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UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
- - - - - x
GOOGLE LLC, :
Petitioner, :
v. : Case No. IPR2023-00248
WILDSEED MOBILE LLC, : U.S. Patent No. 7,376,414
Patent Owner. :
- - - - - x

Virtual Deposition of HENRY H. HOUH, Ph.D.
Wednesday, August 23, 2023
10:31 a.m. CST

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Tiffany M. Pietrzyk, CSR RPR CRR

1 Virtual deposition of HENRY H. HOUH, Ph.D.,
2 pursuant to notice, before Tiffany M. Pietrzyk, a
3 Certified Shorthand Reporter in the States of
4 Illinois, Texas, and California, Registered
5 Professional Reporter, Certified Realtime Reporter,
6 and a Notary Public in and for the State of
7 Illinois.

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A P P E A R A N C E S

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9 ALSO PRESENT:

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C O N T E N T S

EXAMINATION OF HENRY H. HOUH, Ph.D.	PAGE
By Mr. Alberti	6

E X H I B I T S

(Attached to transcript.)

DEPOSITION EXHIBITS	PAGE
Exhibit 1001 U.S. Patent Number 7,376,414	17
Exhibit 1003 Declaration of Dr. Henry Houh in IPR2023-00248, U.S. Patent Number 7,376,414	8
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1 P R O C E E D I N G S

2 (Witness sworn.)

3 WHEREUPON:

4 HENRY H. HOUH, Ph.D.,

5 called as a witness herein, having been first duly

6 sworn, was examined and testified as follows:

7 EXAMINATION

8 BY MR. ALBERTI:

9 Q. Good morning, Dr. Houh. My name is David

10 Alberti. I'll be asking you questions today.

11 Is there any reason you can't give full and

12 accurate testimony?

13 A. No.

14 Q. I understand you've been deposed quite a

15 number of times, so I'll dispense with the general

16 rules. I'll just note that I take a break about

17 once every hour. To the extent you need a break

18 sooner, just let me know. So long as the question

19 has been answered, we can accommodate that. Okay?

20 A. Sure. Thank you very much.

21 Q. You've been retained by Google as an expert

22 in this IPR; is that correct?

1 A. I've been retained on behalf of Google,
2 that's correct.

3 Q. Okay. Were you retained by the firm Haynes
4 and Boone?

5 A. Yes.

6 Q. And for the record, this IPR, you understand
7 is IPR 2023-00248.

8 A. Yes.

9 Q. I may refer to that in shorthand as the
10 '248 IPR. Is that okay?

11 A. Sure.

12 Q. Okay. That concerns U.S. Patent Number
13 7,376,414; correct?

14 A. Yes.

15 Q. And for shorthand, we can refer to that as
16 the '414 patent.

17 Do you understand?

18 A. Yes.

19 Q. What did you do to prepare for your
20 deposition today?

21 A. I reviewed some documents, and I met with
22 attorneys.

1 Q. What documents did you review?

2 A. Okay. I reviewed my declaration on the
3 '414 patent, the Frerichs reference, the Kawasaki
4 reference, the Kauffman reference. I reviewed the
5 patent owner preliminary response, the institution
6 decision, portions of the file history, and a number
7 of supporting exhibits to my declaration.

8 Q. About how long did you spend preparing for
9 your deposition?

10 A. Probably on the order of 8 to 12 hours.

11 Q. Was that over the course of one day or two
12 days or more?

13 A. Probably three or four days.

14 Q. Can you take a look at Exhibit 1003.

15 (Exhibit 1003 was marked for
16 identification and is attached to the
17 transcript.)

18 A. Okay. I have it. I also have printed
19 copies of the patent, my declaration, and the three
20 main references too.

21 Q. Can you confirm those printed copies have no
22 notes on them?

1 A. Yeah, they're clean copies. I can confirm
2 that.

3 Q. Okay. And do you have anything else with
4 you today, other than your computer, of course?

5 A. Sorry. Could you repeat that, please?

6 Q. Do you have anything else with you today in
7 the room, other than, of course, your computer and
8 those clean copies?

9 A. I mean, there's other papers scattered about
10 the room but not related to this case. And there's
11 a lot of things in this room.

12 Q. Understood.

13 But you don't have anything relevant to your
14 deposition, correct, other than the things we talked
15 about?

16 A. That's correct.

17 Q. Okay. And you're not in electronic
18 communication with anybody currently, other than via
19 this Zoom meeting; correct?

20 A. That's correct.

21 Q. Okay. Again, can you take a look and
22 confirm that Exhibit 1003 is the declaration you

1 provided in this case?

2 A. Yes, it's my declaration.

3 Q. Okay. This declaration currently includes
4 all of your opinions related to the '414 patent and
5 your allegation that the claims set forth in your
6 declaration are unpatentable; correct?

7 MR. BAJAJ: Objection to form.

8 A. At the moment, it contains all my written
9 opinions about why the '414 patent is not
10 patentable.

11 Q. Do you have any other opinions that you have
12 formulated and that are complete opinions that are
13 not contained in your declaration?

14 MR. BAJAJ: Objection to form.

15 A. I mean, at the moment there are no other
16 written opinions, but if I'm asked to provide a
17 supplemental declaration at some point in the
18 future, I would do so.

19 Q. Okay. Yeah, and my question is, have you
20 formulated any of those opinions that would be
21 included in your declaration -- sitting here today,
22 do you have any other opinions that are completely

1 formulated that you can express?

2 MR. BAJAJ: Objection to form.

3 A. I wouldn't say they're complete, at this
4 time. I think once I submit them and sign a
5 declaration, they'd be complete, if I'm asked to do
6 so.

7 Q. Yeah. And my only question -- I want to
8 make sure if you've got any opinions that are
9 complete, as of now, regarding the '414 patent or
10 any of the references, I'm entitled to ask you about
11 those. So I just want to make it clear on the
12 record that if you've completed any opinions,
13 written or otherwise, that are formulated in your
14 head right now, regarding the '414 patent or the
15 prior art, can you please let me know?

16 MR. BAJAJ: Objection to form.

17 A. I mean, I reviewed a number of other items
18 that weren't available to me at the time of my
19 declaration, but I guess I wouldn't call everything
20 that I've thought about those entirely complete.

21 Q. With respect to your declaration and the
22 petition that your declaration supports, are there

1 any relevant facts or analysis that are missing from
2 your declaration?

3 MR. BAJAJ: Objection to form.

4 A. I mean, at the time I wrote it, I didn't --
5 and submitted it, I didn't think there was anything
6 missing with respect to it.

7 Q. Since the time that you wrote your
8 declaration, did you become aware of any facts or
9 analysis that are missing from your declaration?

10 A. I mean, I don't see how facts or things that
11 later arose would have affected my thinking about
12 what was missing back then. I mean, I didn't know
13 what I was gonna see in the future at the time I
14 submitted my declaration.

15 Q. Sure.

16 But sitting here today, are there now facts
17 that you wish that you had initially put in your
18 declaration that you didn't?

19 A. I wouldn't characterize anything as
20 something I wish I put in my original declaration.
21 I think that was complete when it was submitted.

22 Q. Is there any analysis that you would have

1 thought would have been helpful to have put in your
2 initial declaration that you did not?

3 A. I mean, based on what I knew at the time I
4 submitted it, I don't think there's anything else.

5 Q. So with respect to the theories of
6 invalidity that are set forth in the petition, once
7 you completed your declaration, you believe that it
8 sufficiently supported those theories that were in
9 the petition; correct?

10 A. When I finished my declaration and signed
11 and submitted it, I did, yes.

12 Q. Since that time, did you become aware of any
13 errors in analysis or facts that were in that
14 initial declaration?

15 A. No, I'm not aware of any errors or analysis.
16 Certainly, I've reviewed the patent owner's
17 preliminary response, which raised issues, which I
18 didn't address directly in my initial declaration,
19 but I understand if I'm asked to respond to some of
20 those, I would do so in writing.

21 Q. But as far as the positions that were taken
22 in the petition, you're not aware of anything that

1 you neglected to address in order to support
2 Google's position in its IPR petition; correct?

3 A. At the time I submitted it, I'm not aware of
4 anything I wished I had addressed I didn't or
5 neglected to address at the time. I mean, those
6 opinions are what was submitted, so I stand by
7 those.

8 Q. Now, I understand, from a previous
9 deposition, that you indicated you've worked for the
10 law firm Haynes and Boone at least 20 times;
11 correct?

12 A. I thought I said it was maybe 15 to 20
13 times. I'm not sure if it's at least 20 times.

14 Q. Of the times that you've been hired by
15 Haynes and Boone, how many times was that in support
16 of an IPR petition?

17 MR. BAJAJ: Objection. To the extent that
18 this called for privileged information, I'd caution
19 the witness not to answer with any privileged
20 information.

21 MR. ALBERTI: I'm not asking for privileged
22 information.

1 BY MR. ALBERTI:

2 Q. I'm just asking -- and this should all be
3 public, on the record, and I'm not asking for
4 anything that you've done that's not public.

5 How many times have you acted in support of
6 an IPR petitioner of those 20 times?

7 A. Again, you keep saying "20 times." I don't
8 think that's what I said previously, but it's around
9 maybe 15 to 20. I don't know that it's at least 20
10 or 20, as you're characterizing.

11 Q. Fair enough.

12 Of the times that you've been hired by
13 Haynes and Boone, how many times was that in support
14 of a petitioner in an IPR proceeding?

15 A. I'm not sure if I can get that all from
16 memory. I'd have to maybe just double-check what
17 I'm thinking and look through my records.

18 Q. Sure.

19 Can you give me an estimate?

20 A. It's probably the majority of times, if not
21 almost all.

22 Q. So almost all the times that you've been

1 hired by Haynes and Boone, 15 to 20 times, your job
2 was to argue in support of a patent being
3 unpatentable; correct?

4 A. I mean, that sounds about right. I'd have
5 to double-check my records.

6 Q. And of the times that you were hired by
7 Haynes and Boone to argue in support of an IPR
8 petition, have you ever found that a patent was, in
9 fact, in your opinion, not unpatentable?

10 MR. BAJAJ: Objection to form.

11 A. Again, I'd have to double-check all my
12 records. But I think, certainly, the cases where I
13 submitted a declaration on behalf of the petitioner,
14 that would be the case.

15 Q. In your declaration, you adopted the plain
16 meaning of all terms in the challenged patent
17 claims; correct?

18 And if necessary, you can take a look. I'm
19 referring to paragraph 42.

20 A. That's what I say in paragraph 42.

21 Q. Okay. Let's take a look at Exhibit 1001.
22 Can you confirm this is the '414 patent that you

1 analyzed?

2 (Exhibit 1001 was marked for
3 identification and is attached to the
4 transcript.)

5 A. Yes, this is the '414 patent that I
6 analyzed.

7 Q. Since your declaration, has your opinion
8 changed, regarding the plain and ordinary meaning of
9 any terms in the '414 patent?

10 A. Certainly not in the way that would affect
11 any of my opinions.

12 Q. Did you read the POPR in this case in the
13 institution decision?

14 A. I did, yes.

15 Q. Based on your reading of those documents, do
16 you plan to adopt any constructions, other than the
17 plain meaning of the terms of the '414 patent?

18 A. I mean, that still didn't change my opinions
19 if I'm asking to rebut a specific construction set
20 forth by -- or I don't recall exactly what was set
21 forth by patent owner. But if I'm asked to discuss
22 that in a future declaration, I would do so.

1 Q. But sitting here today, you're not aware of
2 any specific term where you intend to put forth an
3 affirmative construction, other than the plain and
4 ordinary meaning; correct?

5 A. I mean, not that I'm aware of right now.

6 Q. Can we take a look at Claim 1 of the
7 '414 patent?

8 A. Okay.

9 Q. Specifically, I want to ask you about
10 limitation 1A. That's the limitation that begins
11 autonomously "providing to a server."

12 Do you see that limitation?

13 A. Yes.

14 Q. In your understanding of the plain meaning,
15 in order to satisfy this limitation, does the
16 cellular device have to take information from a
17 message and provide it to a server?

18 MR. BAJAJ: Objection to form.

19 A. I mean, what the claim itself says is
20 element A -- I'm not gonna read every word, but I
21 think the applicable words. "Providing to a server,
22 by the cellular device, information associated with

1 a user of a cellular device."

2 "The information taken by the cellular
3 device from a message sent to the cellular device
4 from another user of another cellular device."

5 "The message identifying characteristics of
6 the user of the cellular device."

7 Q. So you agree with me that the information
8 has to be taken by the cellular device and sent to
9 the -- and provided to the server; correct?

10 A. Well, I mean, it says right here the words
11 in the claim. The information taken by the cellular
12 device from a message sent to the cellular device
13 from another user of another cellular device, so
14 that puts restrictions on the message.

15 That says the information referring to
16 information associated with a user of the cellular
17 device, that is, in the claim, says it's provided to
18 a server. So, I mean, the claim requires what it
19 requires, and I analyzed the whole words of the
20 claim. I mean, I think you're actually using a
21 subset of the words of the claim, but the claim
22 requires what it requires and I did that analysis in

1 my declaration with respect to the prior art
2 references.

3 Q. Sure. But I just want to -- just make sure
4 I understand what your understanding of the claim
5 is, right? You agree -- and we can take it one part
6 at a time. I don't -- I'm not trying to be tricky
7 here.

8 But if we look at limitation A, it says,
9 "Autonomously providing to a server, by the cellular
10 device," so do you understand that means the
11 cellular device is providing the information to a
12 server; correct?

13 MR. BAJAJ: Objection to form.

14 A. For part of that, it does require that, but
15 it also requires it to be autonomously providing to
16 a server. So, I mean, your paraphrase is kind of
17 eliminating some of the words. I don't know if
18 you're asking about the whole thing or just a
19 subpart of it. But, I mean, the words of the claims
20 are the words of the claims. So I see you're trying
21 to paraphrase them, but the claims stand for
22 themselves.

1 Q. Understood.

2 But -- and again, if you disagree with my
3 paraphrase, you can say so, and that's fine. But I
4 also have every right to have an understanding of
5 what your understanding is of the claims, since you
6 said it's all plain and ordinary meaning, it didn't
7 specify exactly what that is. I'm just trying to
8 make sure I understand how you're interpreting the
9 claims and how you analyzed them.

10 So let me try it this way. Do you
11 understand that it is -- the cellular device that is
12 autonomously providing the information to a server?

13 A. That's part of the requirements of the
14 claim, subject to the limitations of the rest of the
15 claim on information and other things, yeah.

16 Q. Understood. Understood.

17 And you understand that the information that
18 was sent was taken by the cellular device from a
19 message sent to the cellular device from another
20 user of another cellular device?

21 A. Well, the claim does require that the
22 information taken by the cellular device -- the

1 information that's sent is associated with the user
2 of a cellular device, and that information is
3 taken -- the claim says it's information taken by
4 the cellular device from a message sent to the
5 cellular device from another user of another
6 cellular device. And then there's further
7 restrictions on the message as well. But I think
8 that's the part of this claim.

9 Q. Understood.

10 Okay. So let me ask you this: In your
11 understanding of the plain meaning, what does it
12 mean to be -- to have information taken by the
13 cellular device from a message sent to the cellular
14 device?

15 A. What does it mean?

16 Q. Yes.

17 Does it mean that information,
18 quote/unquote, taken by the cellular device from a
19 message sent to the cellular device?

20 A. I mean, when a person -- sorry. Did I talk
21 over someone?

22 I mean, it means what it says. And it's the

1 plain and ordinary meaning in the context of the
2 specification as would be viewed by a person --
3 specification and prosecution history as would be
4 viewed by a person of ordinary skill at the time of
5 the invention.

6 Q. Okay. Are you applying any understanding to
7 what it means to be -- to have information taken
8 from a message, other than what it sounds like that
9 you are actually taking information from a message?

10 MR. BAJAJ: Objection to form.

11 A. I mean, I think it's really just what a
12 person of ordinary skill would understand, and in my
13 analysis, I applied that meaning and found examples
14 of -- from the prior art that a POSITA would have
15 understood would be examples of information taken
16 from a message or whatever the claim requires.

17 Q. So you're not applying any special meaning
18 to the word "taken" when it refers to information
19 taken by the cellular device from a message?

20 A. I mean, if you're asking whether I construed
21 taken specifically to have some special meaning, no.
22 I mean, as we said earlier all the terms I

1 interpreted as their plain and ordinary meaning, all
2 the claim terms.

3 I mean, I don't know there's a dispute about
4 that term even now, but for the purpose of my
5 declaration, I applied the plain and ordinary
6 meaning of all the claim terms in my analysis.

7 Q. Sorry. And as far as you're concerned,
8 plain and ordinary meaning of "taken" is the plain
9 English meaning of taken?

10 MR. BAJAJ: Objection. Calls for a legal
11 conclusion.

12 A. I mean, it would be viewed in the context of
13 the specification. And I know there's a section of
14 this spec that talks about meanings of certain
15 terms, or at least what they include if not the
16 exact meaning. But I don't recall that taken was
17 one of those words that was used in there.

18 And I don't think the word taken is used in
19 the sentence in the specification. I just searched
20 the 414, and its use of top of column 3 that word,
21 but it's not in the sense of what I think the claim
22 is using -- how the claim is using it. And even the

1 word "take" doesn't appear to be used in that sense
2 either with respect to information taken from a
3 message or whatever the claim element requires.

4 Q. So, again, did you apply anything other than
5 the plain English -- your plain English
6 understanding of what the word taken means?

7 A. I mean, I applied the plain and ordinary
8 meaning, which the examples in the spec -- sorry, in
9 my declaration I give with respect to my analysis, I
10 think fall within the bounds of what taken is, what
11 the meaning of the -- I mean, I analyzed the prior
12 art with respect to this whole claim element, and I
13 think what I have discussed in the -- about the
14 prior art is an example of what falls within the
15 scope of this claim term in the claim element, as
16 would have been understood by a person of ordinary
17 skill at the time of the invention.

18 Q. Does that understanding that you applied
19 depart from the plain English meaning of the word
20 taken, and if so, how?

21 MR. BAJAJ: Objection to form.

22 A. I mean, so if you look at my declaration,

1 Exhibit 1003, at paragraphs 116 and 117, that's
2 where I'm discussing this limitation. And I think
3 it's -- this is an example of what a person of
4 ordinary skill would have viewed as disclosing taken
5 by the device from a message sent to the device from
6 another user of another device as claimed.

7 And I think I discuss the form of user of
8 another device elsewhere, but certainly this
9 analysis is about -- I talk about how Kawasaki
10 discloses the system and specifically the email
11 client/service systems analyzing and building
12 profiles from email information. And they do so
13 partly by analyzing sent and received email
14 information and building profiles based upon its
15 content, and that this profile building can be
16 accomplished at the client.

17 And then -- I mean, this is basically
18 paragraph 117. So I think this is an example of
19 what a person of ordinary skill would have
20 understood would fall within the scope of taken from
21 a message sent to the device, and I think it's
22 perfectly consistent with -- I think you're asking

1 about the -- just what a person would have
2 understood taken to, I don't think it's inconsistent
3 with that, if that's what you're asking.

4 But, certainly, my point here is, my opinion
5 is that this is an example of what a POSITA would
6 have understood discloses the taking from a -- the
7 requirement about taking, which I outline here in
8 paragraph 116.

9 Q. Okay. So help me out here a little bit
10 because I'm looking at, you know, your paragraph
11 116, and it really doesn't say anything other than
12 Kawasaki teaches this.

13 And I go to 117, and you cite some stuff
14 here, but you don't really explain, A, what the
15 information is, and, B, how is it taken by the
16 device from a message. So can you elaborate on
17 that?

18 What is the information and how is it taken
19 by the device from a message?

20 MR. BAJAJ: Objection to form.

21 A. Sorry. I think there were two questions in
22 there. Which question -- could you --

1 Q. Let's start with part A.

2 What's the information that you're alleging
3 is taken from a message by a cellular device?

4 A. So I kind of give -- do address this later
5 in -- with the -- about the -- really, it's about
6 what the message, how the message identifies
7 characteristics of the user of the cellular device.
8 And I think that may be more germane to your
9 question here.

10 So one example talks about -- in
11 paragraph 125 of my declaration, Exhibit 1003, it
12 talks about there's a golfing recognizer. And
13 it's -- it, for example, it says here -- this is in
14 Kawasaki. [As read] For example, if a golfing
15 Recognizer 23 is loaded and the user views
16 golf-related web pages 13A, email 12A -- and then
17 there's some words omitted -- the golfing
18 Recognizer 23 returns a positive match for that Data
19 Set 21.

20 So I go on to say here, [As read] A POSITA
21 would have recognized that, because the user views
22 golf-related email, one identifying characteristic

1 of the user is that she is interested in golf. For
2 example, a golf-related email might include a text
3 such as, 'Let's go to the driving range today to
4 practice our short game and then hit a quick nine
5 holes' or something similar.

