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22 22 * * * * *

23 Page 166

24 1 C O N T E N T S

25 2 DEPONENT: PATRICK TRAYNOR PAGE
3 EXAMINATION BY MR. BANNER 168

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E X H I B I T S		
EXHIBIT	DESCRIPTION	PAGE
Paper 21	Preliminary Guidance	228
[not marked as	Patent Owner's Motion	
an exhibit]	to Amend	
Exhibit 1001	Rubin, U.S. Patent No.	186
	9,064,376 ('376 Patent)	
Exhibit 1007	U.S. Patent Pub. No.	238
	2015/0011318 (Takahashi)	
Exhibit 1023	1023_U.S. Patent Pub.	195
	No. 20120240203 (Kling)	
Exhibit 2008	Second Declaration of	170
	Patrick Traynor, Ph.D.	

* * * * *

1 DEPOSITION, held pursuant to
2 NOTICE OF TAKING DEPOSITION, and held with
3 the understanding of counsel that all parties
4 are appearing remotely. By participating in
5 this deposition, counsel have agreed to the
6 oath being administered remotely and the
7 testimony being transcribed remotely by the
8 court stenographer regardless of the locale
9 of the deponent.

10 WHEREUPON, the following
11 proceedings were duly had:

12 TRIAL TECHNICIAN: We are now on
13 the record. My name is Ben Merten. I'm a
14 trial technician representing Twin West
15 Reporting. Today's date is Monday, May 13th,
16 2024, and the time is 11:02 eastern time.

17 This is the deposition of
18 Patrick Traynor in the matter of Kahoot! ASA
19 & Kahoot! EDU, Incorporated, versus Aviel D.
20 Rubin.

21 By participating in this
22 deposition, all parties have agreed to our
23 court reporter administering the oath and
24 transcribing testimony remotely.

25 Will counsel please identify

1 themselves and who they represent for the
2 record, after which our reporter will
3 administer the oath.

4 MR. BANNER: Good morning. This
5 is Brian Banner. I'm with the law firm
6 Slayden Grubert Beard PLLC, and I am here on
7 behalf of petitioner, Kahoot! ASA and Kahoot
8 EDU, Inc.

9 MR. BENISEK: Good morning.
10 Eric Benisek on behalf patent owner Dr. Avi
11 Rubin and the witness. And that's it.

12 (The oath was administered by
13 the court stenographer.)

14 WITNESS RESPONSE: I do.

15 PATRICK TRAYNOR,
16 a witness in the above-entitled proceedings,
17 after having been first duly sworn,
18 testified under oath as follows:

19 EXAMINATION

20 BY MR. BANNER:

21 Q. Good morning, Dr. Traynor.

22 A. Good morning.

23 Q. Good to see you again.

24 Would you please state your name for
25 the record.

1 A. My name is Patrick Traynor.

2 Q. Dr. Traynor, is anyone else in the
3 room with you this morning?

4 A. Nobody today.

5 Q. Is there -- if anyone comes into the
6 room with you at any time, would you please agree
7 to let me know?

8 A. Yes, of course. Only my wife is in
9 the house so I don't -- and the door is closed. I
10 don't expect anyone to come in at any time.

11 Q. Okay. Are you looking at anything
12 other than the screen upon which the deposition is
13 being taken? For example, do you have a notepad
14 or cell phone or iPad or any other documents that
15 you're looking at?

16 A. Like last deposition, I have my iPad
17 here. It just has an unmarked version of my
18 report on it but nothing else.

19 Q. Okay. And unless I instruct you
20 otherwise, please do not look at anything else
21 while we're on the record. Is that okay?

22 A. That's fine. Again, if I need to
23 search for something, I may ask. But I will try
24 to do so first.

25 Q. Certainly. I appreciate that. And I

1 would just ask you answer all questions by
2 yourself. Don't look to anyone or anyone else for
3 help in answering questions. And if you can't
4 answer a question by yourself, would you just let
5 me know?

6 A. Yes.

7 Q. Is there anything that would prohibit
8 you today from answering my questions truthfully
9 and to your best ability?

10 A. No.

11 MR. BANNER: Let's bring out
12 Exhibit 2008, please, Ben.

13 (Exhibit Number 2008 was
14 introduced at this time.)

15 BY MR. BANNER:

16 Q. At a high level, Dr. Traynor, what
17 were you asked to do in connection with the second
18 motion to amend filed by the patent owner?

19 A. First, the document on the screen
20 appears to be my report. I assume that's what it
21 is. Is that correct? Sorry.

22 Q. Yes, it is. And you've provided two
23 expert declarations with your opinions in this
24 proceeding, correct?

25 A. Yes.

1 Q. And this one we're looking at here,
2 Exhibit 2008, this is your second declaration; is
3 that correct?

4 A. That's what it appears to be, yes.

5 Q. And is that your signature on that
6 first page of Exhibit 2008?

7 A. Yes. That's my signature.

8 Q. Did you sign this second declaration,
9 Exhibit 2008?

10 A. Yes. That's an electronic signature
11 that I applied to the document.

12 Q. Okay. And just as far as making sure
13 we're always talking about the same thing, you'll
14 understand if I ask a question about your second
15 declaration that I'll be referring to this
16 Exhibit 2008. Is that fair?

17 A. Yes.

18 Q. Okay. And in your first declaration,
19 if I refer to your first declaration, that was
20 Exhibit 2004. Is that right?

21 A. I'll have to trust you on the
22 document number. But if you refer to my first
23 declaration, I know which document in the abstract
24 you're referring to.

25 Q. Okay. And if we have to look at

1 that, I will certainly get it out for you or have
2 you look at it on your iPad.

3 And so on this, Exhibit 2008, you
4 said you did apply the signature to this first
5 page here?

6 A. Yes. This is a signature applied
7 electronically by me.

8 Q. Okay. And you reviewed your second
9 declaration carefully before you applied the
10 signature; is that correct?

11 A. Yes.

12 Q. And at the time you applied that
13 signature to your second declaration, you believed
14 everything in your second declaration was
15 accurate?

16 A. Yes.

17 Q. Do you stand by your opinions offered
18 in your second declaration?

19 A. Yes.

20 Q. There's nothing in your second
21 declaration that you want to take back today?

22 A. No.

23 Q. And nothing that you need to change?

24 A. Not to my knowledge.

25 Q. As you sit here today, are there any

1 errors in your second declaration that you know
2 of?

3 A. Not to my knowledge.

4 Q. Did you write your Exhibit 2008
5 declaration yourself?

6 A. As I said in the last deposition, the
7 final report, or the final declaration here, is
8 the sum total of my opinions. I typed some of
9 this that came after, you know, multiple meetings
10 with counsel. And so my opinions are all
11 expressed here. He captured some of those and
12 typed some, but I typed some as well. So
13 everything in here is mine and mine alone.

14 Q. And which parts of the second
15 declaration did you type?

16 A. As I mentioned in the previous
17 deposition, I did not keep a specific log of the
18 particular words that I typed. But as I've just
19 said to you, the opinions in this document are
20 mine and mine alone.

21 Q. Okay. I apologize for what sound
22 like repeat questions, but this is a different
23 declaration. So I just want to make sure that I
24 understand exactly the process that was used to do
25 this declaration. And if anything differed from

1 the previous declaration, you know, I would
2 appreciate you letting me know as I go through
3 these questions which may seem duplicative.

4 A. I understand. I'm just making it
5 clear that the same process was followed in both
6 declarations.

7 Q. Okay. And with respect to this
8 second declaration, you're being paid at a fixed
9 hourly rate -- hourly rate for your work on this
10 case; is that right?

11 A. That's correct.

12 Q. And you're being compensated at \$600
13 per hour for your work; is that correct?

14 A. Yes. I believe I wrote that
15 explicitly in this declaration.

16 Q. And you're being paid by Dr. Rubin
17 for your work on this case; is that correct?

18 A. Yes.

19 Q. In total, how much time have you
20 spent on this particular IPR proceeding up to
21 today?

22 A. I don't have my logs on this
23 computer, so I can't give you an exact number just
24 like the last time we met.

25 Q. Do you have a ballpark?

1 A. Well, I would point to the transcript
2 from last time. And I would say, you know,
3 whatever I've said there plus probably an
4 additional 60 hours or so to read all of the
5 material and to write -- to form my opinions and
6 write. But, again, I don't have logs in front of
7 me so I can't say. Again, that's on top of time I
8 spent in the prior declaration.

9 Q. So that would be a ballpark of 60
10 hours spent working on this Exhibit 2008
11 declaration, essentially?

12 A. Yes. It's a ballpark.

13 Q. And would that 60 hours include
14 preparation for today's deposition as well?

15 A. Again, it's a ballpark. I would say
16 potentially plus 10 to 15 more hours. I don't
17 have the logs in front of me.

18 Q. Do you have anybody else working with
19 you on this second declaration?

20 A. No, I don't.

21 Q. Have you received any noncash
22 compensation for your work with Dr. Rubin on this
23 proceeding?

24 A. No, I have not.

25 Q. Have you been given or told you'll be

1 given anything of value other than the cash
2 equivalent of what you charged Dr. Rubin for your
3 fees and expenses incurred while working on this
4 proceeding?

5 A. No. My only payment is the \$600 per
6 hour that I've explicitly listed in my -- in this
7 declaration.

8 Q. Let's look at paragraphs 25 to 48 on
9 Exhibit 2008. That starts at page 9.

10 Can you see pages 9 and 10 of
11 Exhibit 2008 on the screen, Dr. Traynor?

12 A. Yes. I can see those two pages.

13 Q. Starting at paragraph 25, your
14 materials considered, do these paragraphs include
15 a complete list of the materials you reviewed in
16 forming your opinions contained in the second
17 declaration?

18 A. I believe so. I'd need to see
19 page 11 to see if it continues on. But to my
20 understanding, this is an honest enumeration of
21 the references that I considered.

22 Q. Okay. And you can see page 11 there
23 now?

24 A. Yes. I believe that to be page 11.
25 And I can see it.

1 Q. In forming the opinions in your
2 second declaration, did you rely on any materials
3 other than those listed here on pages 9 to 11 of
4 Exhibit 2008?

