 formed 16:19 23:22 75:2	forming 7:6 20:12 25:3 frame 18:10 free 73:21 83:5 frequently 10:18 Frerichs 12:7 front 30:1 fuel 35:25 full 6:15 8:25 fully 61:9 function 81:16,18,19 functional 81:20 functionality 14:25 15:3 81:20 G game 45:17,19 47:3 49:12,20 50:6,9 51:5 gave 34:1 40:22 45:6 49:2,5 50:5 79:9 general 85:14 generally 6:24 13:1 14:6 15:3 25:15,17 82:5,7 91:10 generate 20:4,20 generated 81:8 generating 20:8 give 11:23 17:11,12 21:9	25:13 38:17 39:6 43:25 44:8 47:25 55:12 62:3, 16 74:14 80:1 84:18 104:15,21 giving 47:1,8 61:8,10,18 good 6:13,14 93:1 Google 85:11,24 86:24 88:22 90:24 91:11 92:10 93:16 94:19 96:9,16 GPS 29:6,17 30:3,4,7,8,20 31:6,19 33:17,22 37:6 38:5 41:24 42:14 64:23 gradually 87:13 graduate 50:9 graduated 51:7 Great 71:14,19 guess 19:13 44:15 107:18 108:3 H happened 85:16 happy 24:9,24 25:24 26:23 42:4 hardware 84:13,22 86:2,25 88:7, 23 89:23 90:1,19 91:14 helpful 49:8 hesitant 107:7 Hey 39:8 45:16,18 50:8 highlight 103:21
---	--	---	---

THE SULLIVAN GROUP OF COURT REPORTERS

Index: extent–highlight

highlighted 103:20	images 93:1	18 22:9,14,16,23 23:2, 3,8,11 25:16,18 26:6,8, 17 27:1,3,7,8,14,18,23 28:4,8,9,12,16,17,19, 21,23,25 29:10,13,17, 20 30:10,13,21,24 31:1, 7,11,19,22 32:2,4,8,19, 21 33:1,3,17,21 34:3, 10,25 35:4,6,8,12,15, 16,20,21,24 36:5,10,11, 14,16,21,23 37:1,6,7,9, 15 39:2 40:3,9,17 41:1, 2,12,15,18 42:1,7,14, 17,24 44:24 45:1,6,8,9, 24 46:2,11,17,25 47:4, 5,7,10,11,15,16,18,23 48:4,5,7,13,24 49:12, 13,14,17,18,21,22 50:7, 20,24 51:1,4,5,6,9,12, 14,23 52:5,7,11,21,24 53:1,5,10,12,14,18,20, 23 54:2,7,13,14,19,20, 23 55:5,18,22,23 56:5, 8,18,19,20,21,25 57:3, 6,17,25 58:5,7,15,17, 20,24 59:7,11,14,20 60:14,19 61:1,5,8,11, 19,21 62:2,3,4,5,11 63:2,10,22,23 64:4,6,7, 11,13,14,15,23 65:5,6 66:12,13,14,17,21,25 67:9,14,17,19,23 68:3, 7,14,16,21,25 69:12,15, 21,22 70:4,9,18,20,24, 25 71:1,3,7,8,9,25 72:5, 16 73:7,10 74:7 76:3,8, 9,12,18,19 77:6,7,9,20 78:17 105:21	intelligence 83:8,13 92:24 93:5,6
highlighting 100:7	implementation 47:22 79:8	informed 70:11	Inter 9:3
hold 67:3	implementations 48:18	informing 52:25	Internet 109:11
Houh 54:4 85:21 87:20,21 95:19 99:12 100:5,15 103:1,17	implemented 48:11	infrastructure 84:13	interpretations 107:21
Houh's 12:4	implied 61:25	input 80:6,10,13 82:12 86:2	interrupt 8:21
hour 10:17 43:1 71:16	important 7:7 67:22	inputs 82:24	interrupting 22:21
hours 11:25 25:11 106:15	impossible 88:20 92:2 94:2	Inserting 13:8	invention 10:3 13:11,14,21 16:22 17:3 35:5 104:8 109:7
HTML 98:12 105:5	inclined 104:3	instructed 7:13	investigate 104:19
huge 87:9	include 34:23,24 68:18		investigated 17:2
hundreds 106:14	included 35:9 68:15 90:18 92:13		invitation 49:15 50:11
hypothetical 32:11	including 34:25 68:9		invoices 11:23
I	incoming 84:1		involved 104:9
i.e. 53:11	Incomplete 32:11		involves 76:17
identical 33:14	incorporate 94:22		involving 90:3
identically 35:9	incorporated 93:16		ios 84:11,16,22,25 85:2,6, 9,11 86:6 88:1,6,12,18 90:8,15,25 91:18 92:1 93:10,23 94:2,11,14
identifies 21:6,20 43:23 44:6,19 46:12 47:11 49:23 60:16 61:3,16 62:7,12, 14 72:10	incorrect 86:4		iphone 93:20
identify 52:19	increasing 14:25		IPR 9:4,15 10:10,13,14
identifying 48:16 51:17,20 52:9 53:2 55:25 56:2,6,9,22, 24 57:1,5 62:20 76:22	independent 45:12		IPRS 10:21 11:9
ignore 69:3	industry 95:12		Irvine 39:12
	infer 65:7		issue 17:4
	inferring 69:11		
	information 20:4,9,21,24 21:1,3,13,		