6 So that's the kind of information -- I mean,
7 that's what I'm saying is that that's how the
8 message identifies characteristics of the user of
9 the cellular device.

10 And then -- and then that information is
11 gotten by analyzing that email, using this
12 recognizer. And that's the kind of information
13 that's returned that -- for example, that one
14 identifying characteristic of the user is that she
15 is interested in golf.

16 Q. Okay. So going back to my question with
17 respect to what it means to have information
18 quote/unquote taken from a message, in your example,
19 are you saying that the information would be, for
20 example, the content, driving range, that's taken
21 and then sent to an analyzer?

22 Is that your example that you're providing

1 there?

2 A. Well, I mean, the recognizer is analyzing
3 the message for, kind of, these cues. And Kawasaki,
4 I believe, actually discusses a recognizer and
5 incorporates, by reference, a related application
6 that talks about -- I think is directed to the
7 recognizers. I mean, I'm happy to point you there,
8 I think, in Kawasaki. But in that sense, you know,
9 when you analyze -- use a recognizer to analyze a
10 message, as disclosed in Kawasaki, the information
11 is gleaned from the message by the recognizer. It's
12 that kind of information that is, in one sense,
13 taken by the -- from the message.

14 Q. Okay. So in your example, what is the
15 information that's taken from the message?

16 A. In this example, it's that there's an
17 identifying characteristic of the user, that is, she
18 is interested in golf.

19 Q. But what's the information that's taken from
20 the message?

21 A. In this example, it's that the user is
22 interested in golf because the email was about golf.

1 The email example I give here is that -- you know,
2 the email might have said something like, "Let's go
3 to the driving range today and practice our short
4 game and then hit a quick nine holes." And the
5 analyzer might have enough -- you know, that's the
6 kind of message, you know, given the correct
7 analyzer that is actually, you know, trained
8 properly on whether a user has an interest in golf
9 would recognize as the user has an interest in golf.

10 Q. So you're not saying that there's any
11 specific content that's actually taken from the
12 message?

13 For example, "driving range" or anything
14 like that, you're not pointing to that. You're
15 pointing to something more generic?

16 MR. BAJAJ: Objection to form.

17 A. I wouldn't call it generic. It's clearly
18 indicated by this kind of message. It might not use
19 literally the same words, but it's a good summary of
20 an interest based on a message, for example. And
21 this is just an example. But certainly, the
22 recognizers disclosed in Kawasaki do kind of -- do

1 analyze the messages and then -- and then
2 information is taken from these messages, based on
3 these recognizers. And that information is provided
4 in Kawasaki. It is done on the client. Kawasaki
5 discloses that it can be. And that information -- I
6 think I discuss elsewhere in my declaration -- is
7 autonomously provided to the server.

8 So I mean, this is an example of the kind of
9 information that can be taken from an email message
10 received by the user of the mobile device from
11 another mobile device. And I talk elsewhere
12 about -- about that second part of that.

13 Q. Okay. So let me stop you there because
14 you've been going for a while.

15 A. Well, I --

16 (Indiscernible crosstalk.)

17 Q. I think we're starting to -- we're finally
18 getting somewhere. I'm starting to understand that
19 your understanding of taking information is
20 different from mine. So this is good.

21 So your understanding of taking information
22 from something doesn't -- you don't actually have to

1 take content out of the message itself; right? Your
2 understanding is broader than that.

3 MR. BAJAJ: Objection to form.

4 And I'm gonna just make sure that the
5 witness can answer the questions as he sees fit.

6 MR. ALBERTI: That's fine. And the witness
7 is also filibustering and giving nonresponsive
8 answers, so I'll lay objections every time the
9 witness filibusters and gives a nonresponsive
10 answer. So -- and the easier we do this, the
11 quicker we get out of here.

12 BY MR. ALBERTI:

13 Q. And I'm really just trying to get your
14 understanding of something and not have you, you
15 know, veer off in all kinds of different directions.
16 So I'd appreciate it if you'd listen to the
17 question, give me an answer, and we can go like
18 that, as opposed to going on and on about stuff that
19 I didn't ask you.

20 So let me start over.

21 Your understanding of taking information
22 from a message means that you don't actually have to

1 take content that's part of that message and provide
2 it to the server; correct?

3 A. So, you know, we skipped some of the ground
4 rules of the deposition earlier. You just glossed
5 over -- you said you didn't need to do them. But
6 one of the ground rules that's often been laid out
7 for me is that, you know, I will let you finish your
8 question -- your answer, and I will not interrupt
9 you when you're asking a question. And I don't feel
10 like you're allowing me to do that. I was trying to
11 answer the question. You've characterized it in a
12 way I disagree with. You didn't let me answer my
13 question. I would like to request the courtesy. I
14 think it's a pretty simple courtesy of allowing me
15 to finish my answer before you interrupt me and not
16 interrupt me while I'm trying to answer your
17 question.

18 MR. ALBERTI: Objection. Nonresponsive.

19 BY MR. ALBERTI:

20 Q. Is your understanding of taking information
21 broader than actually requiring the taking of
22 certain content from a message?

1 MR. BAJAJ: Objection to form.

2 A. So if you look at the specification of the
3 '414 patent, which is the context in which the claim
4 terms are understood by a person of ordinary skill
5 in the art, it gives some examples of information,
6 the type of information. And it talks about, for
7 example, at the bottom of column 1, around line 61.

8 It says, [As read] Another aspect of the
9 invention is directed to providing information
10 associated with a mobile device user including at
11 least a selected one of geographic location,
12 preference, demographic, other source, behavior, and
13 content played on the mobile device.

14 And it talks here about column 3, line 14,
15 [As read] The term 'user preference' can include a
16 plurality of elements. For example, a user
17 preference for disco music circa 1980 has at least
18 two elements, i.e., the type of music and the era.

19 And it talks about other -- using
20 information broadly to include these types of user
21 preferences, preferences. It repeats that same
22 thing we saw at the bottom of column 1 elsewhere.

1 And so certainly, a POSITA, you know,
2 understanding these words in the context of the
3 spec, would see what's taught in Kawasaki, that it
4 specifically talks about these recognizers providing
5 that the user is -- for example, she has an interest
6 in golf is an example of the same type of preference
7 information that the '414 patent itself talks about.

8 Q. So in your opinion, again, in order to take
9 information from a message, you understand that to
10 mean that you don't actually have to take any
11 specific information that was in a message.
12 Instead, you can create a preference and use that,
13 even if the preference itself wasn't in the message.

14 MR. BAJAJ: Objection to form.

15 A. Are you saying that the '414 specification
16 describes that? Can you point me to that in the
17 specification because I don't recall that being
18 discussed.

19 MR. ALBERTI: Objection. Nonresponsive.

20 Q. I'm asking you, in your understanding of
21 taking information from a message, you don't
22 understand that to actually require that you take

1 specific information that was part of a message and
2 provide that to the server; true?

3 A. That's not the exact analysis I did. The
4 analysis that I did didn't -- doesn't imply what
5 you're asking. The analysis that I did is with
6 respect to the examples given in Kawasaki about
7 extracting information from, for example, email
8 messages, using a recognizer, and providing the same
9 kind of user preference information that's disclosed
10 in the '414 patent specification itself.

11 So what I did was I looked for examples of
12 the kinds of things considered to be information,
13 what they included. They included user preference
14 information. And an example, you know, given in
15 Kawasaki, was using these recognizers, determine
16 that a user has an interest in golf or a preference
17 in golf. Just like the spec that talks about the
18 user likes disco music from the -- I can't remember
19 the exact example. It was there. So an interest in
20 golf is parallel to, you know, an interest in disco
21 music. And that's the kind of user preference
22 information that's described.

1 So what I did was find an example in
2 Kawasaki that mirrors the examples of user
3 preference information given in the spec itself.
4 And furthermore, this information in Kawasaki is
5 generated -- autonomously provided to the server,
6 and it meets the limitations of the claims, as I
7 provided in my analysis.

8 Q. Okay. I'm sorry. My Zoom just froze up.

9 A. I can still hear and see you. Can you still
10 hear me?

11 Now you're frozen. Can everyone else still
12 hear me?

13 MR. BAJAJ: I can hear you.

14 Should we go off the record for a second?

15 (A short break was had.)

16 BY MR. ALBERTI:

17 Q. Okay. So in your opinion, the preference
18 doesn't actually have to be something that's
19 contained within the message; correct?

20 A. Well, I mean, my point here is that the
21 '414 patent doesn't say that specifically. It
22 doesn't -- from reading the spec, I don't think a

1 person of ordinary skill -- you know, again, I don't
2 have it memorized, but I don't recall anything that
3 says, you know, disco music circa 1980 has to be
4 part of the message. Otherwise, we won't count it
5 as a user preference. And certainly, the example,
6 the email I gave doesn't use the word "golf." But
7 the point of the recognizer is that it can discern
8 an interest in golf, even if the user didn't use the
9 word "golf" in the email they sent and that was
10 received. And the email certainly could have said,
11 "Let's go play a round of golf," instead of, you
12 know, "Let's hit a quick nine holes."

13 But the point is that the kind of
14 recognizer, disclosed in Kawasaki, can still discern
15 an interest in golf, whether or not the email
16 message contains the word "golf." And it's that
17 kind of recognizer. And certainly, you can have an
18 example that the user included the word "golf," and
19 it was -- the user preference recognized would be
20 she has an interest in golf.

21 Q. So Kawasaki, though, I believe you just said
22 that the preference itself doesn't actually have to

1 be in the message; correct?

2 A. Well, it could have been. So Kawasaki is
3 certainly -- you know, the example I gave, golf
4 didn't happen to be in the message. But I think
5 using the word "golf" in the message with other
6 words about golf would further reaffirm to the
7 recognizer that the user had an interest in golf.

8 So the example I gave, I'm not gonna deny,
9 didn't use the word golf, and it can still
10 discern -- the recognizer discussed and presented in
11 Kawasaki can still discern that kind of interest in
12 golf because it uses a lot of golf-related terms for
13 example. And that's the kind of neural network
14 analyzer that Kawasaki is talking about.

15 And what I'm saying is that this example in
16 Kawasaki is discerning the very similar kind of user
17 preference information disclosed by the '414
18 specification, such as, the user has a preference
19 for disco music circa 1980. And that this is
20 discerning -- the Kawasaki recognizer is discerning
21 that the user has an interest in golf from examining
22 the messages received by that user from another

1 user.

2 And so that happens to be the example I
3 used. It doesn't necessarily have to exclude that
4 golf was in the message or not. The recognizer can
5 still be triggered even though -- because it's
6 analyzing the whole of the message. And it's a
7 parallel user preference information as disclosed in
8 the spec of the '414.

9 Looks like Mr. Alberti froze again.

10 MR. BAJAJ: Yeah, looks like that to me as
11 well.

12 THE WITNESS: He unfroze for a second --
13 whoops. Okay. Is he back?

14 Can you hear me, Mr. Alberti?

15 MR. ALBERTI: Yes.

16 THE WITNESS: You appeared to freeze for a
17 little bit several times.

18 BY MR. ALBERTI:

19 Q. Okay. So let me just -- again, let me ask
20 you, again, in your example, the recognizer did not
21 extract anything from the message and send it to the
22 server; correct?

1 A. In my example, the recognizer is able to
2 discern a user's interest in golf even though the
3 word golf wasn't there. Certainly if the word
4 "golf" were there, it would also reaffirm to the
5 recognizer that the user has an interest in golf.

6 But it certainly is a parallel example to
7 the kind of user preference information disclosed by
8 the '414 spec, for example, where the example given
9 in the spec was that the user has an interest in
10 disco music circa 1980.

11 And, you know, I'd be surprised if, like,
12 anyone wrote those exact words in a message, you
13 know. Yet, it still discloses the kind of user
14 preference information that the '414 patent
15 discusses.

16 Q. Again, in your example, there's nothing
17 that's been extracted. No data has been extracted
18 from the message and sent to the server; correct?

19 MR. BAJAJ: Objection. Asked and answered.

20 A. No, that's not what I'm saying. Information
21 is extracted from the message. Information is that
22 the user has an interest in golf. That's the

1 information taken from the message in this example.
2 And it could have well been that the user did use
3 the -- literally used the word "golf" as well, but
4 the recognizer in Kawasaki is able to discern user
5 preference information using these recognizers. And
6 this is an example of something that could trigger
7 the recognizer to say that the user has an interest
8 in golf.

9 Q. Okay. So there's no data that's actually
10 taken from the message and sent to the server in
11 your example?

12 MR. BAJAJ: Objection. Asked and answered.

13 A. Information is certainly taken from the
14 message as required by the claims. I mean, you're
15 paraphrasing it now to be data or more narrowly data
16 within the message to start with. But the claims
17 don't require -- don't say that specifically. It's
18 just -- it talks about taken -- I mean, I'll just
19 refer you to the words of the claims, but I think a
20 person of ordinary skill would understand that this
21 kind of information, user preference information
22 that's based on analyzing a message, is the kind of

1 user information, preference information, that's
2 disclosed by the '414 patent.

3 Q. And the answer doesn't actually -- the
4 preference doesn't have to be in the message
5 according to your understanding; right?

6 A. Well, this is an example of a preference in
7 the '414, and I didn't -- I don't think there's
8 anything in the 414 spec. I mean, you can certainly
9 point me to it, and I can look, if you think it's
10 saying that. But I recall --

11 Q. I'm just asking for your understanding.

12 A. I recall nothing from the spec that
13 discussed that the user preference or other
14 information autonomously provided to the server has
15 to be literally data that's literally in the message
16 itself. It simply is about information taken from a
17 message.

18 Q. Okay.

19 A. (Indiscernible crosstalk.) -- part of that.

20 Q. Okay. And this is what I'm trying to get.
21 I'm just trying to get your understanding, sir.

22 Just to be clear, your understanding is that

1 there doesn't actually have to be the preference
2 itself or content that's extracted from the message
3 and sent to the server to satisfy this claim;
4 correct?

5 MR. BAJAJ: Objection to form.

6 A. I'm not saying it can't be. I think if
7 that's what you're asking, you're misunderstanding.
8 But --

9 Q. That is not what I asked. That is not what
10 I asked. Can you please listen to my question?

11 Your understanding is that it doesn't have
12 to be something that's actually part of the message
13 that you take out and you send to the server;
14 correct?

15 A. I think Kawasaki would disclose both ways,
16 frankly, because the recognizer in Kawasaki is an
17 advanced recognizer which certainly could recognize
18 if I use the word golf multiple times in a message,
19 it would -- it would understand -- the recognizer
20 would understand that the user has an interest in
21 golf, but it doesn't need to be. The example I used
22 may not have used the word golf, but it can still

1 discern an interest in golf. Even if it's required
2 that it has to be a word literally in the message,
3 which I don't see in the spec anywhere that that's
4 the requirement of the information taken from a
5 message or whatever the claim actually requires. I
6 mean, Kawasaki could -- would recognize that too and
7 probably even more firmly and readily than messages
8 that didn't use the word golf.

9 But the point of Kawasaki's recognizers is
10 that they're based on kind of neural networks that
11 can determine interest based on a variety of signals
12 provided with the message. And that certainly is --
13 would be an example of -- I'm giving examples of
14 what in Kawasaki a POSITA would recognize is an
15 example of -- I don't want to paraphrase. But the
16 claim element A requiring the message identifying,
17 you know, the claim saying what it says in the claim
18 1A element.

19 Q. Okay. Again, let me ask you, your
20 understanding of the '414 patent taking information
21 from a message does not require that you actually
22 extract something, content, data, from a message and

1 send it to the server; correct?

2 MR. BAJAJ: Objection to form. Asked and
3 answered.

4 A. Again, I don't believe the spec said that
5 specifically or would require that. And thus, in
6 the context of the spec, I'm not seeing how a POSITA
7 would understand the claim phrase to be limited to
8 information must be in the message because the claim
9 says what it says and provides an example of user
10 preferences information. It provides many examples
11 of information. It wasn't -- that wasn't the only
12 thing. There were things like location and other
13 things. And I think a POSITA would recognize that
14 in Kawasaki, that the interest in golf is
15 information taken from these example messages. They
16 could have included the word "golf," but the example
17 I provided shows how Kawasaki has this advanced user
18 preference analysis capability.

19 Q. Okay. So your reading of the '414
20 specification does not require that you actually
21 take some content or data from a message and send it
22 to the server in the context of the claims; true?

1 MR. BAJAJ: Objection to form. Asked and
2 answered.

3 A. I didn't see an express requirement
4 described anywhere in the spec that I can recall.
5 And, certainly, if there's one that you want to
6 point me to, I'll be happy to look at it. It might
7 refresh my memory. But I don't remember anything in
8 the spec saying anything like that, what you're
9 asking.

10 The example in the spec is, you know, if a
11 user preference information is disco music circa
12 1980, you know, it doesn't say that that's literally
13 in any message received at that passage at the top
14 of column 3, for example.

15 Q. Understood. Okay. I think I understand how
16 you view the claims.

17 So let me -- let's go back to claim, at
18 least with respect to that. Let's go back to
19 claim 1 of the '414 patent, and let me know when
20 you're there.

21 A. Okay.

22 Q. Okay. Now let's go to limitation 1B.

1 Do you see that?

2 A. Yes.

3 Q. The last clause of 1B says, [As read]
4 Wherein the at least one received advertisement is
5 determined by the server based at least in part on
6 the provided information.

7 Do you see that?

8 A. I wasn't looking there, but I think I see it
9 now. But I don't remember exactly what words you
10 said.

11 Q. Okay. It reads, [As read] Wherein the at
12 least one received advertisement is determined by
13 the server based at least in part on the provided
14 information.

15 Do you see that?

16 A. Yes, I do.

17 Q. You agree that that information is the same
18 information in step 1A that was taken from a
19 message; correct?

20 A. Well, they're both the information taken by
21 the cellular device from a message and the
22 information here would refer to the first antecedent

1 which is information associated with the user of a
2 cellular device. So I think they're both referring
3 to the same information, as I understand the proper
4 way to read, you know, antecedents and later uses of
5 the information, for example.

6 Q. Okay. And one more question I have for you
7 on the claims.

8 If you turn to Claim 14, and I'll point you
9 to limitation 14A.

10 A. Okay.

11 Q. Okay. Here it says, [As read] Receiving
12 information associated with a user of a cellular
13 device from the cellular device, independent of user
14 input, and then it goes on.

15 And my question here is simple. In your
16 analysis of the plain meaning, is "independent of
17 user input" any different from autonomously, which
18 is the language in Claim 1?

19 A. Well, I mean, they're different words and
20 used in different contexts. I mean, Claim 1 is
21 autonomously providing to a server. This is
22 about -- independent of user input. So I mean, I

1 analyzed these independently. I didn't say, well,
2 I'm analyzing it the same way as this other one
3 because the words -- even though the words are
4 different. I mean -- and in the example that I
5 provided, the kind of user preference information
6 that the user is interested in golf is -- in
7 Kawasaki is done independently of user input because
8 the user isn't providing that explicitly in
9 Kawasaki. In Kawasaki, it's automatically generated
10 by the recognizer analyzing an email message.

11 Q. Okay. Again, I'm just -- I'm not trying to
12 be tricky here. I'm just trying to get your
13 understanding.

14 Is there any difference between the plain
15 meaning of "independent of user input" versus
16 "autonomous," in your opinion?

17 A. I mean, I analyzed these -- the claims are
18 different. I didn't -- I didn't -- my analysis
19 wasn't that these are the same and, therefore,
20 that's why my analysis holds. The analysis stands
21 for itself. They're different words. My
22 understanding that in claim construction, you know,

1 different words should be afforded different
2 meanings. So -- but in my analysis of 14, you know,
3 Kawasaki clearly discloses that this user preference
4 information that's generated is done without user --
5 like, the user inputting.

6 You know, there are many examples of where,
7 you know, systems collect user information by just
8 asking them, "What are you interested in?" You
9 know, golf -- you know, and you might have
10 checkboxes. But Kawasaki is not that. Kawasaki is
11 determining that a user has an interest in golf,
12 based on analyzing an email message or web pages
13 they visit. That's what Kawasaki says. So
14 certainly, that's how Kawasaki provides this
15 information, independent of user input.

16 Q. Sure.

17 And, again, I'm not asking about Kawasaki.
18 I'm just asking about your understanding of the
19 plain meaning of the term "autonomous" versus
20 "independent of user input."

21 Is there any difference, in your opinion,
22 and if so, what is the difference?

1 A. They're different words. And I didn't -- I
2 don't have an opinion that there's any similarity in
3 meanings between those two in my declaration. I
4 analyzed the different claim elements separately,
5 and they meet them for the same -- for the reasons
6 I -- you know, we can look at the reasons. I talk
7 about the autonomously providing to a server in
8 1 and in 14. But the analysis in Kawasaki certainly
9 is that this automatic generation of user preference
10 information, based on analysis of the -- like, an
11 email message by the recognizer is -- is
12 providing -- is independent of user input.