5 A. Do you mean explicitly or as, you
6 know, relying on my expertise as a person of
7 ordinary skill of the art?

8 Q. Did you rely on any materials
9 explicitly that aren't listed here, right, as
10 opposed to your general knowledge?

11 A. No. I don't believe so.

12 Q. And who provided you with all these
13 documents listed in the materials considered?

14 A. I'm not sure exactly what you mean.

15 Q. Did you go out and get them yourself,
16 were they provided by counsel, somebody else?

17 A. A collection of those things. Some
18 of the patents I downloaded myself. Some were
19 sent to me by counsel. I don't, again, have a
20 record of which was which.

21 Q. At any point in your preparation of
22 your second declaration, did you ask Dr. Rubin or
23 Dr. Rubin's counsel for any documents that were
24 not available to you?

25 A. No. I don't think so.

1 Q. I'm going to ask a few questions
2 about a person of ordinary skill in the art. And
3 I know we covered this in the last deposition, but
4 I just want to make sure that I understand your
5 opinions as of today and whether they have changed
6 or not.

7 So I guess I'll start with this
8 and -- you're familiar with the term "person of
9 ordinary skill in the art," correct?

10 A. Yes, I am.

11 MR. BANNER: And if we could go
12 to paragraph 35.

13 BY MR. BANNER:

14 Q. And I'll just point out that there
15 are a number of different paragraph 35s. It looks
16 like there might have been some numbering issues,
17 so I'm going to use the page here. Paragraph 35
18 on page 15.

19 A. My apologies. I see where you are
20 now.

21 Q. Yeah. And here in your declaration
22 you use shorthand or acronym when you refer to
23 person of ordinary skill in the art, correct?

24 A. Yes. That's correct.

25 Q. And that's the P-O-S-I-T-A. And I

1 think we maybe disagreed about how to pronounce
2 that. I said POSITA, but --

3 A. I'm happy with POSITA.

4 Q. Okay. So if I say POSITA, you
5 understand that I'm talking about the person of
6 ordinary skill in the art, correct?

7 A. I do, yes.

8 Q. And you actually discussed the level
9 of ordinary skill in the art in this second
10 declaration, correct?

11 A. Yes.

12 Q. And it's in paragraphs 35 through 40
13 starting at page 15, I believe. Is that correct?

14 A. Yes.

15 Q. And you basically agree with the
16 level of ordinary skill in the art set forth in
17 the declaration of Dr. Meldal, is that correct,
18 with one caveat, I believe?

19 A. Would you please bring up
20 Dr. Meldal's declaration? I believe what you've
21 said to be correct, but you're asking me a
22 specific question. I believe our definitions are
23 close to each other.

24 Q. Okay. Well, let me just say, maybe
25 not -- let me rephrase that question.

1 So you basically agree with the level
2 of ordinary skill in the art as proposed by
3 petitioner with some clarification and adjustment,
4 correct? And I'm looking at paragraph 39 of your
5 report.

6 A. Yes. I'm just trying to be as clear
7 as possible. Again, I believe our definitions are
8 fairly close.

9 Q. Okay.

10 A. A POSITA would have a Bachelor's
11 degree, as I say in paragraph 39, plus
12 approximately two years of professional
13 experience. Some additional education would
14 likely make up for any lack of experience.

15 Q. And when we discuss the person of
16 ordinary skill in the art, or the POSITA, you
17 understand that we're talking about a person with
18 this level of skill around the July 2014 time
19 frame; is that correct?

20 A. Yes. I understand that.

21 MR. BANNER: Ben, could you
22 go -- oh, sorry. We're already on page 15.

23 BY MR. BANNER:

24 Q. So paragraph 34 on page 15 of
25 Exhibit 2008 under heading "Claim Construction,"

1 do you see that there, Dr. Traynor?

2 A. Yes. I see it.

3 Q. Now, in this second declaration, you
4 haven't proposed any claim constructions for any
5 claim terms; is that correct?

6 A. I don't believe that I have. I've
7 used plain and ordinary meaning.

8 Q. And in your first declaration--and we
9 can go to that if we need to--there was -- you had
10 proposed a claim construction for the term
11 sensitive information. Do you remember that?

12 A. I remember that we discussed it
13 extensively. If you'd like to bring up the text,
14 I'm happy to answer questions about it
15 specifically.

16 Q. All right. Before I do that, do you
17 understand that the board provided preliminary
18 guidance related to patent owner's first motion to
19 amend?

20 A. Yes. I understand that.

21 Q. And do you have an understanding as
22 to whether the board agreed or disagreed with your
23 proposed claim construction for the term
24 "sensitive information" in that preliminary
25 guidance?

1 A. It's my understanding that the board
2 said plain and ordinary meaning.

3 Q. Now, do your opinions in your second
4 declaration use the construction of "sensitive
5 information" given by the board or the
6 construction that you used in your first
7 declaration?

8 A. Again, I'm giving "sensitive
9 information" its plain and ordinary meaning.

10 Q. So your opinions in the second
11 declaration use just the plain and ordinary
12 meaning of the term "sensitive information"; is
13 that correct?

14 A. The plain and ordinary meaning of the
15 words, as I as a POSITA understand them, yes.

16 Q. Okay.

17 MR. BANNER: Could we go to page
18 18, Ben.

19 BY MR. BANNER:

20 Q. Dr. Traynor, I'd like to talk a
21 little bit about this limitation 26d. Do you see
22 it there on the page?

23 A. Yes. I see it.

24 Q. And you understand patent owner has
25 amended element 26d of claim 26?

1 A. Yes. I understand that.

2 Q. And it now reads, "if and only if
3 both the first and second devices are determined
4 to be accessible by the server, then:
5 transmitting the first subset of the information
6 to the first device from the server; and
7 transmitting the second subset of the information
8 to the second device from the server, wherein the
9 second subset of the information includes
10 information not transmitted to the first device
11 thereby protecting the second subset of the
12 information not transmitted to the first device
13 from potential malware on the first device"; is
14 that correct?

15 A. Those are the words in 26d, yes.

16 Q. Okay. I'd like to ask some questions
17 about how a POSITA would understand this new
18 claim. Is that all right?

19 A. Yes.

20 Q. In the context of claim limitation
21 26d, if the second subset of the information
22 includes information not transmitted to the first
23 device, is the second subset of the information
24 not transmitted to the first device protected from
25 potential malware on the first device?

1 A. I apologize. It sounds like you're
2 rearranging the words in 26d, so my answer is
3 simply to point to the bolded text, "thereby
4 protecting the second subset of the information
5 not transmitted to the first device from potential
6 malware on the first device."

7 Q. Okay. You understand that claim 26
8 is a method claim, correct?

9 A. It's my understanding.

10 Q. And that the method claim recites
11 steps, correct?

12 A. That's my understanding.

13 Q. So I guess what I'm trying to ask,
14 and I wasn't trying to be -- I wasn't trying to
15 really rearrange. I'm just trying to understand
16 how a POSITA would understand this new addition to
17 claim limitation 26d.

18 So maybe I could ask it a different
19 way. Does the act of not transmitting some of the
20 second subset's information to the first device,
21 protect the second subset of the information from
22 potential malware on the first device, or is there
23 some other step needed to satisfy the "thereby"
24 clause here?

25 A. Again, I'm just going back up into

1 the claim language above in this in 26d that there
2 is a transmitting of first subset to the first
3 device and there's a transmitting of second subset
4 to the second device. This additional bolded text
5 makes it clear that the second subset is not
6 transmitted to the first, that isolation is what
7 provides protection.

8 Q. Okay. So not transmitting
9 information to the first device is what protects
10 it; is that correct?

11 A. Again, let me be clear.

12 MR. BENISEK: Object to form.
13 Sorry. Objection. Form.

14 A. Let me be clear. This bolded text is
15 read in the context of the above. So there is a
16 transmission of first subset of information to the
17 first device and there is a transmission of second
18 subset of data to a second device.

19 So it's not just that no data is ever
20 sent. It's that specifically the second subset is
21 not sent to the first device.

22 BY MR. BANNER:

23 Q. Okay. See if I can ask this in
24 another way. So in the context of this claim
25 limitation where the first subset of information

1 is transmitted to the first device and the second
2 subset of information is transmitted to the second
3 device and the second subset of information
4 includes information not transmitted to the first
5 device, the fact that it is not transmitted to the
6 first device is what protects that second subset
7 of the information from the potential malware; is
8 that correct?

9 MR. BENISEK: Object to the
10 form.

11 A. So let me just try to be clear again.
12 This is about information isolation. And the '376
13 patent is attempting to prevent a compromised
14 first device from gaining access to sensitive
15 information as is explained here in 26d.

16 That's done by sending some subset
17 nonsensitive information to the first device and
18 then sending the sensitive information only to the
19 second device. Malware cannot access or
20 compromise the information that it cannot see.

21 MR. BANNER: Ben, let's pull up
22 Exhibit 1001.

23 (Exhibit Number 1001 was
24 introduced at this time.)

25 BY MR. BANNER:

1 Q. Dr. Traynor, do you recognize this as
2 the '376 patent?

3 A. Yes. That's what it appears to be.

4 MR. BANNER: And, Ben, can we
5 turn to Figure 9.

6 BY MR. BANNER:

7 Q. Do you see Figure 9 on the screen,
8 Dr. Traynor?

9 A. Yes. I can see it.

10 Q. And Figure 9 of the '376 patent
11 illustrates an example of patent owner's alleged
12 invention, correct?

13 A. Will you give me just a moment to
14 read this if you're going to ask me specific
15 questions about it?

16 Q. Sure.

17 A. Thank you. (Reviewing.) Okay. I
18 read it. I apologize. Can you repeat your
19 question?

20 Q. Figure 9 of the '376 patent
21 illustrates an example of patent owner's alleged
22 invention; is that correct?

23 A. This looks like one potential
24 instantiation.

25 Q. And in this case, it's the banking

1 application example; is that correct?