THE SULLIVAN GROUP OF COURT REPORTERS

Index: highlighted–issue

issues 75:4	layer 79:3	30:5,7,9	30:22 37:22 41:18 43:12,13 58:24 59:1 66:5 70:9 77:20 107:12
	LCDS 95:23 96:5	lot 25:22 104:11 105:9	meaningful 87:1,13 91:15
K	learning 84:23	lots 45:24 49:16	means 9:8,9 29:25 33:13,15 36:11 37:24 41:15 43:12 48:23 54:3,20 68:6 69:10 70:12 88:15 89:3,10 91:13 107:7
Kauffman 12:8 105:13,16 108:11, 13,19 109:21,24	length 72:22 78:25	love 38:16,25	
Kauffman's 105:17	letter 41:25 42:11		
Kawasaki 12:7 53:20 54:5,22 55:2 79:14,16,24 80:9,25 83:2,7,14,18,21 84:5 85:20 87:14	letters 46:8	M	media 106:1 108:14 109:22
Kawasaki's 95:2	level 56:16 59:9	M-A-L-E-K 6:18	memorized 24:22
key 8:10 100:20	libraries 90:1	made 15:5 32:13,17 35:1 64:3 66:24 67:8 96:1	mention 31:4
kind 17:19 33:16 50:18 82:1 88:5 95:2 105:6,7 107:7,12,22	light 101:7	Main 31:21,23 34:2	mentioned 8:3 16:23 21:11 23:21 44:23 65:3 85:8,9
kinds 45:8 47:16 49:25 85:19 87:14 90:18 92:24 93:5	limitation 23:9 39:16,18 48:23 50:1,4 77:1,21	mainstream 84:12,21 85:25 88:8,24 89:24 90:21 91:22 96:12	mentioning 23:17
knowledge 106:12	limitations 48:17	make 7:4 22:21 84:14 88:7,8 89:20 91:15 97:12 107:10	mentions 41:7
Kramer 11:3	lines 43:18 65:8 67:2 75:12, 16	makes 14:4 66:19 87:9	message 21:4,5,14,19 22:10,17, 24 23:4 27:2,4,9,18 34:21,23,24 35:4,7,9, 12,16,20,22 36:1,3,9, 11,12,14,15,19,21,22, 24 37:14,15,19 38:9,15, 18,25 39:1,3,8,13,15, 17,20,21,23,24 40:2,4, 5,7,15,20,21,23,25 41:1,3,11,13,16,19,25 42:1,6,12,16 43:21 44:1,5,18,19,22 45:15, 18,24 46:1,2,6,10,15, 22,24 47:4,8,9,15,16,21 48:6,8,9,14,16,24 49:5, 10,11,17,18,22,23 50:3, 6,13,15,20,25 51:3,10, 15,17,19,23 52:8,9,12, 18,25 53:1,12,19,20 54:2,4,6,7,19,22,24 55:24,25 56:6,20,21,23 59:24 60:1,15 61:2,14, 22 62:1,6,13,16,17 66:17,20 67:24 68:21 69:8 70:4,10 71:5 72:9, 15 73:9 74:6 76:4,13,
	literally 31:15 38:3	Malek 6:7,13,18 11:12 37:21 43:5 71:23 110:2	
L	located 26:5,8	man 93:18 95:7 96:20	
label 63:16 83:18 84:5,7	location 27:24 28:4,7,9,11,16, 17,19,24,25 29:4,7,10, 12,15,16,18,19 30:2,4 31:5,16,17,24 33:18,19 36:25 37:1,5 38:4,6,19, 20 42:15,22,23 43:19 62:25 63:1 64:20,21,22 65:14,25 66:1 67:16 69:4,13	manually 29:5	
language 24:18 28:15 37:4 46:25 54:25 58:24 63:19,21, 22 64:9 66:4 67:21,23 68:10 70:5,11	long 11:21 17:17 21:9 44:12 48:17 73:24 95:15	marketed 103:24	
laptop 18:25 19:1,3,4	longer 49:10	match 84:1	
late 11:11	longitude	material 8:9	
latitude 30:5,7,8		matter 11:6 93:12,13 95:11 96:23	
law 11:5		maximums 41:8	
		meaning	