13 Q. Okay. Again, I'm not asking you about
14 Kawasaki.

15 Just sitting here today, I'm asking you what
16 your opinion is of the plain meaning of "independent
17 of user input." And if you don't have an opinion,
18 just say I don't have an opinion.

19 Is there any difference between "autonomous"
20 and "independent of user input"?

21 MR. BAJAJ: Objection to form. Asked and
22 answered.

1 A. I mean, again, that's not the analysis that
2 I did. And, certainly, they're different words. So
3 different words, as I understand in claims, are to
4 be afforded different meanings. And you're
5 certainly reading out the context of the word
6 "autonomous" used in Claim 1, which is, [As read]
7 "autonomously providing to a server by the cellular
8 device."

9 And in Claim 14, it's, [As read] receiving
10 information associated with a user of a cellular
11 device from the cellular device, independent of user
12 input.

13 Q. Right.

14 And I'm asking you what the difference is
15 between those two.

16 What's the difference, in your opinion -- in
17 you don't have an opinion, it's okay to say, "I
18 don't have an opinion that there's any difference."

19 Do you have an opinion that there's any
20 difference between autonomously providing and
21 providing, independent of user input?

22 A. I'm not sure what you mean by -- I've

1 already given -- they're different words used in
2 different contexts. And as I understand proper
3 claim construction, they shouldn't be afforded the
4 same meaning, in those cases.

5 Q. What's the difference?

6 Do you have an opinion as to the difference
7 of providing something autonomously versus providing
8 it independent of user input?

9 MR. BAJAJ: Same objection.

10 Q. Sitting here today, do you have an opinion
11 that there's any difference in the plain meaning of
12 those two?

13 A. So there are some examples of providing user
14 preferences with forms, for example, in the
15 '414 specification, that the user can fill out a
16 form to provide some preferences. That, I think,
17 would be recognized as an example, as an example of
18 the kind of user input that is used to generate a
19 user preference. That -- I don't think that your
20 word "autonomous" is used anywhere in the claim, so
21 there's no -- you know, if the person is looking for
22 autonomously provide to the server, I don't think

1 they see what kind of issues in the spec it's
2 talking about. The autonomous is, I think, only
3 first used in the Claim 1(a) itself.

4 And, again, you know, they're different
5 words in different contexts. I didn't analyze -- I
6 analyzed the references with respect to each of the
7 claims, and I provide my reasonings. But that
8 doesn't -- you're asking if I analyzed the claims
9 between each other? I mean, certainly, if a
10 claim -- the claim meaning in one claim is the same
11 meaning as another claim, I don't think your -- my
12 understanding is you can't double patent something.
13 So the claims have to have some different scope, in
14 my understanding.

15 Q. Fair enough. I'm just -- it's not a hard
16 question.

17 Sitting here today, do you have any
18 difference in meaning, okay, between providing
19 something autonomously versus providing something
20 independent of user input?

21 Is there any difference between those two,
22 in your opinion, sitting here today?

1 MR. BAJAJ: Objection.

2 A. They're different words, and they should be
3 afforded different meanings in claim construction.

4 Q. What are those different meanings?

5 Thank you.

6 What are the different meanings?

7 What's the difference between the two?

8 A. The examples that I provided are examples of
9 the meaning in Claim 1. I talk about how it meets
10 autonomously providing by a server. And there are
11 examples that a POSITA would understand fall within
12 the scope of independent of user input, you know, as
13 used in Claim 14.

14 And so I -- like, I don't have that specific
15 opinion in my declaration because that's not how I
16 went about my analysis. The way I went about my
17 analysis is here's Claim 1. I'm gonna analyze
18 Claim 1. Here's what a person of ordinary skill
19 would recognize falls within the scope of Claim 1 in
20 the prior art, and I did that analysis.

21 And then separately, I looked at Claim 14
22 and how -- it could have been many of the same

1 elements, but how they fall within the scope of the
2 claims for Claim 14. And, certainly, in the
3 Claim 14 example, the recognizers, recognizing user
4 interest in golf, is done without the user telling
5 the system that they have an explicit interest in
6 golf. It's just done by recognizing -- and this is
7 what Kawasaki discloses -- recognizing received
8 emails, recognizing web pages that the user has
9 visited, she has visited. And that's how Kawasaki
10 discloses, as I -- you know, the various claim
11 elements, as I discuss in my declaration.

12 Q. You didn't refer to anything different,
13 though, in your analysis of the autonomously
14 providing versus independent of user input, did you?

15 A. I mean, that's not quite correct, because if
16 you look at my analysis of 14.3.1, while I refer to
17 the analysis of 1.1.1, I further add that, [As read]
18 Frerichs and Kawasaki teach that the user's cellular
19 device provides information without user
20 involvement.

21 And so I, certainly, have added that part to
22 it, which is, you know, without independent of user

1 input.

2 Q. You rely on the same evidence, though;
3 right?

4 A. Well, but further adding that it's clear
5 that there's -- that information is provided without
6 user input.

7 Q. Right.

8 And if there was any difference in the
9 meaning of those terms, you certainly would have
10 explained that in your declaration; right?

11 A. No, I don't see why that was necessary. The
12 difference in the claim terms I address by pointing
13 out that the combination, in Kawasaki, for example,
14 that golf interest is discerned without any user
15 input, without any user involvement.

16 Q. I mean, you just added that phrase, but you
17 didn't say how that's any different, given you
18 relied on the same evidence; right?

19 A. Well, they're both examples of these -- of
20 that. And let me -- let me just look at one more
21 thing in 1.1.1.

22 I mean, I do talk about the autonomously

1 providing part, starting at paragraph 100. And it's
2 actually -- you know, it talks about, [As read] a
3 profile associated with the user ... from the user's
4 device ... as provided to an offer manager.

5 That's in paragraph 101.

6 And then there is this recognizer that's
7 talking about a statistical model, and it's
8 automatically generated. But here, in 233, I'm
9 definitely pointing out that that is still done
10 without user involvement.

11 Q. All right. I mean, so other than, you know,
12 saying that oh, it's also done with user
13 involvement, your analysis was the same for both;
14 right?

15 MR. BAJAJ: Objection to form. Asked and
16 answered.

17 A. I mean, I think, you know, if you look at
18 the declaration, it doesn't simply just refer back
19 to 1.1.1 without saying anything. So I think the
20 analysis is -- you know, they're different items.
21 And, you know, I'm certainly showing how this meets
22 the requirement of "independent of user input" in

1 the further analysis of 14, Claim 14.

2 Q. Okay. You didn't think it warranted a new
3 analysis. Other than including this one additional
4 sentence that well, it's also independent of user
5 input; right?

6 A. Well, there certainly are common parts of it
7 so I do refer to the analysis in 1.1.1. But that
8 doesn't mean that -- it just means, for this
9 example, it happened to cover it -- you know, it's a
10 common analysis that can be shared between Claims 1
11 and 14. It's not any opinion about how any words in
12 the claims are necessarily equal to each other.
13 That's a misunderstanding of my -- of the analysis.
14 And, certainly, it's possible that the same elements
15 can be disclosed -- can be within the scope of
16 different claim -- different claim elements, the
17 same parts of the prior art.

18 Q. Sure.

19 I guess, you know, my only point is there
20 really is no analysis with respect to independent of
21 user input other than one conclusory sentence
22 at 233, and you're relying on the analysis of 1.1.1.

1 A. I mean, it's really not conclusory. I
2 disagree with that because they talk about these
3 recognizers in 1.1.1 that do this recognition
4 without -- you know, based on the message it
5 received and not on user -- the user input. And
6 it's just pointing out that that is done without
7 user input.

8 Q. Okay. Let's look at Ground 1, and that is,
9 Claims 1 through 7 and 9 through 14, your opinion is
10 under 35 USC 103, those claims are rendered obvious
11 by Frerichs, Kawasaki, and Kauffman; correct?

12 A. I mean, I do say that Ground 1 is with
13 respect to Frerichs, Kawasaki, and Kauffman.

14 Q. Your opinion is those three references
15 render obvious the challenged claims; correct?

16 A. Yes.

17 Q. You don't have any opinions that the
18 challenged claims are anticipated by any of the
19 prior art references; correct?

20 A. I think that's correct.

21 Q. Did Google's lawyers select these references
22 for ground 1?

1 MR. BAJAJ: Objection to the extent it calls
2 for privileged information.

3 A. I mean, I was provided these references.

4 Q. You haven't provided any opinions on the
5 issue of inherency; correct?

6 A. I believe that's correct.

7 Q. Okay.

8 MR. ALBERTI: We've been going for an hour
9 now, so I think this is a good time to take our
10 first break, if that's okay with you.

11 THE WITNESS: Sounds good. Thank you.

12 (A short break was had.)

13 BY MR. ALBERTI:

14 Q. I'd like to ask you some questions about the
15 Frerichs reference. That's Exhibit 1004. Do you
16 have that?

17 (Exhibit 1004 was marked for
18 identification and is attached to the
19 transcript.)

20 A. I have it open now.

21 Q. Okay. Do you agree that the Frerichs
22 reference does not teach caching media content?

1 A. I mean, Frerichs does talk about delaying a
2 song. For example, if you look at the bottom of
3 column 7, it talks about outputting a first song at
4 a second time, which signifies that a delay between
5 the first time and the second time, and that the
6 delay can be caused by a variety of factors such as
7 latency in the network or the like. The delay can
8 also be selectively caused by way of a buffer or a
9 cache or the like.

10 And it mentions this several times with very
11 similar descriptions in the middle of column 14
12 around line 30 and at the -- near the top of column
13 16 around line 15.

14 Q. I'm sorry. So where does that caching occur
15 in Frerichs?

16 A. If you look at the Frerichs specification,
17 for example, starting -- well, with respect to
18 figures 2 and 3, or 2A and 3, it talks about how
19 there's a computing device for processing streaming
20 audio information. That's column 4 at line 58. And
21 so there's a computer for processing this streaming
22 audio information.

1 And then figure 3 is a breakdown of the
2 process for simplified diagrams of the data
3 insertion method according to an embodiment of the
4 present invention. That's figure 3.

5 And if you look at the description of
6 figure -- well, figure 3, it starts at the bottom of
7 column 6 at line 57 and goes down through column 8
8 at line 23. And that talks about this buffering or
9 caching of the delay for playing a song. But it
10 also talks about advertisements that can be
11 retrieved from the storage. This is at line --
12 column 7, line -- I believe starting at 41.

13 And that the storage can be local -- sorry.
14 It can be at the client location or -- so that's the
15 advertisement retrieved from known location storage
16 313 which can be at least at the client location.
17 Alternatively, the advertisement can be retrieved
18 from an advertising server or other third-party
19 server.

20 And then it goes on to talk about the delay
21 for the song can be caused by way of a buffer or
22 cache. And I think that's describing that it's --

1 it can be part of this local device as well, this
2 computer.

3 Q. Okay. So in paragraph 79 of your
4 declaration, you say, quote, Specifically, Kauffman
5 teaches caching streaming media content during
6 playback with advertisement so that the streaming
7 media content can then be resumed after completion
8 of the advertisement content, which is not
9 explicitly taught by Frerichs.

10 Do you see that?

11 A. I mean, I wasn't on 79 when you started
12 reading that, so I still don't see where you are.

13 Q. Okay.

14 A. Now I am on 79, but I don't remember the
15 exact -- what you read.

16 Q. Maybe about midway through that or
17 two-thirds through that paragraph you say, [As read]
18 Specifically, Kauffman teaches caching streaming
19 media content during the playback of an
20 advertisement so that the streaming media content
21 can then be resumed after completion of the
22 advertisement content, which is not explicitly

1 taught by Frerichs.

2 Do you see that?

3 A. Yes.

4 Q. Do you stand by that statement?

5 A. Yes, I do.

6 Q. So is it your position now that Frerichs
7 does teach caching of streaming media content at the
8 client location?

9 A. Well, I mean, I read to you what Frerichs
10 says about caching. It's really to delay the
11 playing of a song. I think they described it as a
12 "first song." And it can be delayed. And I stand
13 by what I said, which is Frerichs isn't teaching
14 caching the content during the playback of an
15 advertisement so that the streaming media content
16 can then be resumed after completion of the
17 advertisement content. That whole thing is not
18 taught by Frerichs. I'm not saying that any caching
19 whatsoever.

20 In fact, because caching, you know, and
21 being able to delay audio content is taught by
22 Frerichs, it's an example of why a person would

1 succeed in making the combination of Frerichs with
2 Kauffman.

3 Q. Okay. But sitting here today, you've got --
4 you stand by your statement in paragraph 79 that
5 states that [As read] Specifically, Kauffman teaches
6 caching streaming media content during the playback
7 of an advertisement so that the streaming media
8 content can then be resumed after completion of the
9 advertisement content which is not explicitly taught
10 by Frerichs; correct?

11 A. Yeah, I stand by that. And while we're
12 reading about the delaying the first song, it's not
13 saying there what Kauffman is teaching, but the fact
14 that Frerichs has buffers and is able to delay the
15 playback of certain content is another reason why a
16 POSITA would be successful in combining the
17 teachings of Kauffman with Frerichs.

18 Q. And in your opinion, that's in part because
19 the caching in Frerichs you believe is at the client
20 location; correct?

21 A. Well, in this example embodiment in
22 figure 3, figure 3 can be components that are

1 anywhere. Figure 3 is more of describing a method.
2 And it is calling out that -- you know, like the
3 advertisement server or the advertisements could be
4 stored locally or retrieved from a server. And it's
5 talking about buffers. You know, I think it's
6 reasonable that, in this example, that the caching
7 buffer or buffer disclosed in Frerichs could be
8 local.

9 Q. Is that explicitly taught in Frerichs that
10 the buffer is local for caching?

11 A. I mean, if you look at what it's talking
12 about in -- for example, in figure 2, that's
13 describing the computer system that can provide
14 audio output to the audio output device, and it's
15 talking about that throughout figure 2 or the
16 description of figure 2.

17 I mean, I can point you to a specific line
18 if you want me to, but it talks about a sound card
19 and output to the sound card. And then it talks
20 about playing -- then figure 2A has more details,
21 has some details about steps of a method of one
22 embodiment.

1 And then in figure 3, it's talking about
2 buffering. The delaying with respect to outputting
3 the first song through the audio output device,
4 which is like -- it talks about that being speakers.
5 So I think -- you know, then it's reasonable for a
6 POSITA to say that it's talking about the buffering
7 or caching in the computer device here. But there's
8 also a description of how -- you know, what Frerichs
9 is disclosing as very flexible. That -- like column
10 8, line 12, "One of ordinary skill in the art would
11 recognize many other variations, modifications, and
12 alternatives."

13 And I think -- but the example, I think it's
14 reasonable to say and a POSITA would understand that
15 this is an example of a buffering just before the
16 audio output, which would be at the computer in this
17 particular example.

18 Q. So we're clear on the record, you're
19 referring to the example that's describing figure 3
20 in column 6 and 7?

21 A. In that example embodiment. I was also
22 talking a little bit about figure 2 described in

1 more -- starting in column 4 as well. Is it 4?

2 Yes, at the bottom of 4.

3 Q. And in your opinion, you're quoting that
4 figure 2 is the client device; correct?

5 A. Figure 2, I mean, its saying that it's an
6 illustration should not limit the scope of claims
7 herein. But it's an example of a device that can
8 output audio through speakers.

9 I can tell you where I saw that. Give me
10 one second. Column 5, line 9. [As read] The system
11 also has audio output devices or speakers which are
12 each coupled to audio output ports in the computer
13 system. The speakers are also coupled to a sound
14 card which converts the digital audio information
15 into an N-Log output. Figure 2 is representative of
16 one type of system for embodying the present
17 invention. And it will be readily apparent to one
18 of ordinary skill in the art that many system types
19 or configurations are suitable raised in conjunction
20 with the present invention.

21 So it's just one example recognizing that
22 other examples can still embody an invention.

1 Q. I've got it.

2 So in your opinion, figure 2 is one example
3 of a client device?

4 A. It's one example. And the spec does list
5 other examples such as PDAs, internet appliances,
6 internet radio, cellular phones, and the like.
7 That's at the top of column 2, lines 18 through
8 20 -- or 17 through 20.

9 But it certainly is saying that it's a
10 personal computer. That's the -- preceding that
11 sentence, like around line 15, 16, talks about a
12 method and device for inserting targeted
13 advertisement into streaming audio at a client
14 location such as a personal computer.

15 Q. So in your opinion the combination of
16 figures 2 and 3 demonstrate that you could perform
17 buffering of content at the client device.

18 Is that your opinion?

19 A. I mean, what I'm relying on to disclose
20 1.3.2 element is really the teachings of Kauffman,
21 that when the advertisement is played to the
22 end-user, the multimedia file is cached, that is the

1 incoming requested multimedia file destined for the
2 end-user can be cached. And that analysis starts at
3 paragraph 147 of my declaration.

4 Q. Okay. So to be clear, you're not relying on
5 Frerichs for 1.3.2; correct?

6 A. Yeah. I'm relying really on analysis with
7 respect to Kauffman. But if you look on
8 paragraph 152, [As read] a POSITA would have
9 understood that Frerichs' cellular phone would have
10 been capable of performing caching of advertisements
11 and streaming media content consistent with the
12 teachings of Kauffman, because Frerichs contemplates
13 holding an advertisement in a buffer or cache ...
14 and teaches the use of hardware capable of caching
15 as taught by Kauffman. And thus, incorporating
16 Kauffman's teaching would have been no more than
17 applying one known technique ... to a known device
18 ready for improvement -- which is Frerichs's
19 cellular device -- for outputting such content.

20 So it's really -- the analysis is with
21 respect to Kauffman, which has the details about the
22 advertisement insertion and stopping the content,

1 where Frerichs is kind of ready to be -- you know,
2 ready for this -- it's already capable of caching.
3 So it's further evidence, I think, that a POSITA
4 would be successful in making the combination.

5 Q. So then you are arguing that Frerichs
6 teaches buffering content at the client device.

7 A. So the point of Kauffman is that -- if you
8 look at paragraph 148, there's -- [As read] Kauffman
9 describes that the multimedia file or ("the content
10 which was playing was stopped") is stored ... in a
11 second cache, during the playout of an
12 advertisement.

13 And so that's what Kauffman is teaching
14 that -- if you look at the block quote, [As read] A
15 second cache ... is used to store the incoming
16 multimedia stream, designated as stream MM, where,
17 as discussed above, cache 62 is used to store
18 incoming stream MM once advertising stream A has
19 begun to be 'played out' toward end-user 10.

20 So you're still receiving the content. But
21 now, you're playing the advertisement, and you're
22 caching the received content while you're playing an

1 advertisement so that -- I think I talk about
2 later -- it can be resumed back to the original
3 content without missing that content once the
4 advertisement is finished playing.

5 MR. ALBERTI: Objection. Nonresponsive.

6 BY MR. ALBERTI:

7 Q. My question was with respect to Frerichs. I
8 asked you whether it was your position that Frerichs
9 does indeed teach buffering content at a client
10 device.

11 A. I think we saw that. Frerichs had a cache.
12 A person of ordinary skill would have understood
13 that it was on the client device because it's just
14 while -- before, you know, sending to the speaker,
15 basically. I mean, I'll refer you back to what I
16 said earlier, but the cache, with respect to the
17 incoming multimedia that's being received by the
18 advertisement is played, is taught by Kauffman, and
19 that's what I'm relying on, with respect to my
20 analysis for 1.3.2.

21 Q. In Frerichs, the buffer is holding an ad;
22 correct?

1 A. I mean, Frerichs teaches that there can be
2 ads stored locally or retrieved over the internet.
3 Is that what you mean?

4 Q. Correct.

5 Well, but you're -- strike that.

6 Let me start over.

7 In Frerichs, your position is that it
8 teaches buffering an ad at the client location.

9 A. I mean, Frerichs is teaching that ads could
10 be retrieved from local storage at -- or storage at
11 the client location, or it can be retrieved from an
12 ad server. So, I mean, Frerichs is teaching that
13 the ad could be in -- retrieved from a number of
14 different places.

15 Q. Right.

16 But what's being -- what's being stored at
17 the client location in Frerichs is the ad itself,
18 not the streaming content.

19 A. Where are you looking at for Frerichs? I'm
20 not seeing -- I'm not seeing specifically where
21 you're asking.

22 Q. Well, you pointed me to column 7, line 41

1 through 43, where it says, [As read] the method
2 'retrieves an advertisement 309 from storage. Here,
3 the advertisement can be retrieved from location
4 storage 313, which can be at the client location.'

5 A. I'm not sure if that was a question. But I
6 mean, I did point you there. But also, the next
7 sentence, I thought I pointed you to also, which is,
8 [As read] Alternatively, the advertisement can be
9 retrieved from an advertising server or other
10 third-party server 311.