2 A. That's what it appears -- it appears
3 to be one instantiation of a banking application,
4 yes.

5 Q. Does the example shown here in
6 Figure 9 illustrate transmitting a first subset of
7 information to a first device from the server?

8 A. To me, it appears that in step 912
9 after the user has logged in that they are
10 presented with some information. So that would be
11 a first subset.

12 Q. And does Figure 9 illustrate
13 transmitting a second subset of information to the
14 second device from the server?

15 A. It appears to.

16 Q. And where is that?

17 A. Well, step -- the step after 918
18 where it says "Send account balance to User second
19 device," so when the trusted banking server--and
20 I'm reading that as the server--sends the balance
21 amount that was requested from the first user
22 device, that -- I apologize. 919 would be that
23 second subset.

24 Q. Okay. Would you agree that that
25 second subset of information includes information

1 not transmitted to the first device?

2 A. Well, in particular here it looks
3 like step 919 lists the balance and step 913 is a
4 request for the balance. And so, again, without
5 reading the full spec, it would seem like here the
6 sensitive information is the balance amount. So
7 that looks to be what's being depicted.

8 Q. And is that balance amount protected
9 from potential malware on the first device in this
10 illustration of Figure 9?

11 A. Again, as I said before, that's what
12 it appears to be. The balance amount doesn't
13 appear to show up in the user first device, and so
14 I believe that's what's being illustrated.

15 Q. The balance amount is being protected
16 from any malware on the first device in this
17 illustration; is that correct?

18 A. The balance amount is never sent to
19 the first device. It's only sent to the second
20 device. So malware running on the first device
21 would not have access to the balance amount
22 according to this figure.

23 Q. Okay. Now the column on the left of
24 Figure 9 that has "User First Device" up at the
25 top, that shows actions that take place on the

1 user's first device; is that correct?

2 A. That's my understanding.

3 Q. At element 911 in Figure 9 the user
4 logs into the banking application on the first
5 device; is that correct?

6 A. Those are the words for 911, yes.

7 Q. And element 912 the user selects an
8 account for balance inquiry; is that correct?

9 A. Those are the words that are there,
10 yes.

11 Q. And so if we assume that malware such
12 as spyware is present on the first device in
13 Figure 9, is that an assumption we can make for a
14 hypothetical?

15 A. Yes. That's correct.

16 Q. And you would understand that
17 hypothetical?

18 A. Yes. I understand the hypothetical
19 that malware is present on the user first device.

20 Q. If malware such as spyware is present
21 on the first device in Figure 9, that spyware will
22 be able to obtain the user's login and password;
23 is that correct?

24 A. That would be my assumption.

25 Q. And would that spyware also be able

1 to obtain the user's online bank?

2 MR. BENISEK: Object to form.

3 A. Sorry. The name of the bank? You
4 ended the question at a strange place. I just
5 want to make sure I understand it.

6 BY MR. BANNER:

7 Q. Sure. Some indication of what bank
8 the user is logging into?

9 A. I would imagine so, yes.

10 Q. And if malware such as spyware is
11 present on the first device on Figure 9, would
12 that spyware be able to obtain the user's online
13 bank account?

14 MR. BENISEK: Object to form.

15 A. Not necessarily.

16 BY MR. BANNER:

17 Q. And why not?

18 A. Well, multiple reasons. The first is
19 that this figure is just one possible
20 instantiation of the '376 invention. If for some
21 reason--and I don't agree with this--the account
22 number was not sensitive information, then perhaps
23 they could. But the second reason is from my own
24 experience, and that is when I log into my bank
25 account, I never actually see my bank account

1 number.

2 When I log in, I'm given the last
3 four digits of that number, but it's not without
4 going through multiple steps that I can actually
5 see my full account number.

6 So to reiterate my response, not
7 necessarily.

8 Q. I guess I'm just talking about
9 element 912 in Figure 9 where it says "Select
10 account for balance inquiry." Do you see that?

11 A. Yes, I do.

12 Q. And whatever account selection is
13 available to the user in 912, would also be
14 detectable or viewable by malware such as spyware
15 running on first device. Would you agree with
16 that?

17 A. May I explain through another
18 example?

19 Q. Sure.

20 A. My wife and I both have individual
21 accounts and a shared account. When I log into
22 our bank, it says "Patrick and Sheila's account."
23 So to the extent that the malware would see
24 Patrick and Sheila's account--and let me be clear,
25 Sheila is my wife's name--it would learn that that

1 was Patrick and Sheila's account.

2 So that's the extent that malware
3 running on this system would learn.

4 Q. So if I -- if the user was presented,
5 let's say, with the option to choose between a
6 checking account or a savings account in step 912,
7 the malware would be able to detect information
8 that the user has a checking account and a savings
9 account; is that correct?

10 A. If that information is on the screen
11 as I -- and I apologize, you've given me a
12 hypothetical, so we're imagining together here.
13 But I imagine the screen says "Checking" and
14 "Savings," it would be my assumption malware could
15 see the words "Checking" and "Savings" and would
16 learn that information.

17 Q. Okay.

18 A. From your example, from what I see
19 here, I don't see that information.

20 Q. Based on Figure 9, if malware such
21 spyware is present on the first device, that
22 spyware will be able to see whatever account
23 selection option is presented to the user in 912;
24 is that correct?

25 A. Whatever text is on the screen will

1 be available to the malware. Here this example
2 clearly makes it--I apologize for using the word
3 again--clear that in this case, the balance is the
4 sensitive information in this example. That
5 doesn't mean that it's necessarily the sensitive
6 information in every transaction. It's just one
7 example.

8 Q. Okay.

9 MR. BANNER: Ben, if we could go
10 back to Exhibit 2008 on page 18. Again,
11 looking at 26d.

12 BY MR. BANNER:

13 Q. So looking at this limitation 26d
14 again, Dr. Traynor, if we assume transmitting the
15 first subset of the information to the first
16 device from the server and transmitting the second
17 subset of the information to the second device
18 from the server, wherein in the second subset of
19 the information includes information not
20 transmitted to the first device.

21 So under those, assumptions, if those
22 actions have taken place in a system, do you
23 understand the assumption?

24 A. Yes. I understand.

25 Q. Is that system thereby protecting the

1 second subset of the information not transmitted
2 to the first device from potential malware on the
3 first device?

4 A. Again--and I apologize if I'm
5 repeating myself--if there's malware running on
6 the first device and the subset of information
7 sent only to the second device is not sent to the
8 first device, then that second subset is not
9 exposed to the malware and so it is protected.

10 MR. BANNER: Can we pull up
11 1023, Ben.

12 (Exhibit Number 1023 was
13 introduced at this time.)

14 BY MR. BANNER:

15 Q. Exhibit 1023 is the Kling reference.
16 Do you recognize this, Dr. Traynor?

17 A. Yes, I do.

18 Q. And when was the last time you
19 reviewed Kling?

20 A. I opened this back up again
21 yesterday.

22 Q. How much time did you spend reviewing
23 Kling prior to submitting your second declaration?

24 A. I don't have any logs of how much
25 time, so I couldn't give you a ballpark. It's a

1 fairly short patent, so...

2 Q. And you said you opened it up prior
3 to this deposition; is that correct?

4 A. My apologies. My understanding of
5 your question was that you were asking for the
6 most recent time that I opened it, and I believe
7 that was last night.

8 Q. Okay.

9 A. Just to look over it. But that was
10 certainly not the first time I opened it.

11 Q. Sure. Yeah. I apologize if my
12 question was confusing. Just curious how much
13 time you spent reviewing Kling between submitting
14 your second declaration and the start of this
15 deposition.

16 A. I don't track individual references.
17 My apologies. That said, it's not a very long
18 patent. There's a small number of claims.

19 Q. Kling discloses the use of two
20 devices to perform a banking transaction. Is that
21 consistent with your understanding of Kling?

22 A. Kling's a two-factor authentication
23 patent. It specifically talks about a financial
24 transaction.

25 Q. Your declaration you call it

1 two-factor plus; is that correct?

2 A. I believe I use those words. Do you
3 need me to confirm the exact wording or...

4 Q. No. That's probably not necessary.
5 Kling discloses the use of two devices to perform
6 the banking transaction; is that correct?

7 A. Apologies. I feel like you're asking
8 me the same question again, so I'm just going to
9 respond the same way. Kling is a two-factor plus
10 authentication mechanism, and it appears to be
11 specifically targeting online banking as it says
12 in the abstract.

13 Q. I apologize. I feel like you're not
14 really answering my question. So maybe we can
15 just looking at the abstract here.

16 The second-to-last sentence at the
17 bottom that starts with "In particular." Do you
18 see that there?

19 A. Yes. I see it.

20 Q. And it says, "In particular, a secure
21 transaction that is originated on one type of
22 consumer device such as a PC is conducted to
23 require a secondary transaction on a different
24 device such as a mobile phone." Do you see that?

25 A. I do see that.

1 Q. So is the abstract here of Kling
2 disclosing the use of two devices to perform a
3 banking transaction?

4 A. My apologies. I felt that's what I
5 was saying. By saying two-factor authentication,
6 one needs two factors. Here in Kling those two
7 factors are a PC and it looks like a second
8 device, a different device, a mobile phone.

9 I don't believe that was inconsistent
10 with what I said before. My apologies.

11 Q. Okay. I just wasn't sure if there
12 was some terminology that wasn't understanding,
13 so...

14 So it's correct that Kling discloses
15 the use of two different devices to perform a
16 banking transaction, right?

17 A. Again, I just want to be specific.
18 There are two devices used in Kling, and it's
19 two-factor authentication for a banking
20 transaction.

21 Q. And would you agree that Kling helps
22 to prevent malware on the first device from
23 hijacking an online money transfer?

24 MR. BENISEK: Object to form.

25 A. Can you be more specific?

1 BY MR. BANNER:

2 Q. Maybe we should just turn to
3 paragraph 48 of Exhibit 2008. There's a -- about
4 four lines down --

5 A. If you'll just give me a moment to
6 read this. Thank you. (Reviewing.) Okay. I've
7 read it.

8 Q. So my question was that you would
9 agree that Kling helps to prevent malware on the
10 first device from hijacking an online money
11 transfer, correct?