THE SULLIVAN GROUP OF COURT REPORTERS

Index: issues–message

20,22 77:21 78:13,14, 15,17,19 95:5 100:3 101:20 102:4 messages 38:21 48:19 49:25 50:1 53:11 60:4,6,7 62:19 68:1,4 71:13 73:13 75:10,18,22,23 95:3 97:15,18,20,24 98:8 99:15,17,20 100:10,22 101:4 102:15,18 103:7, 10 104:7,10,13,16,24 messaging 8:13 104:2 met 48:18 Metallica 38:16 39:1 metes 77:23 Method 13:8 middle 92:22 mind 8:19 16:19 48:23 74:14 mine 39:11 minimum 41:2 minimums 41:7 mischaracterizes 74:21 78:1 96:3 105:1 missing 107:18 Misstates 86:8 94:4 MMS 105:7 mobile 8:18 11:1 13:2,12,15, 19,21 14:1,2,3,4,9,12, 22 15:4,5 16:10,14,21, 23 17:7,13,15,18 18:3, 5,6,12,15,18,23,25 19:2,8,10 20:9 21:5,7,	20,21 26:5,7,15 28:5, 10,16 29:8 32:22 43:22, 24 44:5,7,20 45:1 46:12,13 47:12 57:17 58:6 59:7,15 60:15,17 61:2,4,15,17 62:6,8,13, 15,20 63:2,10 64:7 66:25 67:10,15 71:2,9 72:10,11 73:7 85:13,21 86:1,12,16 87:7,9 88:24 90:2,3,11,20 95:16 99:12 model 89:15 models 84:11,16 85:4 86:6 89:14 90:15,25 94:11, 15 96:10,17 modification 32:24 33:5 modifying 33:3 module 21:17 60:20,25 61:24 71:24 72:4,8 73:4,8 74:5 75:10,17 91:9 modules 62:10 72:14 73:1 74:18 morning 6:13,14 move 18:7 moves 58:4,14 multimedia 109:25 multiple 26:12 37:23 46:24 94:19 N nature 46:17 necessarily 60:3 75:24 107:10 needed 84:14 94:23	neighborhood 33:19 network 14:10,13 18:16,19 19:14 79:3,4,10,13,21, 25 82:12,17,18,24 83:14,25 84:10,16 85:3 86:6,12 88:1,5,11 89:14 90:15,25 91:8,16,18 94:11,15 96:10,17,21 108:9,12,18 109:10,13, 15,17 networks 78:25 81:8 83:11,22,23 84:1,23,24 85:13,20 86:1,15,22 87:1 88:9, 18,24 89:24 90:3,11,20 91:13 92:11,25 93:10, 19 94:2,24 95:1,9,23 101:17 neural 78:24 79:2,10,13,21,25 81:8 82:11,17,18,24 83:11,14,22,23,25 84:10,16,23,24 85:3,13, 20,25 86:6,12,15,22 87:1 88:1,5,9,11,18,23 89:13,14,23 90:3,10,15, 20,25 91:8,12,16,18 92:11,25 93:9,19 94:2, 11,15,24 95:1,9,23 96:10,17,21 101:17 neuron 79:4 nonmobile 17:1,9 note 10:16 notes 8:6,11 noticed 20:10 November 6:1 number 9:16,19 27:19 44:16,23, 25 45:3,7 46:16 80:17, 18 82:25 106:4 numbers 80:16 82:15,16,25	O object 7:12 25:5 Objection 22:11 24:16 26:19 27:25 29:2 32:10 34:5 35:18 36:6 38:11 39:25 40:10 41:4 42:18 72:17 73:11 74:9,20 75:19 76:16 77:25 86:8 88:13 89:8,16 92:6 94:4 96:3 97:25 98:16 99:8 102:13 104:25 107:5 108:25 objective 50:17,19 objectives 48:10 obtaining 21:1 68:14 offer 24:2 72:20 77:22 85:2 87:3 94:1 98:3,21 102:10,16 103:13,14 104:3 106:17 offered 24:20 25:7 33:4 41:6 42:2 53:7 69:18 70:8 73:20 85:5 90:4 91:19, 24 93:8 98:2,10,18 99:10 101:1,4 102:7 103:16 106:8 offering 31:13 72:18 73:23 102:8 open 8:2,4,7,14 92:19 operating 88:22 90:19 92:13 opine 53:9 106:12 opining 54:8 opinion 16:19 17:5 23:23 24:3, 20,23 25:7 26:21 27:12 31:13,15 33:5,6 36:3,19
---	---	---	---