11 So advertisements can be stored in a number
12 of locations, including at the client location and
13 at an advertising server or other third-party
14 server. So Frerichs is teaching that those
15 advertisements can be stored at the client location,
16 or they can be stored at an advertising server.

17 Q. Right.

18 I was asking about your support for this
19 notion that you could store, buffer an ad at the
20 client, and 41 through 43 is what you pointed me to,
21 to say, yeah, you could store, buffer this ad at the
22 client, not talking about the server. That's what

1 you pointed me to for that capability; right?

2 A. For the ads, you can store or cache ads. I
3 mean, you know, cache is a specialized form of
4 storage, which implies that, you know, you can get
5 rid of old ads, which makes perfect sense. And I
6 did point you there. But part of that was that the
7 ads can be stored there, or they can be retrieved
8 from servers.

9 So in that sense, it's a different sense
10 than the -- I'm not sure what you're referring to
11 with ads being cached with respect to later where it
12 talks about delaying the first song by -- and that
13 could be done using a cache or a buffer. But,
14 certainly, ads can be stored or cached at a client
15 location as well, and they could be stored at an
16 advertising server. And that's what Frerichs
17 discloses.

18 Q. So you agree that holding an ad in a buffer
19 or local storage is not as difficult as buffering
20 streaming media; correct?

21 A. I mean, I'm not opining about the difficulty
22 of either one of those, really. I mean, they're

1 both -- I'm not sure what you're asking.

2 Q. In your opinion, is it easier to store an ad
3 locally or buffer streaming media on a client
4 device, or are they equally as easy?

5 A. I mean, I don't see why any of those would
6 be out of reach for a POSITA.

7 Q. You don't have an opinion that one is more
8 difficult than in the other, for example, on a cell
9 phone in 2001?

10 A. I mean, I do talk about numerous cell phones
11 that had, for example, email capability at the time.
12 And I talk about how the memory -- well, let me
13 point you there.

14 I do talk about how storing, like, for
15 example, a 30-second portion of audio encoded at
16 32-kilobits would have been within the capacity of
17 very -- specifically, the Nokia 9210 Communicator,
18 at the time. This is paragraph 86. So I think
19 it's -- I think that kind of storage is within the
20 capability of the Communicator.

21 Q. Are you aware of any applications that
22 buffered streaming audio or video that were

1 available for the Nokia 9210 Communicator in 2001?

2 A. I'm aware of various media players available
3 on the Symbian operating system, which I believe the
4 Nokia 9210 used. I'm not sure on that. But there
5 were -- but with respect to the timeline, I can't --
6 I don't know how to place them in time, but they
7 were available early.

8 Q. What applications were available for the
9 Nokia Communicator 9210 that you were aware of that
10 could buffer streaming audio or video?

11 A. Again, I'm aware of multimedia applications
12 for, kind of, Symbian-based Nokia devices, which I
13 believe -- I'm not sure about the 9210. But, again,
14 I have to look at my references to place the
15 timeline exactly. I don't know, at what time, those
16 became available.

17 Q. Okay. What are the names of those
18 applications?

19 A. Well, I have several books on programming
20 Symbian for multimedia, so I'd have to go consult
21 those books. I don't remember them offhand. But I
22 know that there were applications available because

1 these books were talking about applications and
2 partly how to build them and how to do multimedia on
3 these -- on the Symbian operating system.

4 Q. And you're aware of media players --
5 applications that were receiving streaming audio or
6 video for the Symbian operating system in the time
7 frame of 2001.

8 That's your testimony?

9 A. No. I said I don't know the exact timeline.
10 I'd have to go consult these references. But I'm
11 generally aware of these types of multimedia
12 applications being available on Symbian. But I --
13 offhand, I don't have the timelines all memorized.
14 It could be after. It could be around this time. I
15 don't know offhand, off the top of my head from
16 memory.

17 Q. Okay. And you don't remember any of their
18 names, sitting here today; correct?

19 A. I have a number of books from that era.
20 And, again, I don't know when they are that discuss
21 programming, you know, multimedia applications and,
22 I believe, the streaming aspect.

1 Again, I can't tell you -- I don't have
2 these books memorized. They're not part of this
3 case, really, but I'm trying to answer your
4 question, based -- but my memory and my -- I don't
5 have a photographic memory. So I know I have these
6 books, several of them, in fact. I don't remember
7 the times, dates in the book, or I don't remember
8 all the applications they talked about.

9 Q. Sure.

10 But in paragraph 86, you're saying that the
11 Nokia 9210 had this capability, but you're not
12 telling us, you know, what the names of any
13 applications were that could actually do this;
14 correct?

15 A. I'm talking about the capacity of caching
16 audio or storing fragments of audio so that delayed
17 playback could occur and that the memory capability,
18 certainly, was -- that kind of storage was -- is
19 within the memory capacity of that Nokia 9210, as
20 well as other similar devices, at the time.

21 Q. Well, why didn't you -- I mean, if you've
22 got all these books sitting around about the Symbian

1 operating system and Nokia that talk about streaming
2 audio and video, why didn't you put them in your
3 declaration?

4 A. Perhaps it didn't occur to me at the time.
5 But I was really talking about, you know, storing
6 enough audio for a delayed playback is well within
7 the capacity of the 9210 and other devices, at the
8 time. The point being, you know, if it was, like,
9 gigabytes of memory, that probably wouldn't have
10 been, but it's not. It's -- the kind of data we're
11 talking about is compatible with and within the
12 capacity of the devices at the time.

13 Q. Is there anything that is required for
14 receiving and caching streaming media that's beyond
15 what would be required to store one ad in a buffer?

16 A. Well, with respect to what Frerichs is
17 teaching about storing data in a buffer, I don't --
18 I think it's teaching, basically, the same thing
19 that the '414 patent is teaching, which is to say
20 that the '414, I don't see that specifically goes
21 into details about how to store and how to buffer a
22 system. And I think it would rely -- to the extent

1 it's enabled, it would rely on a person of ordinary
2 skill to -- it would rely on that same person of
3 ordinary skill's knowledge to create this
4 application for stopping the streaming or stopping
5 the playback of the current content while playing an
6 ad. I believe, if I'm -- and I'm looking at the
7 '414 now. I don't see that it has any more detail
8 with respect to that issue than the Frerichs
9 reference.

10 MR. ALBERTI: Objection. Nonresponsive.

11 BY MR. ALBERTI:

12 Q. So my question was specifically, given your
13 knowledge in this area, is there anything
14 technically required for receiving and caching
15 streaming media that's beyond what would be required
16 to store an ad in a buffer?

17 A. Well, I mean, I think -- actually, for
18 example, the Kauffman references provide more
19 details how to cache and play back and, basically,
20 delay the incoming media while the advertisement's
21 being played than I see in the '414 reference. So,
22 I mean, whatever the POSITA knows to make and use

1 the invention in '414 can be applied to the
2 teachings of Frerichs and Kauffman. But I think,
3 actually, Kauffman provides a little more detail
4 about exactly how to achieve the goal of what's
5 claimed in some of the claims.

6 MR. ALBERTI: Again, objection.

7 Nonresponsive.

8 Q. My question was: Given your knowledge in
9 this area, sitting here today, are you aware of
10 anything technically required for receiving and
11 caching streaming media that is beyond what would be
12 required to store an ad in a buffer? If your answer
13 is, I don't have an opinion of that at this time,
14 that's fine. But that's my question.

15 MR. BAJAJ: Objection to form.

16 A. I mean, my opinion is that whatever the
17 person of ordinary skill knows in order to make and
18 use the invention, as taught in the '414, that level
19 of disclosure is at least provided by other
20 references so that the user can make and use and do
21 exactly what you asked to the extent it's required
22 by the claims as what the invention does.

1 And in fact, I think there's more disclosure
2 in Kauffman, for example, about the process of
3 caching the multimedia content that's being --
4 incoming while playing an ad. And so but it's at
5 least the same level of disclosure as within the
6 '414 patent specification itself.

7 So whatever those happen to be, that a
8 POSITA has to make use of to make and use the
9 claimed invention of the '414, the same level of
10 person with a little more detail would just as
11 easily be able to make on -- you know, do the same
12 for the teachings of Kauffman and Frerichs, for
13 example.

14 MR. ALBERTI: Objection. Nonresponsive.

15 Q. Do you recall the types of encoding used for
16 streaming media content in 2001?

17 A. I mean, I can think of at least one. There
18 may have been others, but I think one of the
19 references -- I'm not sure if it discusses the --
20 one of the references I've cited in my declaration
21 talks about certain bandwidths, but I'm not sure --
22 I can't recall whether it talked about specific

1 encoding techniques.

2 Q. And sitting here today, are you aware of any
3 specific encoding techniques for streaming media
4 that were used by the Nokia 9210 Communicator?

5 A. I mean, not that I recall with respect to
6 that specific model of communicator. But there were
7 many streaming techniques available at the time
8 for -- for example, live audio and other -- live
9 audio and recorded audio streaming.

10 Q. Your declaration in paragraphs 96 through 98
11 refers to three types of data that Frerichs could
12 provide from a client to a server; correct?

13 A. I'm not sure how you characterize it, but I
14 mean, I am talking about different types of
15 information provided in 96 through 98.

16 Q. In paragraphs 96 and 98, the information
17 that you cite is not information that was taken from
18 a message on a cellular device; correct?

19 A. So with Frerichs alone, that -- those
20 portions are talking about -- not specifically
21 talking about information derived from or taken from
22 an email message, but Kawasaki, as I talk about

1 later, starting at paragraph 101, discussing that
2 portion and onwards.

3 So it's a combination of Frerichs and
4 Kawasaki I'm relying on. What I'm showing here is
5 that there are types of information automatically
6 provided to the server or autonomously provided to
7 the server by the cellular device and that adding
8 the type of information taught in Kawasaki, that,
9 you know, it's using the recognizers to extract and
10 take information from the -- from an email message
11 received can also be provided to the server
12 autonomously using the same kind of autonomous
13 reporting mechanism taught in Frerichs for these
14 types of information.

15 Q. Understood. But, again, just focusing on
16 Frerichs, the information you discuss in 96 through
17 98, you don't contend that's information taken from
18 a message. Instead, you rely on Kawasaki for that
19 aspect; correct?

20 A. I think that's fair. The information
21 described in 96 to 98 is not -- is showing one --
22 the kind of information already being autonomously

1 provided to the server in Frerichs and that
2 incorporating the information taken from the message
3 received, as I discuss later, could also be provided
4 in the combination in the same way. Would be
5 provided in the same way. And there would be
6 reasons to do that. For example, to make the
7 targeting more accurate, and I discuss that
8 elsewhere in my declaration.

9 Q. In Frerichs, it discloses selecting an ad
10 based on a user profile; correct? I can refer you
11 to paragraph 47 of your declaration if that helps.

12 A. So I do talk about that as one of the
13 things, but Frerichs also explains that [As read]
14 User profile information can also include any other
15 information, which can be used to provide a more
16 desirable advertisement or information to the user.

17 So that is one example of what Frerichs is
18 disclosing, and I cite Frerichs there. And it can
19 be derived from channels and other factors, user
20 registration information, and that this -- any other
21 type of information can also be used.

22 Q. But you haven't relied on Frerichs for

1 disclosing that this information, user profile
2 information, was taken from a message; correct? You
3 rely on Kawasaki for that?

4 A. So Kawasaki, I do rely on the information
5 taken from the message, such as, you know, user's
6 preference for golf, which really lines up with kind
7 of user preference information disclosed in '414,
8 such as, you know, disco music circa 1980.

9 Q. You do not rely on Frerichs for taking that
10 information from a message. You rely on Kawasaki;
11 correct?

12 A. In the combination of Frerichs and Kawasaki,
13 then, that aspect of Kawasaki can be added because
14 Frerichs is teaching that any other information,
15 which can be used to provide a more desirable
16 advertisement or information to the user, that --
17 that's the user profile information can be based on
18 this other information.

19 So a POSITA would have made the combination
20 for the reasons I've stated, because that is any
21 other information. Kawasaki explicitly teaches
22 taking information from a message and then -- and

1 that can be provided autonomously to the server as
2 Frerichs is already providing these other kinds of
3 information to the server. And so it's the
4 combination.

5 So yes, it is the combination of Frerichs
6 and Kawasaki and then Kauffman for other aspects
7 that I'm relying on in my analysis as to why the
8 challenged claims are unpatentable.

9 Q. But Frerichs itself, setting aside Kawasaki
10 and Kauffman, does not disclose taking this user
11 profile information from a message; correct?

12 A. Yeah. In my analysis, I'm not relying on
13 Frerichs for any teaching of taking user
14 preference -- or taking user information from an a
15 message. It's Kawasaki and the combination of
16 Frerichs, Kawasaki, and Kauffman that -- that is
17 what I rely on to teach the information taken from a
18 message or that claim element that requires that.
19 And so that's what's done in my analysis. Not just
20 on Frerichs alone.

21 Q. Frerichs does not disclose streaming
22 multimedia or video; correct?

1 A. I mean, Frerichs does talk about -- does use
2 the word video with respect to large storage device,
3 if -- this is in column 8, line 34. But it's in the
4 context of an audio source 253, which is often a
5 large storage device for archiving music, video, or
6 other content. But I wasn't relying on the video
7 aspect of Frerichs in my analysis.

8 And did you say "multimedia" was the other
9 word you were asking about?

10 Q. Yeah. With respect to Frerichs, and again,
11 just talking to the streaming part of Frerichs, it
12 doesn't talk about streaming multimedia or video;
13 correct?

14 A. I didn't see the word "multimedia" used in
15 Frerichs, but while the storage can -- the audio
16 stores can be a storage that includes video,
17 Frerichs is primarily talking about the streaming of
18 audio content or -- yeah.

19 Q. Okay. So let's move to Kauffman. Kauffman
20 is Exhibit 1006; correct?

21 (Exhibit 1006 was marked for
22 identification and is attached to the

1 transcript.)

2 A. Yes. This appears to be the Kauffman
3 reference that I analyzed.

4 Q. And before we jump into this, I just noticed
5 we've been going for a little over an hour. Maybe
6 it makes sense to take another short break now.

7 A. Sure.

8 MR. ALBERTI: Okay.

9 (A short break was had.)

10 BY MR. ALBERTI:

11 Q. Would you agree with me that Kauffman does
12 not disclose anything about selecting ads based on a
13 user profile?

14 A. I did a search. I didn't find the word
15 "profile" anywhere in Kauffman, but I'm not relying
16 on Kauffman for my analysis for Claim Element 1.2.
17 I'm relying really on -- what I say here, which was
18 really directed to Frerichs. And, of course, the
19 combination of the three elements or the three
20 references in my analysis as a whole.

21 Q. And you're not relying on Kauffman for
22 disclosing, selecting ads, based on information

1 taken from a message; correct?

2 A. With respect to the analysis in 1.2, the
3 actual claim language, I'm not relying on Kauffman
4 in that analysis for 1.2.

5 Q. Kauffman does not expressly disclose a
6 cellular device; correct?

7 A. I mean, I searched this version of Kauffman,
8 and I didn't see the word "cell." But in my
9 analysis with respect to the cellular device, if you
10 look at Claim 1.0 of that one, I'm talking about how
11 Frerichs is actually disclosing the cellular device.

12 Q. Would you agree that Kauffman is directed to
13 streaming of multimedia that could be displayed, for
14 example, on a TV or computer?

15 A. If you look at the abstract of Kauffman, it
16 doesn't specifically say anything about a television
17 or a computer, and it really says basically -- this
18 is the first sentence of the abstract, talks about
19 that [As read] It's an arrangement for inserting
20 advertisement media into a streaming multimedia file
21 destined for an end-user.

22 So at least in the abstract, it's not

1 mentioning specifically a video for a television or
2 for a computer. And I don't think -- I don't think
3 those video computer or televisions are used at all
4 in the abstract.

5 Q. Well, wouldn't streaming a multimedia file
6 suggest that it's going to be received by a device
7 that can display that file?

8 A. I mean, certainly you'd want to be able to
9 display some of what's -- like, I mean, for example,
10 people often have their -- may mute their TV, and
11 you might not actually be hearing any audio, for
12 example. Today, it's very common to have apps on a
13 television that are just playing streamed audio
14 content, for example.

15 Q. Right. But just streaming audio content
16 wouldn't be, quote/unquote, multimedia; right?
17 That's one media. That's not multimedia.

18 A. I mean, I think I've seen it used in various
19 contexts in various places. So I've not seen it --
20 I mean, I think it depends on the context that's
21 being used at work.

22 Q. Well, in the context of Kauffman, the client

1 devices are a set-top box that's connected to a TV
2 which would display, right, and a computer that has
3 a display; correct?

4 And if it helps, I can point you to
5 paragraph 62 of your declaration.

6 A. I'm not denying those are examples, provided
7 in the Kauffman reference. But if you look at
8 paragraph 3 of the Kauffman reference, Exhibit 1006,
9 it talks about -- it says, [As read] 'Streaming
10 media' is now considered to be a term of art and
11 defines the capability to download multimedia files
12 in real time (or 'near real' time) and play the file
13 on an end-user device, such as through a set-top box
14 or television or on computer display device.

15 So it's really giving examples of things
16 that can be considered, these end-user devices,
17 which include set-top boxes and television, as I
18 have discussed in paragraph 62 of my declaration.

19 Q. Right.

20 My point is that the only examples that
21 Kauffman gives are examples that have display
22 capability for multimedia files; right?

1 A. If you look at paragraph 17, Kauffman talks
2 about [As read] an end-user is depicted as a
3 residential end-user that is capable of receiving
4 multimedia information through either a television
5 (using a set-top box or other appropriate
6 residential gateway device) or a computer terminal.

7 I mean, so it is talking about these
8 other -- this "appropriate residential gateway
9 device." And while it talks about receiving the
10 data through a television, it doesn't really say
11 what the capabilities of that residential gateway
12 device would be. But I'm not denying that some of
13 the examples here are through a television or a
14 set-top box.

15 Q. My point is that the two examples that they
16 give there, a television using a set-top box or this
17 computer terminal, are examples that have display
18 capability for these multimedia files; right?

19 A. I mean, I think that's -- it says set-top
20 box. But I think, at the time, cable companies
21 often provided audio channels over set-top boxes
22 that you could just tune into, like, just to listen

1 to, you know, rock music or pop music or -- and I've
2 seen those provided on various cable systems.

3 Q. Right.

4 But, again, if we're talking multimedia,
5 right, that's something more than just audio;
6 correct?

7 It's more than one media; right?

8 A. I think it depends on the context. I've
9 certainly seen multimedia refer to things that -- a
10 variety of things, some of which may just be one
11 media, like images. I think I've seen that before,
12 in the use of the context of the word "multimedia."
13 So I think it depends on how it's used.

14 Q. Going back to paragraph 62 of your
15 declaration, you say -- after the quote from
16 paragraph 17, you say, [As read] Kauffman's
17 techniques are applicable to a wide variety of
18 computing devices, including cellular devices (e.g.,
19 cellular phones disclosed by Frerichs), as it was
20 known that such cellular phones could output
21 streaming media files.

22 Do you see that?

1 A. Yes.

2 Q. Okay. Now, you don't cite anything in
3 support of that second statement; correct?

4 Anything from Kauffman in support of that
5 second statement.

6 A. I mean, I don't cite to anything there, but
7 if you look at the background of the invention in
8 the '414 patent itself, it says here -- and this is
9 the background. This is not the -- talking about
10 the invention. It says, [As read] More recently,
11 some cellular telephones enable the browsing of web
12 pages on the internet, tuning to radio stations,
13 playing streamed content or other online services.

14 I mean, that's, kind of, acknowledged as the
15 background -- in the "Background" section of the
16 '414 specification.

17 Q. Sure.

18 I was just asking about Kauffman, though.

19 You don't point to anything in Kauffman that
20 says, oh, hey, you know, use this stuff that I'm
21 disclosing here and apply it to a cell phone or a
22 cellular device; right?

1 A. I mean, part of the reasons why I didn't say
2 to apply it, you know, in the system of Frerichs
3 with a cellular telephone as one of the devices is
4 that, for example -- and I discuss this in --
5 starting at paragraph 76 of my declaration, that --
6 in 77, it's -- you know, [As read] a POSITA, when
7 considering the '414 patent, would have looked to
8 the teachings of Kauffman. Kauffman is analogous
9 art to the '414 patent, as it is within the field of
10 endeavor of inserting targeted advertisements into
11 streamed or broadcast content.

12 And that's an example of reasons why a
13 POSITA would have looked to the teachings of
14 Kauffman. And I talk about Frerichs earlier, you
15 know, as well as, kind of, in the previous section,
16 I believe. But, certainly, there are many reasons
17 why a POSITA would have combined Frerichs with
18 Kauffman, and I outline them here in -- starting at
19 paragraph 76.