12 A. Those are my words here in paragraph
13 48, yes.

14 Q. The Kling discloses using the second
15 device to confirm a banking transaction such as a
16 money transfer, correct?

17 MR. BENISEK: Object to form.

18 A. Kling uses the second device to okay
19 the transaction. So the second device -- the
20 transaction is happening on the first device. The
21 second device gets a message that says, "Here is
22 the transaction information entered on the first."
23 "Do you approve?" "Okay."

24 BY MR. BANNER:

25 Q. Okay. I asked if Kling uses a second

1 device to confirm a banking transaction, and your
2 answer was that Kling uses a second device to okay
3 the transaction. Is there a difference between
4 confirming and okaying to you?

5 MR. BENISEK: Object to form.

6 A. I just wanted to try and make sure I
7 wasn't using any coded language. So the
8 transaction is entered on the first device. That
9 transaction, all of that information from the
10 first device is then sent to the second device.
11 And then there is a question, and that is, "Is
12 this okay?"

13 So confirmation and then approval
14 ultimately what happens on the second device.
15 BY MR. BANNER:

16 Q. And in Kling, only the combination of
17 actions performed on the two devices will cause
18 the user's money transfer to succeed; is that
19 correct?

20 MR. BENISEK: Object to form.

21 A. My understanding of Kling is that all
22 of the sensitive information is entered on the
23 first device and then sent to the second device.
24 And when the user presses "OK" on the second
25 device, then the transaction is approved. Without

1 a second device, my understanding of Kling is that
2 the transaction will fail.

3 BY MR. BANNER:

4 Q. So only the combinations of the
5 actions performed on the two devices will result
6 in a successful banking transaction in Kling; is
7 that right?

8 A. In this case all of the information
9 about the transaction is on the first and second
10 devices. And so when both devices have all of the
11 sensitive information, the second device can
12 approve the transaction.

13 Q. Without the approval by the second
14 device, the transaction will not succeed; is that
15 correct?

16 A. The second -- the user of the second
17 device is given the transaction information that
18 was entered on the first device and prompted to
19 approve or deny the transaction. If the second
20 device doesn't exist, it's my understanding that
21 the transaction -- that transaction will not
22 happen.

23 Q. So only the combination of the
24 actions performed on the two devices in Kling will
25 cause the transaction to succeed, correct?

1 A. Wherein the actions include sending
2 the sensitive information from the first device to
3 the second device, and then the second device with
4 that same sensitive information approves it, yes,
5 then it will happen.

6 Q. Let's look at Exhibit 1023 again in
7 Figure 4. Do you see Figure 4 on the screen,
8 Dr. Traynor?

9 A. Yes. I can see it.

10 Q. So with respect to the actions we
11 were talking about, Kling is Figure 4. Do you
12 agree that it's illustrating splitting up the
13 banking transactions such as a money transfer into
14 different actions that occur on the two different
15 devices?

16 MR. BENISEK: Object to form.

17 A. I certainly see certain actions
18 happening on different devices, yes.

19 BY MR. BANNER:

20 Q. And on the first device there's, I
21 guess, box 407 where it says "Enter desired
22 transaction." Would you agree that that's an
23 action that happens on the first device?

24 A. Yes.

25 Q. And over on the right-hand side,

1 there's a box 415 that says, "Enter OK or Cancel."
2 Do you see that?

3 A. Yes. I see that.

4 Q. And is that an action that would
5 happen on the second device?

6 A. Well, again, according to Figure 4,
7 it's in the column under "Secondary." So, yes.
8 It would appear that that "Enter OK or Cancel"
9 would happen on that second device.

10 Q. Let me ask you about this: There's a
11 box 408 that says "Display transaction." Do you
12 see that?

13 A. Yes, I see it.

14 Q. Is it your understanding that the
15 transaction is displayed on the second device even
16 though that box is in the middle column of this
17 figure?

18 A. So my understanding of Kling is that
19 what makes it two-factor authentication plus is
20 that it discloses information about the
21 transaction on the second device. That's the
22 inventive step of Kling, in my understanding.

23 A standard two-factor authentication
24 technique might just--as you've certainly
25 experienced--say, "Are you trying to log into your

1 bank right now?" So what distinguishes Kling from
2 the prior art for me is that the specifics of that
3 transaction do end up on the secondary device.

4 Q. So there's transaction information
5 that is displayed on the secondary device; is that
6 correct?

7 A. My understanding is that the
8 transaction information is displayed.

9 Q. Now, the "Enter OK or Cancel" box 415
10 on Figure 4 of Kling is only for the account
11 holder and not for anyone else, right?

12 MR. BENISEK: Object to form.

13 A. I imagine that the text "Enter OK or
14 Cancel" is the same on every device. It's the
15 transaction information that would be unique, but
16 "Enter OK or Cancel" would be the same user
17 interface elements on all devices.

18 Q. So a POSITA reading Kling would
19 understand that the OK or cancel options that are
20 displayed to the user are tied to a particular
21 transaction that that same user initiated; is that
22 correct?

23 A. So looking at the spec--and this is
24 in paragraph 19, for example--a user would -- on
25 their device would need to be to see the

1 transaction information. Again, Kling is about
2 hijacking.

3 And so if the value entered on the
4 first device -- I apologize. That noise wasn't
5 from my side.

6 MR. BENISEK: It was mine.

7 A. If the transaction entered on the
8 first device is different than the transaction
9 information that shows up on the second device,
10 the user has detected a hijacking.

11 And so without that information, I
12 don't know how they would detect specifically that
13 the transaction had been hijacked.

14 BY MR. BANNER:

15 Q. I'm not sure that answered my
16 question. I guess my question is when the user in
17 Kling sees the "OK or Cancel" option on their
18 second device, that option is tied to a particular
19 transaction, correct?

20 A. I just want to try and break this
21 down a little bit further. So the "Enter OK or
22 Cancel" will be a button. There will also be
23 transaction information that pressing that button
24 has to confirm.

25 And so if the information entered on

1 the first device is different than the information
2 displayed on the second device, Kling says that a
3 hijack has been detected and then the user should
4 decline the transaction.

5 Q. Would a POSITA reading Kling
6 understand that every detail of the transaction is
7 displayed on the second device along with the
8 "Enter OK or Cancel"?

9 MR. BENISEK: Object to form.

10 A. Sorry, this seems like a
11 hypothetical. I would imagine that it's Kling's
12 intention to give the user on the second device
13 the information they need in order to determine
14 whether or not specifically a transaction was
15 hijacked.

16 So I would imagine that would be
17 account information. I would imagine that that
18 would be the balance of the transaction. I
19 imagine I would need those things.

20 THE WITNESS: Counsel, when it's
21 convenient, I think we're coming up on an
22 hour. I can certainly blaze ahead here for a
23 few more minutes, but just let me know when
24 it's convenient for to you take a short
25 break.

1 MR. BANNER: I think we could go
2 ahead and take the break now.

3 THE WITNESS: Thank you.

4 MR. BANNER: Thanks for the
5 reminder.

6 TRIAL TECHNICIAN: Off the
7 record at 12:03 p.m.

8 (A recess was taken from
9 12:03 p.m. until 12:11 p.m.)

10 TRIAL TECHNICIAN: Back on the
11 record at 12:11 p.m.

12 BY MR. BANNER:

13 Q. Dr. Traynor, you understand you're
14 still under oath?

15 A. Yes, I do.

16 Q. Thanks.

17 MR. BANNER: Ben, if we could
18 pull up Exhibit 2008, page 17.

19 BY MR. BANNER:

20 Q. Dr. Traynor, I want to talk a little
21 bit about claim limitation 26c. Do you see that
22 that limitation on page 17 of your report?

23 A. I do. Could you just give me a
24 moment to read it just to -- so that I'm ready to
25 answer?

1 Q. Certainly.

2 A. Thank you. (Reviewing.) Okay. I've
3 reread it.

4 Q. Claim limitation 26c recites
5 application specific authentication information
6 that is not authentication information specific to
7 a device; is that correct?

8 A. Yes, I see those words.

9 Q. I'd like to ask a little bit about
10 authentication information that is not specific to
11 a device if I could.

12 A. Okay.

13 Q. In general, what does a POSITA
14 reading that claim language understand that to
15 mean?

16 A. So my understanding here is that
17 authentication information -- my apologies.
18 Application specific authentication information is
19 taken with plain and ordinary meaning.

20 And so what this would mean to me is
21 that information that is specific to a device that
22 would prevent me from using multiple different
23 devices, say my phone and then my wife's phone,
24 information that would prevent me from using
25 multiple secondary devices would not qualify.

1 Q. Is there a certain type of
2 information in a phone that would be device
3 specific in the example you gave of your wife's
4 phone and your phone?

5 A. Yes.

6 Q. And what's an example of that?

7 A. We spoke about this in the last
8 deposition, so I apologize if I'm repeating
9 myself. But one example is the IMSI. Do you
10 remember that term? It's the I-M-S-I.

11 Q. I-M-S-I, yes.

12 A. Yes. That stands for the
13 international mobile subscriber identifier. And
14 the IMSI is an identifier for my SIM card. Is
15 that a term you're familiar with?

16 Q. Yes.

17 A. So my phone and my wife's phone each
18 a different SIM card and therefore they each have
19 a different IMSI. Those IMSIs are specific to
20 those devices.

21 Q. Isn't it possible to move a SIM card
22 from one phone to another phone?

23 MR. BENISEK: Object to form.

24 A. I mean, in the abstract, yes. There
25 are some complications with that in modern phones.

1 BY MR. BANNER:

2 Q. What do you mean by "in the abstract,
3 yes"? I mean, is it not possible to move a SIM
4 card from one phone to another phone?