39:3 41:6,16 42:2,15 53:24 54:3 55:9,10 66:18 69:19 70:10 72:19 73:20,23,24 74:13 77:22,24 84:9,17 85:2,5,17 87:4 88:2,16, 19 89:2,21 90:4,6 91:19,24 93:9,22 94:1 95:13 98:2,3,10,18,21 99:10 101:1,4,18 102:7, 8,10,16,21 103:14,16 104:3,6,16,21 105:10 106:8,10,17 opinions 12:24 25:13 27:3,8 70:8 72:20 75:2,3 80:23 87:12 106:15 oranges 69:25 order 84:18 ordinary 9:24 41:17 43:11,13 58:24 59:1 66:5 106:5 outlet 17:18,21,23 18:4,12 output 79:3,10 80:10,17,18 82:18 83:1,22 105:20 106:1 outputs 80:6 82:13,15 overview 79:22 80:3,5 82:23 P p.m. 39:9 45:17,19 71:20 110:10 pages 8:13 27:9 paragraph 29:14 34:18 38:23 54:12,18 64:12 65:3,16, 21 92:4,22 97:3,10 102:1 part 22:13 23:15 24:11,19	25:23 27:10 28:23 31:14 35:13 37:13 39:20 43:21 44:4 49:8 53:7 55:22 56:18 59:8 61:22 68:19 80:8 93:22 107:6 Partes 9:3 parts 53:17 60:2 passage 60:1 patent 8:10 9:15,18,19 10:1,4 12:3 13:1,4,8,14,18,20 14:24 15:7,23,24 16:9, 13 18:9 19:21,25 20:3, 6,7,15,18,20 21:2,12, 16,22,24 22:2 23:25 24:19 25:14,15,21,24 27:5,20 28:3 29:3 30:17,18 34:16,19 37:13 43:6 44:3 55:1,7, 8 57:14 62:23 65:4 68:9,13 71:23 72:15,22 74:2,19 80:22 81:1,7 patents 81:25 pattern-matching 82:1 patterns 81:14 pending 10:19 people 88:8 percentage 98:11 perform 82:8 performed 50:23 55:8 period 95:15 person 9:24 17:6 86:17 98:5,14 101:11 102:11 104:5 106:5,10	personal 7:22,25 8:14 19:7,9,11 perspective 55:18,19 102:11 phone 8:18 44:16,22,25 45:3,7 46:16 99:6 100:2,12,23 102:5,22 103:22 phones 97:15 99:17 100:5,8,16, 17 102:15,25 phrase 17:7 23:14,20 27:1 37:22 53:13 65:2,10 71:2 77:13 78:8,11,15, 22 phrases 54:13,16 phrasing 33:11 64:19 pick 81:17,19 picking 81:24 piece 32:18 64:4,10 pieces 46:24 49:11 places 69:16,18 plain 41:17 43:11,13 58:23 59:1 66:5 played 49:12 playing 15:12,13,17 16:4 108:14 plotting 95:21 point 12:14 17:23 18:3 24:8, 24 25:23 26:23 42:3 85:12,23,24 86:20 87:13 90:10 101:24 pointed	54:4 pointing 87:21 port 17:20,21 portion 44:3 45:25 46:2,22 49:5 50:15 60:5 69:21 75:8 portions 11:15 POSA 66:6 69:10 70:12 77:19 86:20 POSITA 9:23 position 68:24 positions 11:18,20 possibility 90:12 potentially 17:10 19:6 43:20 78:20 82:2 power 16:9 17:14,18,20,21,23 18:4,8,12 practical 84:14,25 85:14 90:2,21 91:15,23 92:5 93:12 94:23 95:10 96:13 97:9 preceding 85:9 precise 11:24 precisely 80:13 preclude 73:15 75:21 78:17 precludes 73:12 precluding 74:11 predefined 80:21
---	--	--	--