20 Q. But, again, you don't point to anything in
21 Kauffman itself -- set aside '414, set aside
22 Frerichs -- that says to a POSITA, apply these

1 techniques in the context of a cell phone; correct?

2 A. I mean, I give the reasons for combining
3 Frerichs with Kauffman here, in paragraph 76. And
4 it's not -- it's with respect to incorporating
5 [As read] Kauffman's technique of pausing multimedia
6 content and storing that paused multimedia content
7 in a cache, while outputting an advertisement,
8 because doing so would have been no more than the
9 combination of known prior art elements, according
10 to known methods with the reasonable expectation of
11 success.

12 So we're looking to, you know, Frerichs,
13 which does talk about ads. It does talk about
14 having buffers. It does talk about streaming the
15 audio and Kauffman, which actually have a specific
16 technique of pausing multimedia content. And you
17 know, it provides some more detail about the
18 process.

19 And because Frerichs does suggest that
20 [As read] advertisements are played in the process
21 of outputting requested streaming media content, and
22 that such advertisements are output between

1 streaming media content.

2 And, you know, again, I give the reasons why
3 a POSITA would have been motivated to combine
4 Frerichs with Kauffman in this section. And we can
5 go through them if you'd like, but -- but, you know,
6 Kauffman would be seen, by a POSITA, to be analogous
7 art to the '414 patent.

8 MR. ALBERTI: Objection. Nonresponsive.

9 Q. Again, I'm asking you specifically, with
10 respect to Kauffman, is there anything that you can
11 point to, in Kauffman itself, that tells a person
12 skilled in the art to apply those teachings to a
13 cell phone or cellular device?

14 A. The motivation to combine Frerichs with
15 Kauffman is provided at least in the section
16 starting at paragraph 76. It's about applying the
17 techniques. I'm not relying on the fact that
18 Kauffman somehow says that you should use -- you
19 know, use this on a cell phone. That's not what I'm
20 saying here. So I'm not sure why you're pointing to
21 the cell phone combination when I don't believe I've
22 talked about that in my motivation to combine.

1 Q. All I'm trying to do is just confirm that so
2 that you don't -- you know, don't want -- if you
3 want to point to something and say, yeah, I'm
4 relying on this in Kauffman that says apply these
5 techniques to a cell phone or cellular device, I'm
6 giving you the opportunity to point that out. I'm
7 not trying to fight with you. I'm just really
8 trying to understand what your opinions are.

9 So, again, if there's something that you're
10 gonna point to in Kauffman that says, hey, take
11 these techniques and apply them to a cell phone or
12 cellular device, please point me to that.
13 Otherwise, if that's not what you're relying on for
14 your combination, that's okay too. Just tell me.

15 A. I mean, there are reasons to combine
16 Frerichs with Kauffman. And Frerichs does teach
17 that the end device can be a cellular phone. I
18 don't remember the exact word, but we just looked at
19 that earlier. So Frerichs is -- does teach that the
20 end device is a cellular device. And Kauffman is
21 teaching about specific techniques of pausing
22 multimedia content and storing that paused content

1 in the cache. And Frerichs, certainly, suggests
2 that as well.

3 And so the motivation isn't specifically
4 with respect to Kauffman says do it on a cell phone.
5 That's not -- that's not what I'm saying here. What
6 I'm saying here is that a person of ordinary skill
7 in the art would have combined Frerichs with
8 Kauffman, including the Frerichs embodiment where
9 the end device -- including that Frerichs teaches an
10 end device can be a cell phone because it's about
11 specifically what would be recognized.

12 One thing, at least, would be Kauffman is
13 teaching a technique of pausing multimedia content
14 and storing that content in a cache. And it goes
15 on.

16 I mean, I can tell you more, but my report
17 is what it says it says. I'm not -- I stand by
18 these opinions.

19 But Frerichs is teaching a system in which
20 there is a cell phone. A person would have been
21 motivated to combine Frerichs and Kauffman in a way
22 that I discuss in my declaration. And in that

1 sense, a person would have been motivated to apply
2 the teachings of Kauffman in the cell phone device
3 system of Frerichs.

4 And so I'm not explicitly saying that
5 Kauffman says do this on a cell phone. That's not
6 what I'm relying for why a POSITA would be
7 motivated. I outline the reasons why a POSITA would
8 be motivated in the section starting on
9 paragraphs 76 of my declaration. So we can -- but
10 that's why a person of ordinary skill would have
11 been motivated to combine Frerichs with Kauffman.

12 Q. Where does Kauffman teach caching multimedia
13 content?

14 A. Sorry. You were asking about the Frerichs
15 reference?

16 Q. Oh, no. Sorry. Where --

17 A. Or Kauffman? I'm -- I heard a word but --

18 Q. No. The question was, where does Kauffman
19 teach caching multimedia content?

20 A. So I think I addressed this in my
21 declaration with respect to 1.3.2, starting at
22 paragraph 147. So if you look at 148, [As read]

1 Kauffman describes that the multimedia file ('the
2 content which playing was stopped') is stored
3 ('recording') in a second cache, during the playout
4 of an advertisement.

5 And if you look at this block quote from
6 Kauffman, paragraph 24, what I bolded here, is,
7 [As read] A second cache 62 is used to store the
8 incoming multimedia stream.

9 So I think that's, at least, partly where
10 Kauffman is teaching what you asked.

11 Q. Okay. And looking at your next paragraph,
12 that second cache is stored or buffered at the local
13 POP; is that right?

14 A. Well, Kauffman does say that there. But if
15 you look at paragraph 9 of Kauffman, Kauffman is
16 also teaching that -- it says, [As read] The POP
17 where the advertisement cache is located could be at
18 any convenient place along the signal path between
19 the information source(s) and the end-user. For
20 example, the advertisement cache could be at the
21 headend or at an FTTH node in the neighborhood.

22 That stands for fiber to the home.

1 [As read] At the extreme, the advertisement
2 cache could be part of a set-top box at the end-user
3 location.

4 And that's talking about one of the caches.
5 Even though it may be at a POP, that it could also
6 be part of a set-top box.

7 Q. So Kauffman teaches the use of two separate
8 caches, right, an advertisement cache and we can
9 call it a content cache that caches the multimedia
10 file; right?

11 A. Kauffman does talk about a first cache and a
12 second cache.

13 Q. Okay. And the first cache in Kauffman is
14 what, the advertisement cache or the multimedia
15 cache?

16 A. In most of the references that I looked at,
17 the first cache was referring to storing
18 advertisements.

19 Q. And the second cache would be the multimedia
20 cache; correct?

21 A. So it does talk about, at least where I'm
22 looking at now, the second cache, in paragraph 24,

1 is used to store the incoming multimedia stream.
2 But I do talk about this in -- if you look at
3 paragraphs 150 and 151 of my declaration, you know,
4 we saw earlier how the advertising cache could be
5 part of a set-top box. And that's described as,
6 [As read] any convenient place along the signal path
7 between the information source and the end-user.

8 And, similarly, it talks about the caching
9 inserter. Also if you look at paragraph 151, that
10 that may be part of the -- implemented at the
11 end-user device as well. And that -- if you look at
12 paragraph 150, Kauffman's claims, like 2, 12, 17,
13 and 18, detail [As read] a first cache for storing a
14 received alternative media file, like an
15 advertisement, and a second cache for storing a
16 streaming multimedia file.

17 And that may be -- [As read] which may be
18 disposed in the communication device at an end-user
19 location, like a residential set-top box.

20 Again, I'm there referring to Claims 2, 12,
21 17, and 18. So like 17 specifically says, the
22 arrangement, as defined in claim 12, which goes back

1 to 2, wherein the arrangement is disposed -- in a
2 communication is device at an end-user station. And
3 that talks about the arrangement comprising a first
4 cache and a second cache. So Kauffman is teaching
5 about -- the second cache can also be at the
6 end-user device.

7 Q. So going back to paragraph 9 of Kauffman,
8 you agree that it says, At the extreme, the
9 advertisement cache could be part of a set-top box
10 at the user location; right?

11 A. I mean, I think it says "end-user location,"
12 but I think otherwise -- well, I'm not sure if
13 you're trying to read it literally or just summarize
14 it.

15 Q. I can restate it.

16 It says, "At the extreme the advertisement
17 cache could be part of a set-top box at the end-user
18 location"; correct?

19 A. Yes, that's what it says.

20 Q. That's at the extreme; right?

21 A. Well, it's teaching that it could be located
22 there. So whether it's extreme or not, Kauffman is

1 teaching that the advertisement cache could be part
2 of a set-top box.

3 Q. But it doesn't say that it could be part of
4 the TV or the computer; right?

5 A. Well, I think set-top box was one of the
6 examples of where this method is performed, where,
7 you know, Kauffman's teachings can be included in.

8 Q. Sure.

9 But it's saying at the extreme, it could be
10 in a set-top box, but it doesn't go further and say
11 well, you know, it could also be in this television
12 or it could also be in this computer terminal 16.
13 It doesn't go that far. As far as it's gonna go;
14 right, is a set-top box?

15 A. Well, if you look at paragraph 25, it talks
16 about "the caching inserter of the present invention
17 may be disposed at any location between the various
18 content servers and the end-user."

19 Q. All right.

20 Again, they don't say that you can put it in
21 the TV or the computer. It says at the extreme, it
22 could be part of the set-top box. It doesn't go any

1 further than that; right?

2 A. I mean, that's an example of the set-top
3 box. And they also talk about, if you look at
4 paragraph 23, the receiving device is the set-top
5 box or computer. So I think it would be understood
6 that like wherever it says that set-top box and
7 computer are analogous end points at least in
8 paragraph 23.

9 I mean, it says, "By the receiving device
10 (set-top box or computer) as the requested
11 multimedia files." So I think it's talking about
12 how the receiving devices, you know, are examples of
13 these end-user devices because it's kind of saying a
14 set-top box can be an end-user box. Here it now
15 says that a receiving device can be a set-top box or
16 a computer.

17 So I think in this context, it could be
18 computer, it could be -- but I mean, the point is
19 that, like, you know, this is part of what Kauffman
20 teaches. I'm not denying what it's teaching. I'm
21 saying what Kauffman is teaching. And Kauffman is
22 teaching that this caching inserter may be

1 implemented at the end-user device. And I
2 support -- you know, there's numerous passages that
3 I cite to Kauffman from -- for support for that
4 statement.

5 Q. But the only end-user device that it says
6 that the advertisement cache could be part of -- and
7 again, it's saying this is at the extreme -- is a
8 set-top box. It doesn't say it could be part of the
9 computer or the TV, does it?

10 MR. BAJAJ: Objection to form.

11 A. This is just giving the example. But it
12 clearly, like, is analogizing receiving devices as
13 including computers. So -- and, you know, the TV is
14 a display device. A computer has a display device.
15 Maybe you think it's part of it. Maybe you think
16 it's not. But regardless, it's teaching these
17 receiving devices are kind of these end-user devices
18 that are set-top boxes. And it's teaching that it
19 can be on the computer.

20 And Frerichs is teaching that the end
21 devices can be computers or cellular phones. So in
22 the combination, it's the combination that is what

1 I've analyzed for showing how the challenged claims
2 are unpatentable because they're obvious over these
3 references.

4 Q. Right.

5 But the set-top box that's being discussed
6 in Kauffman doesn't have a display itself, it's
7 displaying video or multimedia. Instead, it has to
8 be connected to a TV; right?

9 A. The computer has to be connected to a
10 monitor, too, so these set-top boxes and computers
11 are examples of these receiving boxes or end-user
12 devices as being described in Kauffman.

13 Q. Right. But when Kauffman talks about the
14 most extreme place that you could put this
15 advertisement cache, it does not say you can put it
16 on the TV, and it does not say you can put it on the
17 computer. All it says is that you can put it on a
18 set-top box; correct?

19 A. I think a person of ordinary skill would
20 understand that the set-top box and a computer are
21 kind of analogous in certain cases here. And it
22 does say that -- it talks about them together,

1 set-top box or computer. And I agree it says
2 extreme, but it's certainly disclosing that this --
3 you know, to a person of ordinary skill reviewing
4 this, that this caching inserter can be part of the
5 implemented at the end-user. And that end-user
6 they're talking about is -- in the example is a
7 set-top box.

8 Another example as a person of ordinary
9 skill would understand would be the computer, and
10 the computer has a separate display. You know, it's
11 not saying it could be implemented in the display
12 either. But the set-top box is the device that
13 drives what a TV displays. Much like the computer
14 is the device that drives what the computer monitor
15 displays. And Kauffman is already using them in
16 analogous ways where they talk about set-top boxes
17 with computers as receiving devices.

18 And maybe we can -- I mean, it talks about
19 how streaming media can be played in paragraph 3
20 through a set-top box on a television or on a
21 computer display device through a computer. It
22 doesn't say through a computer, but that's the gist

1 of how -- that's what a person of ordinary skill
2 would understand.

3 No person of ordinary skill isn't literally
4 thinking that it -- that it goes right to the
5 computer display device there. They would have
6 understood that it's a set-top box with a TV or a
7 computer display which is driven by a computer.

8 Q. But why did the author expressly leave out a
9 computer in paragraph 9? Yet, he talks about a
10 computer in other areas and he gives this extreme
11 example and he doesn't include it here?

12 Why do you think that happened?

13 A. Because when a person writes a spec, they
14 can talk about all these things that are analogous.
15 And they don't have to refer to the same dozens of
16 words if that's the case every time they talk about
17 one of those. They're disclosing a class of
18 devices, these receiving devices, that are also
19 described as "end-user devices." And they're
20 putting it together.

21 That doesn't mean every time I use one, I'm
22 excluding all the others. It's teaching what it's

1 teaching. And as you well know, why did they use
2 the word computer -- you know, if the patent says it
3 could be a computer or a laptop or cellular phone,
4 they use a computer. Is that excluding other
5 things? No, the invention can be implemented on all
6 these other devices.

7 So I don't know what the inventor was
8 thinking here. I only can understand this from the
9 point of view of how a POSITA would understand it.
10 And a POSITA would understand, when they read it,
11 that there are portions of a spec that are talking
12 about these receiving devices, and they talk about
13 them being set-top boxes and computers.

14 And they talk about this -- I'm not gonna
15 deny using the word "extreme" that it can be
16 implemented or the cache plays on a set-top box.
17 But a person of ordinary skill understands there
18 that the other similar devices that can -- that are
19 end-user devices, such as a computer, isn't any more
20 extreme than having it on a set-top box.

21 So I don't know why you're describing a
22 computer as more extreme. That -- I don't think I'd

1 understand that in terms of location, because it's
2 analogous to where a set-top box would be in between
3 the content provider and the display device, just as
4 a computer is between a content provider and a
5 display device.

6 So I don't know why you think that's more
7 extreme. I don't think a POSITA would understand
8 that. And a POSITA doesn't have the benefit of
9 interviewing the inventor. All they can do is read
10 the spec and see what the spec teaches and look at
11 the prosecutorial history. And the spec does
12 analogize the set-top boxes and computers, and I
13 don't think a POSITA would think that a computer is
14 any more of an extreme location in which to place an
15 advertisement cache than a set-top box. And I don't
16 think a POSITA would think that either.

17 Q. Well, why do you consider a computer 16 to
18 be analogous to a set-top box.

19 A. Well, a set-top box typically has
20 programming in it and it converts signals it
21 receives into displays. Stuff to display. And it
22 does that with -- it can be a number of different

1 ways. I think digital set-top boxes were -- so I
2 don't remember the exact timeline, but I'm pretty
3 sure that they were available -- well, set-top boxes
4 generally were available on cable TV systems, and
5 they basically convert incoming signals, do some
6 processing, and drive an output to a display.

7 I mean, I don't know what's not so
8 analogous. But I think when you're talking about
9 implementing these devices on a set-top box or a
10 computer, as Kauffman clearly describes, that those
11 types of end points are capable of doing the things
12 that Kauffman says they're capable of doing. That's
13 why Kauffman says where you can put the receiving
14 stuff.

15 Kauffman talks, in his other section, about
16 putting the -- that the caching inserter can also be
17 at the end-user, and there's numerous other places,
18 including one of the claims we looked at. It says
19 that the whole arrangement of items, including both
20 caches, can be at an end-user location, and that the
21 device in 17 comprises a set-top box.

22 So it's describing that these things can be

1 at the end-user locations already, and it's
2 describing that these receiving devices can also be
3 computers.

4 Q. So, again, why, in your opinion, is the
5 computer 16 analogous to the set-top box?

6 A. Well, one reason is if you look at Claims 17
7 and 18, one is that the communication device
8 comprises a residential set-top box. So 17 has to
9 be broader than just a residential set-top box. And
10 it's describing these things that also can do --
11 receive information such as computers. So that's an
12 example of why the spec read in the context of
13 Kauffman and what it's claiming isn't limited to a
14 set-top box, because there's a -- there's a
15 dependent claim off another dependent claim that
16 talks about that it's a communication device at an
17 end-user location.

18 And then a, furthermore, narrow example of
19 communication device is given as a residential
20 set-top box. And so it's talking about something
21 broader than a residential set-top box in Claim 17
22 for a communication device. And we see how the spec

1 describes that the -- that in paragraph 23, it talks
2 about a receiving device. And I think a person of
3 ordinary skill, that would be an example of
4 something that's a communication device. It says it
5 could also be a computer. Set-top box or a
6 computer.

7 So I think the claims in the specification
8 are very consistent in describing this. So I think
9 that's why it would be understood that this --
10 another example of this end-user device or
11 communication device, as disclosed in Kauffman,
12 would be a computer.

13 Q. But in the claims that you pointed me to,
14 they don't mention the computer; right? I'm sorry.

15 17, 18 and 19, none of them mention a
16 computer; right?

17 A. They mention communication device, and the
18 spec talks about receiving device, which they say is
19 a set-top box or a computer. So -- but the fact is
20 that the dependent Claim 18, now it mentions set-top
21 box, which means that the communication device of 17
22 is more than a set-top box. It can be other things

1 beside a set-top box, because it should be broader
2 than Claim 18. So it's not limited to a set-top
3 box.

4 An example of communication device, as
5 taught in the spec of Kauffman, because it talks
6 about receiving -- a receiving device, which is a
7 form of communication device, that would be
8 understood by a POSITA. And it gives it right
9 there. It says "set-top box or computer."

10 So I think if you look at Kauffman as a
11 whole, as a whole, a POSITA -- that's how the POSITA
12 is looking at it. Does it use the word "extreme"?
13 Sure. But that POSITA still would understand that
14 an example of a communication device is not only
15 limited to set-top box but is also a computer. And
16 Claim 12 certainly talks about how -- is it
17 Claim 12? The arrangement defined in Claim 2. Oh,
18 that's point of presence. But we're at a local
19 point of presence. But it goes down into saying
20 how, basically, these end devices are not limited to
21 set-top boxes at all, that the example given in
22 Kauffman is also that of a computer.

1 Q. Okay. Let's just take these claims one at a
2 time.

3 Claim 17 does not expressly disclose a
4 computer; correct?

5 A. It discloses -- well, there's -- I think
6 there's a typo here -- "communication is device." I
7 think it's disclosing a communication device.

8 Q. It's not expressly disclosing a computer.

9 A. But it's at an end-user location, so it's
10 disclosing a communication device at an end-user
11 location. And a person of ordinary skill would
12 understand, in the context of this spec, that it
13 includes a computer.

14 Q. But Claim 17 doesn't use the word
15 "computer," does it?

16 A. Well, I'm sure, as you know, you know,
17 claims -- I mean, I'm not gonna deny that 17 doesn't
18 use the word "computer." I'm not denying that at
19 all. But a person of ordinary skill would recognize
20 that the type of communication device at an end-user
21 location being discussed here includes things like
22 set-top boxes and computers. And that's supported

1 by the specification in a few places, including what
2 I pointed you to already.

3 Q. Well, you agree that you could have a
4 communication device at an end-user location that's
5 not a computer; correct?

6 A. Well, I mean, I'd have to look at the issue
7 of whether you think a set-top box or a residential
8 gateway would not be a computer, but they certainly
9 perform actions that many -- you know, that are
10 being described that can be performed by computers
11 as well.

12 Q. So it's your position that whenever you see
13 set-top box, that's the same thing as a computer
14 terminal?

15 A. That's not what I said. What I said was
16 that these receiving devices, we're given examples
17 of a set-top box or a computer. I think it was a
18 receiving device. Receiving device. And that the
19 communication device is -- has to be broader than a
20 set-top box. And it gives an example in the spec of
21 other devices which a person of ordinary skill would
22 understand would be communication devices because

1 they could do all these things, you know, going back
2 to Claim 2, have all these -- be arranged within the
3 computer device to have all of what's in -- Claim 2
4 requires of the Kauffman application.

5 Q. So at a minimum, the computer that would
6 work with Kauffman has to be able to receive
7 streamed video and advertising and cache it.