5 A. My apologies. So it's very important
6 that you understand that the architecture of
7 phones is changing. We're moving from traditional
8 physical SIMS to eSIMs so that's specialized
9 hardware. That specialized hardware can actually
10 no longer be physically moved between phones, and
11 that's for reliability reasons. So you could move
12 an IMSI possibly between phones.

13 Now, that said, an IMSI is not the
14 only kind of device specific identifier. Let me
15 concretize it with an example that can't be moved.
16 That would IMEI or an international mobile
17 equipment identifier. Are you familiar with that
18 term?

19 Q. Yes.

20 A. Okay. Do you want me to explain it
21 or are you familiar enough that I don't need to?

22 Q. You can explain it.

23 A. So an IMEI is distinct from an IMSI
24 in that it actually identifies the handset. So
25 even if I were to, in the abstract, move an IMSI

1 between phones to fundamentally reprovision a
2 phone, I can't move my IMEI between phones.

3 Q. When we were talking about the IMSI,
4 you distinguished between a physical SIM card and
5 an eSIM?

6 A. Yes.

7 Q. Do you have a idea when eSIMs became
8 available?

9 A. Certainly widespread use in the late
10 20-teens. So, again, I just wanted to make sure
11 that my answer was fully qualified so that you had
12 all the information.

13 Q. Sure. As far as physical SIM cards
14 are concerned, you would agree with me that those
15 can be moved from phone to phone, correct?

16 A. Again, I just want to qualify in the
17 abstract, yes. But I believe if it's not the
18 current version of the iPhone, the next one will
19 be eSIM only and so at that point it won't even
20 have a slot for a SIM card. So yes in the
21 abstract with some changing details in the
22 landscape.

23 Q. Okay. Let's talk about phones in
24 2014. Can we do that?

25 A. Of course.

1 Q. And physical SIM cards in 2014 could
2 be moved from phone to phone. Would you agree
3 with that?

4 A. Yes. In 2014 cards could be moved
5 between phones. Now, I will note that providers
6 may not actually let you or alarms may go off when
7 you do that. Are you familiar with something
8 called SIM swapping?

9 Q. I've probably heard about it, but I'm
10 not an expert on it.

11 A. Well, imagine you have a scenario
12 like Kling and someone goes to -- we'll pretend
13 you're an AT&T customer. They go get a new SIM
14 card and they say, "I'm Brian Banner." And AT&T
15 just gives them a new SIM card. That would
16 potentially allow that transaction to still be
17 hijacked.

18 So if the IMEI doesn't -- does
19 change, but the SIM card -- but the SIM --
20 basically if some combination of IMEI and IMSI
21 changing happens, it may be prevented.

22 Similarly, in 2014, there were some
23 import restrictions in certain countries. If you
24 had to pay a tariff on the physical hardware of
25 your phone, those IMEIs would be included in a

1 national list. And during the authentication
2 process, if you moved a legitimate IMSI to a phone
3 with an IMEI that wasn't in the list, the provider
4 would stop you. You wouldn't be able to
5 authenticate.

6 Q. Okay. Let me go back to 2014,
7 physical SIM card. And the reason I'm talking
8 about SIM cards is because when I first asked you
9 about examples of device-specific information, you
10 brought up SIM card. And I'm just trying to
11 understand the contours of when something is
12 device specific and when something is not.

13 And so if we can go back to 2014 and
14 talk about a physical SIM card and the IMSI that's
15 on that physical SIM card, would a POSITA consider
16 that to be device-specific information if that SIM
17 card could be moved from one phone to another
18 phone?

19 A. Yes. There were many applications,
20 mobile apps at the time that actually tried to
21 take IMSI information. And so if a password was
22 compromised that if the IMSI changed, they
23 wouldn't allow login. And so IMSIs were -- and
24 again, they are not strong, but they have
25 historically been used as an authenticator of the

1 device.

2 Q. So is a SIM card in 2014 device
3 specific or not device specific?

4 A. Yes. I apologize if I was unclear.
5 A SIM card, an IMSI, was used widespread -- and
6 again, not necessarily strong but as a widespread
7 way of identifying the device that a user is on.
8 It was used for everything from weak security
9 schemes to advertising tracking.

10 Q. So even though that IMSI could be
11 moved over to another phone, a POSITA would
12 consider it to be device specific?

13 A. Yes. Users don't move their SIM
14 cards very often. It might be once every two
15 years. And so in general SIM cards, IMSIs, are
16 sort of close to permanent to the lifetime for the
17 device. So yes, this was a widespread thing since
18 the late 2000s.

19 Q. Back to limitation 26c, how about a
20 user identifier and password? Would that be
21 application specific authentication information
22 that is not authentication information specific to
23 a device?

24 A. Could you be more specific?

25 Q. Username and password?

1 A. My apologies. If the username and
2 password are to log me on to my mobile device,
3 then no, I would say that those are device
4 specific. If the username and password are to log
5 me into the mobile app, the application in
6 question, then I would say yes they are.

7 Q. Okay. What about, in the context of
8 limitation 26c, an authentication number that was
9 given to a user to access the application? Would
10 that be application specific authentication
11 information that is not authentication information
12 specific to a device?

13 A. So it's -- just so I am clear here,
14 you're asking me a hypothetical or are you asking
15 me about something specific I've said in my
16 report?

17 Q. I'm just asking you a hypothetical.

18 A. I think I'd -- just like the
19 password -- username and password example that we
20 just went through, I think I'd need more
21 information.

22 Q. So the hypothetical is the user is
23 provided with an authentication number that --
24 okay. Let me strike that.

25 Hypothetical is the application

1 provides the user with an authentication number.
2 Does that make sense?

3 A. I think so. It could be. I mean,
4 again, you said it was from the application?

5 Q. Correct. It's from the application.

6 A. It could be. Again, without knowing
7 the full parameters of the system, it's hard for
8 me to say, but it could be.

9 Q. It could be what?

10 A. I apologize. You asked me a question
11 if it could be application specific authentication
12 information. My answer --

13 Q. That is not specific to a device?
14 Sorry to interrupt.

15 I guess, let me just back up and say,
16 you know, again, I'm trying to figure out, you
17 know, you've stated in your report a number of --
18 in your second declaration a number of times that
19 one thing or another is device specific or not
20 device specific.

21 And so I'm trying to understand in
22 the context of this new limitation kind of what
23 the contours of that new limitation are to a
24 POSITA reading this claim.

25 And so do you understand kind of what

1 I'm trying to get at here?

2 A. Yes. And I'm trying to be as helpful
3 as possible as an expert so that's -- again, as an
4 expert, context is everything. And me asking
5 questions is just so that I make sure that I'm
6 answering the question.

7 Q. So back to the hypothetical I was
8 trying to pose is the application provides an
9 authentication number that gives the user access
10 to the application. Is that authentication number
11 device specific or not?

12 A. Again, it could be. I don't know --
13 when you say the application gave it to it, I
14 don't know if this is, you know, on one screen
15 versus another. I don't know that if that number
16 was, you know, created if I could use any device
17 or a specific device.

18 So all of these pieces, all of this
19 context weighs on my ability to answer you.

20 Q. Okay. How about this one: How about
21 user's biometric information is used to access the
22 application? Is biometric information such as
23 iris information, a fingerprint or a voice, is
24 that specific to a device?

25 A. Again, it really depends on how it's

1 implemented. So on the Google Pixel, for example,
2 the biometric information isn't sent out to the
3 application. The operating system processes,
4 makes judgments, about that biometric and then
5 signals the app that some process has happened.

6 In this hypothetical that same
7 information is being used by multiple
8 applications. So the operating system is
9 collecting that information.

10 So in this case I would lean towards
11 probably not. If you had a case that was more the
12 application is doing it directly, it's possible.
13 Does the application have specific phrases that
14 I'm supposed to say that are unique to the
15 application, that would make me lean more towards
16 application specific.

17 Again, I apologize. I am just trying
18 to -- this is all -- context is very important and
19 I want to make sure that my answers are
20 appropriate to whatever context it is you're
21 trying to achieve.

22 Q. So if the application asks for
23 biometric information in order to authenticate the
24 user, would that be application specific
25 authentication information that is not

1 authentication information specific to a device?

2 A. Again, depending on how it's
3 implemented, it could be or not. The way that an
4 Android often works--and again I'm speaking
5 specifically about the Pixel line of devices--is
6 that the operating system is actually what's
7 asking for the biometric information.

8 The application doesn't get your
9 fingerprint. It gets a signal from the operating
10 system that it has correctly recorded that
11 information.

12 So just trying to show you that
13 there's quite a bit of nuance in this space.

14 Again, even if the application was
15 recording it, my voice is going to be the same on
16 multiple things. So is it specific to an
17 application? That's why I said are there unique
18 phrases I'm seeing just for that application? I
19 don't have the context.

20 So I'm trying to reason through these
21 hypotheticals with you and show you ways in which
22 it could be sometimes and isn't other times.

23 Q. Seems maybe your answer is -- or
24 maybe you're focusing on whether biometric
25 information is specific to the application. I

1 guess my question -- and I apologize if it wasn't
2 clear. I'm more concerned about whether it is not
3 authentication information specific to a device,
4 this new term that we see in claim limitation 26c.
5 And maybe you were answering that question.

6 A. My apologies. I believe that I was
7 trying to answer that. And so perhaps I can just
8 restate one more time, again, the context matters.
9 Is the device what's actually recording and
10 mediating the use of the biometric? In that case
11 it's got some sort of secret that it's going to
12 share with the application when the process is
13 completed.

14 If I'm on a different device, it
15 would have a different secret. And so in that
16 case, I would imagine that it could be device
17 specific.

18 As you're probably aware, biometrics
19 are what are known as fuzzy authenticators. And
20 so the digital representation of my fingerprint,
21 my iris, my voice will actually change not just
22 from device to device, but even a little bit day
23 to day.

24 So depending on how it's captured, it
25 could indeed be device specific because ultimately

1 what the device is telling the application is a
2 secret that it's recorded. A different device
3 will likely have a different secret for that same
4 biometric.

5 Q. So if we assume that the
6 authentication of the biometric is ultimately
7 handled by the application in the system and not
8 by the device, can we make that assumption?