preferences 34:21,22	programs 8:14	purposes 73:1 77:24	reading 23:9 24:17 32:12 37:25 46:25 57:20 65:3,20
preparation 12:1,10	protocol 105:4	put 19:17 53:24 64:2 86:10 105:12	reads 26:4 43:21 58:12
preparing 11:22 25:11	protocols 104:12,14	putting 8:20 64:13 86:15	ready 24:2,5 72:19 74:24 75:1 98:2,21 102:16 103:14 106:17
present 6:3 13:14	provide 7:2,12 8:25 21:18 24:5, 23 26:17 50:3 55:9 60:14 61:1 62:1,11 71:24 72:5,15 73:9 74:7 84:10,12,15 85:25 90:17 96:24	Q	real 95:1
pretty 31:16 38:1	provided 10:25 11:14 12:24 17:14 18:8 26:21 27:3 29:5,16 30:3,4,20 31:6 32:19 33:6,9,21 34:9 37:6 38:5 46:4,8,9,23 47:19,20 48:7,25 49:9 50:14,16 55:10,22,23 56:4,8,18,19,25 57:3 64:5,11,23 65:5 66:25 67:9 76:3,10,12 77:16 80:3 82:12 84:17,21 86:5,24 88:3,6,16,22 89:22 90:6,24 91:12,13 94:10,20 96:9,16 99:11	qualification 96:13	realize 86:22
previous 24:18 65:21		qualify 44:24 78:14 92:4	realized 94:20
primarily 97:24 98:6		qualifying 91:2	realm 86:16
primary 98:22		question 7:8,12,13,16 10:19 20:13 21:8 22:22 24:18 25:17 29:22 39:6 40:12 44:8 49:4 55:13 60:22, 23 61:9 69:24 70:6 74:14 75:15 76:10,25 77:14 84:3 99:23 102:3	reason 8:24
printed 8:9,11		questionnaires 75:22	reasonable 26:14
prior 11:1,4 74:21 78:1 84:16 85:3,6 86:9 88:12 94:4 96:4 105:1		questions 7:3 24:9 25:25 27:10 74:18,24 75:2 101:8 110:1,4	recall 11:8 23:24 26:22 33:4 57:19 74:11 79:6 81:4, 5,10 87:23 98:6,15 99:11,18 101:25 103:6 104:1
priority 10:1		quote 53:10,11	receive 23:7 80:13,16 97:15,18 108:1,5 109:8,12,14,17, 18
problem 79:5 100:25	providers 105:8	quotes 103:2	received 23:12 46:11 55:20
problems 94:23 95:1,2	providing 9:3 22:13 23:1,14,18,20 24:11,14 25:15,18 31:15 48:3 52:4 77:5,10 78:6 79:22 82:23 92:10 105:10	R	receives 22:9,23 82:14 106:22 107:14,24 108:2,15 109:1,5,25
proceeding 8:4 9:4,7	Provisional 10:6	radio 45:13	receiving 108:14,23 109:22
proceedings 9:13 17:4 110:9	public 9:12	random 24:2	recently 12:16
process 32:20 57:14 58:3,12 64:5 66:23 67:7,13	publicly 9:7,9	ranking 101:5	recess 43:3 71:20
processing 93:1	pull 83:5	read 26:12 28:15 44:2 52:4 62:9 74:2,13 77:4 106:11	recited 70:19
processor 93:20	pulled 19:23		recognize
produce 80:17	purpose 73:13		
produces 82:25			
profile 70:25			