8 A. I mean, I think one of -- I think it would
9 be understood that Kauffman is teaching that the
10 methods can be done on a computer at -- within a
11 person's location, like the subscriber's location,
12 because it talks about these devices --
13 communication devices at an end-user location. An
14 example of a communication device, as would be
15 understood by a person reviewing Kauffman, would be
16 a set-top box, a computer, or even a residential
17 gateway. And I think in the context of Kauffman,
18 it's certainly disclosing that a computer could be
19 the device that's arranged to perform the steps
20 of -- that are required.

21 Q. But it can't just be any computer; right?

22 That computer has to have certain

1 capabilities; correct?

2 A. Well, to be the claimed computer of
3 Kauffman, it would -- it would -- it would have to
4 be arranged in a way that included all the
5 dependent -- the base claims on which Claim 17 go
6 back to. So that computer would have to be arranged
7 to -- [As read] for inserting an alteration media
8 into a streaming multimedia file destined for at
9 least one predetermined end-user, the arrangement
10 comprising.

11 And then Claim 2 lists five different
12 things. So the set-top, it wouldn't -- it couldn't
13 be any set-top box that's claimed. It has to be the
14 set-top box that's arranged in the same way. If
15 it's a computer, which a person of ordinary skill
16 would recognize could be this communication device
17 that it's discussing, it could be arranged the same
18 way. And typically, a computer at a home would
19 often have more general-purpose capabilities than a
20 set-top box. I think that would be well understood.

21 So what I'm saying is that looking at
22 Kauffman, an example of a communication device, as

1 would be understood by a POSITA in the context of
2 the spec of Kauffman, would be a computer. And it
3 would be -- also include set-top box. I think it
4 would include a residential gateway, as well.

5 Q. Okay. Going back to paragraph 17, you agree
6 with me, at a minimum, this computer terminal would
7 have to include appropriate software to convert the
8 received files and play them on the display of the
9 computer; right?

10 A. Well, any claim -- sorry. Which -- what
11 computer, in the context of Kauffman's computer?

12 Q. Well, when Kauffman describes computer
13 terminal 16, it doesn't say it can be any computer;
14 right?

15 It says it has to, quote, include
16 appropriate software to convert the received files
17 and play them on the display of the computer.

18 A. I mean, that's what -- if you're referring
19 to paragraph 17 of Kauffman, I mean, I think it says
20 that right there. And that's -- that's an end-user
21 that it's talking about. Playing on the display of
22 a computer or on a television, [As read] using a

1 set-top box or other appropriate residential gateway
2 device.

3 So, I mean, the set-top box also has
4 similar, specific programming within it, as with the
5 residential gateway to perform -- to do that. I'm
6 not sure how that makes it any different than the
7 computer that makes these devices different, in
8 terms of their programming.

9 Q. Well, again, if we're talking about a
10 computer that's analogous to a set-top box, it's
11 just not any computer in the world. At a minimum,
12 it has to do the same types of things that a set-top
13 box would do, namely, what's talked about in this
14 part of paragraph 17. It has to have the
15 appropriate software to convert the received files
16 and play them on a display like a set-top box does;
17 right?

18 A. I mean, this paragraph is also not talking
19 about any set-top box in the world, either. I mean,
20 the -- this is all in the context of what these
21 devices do. So the set-top box is programmed in a
22 way that's described in this specification. The

1 computer is similarly programmed. It's not any
2 different. It's not that any set-top box would work
3 in this invention and -- but only specific computers
4 would. It's specific set-top boxes, specific
5 residential gateways, and specific computers it's
6 talking about.

7 I'm not sure why you think it's different
8 for computers that it's talking about any computer.
9 It's clearly talking about these devices that are
10 programmed in the way the specifications describe.

11 Q. I'm not. I'm trying to see if we can at
12 least agree on that, that we're not just talking
13 about any kind of computer that this is intended to
14 work with. We're talking about a computer that has
15 these same capabilities, a set-top box or, as you
16 said, a gateway device that has the appropriate
17 software that can convert the signals and display
18 them on some type of display or monitor.

19 I think we're in agreement on that. Are we
20 not?

21 A. Your question doesn't make sense, though. I
22 don't know why you're talking about any computer in

1 the world. You're talking about -- the computers
2 here are computers that are designed to work in the
3 system, as described in Kauffman. It's not any
4 set-top box in the world. It's not any residential
5 gateway in the world. It's not any computer in the
6 world. They're all part of the system that Kauffman
7 is describing as -- in the way it's describing. And
8 so they all are arranged in a specific way. And,
9 certainly, the claimed invention requires certain
10 items to be within the -- certain components
11 arranged in certain ways. And if you look at the
12 depending claims, the arrangement is within a
13 set-top box or it's within a communication device or
14 it's within a residential gateway.

15 And a person of ordinary skill would
16 understand that a communication device, in the
17 context of the spec, includes a computer. I'm not
18 sure why you seem to think it's excluding computer.

19 Q. Right.

20 A. That doesn't make any sense at all.

21 Q. I'm not saying it's excluding a computer. I
22 think I misunderstood you. I thought what you said

1 before is that wherever you see the term "set-top
2 box," you could just replace that with "computer."
3 And a person of skill in the art would know that,
4 well, set-top box, it could just be a computer. But
5 that's not really what you're saying, I guess.

6 What you're saying is that it's not any
7 computer or any set-top box that's gonna work with
8 Kauffman. It's the specific ones that they're
9 talking about, for example, in paragraph 17. That's
10 all I'm saying.

11 A. Well, I think you have, then, misunderstood
12 what I said earlier. I did say that there's -- it's
13 analogizing set-top boxes and computers for the
14 purpose of being a receiving device. That doesn't
15 mean that they're equal to each other. I'm not
16 saying that.

17 I'm saying for the purposes of being
18 receiving devices, Kauffman does say give examples,
19 such as a set-top box or a computer. And I think
20 that would be recognized as a communication device,
21 as the claim lays out later. I mean, certainly, I
22 don't know why computers should be excluded from

1 being communication devices at all. That doesn't
2 make any sense.

3 And what I'm saying is that a person of
4 ordinary skill would recognize that a computing
5 device, as used in the claim -- I think Claim 17 and
6 later and some other claims there, would include a
7 computer because it talks about, in the spec, how a
8 receiving device could be a set-top box or a
9 computer.

10 And then the point I made was that you seem
11 to think that somehow a computer would be more
12 extreme than a set-top box? That's what you seem to
13 be implying. But the point is that they're
14 analogous points in the system. And I don't see why
15 that would be considered more extreme to implement
16 this on a computer.

17 And the Claim 17 says you can -- these can
18 be arranged -- well, it says what it says. If you
19 follow the logic chain there, my point is that, you
20 know, Kauffman is disclosing that computers can be
21 part of the implementation and that this caching
22 inserter could be implemented on the computer. It's

1 an end-user device. All of these things that the
2 first and second cache could be -- you know, not
3 just could be. Kauffman discloses that they are one
4 embodiment, is that they are arranged on a computer.
5 They are arranged in a set-top box. They are
6 arranged in a residential gateway device. That's
7 what Kauffman is teaching. It's teaching all that.

8 Q. Okay. So that was a lot.

9 MR. ALBERTI: And I'll object as
10 nonresponsive.

11 Q. So let's try to break this down one piece at
12 a time. Okay?

13 You're not saying, sitting here today, that
14 computer terminal 16 can be any type of computer;
15 correct?

16 A. Well, the figure shows a computer, but -- I
17 mean -- but Kauffman is talking about set-top boxes
18 and computers that do certain things. And so what
19 Kauffman is talking about is that maybe you could do
20 it on any computer, but not that any computer is the
21 computer of Kauffman.

22 I mean, I'm not sure what your question is

1 directed to. It doesn't really make sense.

2 Q. If you're gonna -- okay. Let's try to take
3 this again one part at a time.

4 Your position that a computer being -- is
5 analogous to a set-top box, you're not saying that
6 any computer in the world is analogous to a set-top
7 box; correct?

8 A. I'm also not saying that any set-top box in
9 the world is analogous to the set-top box of
10 Kauffman. That's not what I'm saying either. I'm
11 not really sure where you're confused about this
12 point.

13 Kauffman teaches certain things that can be
14 implemented on end-user devices. A computer is an
15 example of end-user device.

16 Q. But not just any computer; right? It's got
17 to be a computer that has the appropriate software
18 that converts the streaming media files and displays
19 them; right? That's what it says in paragraph 17;
20 correct?

21 A. It's not any set-top box either. It's not
22 any residential gateway either. I have a

1 residential gateway here. It's really not the one
2 that's being described by Kauffman. I've had
3 set-top boxes, and those aren't the ones being
4 described by Kauffman. I've got computers. Those
5 aren't the ones being described by Kauffman
6 specifically to do the things that Kauffman is
7 talking about. So I'm not sure what this point is
8 about.

9 Q. Well, in order to do the things that
10 Kauffman is talking about, the set-top box and the
11 computer have to have certain capabilities, one of
12 them being that they have to be able to receive the
13 streaming audio files and play them and be able to
14 display them somewhere; right?

15 A. Yeah, I'm --

16 Q. I'm not trying to be controversial. I don't
17 know why you want to fight with me on this point.
18 It's right in paragraph 17.

19 A. I mean, that is what I'm talking about.
20 It's the computers -- it's what's disclosed in
21 Kauffman that I'm performing my analysis with as to
22 why Kauffman is disclosing certain teachings as

1 claimed in the '414 patent.

2 Q. Right. So the end-user devices in Kauffman
3 have to be capable of receiving this multimedia
4 information and displaying it on a display device as
5 is described in paragraph 17; correct?

6 A. When you say have to, Kauffman is disclosing
7 what it's disclosing. I'm using those teachings
8 specifically in Kauffman with respect to the caching
9 of -- on the end device of the content stream while
10 an advertisement is being played and inserted,
11 because that stream -- you know why Kauffman is
12 actually recording -- that the client device of
13 Kauffman is recording that stream, that's the
14 analysis really with respect to -- I think it's
15 1.3.2 is part of where I talk about what's being
16 disclosed by Kauffman. It's those teachings.

17 And my point is that Kauffman teaches that
18 it could be like as arranged as claimed by the '414,
19 and my analysis shows why Kauffman is disclosing
20 this particular challenge element. So it's that
21 particular teaching of Kauffman. I mean, Kauffman
22 may be teaching other things as well that I'm not

1 using specifically to support my arguments, but
2 there are specific teachings within Kauffman that I
3 am using to show why the prior art renders obvious
4 the challenged claims.

5 Q. Do you agree with anything in the first
6 sentence of paragraph 17 of Kauffman as it pertains
7 to the capabilities of a set-top box as used in
8 Kauffman or a computer terminal 16 as used in
9 Kauffman?

10 A. I don't understand the question.

11 Q. Do you disagree that the end-user devices,
12 whether it be a set-top box or a computer terminal
13 in Kauffman, have to have the capabilities set forth
14 in that first sentence?

15 A. I mean, Kauffman is teaching that these
16 set-top boxes and computers, they call it terminal
17 as distinguished from the computer display. But the
18 computer terminal or set-top box, they're teaching
19 about what the ones in their system do. I'm not --
20 I mean, nothing has to be that way. Kauffman is
21 teaching it. It's teaching about these set-top
22 boxes. It isn't teaching that nothing in the world

1 can be anything else but these. I don't think
2 that's what it it's teaching. I'm not sure what --
3 they have to.

4 Kauffman is teaching what it's teaching.
5 And what -- you know, nothing says it has to be
6 this. It is teaching what it's teaching.

7 MR. ALBERTI: Objection. Nonresponsive.

8 Q. Does Kauffman teach any other type of
9 set-top box or computer terminal that's designed to
10 work with the Kauffman invention other than the
11 types that have the capability that's set forth in
12 the first sentence of paragraph 17?

13 A. I mean, it certainly gives examples of where
14 the advertisement cache could be and that would be
15 the first cache. And it gives examples of basically
16 any convenient place along the signal path between
17 information source and the end-user.

18 This is paragraph 9. "For example, the
19 advertisement cache could be at the headend or at a
20 FTTH node in a neighborhood." And those are also
21 examples of where the advertisement cache could be.
22 And to the extent that device also is arranged to

1 have everything else in Claim 2, then it would be so
2 arranged. But it's certainly giving other examples
3 of where the advertisement cache could be.

4 MR. ALBERTI: Objection. Nonresponsive.

5 Q. What are the minimum requirements of a
6 set-top box or computer terminal 16 as required in
7 Kauffman?

8 A. I'm not seeing any specific discussion of
9 things like amount of memory or anything like that
10 in terms of a minimum, but I think it's -- so I'm
11 not seeing detailed discussion in Kauffman about
12 that specifically. Just based on my review right
13 now.

14 Q. Okay. In paragraph 17, would they at least
15 require the capability of receiving information --
16 multimedia information and display that information
17 on a television or computer?

18 A. Well, it's talking about an end-user
19 receiving multimedia information through a
20 television, but also -- you said computer, but it
21 really talks -- what the -- the phrase that that
22 section actually uses is display of a computer. So

1 television being a screen displaying the content,
2 for example, that a set-top box sends to it.

3 The display of a computer sends -- you know,
4 shows the content that the computer terminal sends
5 to it. So I -- I mean, that's what it's saying. I
6 don't think it says there's any minimum screen size
7 that it can't work on or anything like that.

8 Q. Not getting into screen size. I'm just --
9 at a fundamental level, set-top box or computer in
10 Kauffman has to, at a minimum, be able to receive
11 the streaming multimedia, process it, and display it
12 to a user; right?

13 A. So I didn't understand your question to be
14 with respect to everything that's -- that Kauffman
15 states that it says it does. In that sense, all
16 that stuff is what -- if I understand your
17 question -- Kauffman says -- I understood it to be
18 like what are the minimum requirements for a set-top
19 box or a computer, like, memory, CPU speed, things
20 like that. So I didn't see that discussion
21 anywhere. But certainly what Kauffman is
22 describing -- again, it's not requiring every

1 computer to do that. It's just saying this is
2 what it (audio disruption). Here is the computer in
3 my invention. Here is the set-top box in my
4 invention, and this is what it does. I don't really
5 think of that as a requirement. It's just what it's
6 disclosing.

7 Q. It's disclosing that the computer and the
8 set-top box in the Kauffman invention have the
9 capability of receiving streaming multimedia and
10 displaying it; correct?

11 A. I mean, at one level. I'm not disagreeing
12 with you there. But I don't think that is Kauffman
13 saying things have to be done some way or required
14 to be done some way or that there's some requirement
15 about some computing device that's necessary in
16 order to do the steps that the invention is
17 outlining.

18 I think of those things as more requirements
19 as opposed to what you're saying. This is just what
20 it's teaching. These are the teachings of Kauffman,
21 not so much the requirements. I think of that in a
22 different way because I'm applying the teachings of

1 Kauffman in my analysis as to why a person of
2 ordinary skill would have understood they're
3 disclosing the various challenged elements of the
4 '414 claims.

5 Q. And the set-top box and the computer in
6 Kauffman have these capabilities, receiving
7 streaming multimedia, processing it, and displaying
8 it to the end-user; right?

9 A. I mean, part of what you're saying is what's
10 being described here is that, you know, you've got
11 an end-user that is capable of receiving multimedia
12 information either through a television or a display
13 of a computer. And that -- you know, it's
14 describing preferred architecture.

15 It's not saying that this has to be the
16 architecture. This is just saying this is one of
17 the preferred architectures of this invention. So
18 it's just disclosing what it's disclosing. I'm not
19 sure requirements or having to do something.

20 Q. Well, a computer terminal that could not
21 display or receive multimedia would not be the
22 computer terminal 16 that's disclosed in Kauffman as

1 part of this invention; right?

2 A. Well, I mean, there are alternative
3 embodiments. It doesn't have to be that computer
4 16. It could be, you know, a set-top box coupled
5 with a television. It could be a residential
6 gateway coupled with something else. You know --

7 Q. Right. But the computer --

8 A. -- it doesn't have to be that.

9 (Indiscernible crosstalk.)

10 Q. Sticking with the computer, you agree with
11 me, right, that a computer terminal that cannot
12 receive and display streaming multimedia is not the
13 computer terminal 16 that's being described here as
14 part of Kauffman's invention?

15 A. Well, I mean, if you look at what the claims
16 require, it does talk about the -- Claim 2 talks
17 about [As read] Providing as an output, directed to
18 the at least one end-user, extreme selected from one
19 of said first cache, said streaming multimedia file
20 and said second cache, as controlled by said
21 switching output signal from said control unit.

22 I mean, Kauffman is describing all these

1 things in the spec. If you're talking about the
2 invention being what's claimed or what's filed to be
3 claimed, what they were trying to cover was
4 specifically what's in the claims. That's what I
5 understand the invention is. The system described
6 in Kauffman certainly can -- you know, it could be
7 implemented on set-top box. It could be implemented
8 on a computer. It could have -- it has a first
9 cache, a second cache, one for storing
10 advertisements, another for storing content.

11 It talks about streaming media and how it
12 can insert an advertisement and record in the second
13 cache, you know, what -- the stream that it's still
14 continuing to get. It's disclosing that these can
15 be implemented and a communication device at the
16 end-user or it describes that it could be in a
17 set-top box. I mean, that's what it's claiming in
18 terms of what the invention is. But the spec is
19 discussing many of these things and provides the
20 context for the claims.

21 MR. ALBERTI: Objection. Nonresponsive.

22 Q. Honestly, quite frankly, this is one of the

1 most obstructive depositions that I've taken in my
2 almost 30 years of practicing law, sir. And I'm
3 asking you very simple questions. And you're not
4 giving me anything that's remotely close to a
5 reasonable answer. Okay?

6 If we need to take this to the board, we'll
7 take it to the board. But it's lunchtime now, and
8 I'm hoping that you can reflect on this a little bit
9 during lunch and we can come back after lunch with a
10 little rest and you'll start answering questions in
11 a reasonable manner because otherwise, this -- we'll
12 go to the board with it. Okay?

13 MR. ALBERTI: Let's take our lunch. Half
14 hour.

15 (A short break was had.)

16 BY MR. ALBERTI:

17 Q. When did Apple introduce support for
18 execution of neural network models on its IOS
19 devices?

20 A. I don't think -- I don't think I have an
21 opinion about that in my written declaration. Are
22 you referring to something I wrote?

1 Q. No. I'm wondering, do you know. Do you
2 know the answer to that?

3 A. Not offhand. I think it would require some
4 research.

5 Q. Do you know when Google introduced support
6 for execution of neural network models on Android
7 devices?

8 A. I don't think that's anything I've opined on
9 in my declaration.

10 Q. What are feed-forward techniques for
11 training a neural network model?

12 A. I may have once been able to give you a
13 precise answer to that, but I think it's -- I'd have
14 to look into that.

15 Q. What are backpropagation techniques for
16 training a neural network model?

17 A. Yeah, I've trained neural networks myself
18 before. But just to give you a precise definition,
19 I'd really want to look it up and not just give you
20 an offhand answer.

21 Q. Do you know of any examples of feed-forward
22 or backpropagation techniques for training a neural

1 network in the late 1990s?

2 A. Well, I'm not totally sure as to the exact
3 timing, but BBN Technologies, where I worked at a
4 later date, was the leader in applying neural
5 network technology to -- for speech recognition.
6 And to the extent that's what they did -- although
7 I'm not sure of the exact details back then,
8 available in the late 90s -- that would have been an
9 example. But I think there were definitely neural
10 network-type speech recognition around that time.
11 I'm not sure of the exact time. But I worked at BBN
12 in the late 2000s, and I think that the neural
13 networks were part of its speech recognition systems
14 for many years, which could have predated 2000.

15 Q. Do you know of any examples of running
16 feed-forward or backpropagation techniques for
17 training a neural network on a mobile device in 2001
18 or earlier?

19 A. Well, I think the training -- well, I don't
20 know any specific examples, but I think the training
21 of a neural network would typically be done on
22 higher-end devices with more computation. But the

1 use of a neural network-based model and its -- can
2 be done on devices with much lower computing
3 capability because once the model is generated, it
4 really sets up, for example, various parameters of
5 a -- and stages of a neural network and various
6 weights within the network. And the training part
7 is the difficult part. The application of the model
8 to input signals is a -- much less computationally
9 intensive, for example.

10 Q. Can you identify an example of a machine
11 learning model running on a mobile device in 2001?

12 A. What do you mean by "machine learning
13 model"?

14 Q. A neural network model.

15 MR. BAJAJ: Objection to form.

16 A. I mean, later in the 2000s, I definitely ran
17 neural network models on a laptop computer.

18 Q. But sitting here today, you're not aware of
19 running a neural network model on a cellular device
20 in 2001 or earlier; correct?