9 A. So a further hypothetical that the
10 device is doing the authentication of the
11 biometric signal. Is that what you're asking me?

12 Q. Right. So a further hypothetical is
13 that the application is ultimately analyzing the
14 biometric information in determining whether the
15 user is authentic, as opposed to what you were
16 just pontificating on which is it's the device
17 doing it and then sending some signal to the
18 application itself. Just take the other approach.

19 A. Yeah. And, again, I'm just trying to
20 answer this in as nuanced a treatment as it
21 deserves.

22 Again, because biometrics are fuzzy
23 authenticators, even if the application is
24 measuring, it might be slightly different on each
25 device. And so I can't say for certain.

1 I mean, it seems less device specific
2 if the application is doing all of the recording
3 and processing. But again, I apologize, I'm on
4 hypotheticals on top of hypotheticals, so I
5 just -- I want to answer as cleanly as I can with
6 caveats of not knowing the full construction of
7 the system.

8 Q. So is the information provided by my
9 fingerprint when I use my phone is that specific
10 to the device? Is that what you're saying?

11 A. Again, let me just be very -- try to
12 be clear. Your fingerprint is translated from an
13 analog thing to a digital thing. So that analog
14 thing -- you know, if it's a little bit warmer
15 outside, if it's very dry and your skin is
16 peeling, that biometric changes every day. And so
17 how it's recorded, number one, can also change
18 every day.

19 That said, it's turned into another
20 representation. Now, those representations are
21 generally seeded such that someone simply taking
22 your fingerprint won't necessarily be able to use
23 it elsewhere. They would also need the seed which
24 is contained in secure hardware on the device. Is
25 that a bit clearer?

1 There's, again, quite a bit of nuance
2 that goes on in the biometric space to make sure
3 that it's both robust but also not easy to crack.

4 Q. Yeah. I think I understand the
5 nuance there.

6 So if we go back to 26c, the
7 limitation application specific authentication
8 information that is not authentication information
9 specific to a device, I've posed a number of
10 different types of information. And I think,
11 based on this conversation, we've only agreed that
12 a username and password meet that all the time.
13 Is that correct?

14 A. Again, I want to be careful because,
15 again, I don't think that a username and password
16 necessarily meet it all the time. Do you
17 remember, as I said earlier, if the username and
18 password are for logging into the device, then
19 that's device specific. If it's for the
20 application, it's application specific.

21 So even in that case where we agree,
22 there's nuance in context.

23 Q. Okay. So let's take that and what
24 does the hypothetical there have to be? That the
25 application itself processes the username and

1 password in order for it to be not device
2 specific?

3 A. Again, I could see a case where you
4 would use a common algorithm, maybe mapping a
5 face, for example, and again, the application was
6 doing all of the recording and it had its own
7 seeds, I could see an example of that being
8 application specific. Yeah.

9 Q. Would that be device specific in that
10 case?

11 A. Again, I feel like I've given you a
12 couple specific device-specific iterations. That
13 one that I tried to give you there was the
14 application trying to do everything itself,
15 storing everything, having its own seeds.

16 So, you know, maybe in that case.
17 But, again, without seeing the full system, I
18 can't say definitely. Like biometrics, I
19 appreciate that that's a fuzzy answer, but that's
20 how things work in this space.

21 Q. Bear with me one minute.

22 A. No problem.

23 THE WITNESS: Counsel, I know we
24 haven't quite approached an hour yet; but I
25 would ask, as we approach 1:00 o'clock, if

1 it's possible to have a lunch break.

2 MR. BANNER: Sure.

3 THE WITNESS: I mean, if you
4 need the time now, I can stop, but I'll leave
5 this up to you.

6 BY MR. BANNER:

7 Q. I guess I just want to do a couple
8 follow-ups on this.

9 How does a POSITA in 2014 determine
10 if application specific authentication information
11 is not authentication information specific to a
12 device?

13 A. So, again, I would point you back to
14 examples that we've talked about. Certainly I
15 believe that a username and password for an
16 application, for an application would be.

17 As I've tried to do throughout the
18 last line of questioning, I've tried to provide
19 you the context that a POSITA like myself would
20 use. I would ask how it's implemented, how it's
21 stored, do things change when across devices? If
22 I do something on one device and then I try to do
23 it on the other, if that's forbidden, maybe that
24 pushes me one direction towards device specific
25 more than application specific.

1 So a POSITA would use a range of
2 heuristics like I've talked about to try and
3 discern the full context.

4 Q. Based on our discussion, is it fair
5 to say that fingerprint information may or may not
6 be application specific authentication information
7 that is not authentication information specific to
8 a device depending on the implementation; is that
9 correct?

10 A. I just want to make sure that I'm
11 being consistent and I think you captured at the
12 end there it's that the context matters. Who is
13 doing it? Is it the application? Is it the
14 device? Those bits of context can push that
15 decision either more towards device specific or
16 more towards application specific.

17 If I had source code--and again
18 that's not certainly in my purview for an IPR--I
19 might be able to answer that question more
20 directly. But in this hypothetical, I could see
21 how it could be very specific to a device; I could
22 see how it could be very specific to an
23 application.

24 Q. Is an application specific
25 authentication information also be device

1 specific?

2 MR. BENISEK: Object to form.

3 A. I'm not sure what you mean. I mean,
4 I'm using sort of plain and ordinary meaning here.
5 And so if it's application specific, then it's
6 specific to the application. And if it's device
7 specific, it's specific to the device.

8 BY MR. BANNER:

9 Q. There's no overlap?

10 MR. BENISEK: Object to form.

11 A. I'm not sure. You're asking me a
12 very high-level hypothetical. I'm just using
13 plain and ordinary meaning.

14 MR. BANNER: Let's get paper 21
15 up on the screen, Ben.

16 TRIAL TECHNICIAN: Sorry. Is
17 there a page number for that?

18 MR. BANNER: Page 7. Sorry.

19 TRIAL TECHNICIAN: Thank you.

20 MR. BANNER: Sorry. This is a
21 file that I uploaded a little bit ago. It's
22 paper -- it's called paper 21.

23 TRIAL TECHNICIAN: Oh,
24 understood. Okay. I will get that out of
25 our upload folder, and I'll get that up on

1 the screen. It will be maybe 30 seconds to a
2 minute, but I'll have that up soon.

3 MR. BANNER: Okay.

4 I'll have just a couple
5 questions, and then we can break for lunch.

6 THE WITNESS: Sounds good.

7 MR. BANNER: If we go to page 7
8 and 8, I believe.

9 (Paper 21 was introduced
10 at this time.)

11 BY MR. BANNER:

12 Q. Dr. Traynor, let me just ask you did
13 you review the board's preliminary guidance?

14 A. Yes. I believe I listed it in my
15 references.

16 Q. Do you recognize the document that's
17 on the screen here?

18 A. This looks familiar.

19 Q. Starting kind of around the middle of
20 page 7, do you see where the board's preliminary
21 guidance has a section titled "Claim Construction
22 Application Specific Authentication Information"?

23 A. Yes. I see that line.

24 Q. And do you recall reviewing this
25 discussion from the board about the claim

1 construction of application specific
2 authentication information?

3 A. Yes. I believe -- I apologize. I
4 believe said earlier as I stated at the bottom of
5 the page, it's given its ordinary and customary
6 meaning. I think it's been consistent with that.

7 Q. On the top of page, 8, the board
8 says, "In view of the foregoing, we preliminarily
9 construe the term 'application specific
10 authentication information' as information for
11 authentication that is specific to an
12 application." Do you see that?

13 A. I do, yes.

14 Q. And is that the construction that you
15 have used for your second declaration?

16 A. Yes. I'm trying to follow the
17 board's guidance.

18 Q. Okay. So my question, in light of
19 this construction that application specific
20 authentication information is information for
21 authentication that is specific to an application
22 is can device specific information be information
23 for authentication that is specific to an
24 application?

25 MR. BENISEK: Object to form.

1 A. Can you -- I apologize.

2 THE WITNESS: Ben, can you bring
3 up -- keep page 8, but bring up the claim for
4 me, please. I think it's 26c that we were
5 talking about? Is that possible?

6 MR. BANNER: That would be on
7 page 17, Ben.

8 THE WITNESS: Thank you so much.

9 A. Okay. So just to be clear, again,
10 I've tried to follow the board's guidance. My
11 understanding, my read as a POSITA of 26c is that
12 in light of the board's guidance that the patent
13 owner here is specifically saying they are
14 describing application specific authentication
15 information excluding, you know, what is specific
16 to a device.

17 And so they are making the claim,
18 what qualifies, more narrow here.

19 BY MR. BANNER:

20 Q. So would a POSITA understand
21 application specific authentication information to
22 include information that is both device specific
23 and not device specific?

24 A. I think what the board is saying here
25 is that that could be a possibility, but what the

1 patent owner is saying is that they are explicitly
2 disqualifying that.

3 So in order to more correctly state
4 what was intended, it's my understanding that
5 based on the board's feedback that this additional
6 "not authentication information specific to a
7 device" was included. That way it's clear it is
8 limited to application specific authentication
9 information.

10 MR. BANNER: Okay. Thank you
11 for that answer.

12 I think we can go ahead and take
13 a lunch break now.

14 MR. BENISEK: Sounds good. When
15 do you all want to come back?

16 MR. BANNER: 40 minutes sound
17 okay?

18 THE WITNESS: I can do 1:30.

19 MR. BANNER: Okay.

20 MR. BENISEK: Does that work for
21 you?

22 MR. BANNER: Yeah. That's fine.

23 MR. BENISEK: Okay.

24 TRIAL TECHNICIAN: Off the
25 record at 12:59 p.m.

1 (A luncheon recess was taken
2 from 12:59 p.m. until 1:34 p.m.)