THE SULLIVAN GROUP OF COURT REPORTERS

Index: preferences–recognize

84:1	8:2,3,10 12:14 24:8,21, 23,24 25:3,8,12 27:17, 19,22 28:2 31:3,14 38:1 42:3 53:17 55:11 69:17, 18 74:25 75:1 84:18 96:15 99:11 100:18 103:18 106:9,16	room 8:17	21:3,12,23 22:6
recognizer 80:9		rough 110:7	send 49:15 50:11 106:4 108:1,7,8,10,17 109:2, 8,11,14,16,18
recognizers 83:19,24 84:6,8		routine 95:12	sending 76:18 108:23 109:4
record 6:16 7:6 110:6	reporter 6:5 7:3 13:5 16:1 32:15 57:8 79:18 82:6 87:16 110:5	rule 82:1 93:21	sends 106:22 107:14,24 108:4 109:3
refer 10:13 11:23 65:15 83:17,19 84:5,7		rules 83:24	sentence 26:4,12 43:10,21 53:13 54:11,15 58:12 60:11, 24 61:5,7,18 92:23
reference 12:7,8 79:14 106:12,13 108:22 109:4	requested 13:5 16:1 32:15 57:8 79:18 82:6 87:16	run 85:19 86:12,22,25 87:2 88:1,5,9,11,17 90:2,10 91:15 93:9 94:2,25 95:9	sentences 66:6
referenced 80:24	requests 110:6	running 7:25 85:13,25 87:21 88:23 90:20 95:23 96:21	serve 50:18
references 8:10 12:4,6 92:8 97:5,6, 12 103:2,7,18	require 40:24 41:10 42:23 51:22 53:9 54:2 56:8 77:5,10,15 78:6,10,16	runs 93:19	server 21:22 22:1,2,6,8,14,23 23:2,7,12,14,19 24:12, 14 25:16,19 26:8,9,18 46:4,9,23 47:19,21 48:4,7,25 49:9 50:16,21 52:5 55:4,6,14,21 56:4, 10,12,17 76:3,10,12 77:6,11 78:7
referencing 85:21	required 36:20 56:23,24 91:8 94:12 102:17	S	services 11:1
referred 83:15	requirement 40:8,16 52:25	S-A-M 6:17	set 82:14 109:16
referring 9:19 10:9 20:12 70:16	requires 35:14 40:3,19,25 41:12 42:21 47:17 48:3,13 49:18 51:19 52:18 55:1, 6 56:5,16	Sam 6:7,17	set-top 105:17,20,24 106:3,6, 20,24 107:2,3,4
regular 81:1,5,7,12,13,17,22,23 82:3 110:7	research 98:13 103:13 104:4	satisfies 50:4	share 19:18
related 13:12,15,19,21 17:4 53:6	researcher 93:17	satisfy 39:14,15,18 42:1 50:1	show 70:21 78:8,12 97:5
relates 13:1	respect 68:7 101:22	scope 24:16 25:2 26:19 34:5 41:4 72:17 74:9 75:4 77:17 95:4 97:25	shown 95:18
relied 80:22 95:20 99:12 100:6,15 103:1,18	restate 40:12	searching 81:14	shows 20:8 78:23
remember 12:15 81:11 101:16 108:19	review 9:4 12:1,10 24:24 25:24 55:8 73:21	section 27:17,21 31:3	signal 29:6
remotely 6:4	reviewed 12:3,12 20:2 72:22	sees 82:24	silent 8:20,23
render 73:24	reviewing 12:15	select 22:8,24 45:4 56:10,17	
repeat 14:18 21:10 76:10	road 103:21	selecting 22:2	
report		selects	