21 A. Well, Kawasaki actually talks about various
22 neural networks, and this is filed in '99 I think.

1 It talks about three-tiered feed-forward artificial
2 neural networks. This is column 4, line -- around
3 line 17 through 24. It talks about how, [As read]
4 Various artificial neural networks are commercially
5 available that could be used for this purpose.

6 And [As read] The output from Neural Net 22
7 is algorithms and rules, the recognizers, which, in
8 essence, 'recognize' a match of incoming, unknown
9 data with data sets.

10 And so as I said, you can generate the model
11 that typically requires more computation, but the
12 model itself can be run on devices. Once trained,
13 there are really just a set of parameters and, kind
14 of, a structure for -- with various parameters and
15 weights in the system that can be run on many
16 devices. And they may not actually require much
17 computation work depending on the architecture of
18 the neural network.

19 Q. You're not aware of any examples of neural
20 network models running on a mobile device 2001 or
21 earlier; correct?

22 A. I have a few friends that started a mobile

1 device speech recognition company where they sold
2 this, and it was quite some time ago. I don't
3 remember exactly at what point. And I believe they
4 used neural network models to do so, but I'd have to
5 do a little more research. But timing wouldn't be
6 out of the question, but I'd have to do a little
7 more research.

8 Q. What's the name of the company?

9 A. It might have been Vlingo.

10 Q. Can you spell that, please?

11 A. V-l-i-n-g-o. I think that's the name I'm
12 thinking of. It could have also been that the
13 founders were at a prior company that did something
14 similar, as well. I think they've done a number of
15 startups, at least some of them that I know. Or at
16 least one I know and maybe two.

17 Q. Did they produce commercial software that
18 ran a neural network model on a cellular device in
19 2001 or earlier?

20 A. Again, I can't recall the exact details of
21 the timing or with respect to the exact
22 architecture, but I believe it was neural networks.

1 I'm not totally sure about that, so I'd have to do
2 some research into that.

3 Q. And in this company, I think you say is
4 Vlingo, it was -- was it founded before 2001?

5 A. I don't --

6 Q. After 2001?

7 A. Sorry. I didn't mean to interrupt.

8 I don't know the exact timing. I know one
9 of the people I'm thinking of founded a number of
10 companies, and I'm not sure which one this was, or
11 whether this is actually the one I'm thinking of or
12 was it an earlier or later company that I'm thinking
13 of. But, I mean, I would have to do a little
14 research into this.

15 But, certainly, what's disclosed in
16 Kawasaki, for example, with respect to the neural
17 networks, is recognizers are really a series of
18 additions and multiplications typically in a neural
19 network. That's how they work. Which, you know,
20 even if it's hundreds or thousands of computations
21 or tens of thousands, I think -- I don't think
22 that's actually beyond the capability of certain

1 devices at the time, especially since a lot of this
2 stuff can run in the background.

3 Q. Kawasaki doesn't itself disclose cellular
4 devices, though; correct?

5 A. I mean, just based on scanning through
6 Kawasaki right now, I don't see any specific
7 disclosure of mobile phones.

8 Q. Did the Nokia 9210 Communicator have a GPU?

9 A. In what sense? Do you mean like the
10 modern-day sense of a GPU for a computer?

11 Q. Yeah, graphics processing unit.

12 A. I'm not aware that it did. It was quite
13 some time ago, but I don't know the details of the
14 9210 architecture. But, you know, it had a CPU that
15 I believe could perform arithmetic operations, which
16 is typically what's required for evaluating and
17 running a neural network model.

18 Q. Can you identify any example of a machine
19 learning model ever being deployed on top of a Nokia
20 9210 Communicator?

21 A. I mean, that's not a specific question I
22 considered in the preparation of my declaration, so

1 I think I'd have to do a little research about that.

2 Q. In your opinion, could the Nokia 9210
3 Communicator run a trained neural network model?

4 A. So I mean, I do have an opinion with respect
5 to the combination of Frerichs and Kauffman that a
6 POSITA would have been motivated to combine them in
7 a way I described in my declaration, and that does
8 involve the use of recognizers running in a way that
9 takes information from received email messages and
10 uses to generate user preference information. So I
11 do talk about that. The reasons I give in -- at
12 least starting at paragraph 76 in my declaration, I
13 do talk about a Nokia Communicator. But
14 specifically, it's with respect to the fact that it
15 had email capabilities, and it had some memory. I
16 think I stated somewhere how much memory it had.

17 But I mean, with respect to the question you
18 asked, that's not -- that particular analysis isn't
19 something that I looked at in my declaration. But,
20 certainly, a POSITA would have been motivated to
21 combine Frerichs with Kauffman for the reasons I
22 give. And that included the use of these

1 recognition models. Which, as I stated before --
2 well, I may not have stated this before, but
3 Kawasaki actually provides a lot more information
4 about how to take information from messages than
5 does the '414 patent. So I don't recall seeing in
6 the spec anywhere about how the '414 describes doing
7 it. So I think Kawasaki provides a method that some
8 recognizers could be run, since they're just sets of
9 arithmetic, you know, additions and multiplications,
10 typically. Operations could be run on the devices
11 disclosed in Frerichs.

12 Q. So you haven't given a specific opinion as
13 to whether or not the Nokia 9210 Communicator could
14 run a trained neural network model; correct?

15 A. I mean, the specifics with respect to the
16 Nokia Communicator were more with respect to the
17 space required to cache, you know, 30 seconds' worth
18 of audio information. And that was well within the
19 capability. I did look at that in my analysis.

20 But the specific question you're asking
21 isn't an analysis that I provided in my declaration.
22 But, certainly, a person of ordinary skill would be

1 motivated to combine Frerichs with Kauffman --
2 sorry -- Kawasaki is the one. So if I said Kauffman
3 in my previous answers, I meant Kawasaki.

4 And that actually is given starting at
5 paragraph 69, not 76. So I misspoke earlier. It's
6 the models disclosed in Kawasaki for the recognition
7 models, which are based on trained neural networks.
8 But the implementation of neural networks is
9 typically just done with a series of, you know,
10 additions and multiplications typically and
11 arithmetic operations. And the model evaluation is
12 much less computationally intensive than the modal
13 generation.

14 Q. But you also mentioned two other mobile
15 devices, cellular devices in your declaration. You
16 mentioned a RIM 957 and an Ericsson R380.

17 Do you recall that?

18 A. Yes.

19 Q. Could any of those devices run a trained
20 neural network model?

21 A. So the reasons I talked about those were
22 with respect to the -- that they all advertise they

1 had email capability. And so it was known that
2 people could receive and send emails on cellular
3 devices at the time. So that's -- that's really --
4 and, you know, my declaration says what it says. I
5 don't have a particular opinion about running neural
6 network models with respect to the question you're
7 asking. But as I said, the evaluation of a neural
8 network model is typically just a series of
9 arithmetic operations, which certainly have been in
10 the background. I don't see any reason why it's not
11 compatible with devices at the time of the
12 invention.

13 Q. Was it known that at the time of the
14 invention cellular devices could run neural network
15 models?

16 A. I mean, to the extent that a neural network
17 model is simply -- you know, evaluation of it simply
18 running these arithmetic operations, I believe that
19 the kind of processing that I understand back then,
20 they were capable. I mean, I don't recall
21 specifically, but I know early phones -- one of the
22 early phones that I had in the '90s, I think it had

1 a built-in calculator app. So it had arithmetic
2 capabilities.

3 I'd have to look specifically at the three
4 devices I listed, but I think it's generally
5 understood that -- devices that, at the time, had
6 processing -- processors that could perform such
7 arithmetic operations.

8 Q. Did any of them, any of the devices that you
9 listed, or any other cellular device you're aware of
10 at the time have parallel processing capability?

11 A. I mean, I don't know one way or the other
12 for the three devices I listed.

13 Q. Have you heard of the Stuttgart Neural
14 Network Simulator or SNNS?

15 A. I don't think I have, no. It doesn't come
16 to mind as I sit here right now. It's possible I
17 have come across it in the past, but it doesn't ring
18 a bell now.

19 Q. With respect to the Nokia, RIM, and Ericsson
20 devices that you cited in your declaration, do you
21 know if any of those accepted and displayed
22 streaming multimedia content?

1 A. I mean, off the top of my head, I don't
2 know. I may have looked into this issue in the
3 past. But I don't recall that right off the top of
4 my head. But the '414 patent in the background
5 itself talks about how more recently, some -- this
6 is column 1 at line 29 -- "some cellular telephones
7 enable the browsing of web pages on the internet,
8 tuning to radio stations, playing streamed content,
9 or other online services."

10 So that's described in the '414 patent as
11 just something that's already done and known. So
12 with respect to specific models, I'd have to look at
13 those specific models. But the '414 patent, you
14 know, as of the filing date, as of the priority date
15 in 2001 or thereabouts, it's what's already known in
16 the art and softwares are already playing streamed
17 content.

18 Q. Let's turn to Kawasaki. That's
19 Exhibit 1005.

20 (Exhibit 1005 was marked for
21 identification and is attached to the
22 transcript.)

1 A. Okay.

2 Q. Okay.

3 Looking at Exhibit 1005, do you recognize
4 this as the Kawasaki reference you relied on for
5 your opinions in your declaration?

6 A. Yes, it's the reference I relied on in my
7 analysis.

8 Q. Apologies if I asked you this before, but
9 just to confirm, you agree that Kawasaki does not
10 expressly disclose cellular devices in its
11 disclosure?

12 A. I think I did say that I didn't see, through
13 my scanning of it, that it talked about mobile
14 phones or cell phones.

15 Q. In your declaration, you rely on Kawasaki,
16 in part, to disclose the information in element 1A;
17 correct?

18 A. So 1A, as I understand you're referring to,
19 is mapped to my declaration, and I use the numbers
20 1.1.1, 1.1.2, and 1.1.3. And in those sections, I
21 do have some discussion of Kawasaki, but I also
22 discuss Kawasaki in other sections as well.

1 Q. Okay. So let's start with -- we'll use your
2 numbering -- 1.1.1. In your opinion, can you
3 identify what the information is in Kawasaki that
4 you're relying on with respect to that limitation?

5 A. So I'm discussing Kawasaki in a couple of
6 contexts here with respect to the claim language in
7 element 1.1.1. And that's with respect to, first of
8 all, autonomously providing. In that section, I
9 talk about how Kawasaki is -- there's a profiler
10 that tracks and builds an aggregate statistical
11 model, how it -- the result of generating profile --
12 "the result of the profiler is a prioritized and
13 rated set of interest categories that is
14 automatically generated."

15 "And the profile generated by the system for
16 each user is the output from the system."

17 And then I am also talking about the
18 information for Kawasaki in the context of
19 information associated with a user. And that's --
20 in that particular part of Kawasaki, I am talking
21 about the recognizers disclosed in Kawasaki that
22 executes on the user's computer and that the -- that

1 because the profiler executing on the user's
2 computer outputs a profile, the profiler data output
3 from the profiler corresponds to information
4 associated with the user; that is, output by the
5 device and therefore is information associated with
6 a user of the device.

7 And I think later on in the discussion of
8 where this information is taken from a message, I
9 provide more details about why Kawasaki also
10 discloses that. But with respect to 1.1.1, I
11 think -- well, you know, I do talk a little bit
12 about that in paragraph 105 where, "Kawasaki teaches
13 that "content information of an internet user,"
14 (e.g., email content is scanned to generate unknown
15 data. This may take place at the client's
16 computer."

17 And as I discuss above, "information is
18 provided to the recognizer and profiler," and so
19 that information generated from scanning or
20 analyzing an email is information associated with
21 the user and is provided to a server. And that's
22 with respect to 1.1.1.

1 Q. Okay. So with 1.1.1, let me see if I've got
2 this right.

3 In paragraph 101, you say that the profile
4 associated with the user satisfies the information
5 associated with a user that's provided to the
6 server. And then in paragraph 105, you say that
7 there's also unknown data that's scanned from the
8 user's content information, such as email, which
9 would also satisfy the information associated with
10 that user limitation that's provided to a server.

11 Does that fairly state the two ways you're
12 pointing to the information?

13 A. That is, but part of that was also
14 discussing -- part of those paragraphs, more the
15 101, was talking about the autonomously providing
16 limitation as well. But that information -- I think
17 one thing you might have reversed was that the
18 Kawasaki says scan to generate unknown data, and I
19 think you put unknown in a different place. But to
20 the -- I'm saying what -- Kawasaki says what it
21 says.

22 And that information associated with the

1 user of the cellular device, that is an example of
2 when Kawasaki does scan, for example, content
3 information of a user such as email content. And to
4 generate -- it says "unknown data." But once it
5 generates it, it becomes, you know, part of the
6 user's profile information, a user preference, for
7 example, like the user is interested in golf. So --

8 Q. Okay. Sorry, are you done?

9 A. Yeah, I think I was done.

10 Q. So, again, two examples of ways that
11 Kawasaki can satisfy the information limitation in
12 1A, the one is the profile, and then the second is
13 this unknown -- how do you refer to it -- "unknown
14 data scanned from the user's content information
15 such as email"?

16 A. The latter part would be an example. The
17 user's profile example was -- is -- you know, that's
18 a specific -- the information generated by analyzing
19 and scanning the email, for example, is an example
20 of the profile data. I'm not saying they're
21 necessarily two separate things. Like one could be
22 a superset of the other.

1 But Kawasaki does teach this general profile
2 information, how it's automatically generated. And
3 then something that could be an example -- was an
4 example of the profile information, the user
5 preferences or how -- I can't remember the exact
6 wording Kawasaki uses -- would include this thing
7 that's automatically -- the information that's
8 automatically taken from the messages received by
9 analyzing it and using the recognizers. And that's
10 what I discuss more in 105.

11 Q. So the profile could include this unknown
12 data that you're discussing in 105?

13 A. Yeah. I mean, Kawasaki does use the word
14 "unknown data," but the point of it is you can --
15 you can take information from this unknown data,
16 based on using recognizers to analyze things such as
17 an email message.

18 Q. So in Kawasaki, the client device would run
19 recognizers to scan this email and collect this
20 unknown data; is that correct?

21 A. I mean, I think what Kawasaki is talking
22 about is that it's running this thing like a

1 recognizer on data such as an email message. And if
2 you look at paragraph 126, I discuss this in a
3 little more detail in that as Kawasaki explains, the
4 recognizers -- and this is a quote from Kawasaki --
5 "in essence 'recognize' a match of incoming, unknown
6 data with data sets 21, closed quote there. That's
7 from Kawasaki at column 4, lines 22 to 24.

8 And it's that the recognizers basically
9 indicate that unknown data extracted from a received
10 message matches an area of interest to the user or
11 the recipient, which, in turn, is used to form a
12 user's profile and target advertisements to the
13 user. So that's -- that's what -- it is running
14 them in this way to do these matches so that
15 targeted advertisements can be provided.

16 Q. So the recognizer would analyze the data and
17 then compare it against data sets to recognize a
18 match?

19 A. I mean, you might not actually literally be
20 done by comparing, but, you know, the recognizers
21 have these models that can be run to produce matches
22 for -- to known -- unknown data, it can process to

1 match with the existing data sets.

2 Q. So these are neural network models, right,
3 that are essentially that recognizers are running?

4 A. Well, that's an example of recognizers, I
5 think, that Kawasaki provides.

6 Q. And does the recognizer perform real-time
7 analysis?

8 And maybe I can direct you to paragraph 54
9 of your declaration where you cite Kawasaki at
10 column 4, lines 42 through 48.

11 A. Yeah. So it does say here that I cite from
12 Kawasaki where it says that the profiler 26 -- I am
13 going to read that back because it doesn't read
14 grammatically correct. "Profiler 26 receives the
15 output from the real-time analysis of recognizers
16 23.

17 Q. In paragraph 74 of your declaration, you
18 make reference to commercially available software.
19 It's about halfway down that paragraph. In
20 particular, you say, "Kawasaki also notes that
21 'commercially available' software is also available
22 to implement its techniques," and it goes on.

1 Do you see that?

2 A. Yeah, I do see that.

3 Q. What is the "commercially available
4 software"?

5 A. Well, Kawasaki says that "Various artificial
6 neural networks are commercially available that
7 could be used for this purpose." And it goes on to
8 talk about the output from neural net 22. And at
9 line 26, "Recognizers for common areas of interest
10 to advertisers include, but are not limited to, data
11 sets related to sports, games, business, investing,
12 health, hobbies, technology, arts, politics, social
13 issues, weather and news." It doesn't -- Kauffman
14 in these couple of lines, they don't give any
15 specific examples.

16 Q. And you're not aware of any examples that
17 ran on cellular devices in 2001; correct?

18 A. As I said earlier, I think I -- I'm aware of
19 some that were cellular devices. I'm not aware of
20 the exact timeline that at least some of them were
21 available. But I think Kawasaki is disclosing that
22 there are commercially available neural networks in

1 those lines.

2 Q. Now, in Kawasaki, the ads are selected based
3 on user profiles; correct?

4 A. So if you look at column 2 at line 55, this
5 section is describing a number of objectives of the
6 invention. It does say that, [As read] A further
7 object of the invention is to target offers to
8 individuals who have indirectly expressed interest
9 in specific subject matter.

10 And then there's another section that talks
11 about -- well, at line -- column 3, line 60, that,
12 [As read] This invention dynamically and
13 transparently improves the targeting of offers
14 consisting of three major components.

15 And then at column 4, line 6 talks about,
16 [As read] scanning and analyzing modules ... capable
17 of determining the relevance of unknown data.

18 And I think the objective is generally to
19 improve the ad targeting because I think elsewhere
20 in the specification, it talks about how better
21 targeting can lead to improved price that
22 advertisers are willing to pay.

1 Q. Right.

2 And the way it does that, right, is it
3 considers the user profile?

4 And maybe I can help you out. If you take a
5 look at paragraph 51 of your declaration, you see
6 it's under "Summary of Kawasaki"?

7 A. Yes, I see that.

8 Q. Okay. And in your summary, you mentioned
9 that the advertisements, you know, are for users,
10 quote/unquote, based upon the profile. So what's
11 going on is it's looking at this profile, and it's
12 using that profile to determine what ads best target
13 a user. Is that fair to say?

14 A. I mean, it would -- I think it's fair that
15 Kawasaki is -- includes that in his teachings, that
16 there are advertisements targeted to users, based on
17 the profile. I think maybe in the abstract, it says
18 a little bit of that as well. Yeah, it's, like, the
19 last sentence in the abstract.

20 Q. And Kawasaki, the profile is sent to
21 something called an office manager server; correct?

22 And, again, maybe to help you out, you can

1 take a look at paragraph 58 of your declaration.

2 MR. ALBERTI: And for the record, I think I
3 said "office manager." That should read office --
4 offer manager. So let me restate the question.

5 Q. In Kawasaki, the profile is sent to
6 something called an offer manager; correct?

7 A. I mean, I do say that, [As read] The user's
8 profile is sent to an offer manager server, which is
9 similar to an advertising server, and is used to
10 target advertising to the user, based on the
11 profile.

12 Q. In Kawasaki, the profile is built, using the
13 output of the recognizers; correct?

14 A. Well, if you look at paragraph 54, at the
15 top of page 26, I do talk about how Kawasaki
16 explains that the profiler, [As read] receives the
17 output from the real-time analysis of the
18 recognizers.

19 And that profiler, [As read] tracks and
20 builds an aggregate statistical model, a 'Profile'
21 of the user, including quantitative analysis of the
22 match, frequency, duration, age, and other factors

1 between unknown content received by the user and the
2 set of installed recognizers.

3 So that is one place that the profiler can
4 receive -- it's an example of what the profiler can
5 receive.

6 Q. Is there another way that the profile is
7 built in Kawasaki, other than via the output of
8 these recognizers?

9 A. Well, if you look at paragraph -- sorry --
10 column 5, around line 42, it talks about how --
11 actually, down at line 46. [As read] personal
12 information, such as a user name, address, phone
13 number, and other various forms of personal
14 identification may be stripped from the profile to
15 protect the user's anonymity.

16 And to the extent that information isn't
17 extracted from messages, it could be provided by the
18 user themselves.

19 Q. Okay. So the profile might include some
20 user-provided information that the user entered into
21 the profile.

22 A. Yeah. I mean, to the extent you actually

1 can't tell an address from -- a user's address from
2 extracting -- from the models, then, you know, that
3 kind of personally identifiable information could be
4 provided by the users themselves.

5 Q. Okay. But that information wouldn't be
6 information taken from a message like the other
7 information that we've been discussing; correct?

8 A. I mean, it's possible to, if you actually
9 knew where to look, for example, in a sig or
10 something like that, that is recognized -- well,
11 that would be from the received message or a sent
12 message, for example. A sent message would
13 typically, if there is a sig, may have this
14 information. But to the extent it can't be -- and,
15 you know, this system does talk about having an
16 account and logging in, and so, you know, a lot of
17 systems that have logins sometimes collect this kind
18 of information.