3 TRIAL TECHNICIAN: Back on the
4 record at 1:34 p.m.

5 BY MR. BANNER:

6 Q. Dr. Traynor, after lunch break, you
7 understand you're still under oath?

8 A. I do.

9 Q. Prior to the break, we were talking
10 about limitation 26c.

11 MR. BANNER: Maybe, Ben, if we could
12 pull that up again on -- that's Exhibit 2008, page
13 17.

14 A. I can see it.

15 BY MR. BANNER:

16 Q. Great. Talking about application
17 specific authentication information that is not
18 authentication information specific to a device, I
19 want to pose one more hypothetical for you,
20 Dr. Traynor, if that's okay.

21 A. No problem.

22 Q. Are you familiar with security
23 device -- hardware security device called a
24 security dongle?

25 A. It's a generic term for a wide range

1 of devices. Could you be more specific?

2 Q. So are you familiar with using a
3 hardware dongle as authentication for an
4 application?

5 A. I'm certainly aware of devices like
6 RSA's device. I know that there are a number of
7 companies that sell -- I believe you're talking
8 about a USB-based device that I plug in, something
9 like that?

10 Q. Sure. That could be the
11 hypothetical.

12 A. Okay.

13 Q. So USB device that you plug into a
14 system to authenticate. Do you understand the
15 hypothetical?

16 A. I do.

17 Q. Okay. So would that hardware dongle
18 be application specific authentication information
19 that is not authentication information specific to
20 a device?

21 A. I apologize for continuing to use
22 this word, but context matters.

23 So often at the university, for
24 example, when one is entering grades you have to
25 use a device like the one we've described. And so

1 it's used just for that purpose so just for that
2 application.

3 And so I can use it in a wide range
4 of devices and it's specific to that application.
5 But again, depending on how it's deployed one
6 could deploy it across multiple applications. So
7 I could see it being used in an application-
8 specific fashion if it was issued specifically for
9 that one application.

10 Q. Okay. So the example you gave where
11 you have a hardware dongle for entering grades in
12 a -- as a grading application, that particular
13 example you gave, that is application specific
14 authentication information that is not
15 authentication information specific to a device;
16 is that correct?

17 A. So let me be clear because again
18 context and nuance are very important here in this
19 hypothetical. If I'm using that information that
20 specific dongle for that -- for a specific
21 application if it's been issued for no other
22 purpose, then I could see it as such because it
23 would allow me to enter my grades on any number of
24 other devices.

25 If it's just a generic dongle, I

1 would say that perhaps it's more akin to
2 traditional two-factor authentication as we've
3 discussed earlier today.

4 Q. So if the purpose for a dongle is for
5 a specific application, that makes it application
6 specific authentication information; is that what
7 you're saying?

8 A. In the scenario that I've given you,
9 I'm only given this device to enter grades. So in
10 that case, I could see it being used as such,
11 assuming again, I can use that device to enter my
12 grades on any device of my choosing.

13 So if I have a cell phone and it
14 doesn't connect into it, I don't know that it
15 would qualify. But I can see scenarios in which,
16 again, if it's specific to the application, it
17 could.

18 Q. So where you're given a dongle and
19 its only purpose is to enter grades in a grading
20 application, that would qualify as application
21 specific authentication information that is not
22 authentication information specific to a device,
23 correct?

24 A. I apologize. I feel like I'm
25 repeating myself. Again, I can accept the

1 scenario you're saying as long as that dongle,
2 whether I'm at my home computer, my office
3 computer, if I could it use it across lots of
4 other devices, that that would be application
5 specific.

6 Now, if I started using it for other
7 functions at the University, I think it ceases to
8 be.

9 Q. Okay. And I'm just trying to
10 summarize because every time you answer me you say
11 yes and no. You give me a counter example. So
12 I'm just trying to make sure I understand the
13 contours. So I apologize if I sound like I'm
14 repeating myself.

15 But what I understand you saying is
16 if you are given a dongle and its only purpose is
17 to enter grades in a grading application and it
18 allows you to enter those from any device that you
19 use it on, that would be application specific
20 authentication information that is not
21 authentication information specific to a device.
22 Is that correct?

23 A. So again, given that this is a
24 hypothetical, that seems reasonable. Before I
25 would fully agree or disagree, I'd want to know

1 all of the context of the system; but it seems
2 reasonable given all of those caveats you've
3 repeated.

4 Q. So with all those caveats is that
5 dongle not device specific?

6 A. So again, we're talking hypotheticals
7 here. And I hope you understand I'm trying to
8 answer as best as I possibly can. It seems like a
9 reasonable candidate, but I can't see the system
10 in front of me. I don't know the corner cases, so
11 I can't say definitively on a hypothetical. It
12 seems reasonable.

13 Q. Let's turn to paragraph 137 of your
14 report, second declaration, Exhibit 2008. That's
15 on page 52.

16 A. Will you give me a moment to read.
17 137; is that correct?

18 Q. 137 yes.

19 A. Thank you. (Reviewing.) Okay. I've
20 read it.

21 Q. So here you're talking about the
22 Takahashi reference, correct?

23 A. That seems to be the subject here,
24 yes.

25 Q. And Takahashi mentions identification

1 information that is unique to each mobile
2 terminal, correct?

3 A. Yes.

4 Q. And it's your opinion that substitute
5 claim limitation 26c now specifically excludes the
6 use of this of type of device specific
7 authentication information, correct?

8 A. Yes.

9 Q. And do you remember specifically what
10 in Takahashi that identification information is?

11 A. I'll have to look. Will you give me
12 a moment to just read and regain my context?

13 Q. Sure.

14 A. Thank you.

15 Q. And if it helps and you want to pull
16 up Takahashi on your iPad, that's Exhibit 1007,
17 maybe paragraph 74.

18 (Exhibit Number 1007 was
19 introduced at this time.)

20 A. Thank you. Sorry. I just want to
21 make sure. You directed me to paragraph 74, which
22 is two sentences, short paragraph?

23 BY MR. BANNER:

24 Q. Correct.

25 A. Was there a specific -- okay. I see

1 the words in 74.

2 Q. Yeah. So the question was do you
3 remember what in Takahashi the identification
4 information is?

5 A. You'll have to give me a moment. I'm
6 sorry. Do you want me to point to a specific line
7 in my report, I'm happy to; but I don't think this
8 is a memory test so --

9 Q. Right. I'm just looking at paragraph
10 137 where you've concluded that substitute claim
11 26c specifically excludes the type of device
12 specific authentication information in Takahashi,
13 right?

14 A. That's what I see on 34.

15 Q. Okay. And I'm just trying to figure
16 out what is this type of device specific
17 authentication information that you're alluding to
18 there?

19 A. Sure. Just give me a moment to go
20 back to my report, so I can better direct you.

21 Q. Sure.

22 A. (Reviewing.) Just give me another
23 few moments here. Sorry. It's a long report.
24 I'm just trying to find the exact spot, so I can
25 answer directly.

1 (Reviewing.) I'm looking at
2 paragraph 74 of the Takahashi patent. Paragraph
3 74 says, "Identification information is unique
4 information for each mobile terminal." So that's
5 what I'm talking about.

6 Q. Okay. And Takahashi gives a couple
7 examples of what that information is; is that
8 correct?

9 A. Let me just reread further.

10 (Reviewing.) Yes. For example,
11 Takahashi says identification information may be a
12 serial number of the mobile terminal. If you
13 recall from our earlier discussions, we talked
14 about an IMEI. That would be equivalent to the
15 serial number mentioned here.

16 Q. So a serial number is device specific
17 information, correct?

18 A. I believe so, yes.

19 Q. So if the serial number is used for
20 authentication, as Takahashi discloses, the new
21 claim limitation 26c now specifically excludes the
22 use of that type of authentication information,
23 correct?

24 A. I believe the language in 26c of the
25 modified claim does not include device specific

1 authentication information such as a serial number
2 of a mobile terminal.

3 Q. Okay. What about the next sentence
4 in paragraph 74 talking about, "a user agent
5 character string"? Is that something -- a
6 different type of authentication information in
7 Takahashi?

8 A. Again, so a user agent character
9 string could be an identifier of the hardware, for
10 example, it could be included in the HTTP
11 requests. So that's...

12 Q. And is that also device specific?

13 A. It seems to be. It's talking about
14 the specific user agent.

15 Q. And that type of user agent character
16 string is now excluded from the claim based on the
17 amendment to claim limitation 26c, correct?

18 A. If that -- I believe that if -- I
19 believe that if it has, you know, device specific
20 information in it then yes. That's often what's
21 contained in that string.

22 Q. And what kind of device specific
23 information is often contained in the user agent
24 character string?

25 A. Could be the browser ID. Could be

1 the serial number. Just a way of getting
2 information to the server.

3 Q. Looking back at claim 26, claim
4 limitation 26c, that's on page 17 of Exhibit 2008.
5 Just -- yeah. So again, I'm focusing still on
6 application specific authentication information
7 that is not authentication information specific to
8 a device. And so we've been talking about that
9 claim phrase for a while today.

10 Would you agree that there are
11 essentially two questions that we've been
12 discussing here and with respect to that phrase is
13 whether authentication information is application
14 specific, and the second question whether
15 authentication information is device specific.
16 And would you agree those two concepts are wrapped
17 up in this phrase?

18 A. Yes. I'd agree that we've discussed
19 those two questions for significant time in this
20 deposition.

21 Q. And to fall within the scope of those
22 claims, authentication information must be
23 application specific; so yes to the first
24 question, but it must not be device specific.
25 Correct?

1 A. So I believe the claim language is
2 pretty clean -- pretty clean and plain, I
3 apologize. Yes, I believe that the application
4 specific -- sorry, the application -- the
5 authentication information must be application
6 specific and not authentication information
7 specific to a device.

8 Q. So if we think back about your
9 hardware dongle that you use for entering grades
10 and for that application, I believe you said you
11 could use that hardware dongle on multiple
12 different devices. Is that correct?

13 A. Again -- and I just want to make sure
14 we have a shared understanding of what the
15 hardware dongle is. It's a very limited thing.
16 It doesn't have screens, so it's issued for a
17 single application and could be usable across
18 multiple devices, then I could see that possibly
19 being application specific authentication
20 information.