THE SULLIVAN GROUP OF COURT REPORTERS

Index: recognizer–silent

Similarly 63:8	70:18,19,24 71:1,3,7,8, 23 72:4,8,13	starting 67:5 96:17	substance 12:21
simpler 84:3	sources 20:3,20,25 21:12,18 60:13,25 61:13 62:10, 18 66:24 67:9 71:12,24 72:2,4	starts 60:11	substantive 12:19,20
single 42:11 79:3		state 6:15 34:20 42:22 64:25 86:4 92:9	suggests 29:9 63:22 64:12 65:4
Sir 44:2	speak 97:7	stated 27:5,13 79:24 84:9 89:3 91:7 94:11 99:25 100:11	summary 98:25
sitting 74:17 104:1,5,22 106:19	speaking 14:6 15:3 91:10	statement 13:16,24 15:19 52:17 75:25 91:2,3,4,5 92:4 95:25 96:8,10	support 80:23 84:10,12,15,22 85:25 86:5,24 88:6,10, 14,22 89:3,6,9,13,17,22 90:14,18,25 91:7,12 92:11 94:10,12,14 96:9, 16
situations 34:8	speaks 25:21 58:2	states 60:24 66:5 72:3 90:23 94:9	supposed 30:18
skill 9:24 17:6 93:18 95:8 96:20 98:5,14 101:11 102:11 104:5 106:5,11	spec 32:13 33:2 35:3 52:17 63:20 65:4 66:16 67:25 70:1,7,8,12 71:11 73:17,21 74:13	stating 65:9	supposedly 23:11
skip 67:2,11	specific 23:15 25:23 27:10 39:14 41:23 46:18 47:22 48:9 51:9,10 52:16 59:22 61:8,10 62:3 69:16 78:11,15,22 105:3,4	station 45:13,14	surveys 35:2 75:23
small 12:22	specifically 82:14	step 34:7	sworn 6:4,8
SMS 104:19 105:6,7	specification 27:17 34:20,22 37:4,12 41:22 42:10 66:8 68:11 70:3,14,18,23 75:8,16	stepping 36:25	system 13:8 47:24 48:1,10,11 50:18,19 51:10,11 88:23 90:19 92:13
so- 101:1	specifications 32:3	steps 32:20 63:5 64:6 66:23 67:7	T
software 84:13,22 86:2,25 88:7 89:23 91:15 92:25 93:5, 7,13 103:9	specifics 47:23,25 104:17	stipulate 6:3	T.V. 59:4,10,11,12,19,20 106:4 108:3
solving 79:4 94:23 95:1	speech 93:1	streamed 15:12,13,17 16:5	takes 80:6 82:12
sophisticated 99:21,24 100:1,3,12,23 101:2,5,14,21 102:5,21, 23 103:11,24 104:23	spend 11:21 104:18	streaming 16:4 106:1 109:22	taking 30:19 35:12,14 36:23 40:19 47:14 48:19 49:18 54:2,5 64:13 66:19 68:4,20,21 69:8,9 70:4 78:17,19
sophistication 102:17	spent 25:11 106:14	Street 31:21,23 34:2	talk 7:7 15:15 25:14 30:16, 17 31:2,7 34:16 60:1 103:19
sort 33:9 44:14 104:15 107:18	stack 84:22 86:25 88:7	strike 13:19 56:11	talked 55:24 62:25 71:13 102:25
sounds 26:14	stand 12:23 96:14	string 34:3	
source 21:17 60:20,24 61:14, 19,24 62:5,10 66:12,13 67:14,18 68:1,7 69:20	standing 91:4	stuck 17:19	
		subset 39:23	

THE SULLIVAN GROUP OF COURT REPORTERS

Index: Similarly–talked

22 53:2 55:15 56:1,3,7, 9,13,23,25 57:4,7,10, 11,12,16,18,24 58:4,6, 13,16 59:7,15 60:14,15, 16,19 61:1,2,3,6,9,15, 16,20,22 62:2,6,8,11, 13,14,20 63:2,10 64:5, 8,14,22,24 66:14,21 67:1,10,15,18,19 68:16, 25 69:15,22 71:2,5,9,25 72:5,9,11,16 73:5,7,10 74:7,8 76:5,14,19,21,23 77:11,12 78:6 user's 31:18 34:1 51:5 user-provided 41:23 users 38:22	8:13 weights 81:2 whatnot 78:21 wholesale 104:16 widely 15:17 16:6 Wildseed 11:1,7 wireless 29:6 wondering 100:2 word 20:24 43:15 63:25 65:7 69:7 77:7,9,12,14 81:16,17,18 92:5 97:2, 4,9,11 101:14,21 words 41:18 65:13 70:21 77:13 work 6:25 18:13 105:23 106:3 worked 10:21 11:5 81:10 working 11:6 18:18 works 80:12 wrote 11:12,13 54:16	Z Zoom 7:24	
V values 82:15,25 variations 104:11 vector 80:14 vector's 80:13 verbal 7:2 versus 45:16,19 53:19 54:22 98:12 view 19:9 79:14	W watch 50:7,10,11 watching 45:16,19 59:4,10,11,19, 20 ways 68:14 81:22 Web	Y year 11:10,11 51:7 90:5 93:10,17 years 85:10,11,16,22 87:3,4,8 90:5,7,8,9 91:20,21,25 93:23 95:10,14,17 years' 87:8	

THE SULLIVAN GROUP OF COURT REPORTERS

Index: user's–Zoom