19 Q. But that wouldn't come from the recognizer;
20 right?

21 That would be coming from something else,
22 like a user input; correct?

1 A. No. I mean, a user form could be used to
2 collect information, and that wouldn't be coming
3 from the output of a recognizer, to the extent that
4 the recognizer isn't extracting that specific kind
5 of information.

6 Q. And that information wouldn't be extracted
7 from a message in some other way, other than from
8 the recognizer, which is discussed in Kawasaki;
9 correct?

10 A. I mean, I don't think Kawasaki is explicitly
11 talking about, like, you know, how to get this. So,
12 I mean, I'm just saying that there are ways, you
13 know, often with systems that have a login, where
14 you can do log in, they do, kind of, ask -- you
15 know, to try to collect information, like an email
16 address or a name, sometimes an address. So that is
17 a common way of collecting things like name,
18 address, and phone number. Now, user name might be
19 actually something the user picks to start. So in
20 that sense, it wouldn't -- it may initially be
21 selected by a user.

22 Q. Let's go to paragraph 112 of your

1 declaration.

2 And following that, there's several
3 paragraphs that talk about this limitation, the
4 information taken by the device or taken from a
5 message sent to the user from the user of another
6 device. I think it goes from 112 to 118.

7 Do you see that?

8 A. Yes, I do.

9 Q. So in 112, you say in one example, this
10 profile, [As read] corresponds to the 'information
11 taken by the device,' is derived or 'taken' 'from a
12 message sent to the 'user 'from another ... device.'

13 So here, you're equating deriving a profile
14 from a message with taking information from a
15 message.

16 A. I wouldn't quite say it's identical to, but
17 it's certainly an example. One way, one way, an
18 example of how to take information from something
19 else.

20 Q. Does Kawasaki disclose that the profile
21 would include a copy of data that was originally in
22 an email that the user had received?

1 A. I mean, certainly, the examples used, where
2 a visitor might have visited a golf web page or
3 received a message about golf, they could easily
4 have the word "golf" in them. I'd be surprised if a
5 website didn't use the word "golf." But some golf
6 emails received could -- they're not required to use
7 the word "golf" or a kind of model that Kawasaki
8 disclosed to recognize that the user has an interest
9 in golf.

10 I think if you just ask someone, you know,
11 they went to some lecture and then -- and someone
12 asked you, what did you take from that lecture, what
13 did you take away from that lecture, and someone
14 said -- summarized the information. They'd say, oh,
15 great. They wouldn't say, oh, those exact words
16 were not used in the lecture, so you couldn't
17 possibly have taken them from the lecture. So, I
18 mean, I think just -- it's just -- it's almost
19 common sense here that this -- you know, deriving is
20 an example of taking.

21 You know, you might have an overly literal
22 friend that said, well, those words weren't -- you

1 know, I recorded every single word of that lecture,
2 and what you said wasn't literally said in that
3 lecture, so you couldn't have possibly have taken
4 that. But that's -- it's -- people would recognize
5 that you can summarize, you know, what you take away
6 from something else or derive. And I think that's
7 an example of what a person of ordinary skill would
8 understand.

9 Certainly, in the context of the
10 specification because the spec doesn't place any
11 limits on the word "take" or "taken." It doesn't
12 define those in any way that would restrict it to
13 only -- only to data that was in the original
14 message itself. That's not in the spec. And I
15 think this example from Kawasaki is an example of
16 what a person of ordinary skill would recognize as
17 falling within the scope of this particular claim
18 element about information taken by the cellular
19 device.

20 Q. Okay. And, again, I'm just trying to focus
21 on understanding how these recognizers work.

22 Does a recognizer -- sorry.

1 Does it scan an email and it sees, you know,
2 a word, say in the email, that it thinks is
3 relevant, does it take that word, copy it, and then
4 paste it into the profile?

5 Is that how it operates?

6 A. You know, I saw no such description like
7 that about how to take information from a message
8 in -- from the '414 specification. So, I mean, what
9 you said might be an example recognized by a POSITA
10 for taking information, but I certainly think that
11 this example, given in Kawasaki, is -- it's my
12 opinion that a POSITA would recognize this, what
13 Kawasaki teaches as meaning within the scope of
14 information taken by the cellular device and further
15 requirements for -- from the message or whatever the
16 requirement is.

17 But the message easily could have had the
18 word "golf" in it. There's no restriction that says
19 no one can send an email with the word "golf." So
20 the point of the example that I gave -- I'm not sure
21 where that is -- about -- let's practice our swings
22 or whatever and then play a round or play nine holes

1 or something, it may not -- the point is that these
2 kind of neural network recognizers, they don't have
3 to use the words that provide the data set match
4 because the recognition models are more advanced
5 than simple-keyword matching. And so I think
6 that -- you could use the keywords in the message
7 and you could -- like, someone could have written a
8 message that says, how about we go play a round of
9 golf this afternoon. And that, you know, may also
10 be recognized by the recognizer as the user has an
11 interest in golf.

12 Q. Right.

13 I guess -- I'm more just trying to
14 understand how the recognizer works.

15 I mean, does -- is the output of the
16 recognizer, you know, data that was extracted from a
17 message, or is it the output -- how does that work?
18 Is it something else?

19 MR. BAJAJ: Objection to form.

20 A. I mean, the specific neural network example
21 in Kawasaki, I mean, I can try to explain to you how
22 they work, but it's -- it gets a little

1 mathematical, which is -- first of all, you have to
2 train the model. And you train the model based on
3 feeding in data and comparing outputs and feeding
4 back errors and with all different weights involved
5 to adjust weights in the model. And there are
6 mathematical ways of using error terms to adjust
7 weights of different nodes in the neural network in
8 different ways.

9 And then that's what happens in the training
10 process, which is that you feed in data, you might
11 compare it against a known set of label data. And
12 you want to have the best statistical, predictive
13 match for the network when you run it on a test set
14 of data. And it may require many, many rounds of
15 training. And that's partly why training a model is
16 computationally intensive.

17 But then when you -- when you have a model,
18 the models are simply, really, kind of, weights and
19 nodes along the neural network that -- connections
20 in the network between various nodes. And
21 oftentimes, a series of stages at which -- at each
22 stage, there are, you know, values generated. And

1 then at the output, you can apply these -- I forget
2 what they call these functions, whether or not they
3 activate or not or they're different mathematical
4 functions that can be applied to -- in the abstract
5 concept, whether a neuron fires or not. And if the
6 neuron fires, you may have a positive match for
7 whatever you're -- whatever model you're looking for
8 that it's trained on. And if you have a negative,
9 if it doesn't fire, then it's saying it doesn't
10 recognize that.

11 So it's done with a series of -- oftentimes,
12 you know, array operations, which can be broken
13 down. It's just simple math into a series of
14 arithmetic operations. And when I say "arithmetic,"
15 I mean things like add, multiply, things like that.
16 And then you can apply the results. You can pass it
17 through some sort of function that can tell you
18 whether the neuron or the output is, in one example,
19 true or false.

20 And so it's -- I think it requires a lot of
21 insight, perhaps, to understand why a network would
22 train the way it does. But once it's trained -- and

1 it can be trained based on a set of data and a set
2 of label test data, then it can be run against other
3 unknown -- other also unknown data to produce an
4 output as to whether or not that recognizer has
5 recognized a particular user preference or not.

6 Q. So the output would, in effect, be a number
7 that measures the model's confidence as to which
8 predetermined category the email belongs to?

9 A. I mean, it could be a confidence rating. Or
10 it could be here's a series of words or here's a
11 confidence level of each word or it could just be
12 yes or no. I mean, it can be programmed in a number
13 of different ways. So you could have a recognizer
14 that, in parallel, you know, has been trained on,
15 you know, a dozen different categories, for example.
16 And you can feed in data at the input, and then at
17 the output get all 12 categories, whether they're
18 yes or no. So it could be golf and sports, you
19 know, whatever the categories are. It's just how
20 you train the model and how you label the input
21 data. And --

22 Q. Does a recognizer -- I'm sorry. Are you

1 done?

2 A. Well, and then in that way, you can train
3 the model to produce results. You can train a model
4 with one output. You can train a model with a dozen
5 outputs. You can train a model with a hundred
6 outputs. It's just how you set up what you're
7 doing.

8 Q. So regardless of whether it's a binary
9 classifier or a multi-classifier, aren't you still
10 outputting some number? It's either, you know, true
11 or false, or here's a confidence level represented
12 by some number?

13 A. Right. It could be either, or it could be
14 both. You know, it could be true with confidence
15 level 95 percent or true with confidence level
16 60 percent or just true or just confidence level --
17 well, I mean, I guess it's implied, confidence level
18 90 versus confidence level 5, I think would be
19 recognized as different things.

20 Q. But the neural network is not just gonna
21 output the word golf; right? It's gonna give you
22 some form of number or confidence level?

1 A. Well --

2 MR. BAJAJ: Objection.

3 A. For the output that's trained on golf, I
4 mean, the true would effectively be the user has an
5 interest in golf. I mean, that's kind of the point.
6 That would be the recognizer output. I mean, would
7 it literally be golf? Well, I mean, you'd have to
8 interpret that particular neuron or that particular
9 output. You would interpret it as golf, so
10 effectively it's golf.

11 I mean, when a computer outputs golf, it
12 doesn't know it's golf. It's just a series of data
13 that represents golf. So just like that, in a
14 similar way, the position of a neuron that fires
15 that's trained to detect golf as a user interest.
16 You know, if that output is true or false isn't --
17 is really, you know, what the user preference would
18 be for that, that that neuron is trained or that
19 output is trained.

20 Q. Can a neural network classifier, such as the
21 profiler in Kawasaki, classify a message to be of a
22 predetermined category based on the fact that

1 certain information is not in the message?

2 Maybe I can restate that simpler.

3 Can a neural network classifier, such as the
4 one in Kawasaki, in particular the recognizer,
5 classify a message to be of a predetermined category
6 based on the absence of certain information in the
7 message?

8 A. I mean, I don't think I could tell you an
9 answer to that right now. It may determine on the
10 input data that you train it on. So I'm not sure
11 what you're saying is an impossibility. I'm just
12 not sure that it's known if you don't know what the
13 training data set is.

14 Q. So, for instance, do you know whether a
15 recognizer could determine the subject matter of an
16 email based on the fact that the email does not
17 include certain terms?

18 A. I mean, I don't think Kawasaki gives that
19 example anywhere that I recall.

20 Q. Do you agree that keywords scanned in a
21 message by a recognizer may not necessarily be the
22 same as the category that the recognizer ultimately

1 assigns the email to?

2 A. Your question is assuming that there's
3 actually a scanning process as part of the neural
4 network. I mean, that may be part of how you
5 generate data to feed to a network. But the
6 network -- neural networks just do what they do. I
7 don't think what -- I'd characterize as scanning
8 data.

9 Q. Does the recognizer in Kawasaki scan emails?

10 A. I mean -- I mean, Kawasaki does talk about
11 scanning. I guess my point was that you may scan
12 things to generate inputs to a neural network, but
13 the neural network itself isn't something that's --
14 what I'd call scanning.

15 Q. Does the recognizer in Kawasaki scan the
16 emails or is that something different?

17 A. So what I'm looking for in answering your
18 question in Kawasaki, I'm not sure it says -- it
19 talks specifically about those steps with respect to
20 what's part of a recognizer, but I think it does
21 talk that there is scanning and whether the
22 recognizer is just a network, a neural network model

1 or includes the scanning, I mean, it's -- I don't
2 see Kawasaki talking about that specific question.

3 I do want to add to an earlier question you
4 asked about -- I thought I was talking generally
5 about neural network models that they can output
6 true or false or 90-some percent confidence,
7 Kawasaki does talk in column 5, the first paragraph
8 about the output of recognizers.

9 An example of the output is "a matching
10 rating indicating the 'strength' or 'closeness' of
11 the newly encountered data to known data sets 21."
12 So I think that strength would be an example given
13 in Kawasaki as to -- like a rating or percentage or
14 some number value that isn't strictly true or false.
15 So that's one example given in Kawasaki.

16 Q. Kawasaki doesn't disclose tracking
17 particular senders of messages; correct?

18 A. I don't think I saw anywhere in Kawasaki
19 about that specific question, but I do talk in my
20 declaration about how it's known that people can
21 send emails from multiple devices. And I think even
22 patent owner has acknowledged that. And that

1 Kawasaki is scanning emails, and some of those like
2 the example I gave, it would have been obvious that
3 a user could have used a mobile device to enter that
4 email and send it to the user of another cellular
5 phone or whatever is required by the claim.

6 Q. Just to put a point on this, though, you're
7 not saying that there's something in Kawasaki that
8 detects whether or not an email originated from a
9 particular person or cellular device; correct?

10 MR. BAJAJ: Objection to form.

11 A. I mean, for that analysis in section is
12 1.1.2 starting around paragraph 11, what I'm
13 pointing to in my analysis is that Kawasaki does
14 describe scanning and analyzing emails to determine
15 a user's preference, like, are they interested in
16 golf? And that it was -- it was known that cellular
17 devices or cellular phones were end-user devices,
18 end-user display devices that displayed email. And
19 that's consistent with Kawasaki in that I talk about
20 how there were multiple cellular devices such as the
21 Nokia Communicator, the RIM device, the Ericsson
22 device. That's around paragraph 121 through --

1 yeah, paragraph 121.

2 And so because it's known that that's the
3 case, that some of the user's messages would have --
4 it was known that people using another cellular
5 phone could send a user an email message that the
6 system of Kawasaki then analyzes.

7 Q. Got it.

8 But not that there's some separate
9 functionality in Kawasaki that says this email came
10 from a cellular device or this email came from
11 something else; right?

12 A. I wasn't relying on an explicit example
13 that -- like you've just provided in Kawasaki. It
14 was more that what I'm saying is that Kawasaki
15 discloses scanning and analyzing an incoming email
16 message, and it can extract and take information
17 from the email about a user preference. But that
18 it's known that mobile devices, cell phones at the
19 time, could have email apps to send and receive
20 email. And it gives some examples.

21 And I think it's obvious to a POSITA that
22 the messages received by Kawasaki that are analyzed

1 can be sent from a user -- another cellular device.

2 Q. Okay. Got it.

3 I only have a few more questions, but why
4 don't we take -- I know we've been going for a
5 while. Why don't we take a short break and then we
6 can come back and wrap up.

7 A. Sounds good.

8 (A short break was had.)

9 MR. ALBERTI: I'm good to go.

10 MR. BAJAJ: I have no further questions for
11 the witness, so I'll pass the witness. I guess
12 we're done.

13 MR. ALBERTI: Well, I haven't finished my
14 questions. I had one set of questions left when we
15 left. So I wasn't done yet.

16 MR. BAJAJ: Okay.

17 MR. ALBERTI: It is a short set of
18 questions, but I'd like to complete them and then
19 you can have the witness.

20 MR. BAJAJ: I heard you say --

21 MR. ALBERTI: I know it's getting late.
22 Okay.

1 BY MR. ALBERTI:

2 Q. Yeah, my last set of questions relates to
3 some opinions you have in paragraph 122 of your
4 declaration.

5 So can you take look at that?

6 A. Okay.

7 Q. Okay.

8 So what I understand your contention is here
9 is that in Kawasaki, you could have a situation
10 where the profiling is done at the server, but the
11 email scanning to generate the unknown data happens
12 at the client computer; is that correct?

13 A. I think at a high level, I am describing a
14 situation where the generated unknown data or
15 information is taken by the device from a message
16 and then is provided to the server for profiling on
17 the server. So I think that's -- that is I think --
18 I think what you asked is -- how you asked that
19 question is a fair summary of what I'm saying here.

20 Q. Okay. And you point to Kawasaki 63 to 66?

21 A. Column 2, I think, 63 to 66.

22 Q. Yeah. Okay.

1 And if we take a look at the email client
2 server system description at column 5, starting at
3 line 61.

4 A. Did you say column 5, line 61?

5 Q. Yeah.

6 A. Okay.

7 Q. Okay.

8 You agree here Kawasaki is talking about
9 analyzing and building profiles from email
10 information; right?

11 A. I mean, it does use those exact words in
12 lines 61 and 62.

13 Q. And then at 66 and 67, it says, "Analysis
14 and profile building can be accomplished at either
15 the client or the server location within an email
16 system"; correct?

17 A. I think you read that correctly, yes.

18 Q. Okay. So in your example, the server would
19 send an email to the client. The client would then
20 scan the email and send some unknown data and
21 information back to the server; correct?

22 A. Well, in this example, the user can receive

1 an email message, and it could, for example, from a
2 user that's using a mobile phone to send their
3 message. And the -- it does talk about that the
4 analysis and profile building can be either the
5 client or server location.

6 And you're asking about specifically an
7 email server, but I think that if you look at the
8 bottom of column 2, it does talk about a scanning
9 can occur, [As read] at any number of locations, the
10 client's server, the client's computer, or at an
11 internet hub.

12 And the client -- and it's -- the server
13 can -- it's the one that can build the client -- it
14 can build the profile based on the information sent
15 about the -- from the scan, right, but you're
16 talking now about in column 5.

17 This is a client or a server within an email
18 system, right, so it may not be necessarily the same
19 server as the server used to build the profile about
20 the user. So, in this case, you could receive an
21 email message from another sender on a mobile phone,
22 sending, for example, that golf message. And you

1 might have received it from -- you know, through
2 this particular email server, but the profiling
3 server may be a different server. So, in that case,
4 the client can do the analysis of the message, and
5 that information can be sent to the profiling
6 server. And I think that's what -- that's what it's
7 disclosing here.

8 So that's some of the -- you know, some of
9 the process can be done on the client, and some of
10 the process can be done on the server, which is not
11 necessarily the same server as the email server
12 through which the email comes when it's received.

13 Q. So what you're saying is that the profiling
14 server, it's not necessarily the email server as is
15 described in column 5.

16 A. Well, column 5 specifically describes an
17 email server. It's a server location with an email
18 system. It's talking about email client service
19 systems. The other servers are, in their context,
20 profiling servers. And they have a different --
21 they have a different function than an email server.

22 So, I mean, there's nothing that says that

1 they have to be the same server here in Kawasaki in
2 this section. It happens to use the word "server."
3 I agree. They're both described as servers, but
4 there's lots of servers all the way around the
5 internet.

6 Q. Well, if we go to paragraph 105 of your
7 declaration.

8 Let me know when you're there.

9 A. Okay.

10 Q. Yeah. And so here, again, you're mentioning
11 that the scanning may take place, quote, at the
12 client's computer. And then you go on to say that
13 the profiling, quote, may occur remotely, for
14 example, on a server installation. And then you
15 quote Kawasaki where it says, [As read] Analysis and
16 profile building can be accomplished either at the
17 client or server located within an email system.

18 So -- and here, Kawasaki is really saying
19 that the profiling is happening at the email server;
20 right?

21 A. I mean, it's saying it can. I don't think
22 it says it's the only place it can occur.

1 MR. ALBERTI: I think that's all I have for
2 today, unless your counsel asks you some questions.
3 I reserve the right to follow up on those.

4 Otherwise, thank you for your time today.
5 And thank you, Counsel.

6 THE WITNESS: Thank you.

7 MR. BAJAJ: I have no questions for the
8 witness, so you can close the deposition.

9 (Off the record at 5:35 p.m.)
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1 CERTIFICATE OF COURT REPORTER - NOTARY PUBLIC

2
3 I, TIFFANY M. PIETRZYK, Certified Shorthand
4 Reporter No. 084-004371, CSR, RPR, CRR, and a Notary
5 Public within and for the State of Illinois, do
6 hereby certify:

7 That HENRY H. HOUH, Ph.D., the witness whose
8 deposition is hereinbefore set forth, was duly sworn
9 by me before the commencement of such deposition and
10 that such deposition was taken before me and is a
11 true record of the testimony given by such witness.

12 I further certify that the adverse party,
13 Google LLC, was represented by counsel at the
14 deposition.

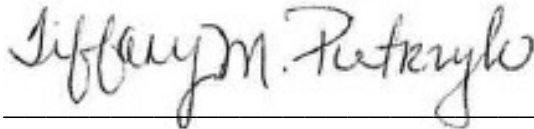
15 I further certify that the deposition of
16 HENRY H. HOUH, Ph.D. occurred virtually via Zoom
17 videoconference, on Wednesday August 23, 2023,
18 commencing at 10:31 a.m. CST to 5:35 p.m. CST.

19 I further certify that I am not related to
20 any of the parties to this action by blood or
21 marriage, I am not employed by or an attorney to any
22 of the parties to this action, and that I am in no

1 way interested, financially or otherwise, in the
2 outcome of this matter.

3 IN WITNESS WHEREOF, I have hereunto set my
4 hand and affixed my notarial seal this 6th day of
5 September, 2023.

6
7 My commission expires: February 28th, 2024
8
9

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12 NOTARY PUBLIC IN AND FOR THE
13 STATE OF ILLINOIS
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