21 Q. And with those same caveats, would
22 that hardware dongle not be device specific?

23 A. If I was forced to use that dongle
24 for multiple applications, I was forced to use
25 that dongle only on one machine, I don't know that

1 it would be.

2 Q. Okay. I'm not asking you to change
3 the hypothetical. I was literally just asking you
4 about the conclusion you just made, which was
5 having a shared understanding of what the hardware
6 dongle is, a very limited thing that doesn't have
7 screens, issued for a single application, and
8 could be usable across multiple devices. That
9 hypothetical. Those were your words. Do you
10 understand that hypothetical?

11 A. I understand that hypothetical.

12 Q. Would that hardware dongle be device
13 specific or not device specific?

14 A. Again, if it was issued for a
15 specific application, then it could be with those
16 caveats application specific.

17 Q. That's not my question whether it's
18 application specific. Is it device specific?

19 A. So the secret on the device would be
20 specific to that device; but if the device is
21 issued in the context of the application, then it
22 could be application specific. It's a dongle.
23 It's meant to be used across many machines.

24 Q. So in the context of claim 26c, is
25 that dongle specific to a device?

1 A. I apologize. I think I've answered
2 this with a lot of context a few times. So I'll
3 try one more time. But again, if I have a dongle
4 that is issued for an application, for an
5 application, the secret on that dongle would be
6 application specific authentication information.

7 If I start using it for lots of
8 applications, it's not. If I can't use it across
9 multiple devices, it wouldn't seem to be what the
10 spirit of 26c tries to do.

11 I hope I was clear.

12 Q. I think you're clear. I just don't
13 know if you're answering the question I'm asking.
14 And I tried to clarify. And I think you agree
15 that there are two questions being asked in 26c.

16 And one is whether it's application
17 specific and one is whether the authentication
18 information is specific to a device. There are
19 two separate questions, correct?

20 A. Those are the two questions you
21 proposed earlier, yes.

22 Q. Right. And I keep asking you whether
23 that dongle that we've been talking about that
24 you've used for entering grades is specific to a
25 device. And I feel like you keep answering

1 whether it's application specific, the other
2 question. And maybe I'm misunderstanding.

3 A. I disagree. I was trying to capture
4 the second part of that. If I was only allowed to
5 use that dongle on my desktop machine, I could say
6 that that would be specific to a device. But if I
7 can use it across multiple machines, I don't think
8 it is.

9 Q. Okay. So the dongle you have you're
10 able to use it across multiple machines, correct?

11 A. Yes, that's correct.

12 Q. And nobody's forcing you to use it
13 only on one device, correct?

14 A. I don't believe that there's a
15 requirement in the use of that device that I can
16 only use it on one device. I just don't
17 understand what the word "forces" means here.

18 Q. Again, that's your word. I'm just
19 repeating the words that you're telling me. So
20 I'm trying to understand your rephrasing of the
21 question.

22 A. I am able to use the dongle on
23 multiple different devices.

24 Q. And so that dongle that you're able
25 to use on multiple different devices is not

1 authentication information specific to a device,
2 correct?

3 A. Again, I'm going to just put this in
4 the context here. For the context of this
5 application, it is not application specific
6 information that is specific to a device. It
7 holds a secret, but that secret is kept in the
8 context of the application.

9 Q. What do you mean by the "secret is
10 kept in the context of the application"?

11 A. So again, this dongle is issued for
12 the purpose of serving as a second factor of
13 authentication for entering grades. It's not
14 something that I can only use on one terminal. I
15 can use it on any machine of my choosing. And I'm
16 imaging that--again, just continuing on with the
17 theme of two-factor authentication--I would enter
18 my username and password, and then I would plug in
19 the dongle so that the secondary authentication
20 could be sent from that terminal.

21 Q. And to confirm, that dongle used for
22 a single application and used across two or more
23 devices is not authentication information specific
24 to the device?

25 A. I understand your confusion because

1 of the word "device." And again, it's not
2 specific to the terminal. It's specific to the
3 application. The form in which the application
4 embodies this authentication -- this
5 authentication specific information is a physical
6 hardware token.

7 If we were answering the question,
8 you know, is it a separate username and password,
9 I think it might be clearer to understand. The --
10 there's nothing about the terminal that the
11 authentication information is specific to. It's
12 specific to the application because the token was
13 issued for the purpose solely of that application.

14 Q. Apologize. Give me one minute.

15 MR. BANNER: Can we go to
16 paragraph 103 of Exhibit 2008. That's page
17 44.

18 BY MR. BANNER:

19 Q. Dr. Traynor, if you want to the read
20 paragraph 103 of your second declaration.

21 A. Thank you. One moment. (Reviewing.)
22 Okay. I've read it.

23 Q. Is it your opinion that the
24 petitioner has failed to identify one clear
25 example in the prior art where two different

1 passwords are used to log into an online
2 application on two different devices?

3 A. Those are my words in paragraph 103,
4 yes.

5 Q. Do you know of any examples in the
6 prior art where two different passwords are used
7 to log into an online application on two different
8 devices?

9 A. This specific construction, no, not
10 to my knowledge. I would have had to raise that
11 if I had been aware.

12 Q. So you have no knowledge of prior art
13 system where two different passwords are used to
14 log into an online application on two different
15 devices?

16 A. I didn't offer any. I didn't come
17 across any in my research.

18 Q. And is it your opinion here in
19 paragraph 103 that this is not something a POSITA
20 would have knowledge of either?

21 A. Again, this is--as far as I know--a
22 novel instruction. And that was my analysis of
23 the '376 patent.

24 Q. And the POSITA in 2014 would not be
25 aware of a system where two different passwords

1 are used to log into an online application on two
2 different devices; is that your opinion?

3 A. Yes. It's my opinion for all of
4 those clauses, yes.

5 MR. BANNER: I think I'm getting
6 close to being finished for the day. Could I
7 take a quick break just to review my notes?
8 Maybe five minutes.

9 THE WITNESS: Sure.

10 TRIAL TECHNICIAN: Off the
11 record at 2:10 p.m.

12 (A recess was taken from
13 2:10 p.m. until 2:16 p.m.)

14 TRIAL TECHNICIAN: Back on the
15 record at 2:16 p.m.

16 BY MR. BANNER:

17 Q. Dr. Traynor, after a short break, do
18 you understand you're still under oath?

19 A. Yes, I do.

20 MR. BANNER: If we could put,
21 Ben, 26c back up on the screen. That's
22 Exhibit 2008 at 17.

23 BY MR. BANNER:

24 Q. Dr. Traynor, I know we've been
25 discussing this phrase quite some length, but got

1 one more question about it: Application specific
2 authentication information that is not
3 authentication information specific to a device.
4 You're familiar with that phrase in limitation
5 26c, correct?

6 A. Yes, I am.

7 Q. And the new words that are added in
8 the second motion to amend are shown bolded here
9 at page 17 of your second declaration; is that
10 correct?

11 A. Yes.

12 Q. Okay. And that is the, quote, "not
13 authentication information specific to a device,"
14 end quote, correct?

15 A. That is the bolded text, yes.

16 Q. And the construction of that new
17 bolded text that you were using for purposes of
18 your second declaration is plain and ordinary
19 meaning; is that correct?

20 A. Yes.

21 Q. And you haven't attempted to construe
22 that phrase beyond the plain and ordinary meaning,
23 have you?

24 A. No.

25 MR. BANNER: I will pass the

1 witness.

2 MR. BENISEK: Sorry, Brian. I
3 didn't realize you said I passed the witness.

4 MR. BANNER: I'm done.

5 MR. BENISEK: Okay. Excellent.
6 Yeah, no questions. So we can conclude.

7 TRIAL TECHNICIAN: Is there any
8 other business to put on the record before we
9 close today?

10 (No response was elicited.)

11 TRIAL TECHNICIAN: Okay. Hearing
12 nothing, thank you. We are off the record at
13 2:19 p.m.

14
15 (Time noted: 2:19 p.m.,
16 May 13, 2024.)

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CERTIFICATE

I, Myrina A. Kleinschmidt,
Registered Merit Reporter, a Remote Notary
Public, hereby certify that I reported the
deposition as noted on the first page, and
that the witness was by me first duly sworn
to tell the whole truth;

That the testimony was
transcribed under my direction and is a true
record of the testimony of the witness;

That I am not a relative or
employee or attorney or counsel of any of the
parties or a relative or employee of such
attorney or counsel;

That I am not financially
interested in the action and have no contract
with the parties, attorneys, or persons with
an interest in the action that affects or has
a substantial tendency to affect my
impartiality;

WITNESS MY HAND AND SEAL this
15th day of May 2024.



Myrina A. Kleinschmidt
Registered Merit Reporter
Certified Realtime Reporter

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ERRATA SHEET

Case: KAHOOT! ASA & KAHOOT EDU, INC. v.
AVIEL D. RUBIN

I, PATRICK TRAYNOR, have read the entire transcript of my deposition, Volume II, taken in this pending matter, or the same has been read to me. I request that the following changes be entered into the record for the reasons indicated. I have dated and signed my name to this Errata Sheet.

Page/Line	Correction or Change	Reason
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_____	_____	_____
_____	_____	_____
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Date	Signature of Witness

Mr. Benisek:

1. Please have the deponent review this transcript and make any changes on this sheet
2. Return the original executed sheet to Counsel within 30 days.

1 ebenisek@vblaw.com

2 May 15, 2024

3 RE: Kahoot! ASA & Kahoot Edu Inc. v. Rubin, Aviel D.
4 DEPOSITION OF: Patrick Traynor (# 6695117)

5 The above-referenced witness transcript is
6 available for read and sign.

7 Within the applicable timeframe, the witness
8 should read the testimony to verify its accuracy. If
9 there are any changes, the witness should note those
10 on the attached Errata Sheet.

11 The witness should sign and notarize the
12 attached Errata pages and return to Veritext at
13 errata-tx@veritext.com.

14 According to applicable rules or agreements, if
15 the witness fails to do so within the time allotted,
16 a certified copy of the transcript may be used as if
17 signed.

18 Yours,

19 Veritext Legal Solutions
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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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