

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
Inter Partes Review Case No. IPR2023-00693
Patent No. 9,064,376

KAHOOT! ASA & KAHOOT! EDU, INC.,
Petitioner,
v.
AVIEL D. RUBIN,
Patent Owner.

Deposition of
PATRICK TRAYNOR
Thursday, February 15, 2024
11:04 a.m. Eastern

Reporter: Myrina A. Kleinschmidt, RMR, CRR

1 APPEARANCES, continued:

2

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11 TRIAL TECHNICIAN:

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15

16 ALSO PRESENT:

17 Avi Rubin
18 Sigurd Meldal
19 Christian Peeters

20

* * * * *

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Page 3

1 APPEARANCES:

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22 (continued...)

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1 C O N T E N T S

2 DEPONENT: PATRICK TRAYNOR PAGE

3 EXAMINATION BY MR. BANNER 6

4

5 E X H I B I T S

6 EXHIBIT DESCRIPTION PAGE

7 Exhibit 1001 Rubin, U.S. Patent 77

8 No. 9,064,376 ('376

9 Patent)

10 Exhibit 1004 U.S. Patent No. 96

11 9,497,565 (Zha)

12 Exhibit 1007 U.S. Patent Pub. No. 116

13 2015/0011318

14 (Takahashi)

15 Exhibit 1010 U.S. Patent Pub. No. 105

16 2014/0006485

17 (Tsushima)

18 Exhibit 2004 Declaration of 11

19 Patrick Traynor IS0

20 Patent Owner's

21 Motion to Amend '376

22 Patent

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1 DEPOSITION held pursuant to Notice of
 2 Taking Deposition, and taken before Myrina A.
 3 Kleinschmidt, RMR, CRR, CA CSR, TX CSR,
 4 Stenographer and Notary Public, held via remote
 5 videoconferencing technology.
 6 WHEREUPON, the following
 7 proceedings were duly had:
 8 TRIAL TECHNICIAN: We are now on
 9 the record. My name is Ben Merten. I'm a
 10 trial technician representing Twin West
 11 Reporting. Today's date is Thursday,
 12 February 15th, 2024, and the time is
 13 11:04 a.m. Eastern time.
 14 This is the deposition of
 15 Patrick Traynor in the matter of Kahoot! ASA
 16 and Kahoot! EDU, Incorporated, versus Aviel D.
 17 Rubin.
 18 By participating in this
 19 deposition, all parties have agreed to our
 20 court reporter administering the oath and
 21 transcribing testimony remotely.
 22 Will counsel please identify

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1 themselves and who they represent for the
 2 record, after which our reporter will
 3 administer the oath.
 4 MR. BENISEK: Eric Benisek for
 5 plaintiff, Dr. Aviel Rubin, and for the
 6 witness, Professor Patrick Traynor.
 7 MR. BANNER: Good morning.
 8 Brian Banner for the Kahoot! petitioners.
 9 Along with me today is William Beard and Rudy
 10 Kim. Rudy Kim is from Paul Hastings law
 11 firm. I will be doing the questioning today.
 12 (WHEREUPON, the oath was
 13 administered by the court stenographer.)
 14 WITNESS RESPONSE: I do.
 15 COURT STENOGRAPHER: Thank you.
 16 PATRICK TRAYNOR,
 17 a witness in the above-entitled proceedings,
 18 after having been first duly sworn,
 19 testified under oath as follows:
 20 EXAMINATION
 21 BY MR. BANNER:
 22 Q. Good morning, Dr. Traynor.

Page 7

1 A. Good morning. How are you?
 2 Q. Good. How are you?
 3 A. Very well, thanks.
 4 Q. Please state your name for the
 5 record.
 6 A. My name is Patrick Traynor,
 7 T-r-a-y-n-o-r.
 8 Q. Dr. Traynor, have you been deposed
 9 before today?
 10 A. Yes, I have.
 11 Q. And how many times?
 12 A. Probably nine or ten times at this
 13 point.
 14 Q. Okay. So you know generally the
 15 rules and how this works. We have a court
 16 reporter who will be transcribing all of my
 17 questions and your answers.
 18 And so my goal is to have a clear
 19 record today, so I would just ask that you let me
 20 finish my questions before answering them, and I
 21 will extend the same courtesy and attempt to let
 22 you finish your answers before I launch into my

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1 next question. Does that seem fair?
 2 A. Sounds good.
 3 Q. Is there any reason why you cannot
 4 answer my questions truthfully today?
 5 A. No.
 6 Q. And you're not on any medication that
 7 would hinder your ability to answer my questions
 8 today?
 9 A. No, I'm not.
 10 Q. So I think there are a couple other
 11 people in the room with you. I know Mr. Benisek
 12 is with you and then Mr. Peeters as well. Is
 13 there anyone besides those folks in the room with
 14 you today?
 15 A. No, there's nobody else in the room.
 16 Q. And if anyone else comes into the
 17 room at any time, will you agree to let me know?
 18 A. Of course.
 19 MR. BENISEK: And Just for the
 20 record, my wife may pop in and drop off her
 21 bags, but that should be it.
 22 MR. BANNER: Okay. Thanks for

1 letting me know.

2 MR. BENISEK: And, sorry, Brian,

3 one more thing.

4 MR. BANNER: Yeah.

5 MR. BENISEK: We can warn that

6 sometime today we're going to have a short

7 fire drill. They're testing the fire system.

8 So they said it should last two minutes. We

9 don't have to evacuate, but the minute it

10 goes off, we'll just go off the record

11 momentarily. But we'll probably just stay on

12 video and hang out until it ends.

13 MR. BANNER: Perfect. We'll

14 just watch the flashing lights.

15 MR. BENISEK: Okay.

16 MR. BANNER: All right. Thanks

17 for the heads-up there, Eric.

18 BY MR. BANNER:

19 Q. Dr. Traynor, are you looking at

20 anything other than the screen upon which your

21 deposition is being taken today, like a notepad or

22 a cell pad, an iPad or any other --

1 A. I have my iPad with me. It's off

2 right now, but it does have a copy of my report on

3 it. It's a clean copy. And I also have a blank

4 notepad in front of me in case I need to take any

5 notes.

6 Q. Okay. And will you let me know

7 before you look at any other device while we're in

8 the questioning today?

9 A. Of course.

10 Q. And I would ask that you answer all

11 the questions by yourself. Don't look to anyone

12 in the room or look at anything else in helping to

13 answer your questions. If you can't answer a

14 question by yourself, can you let me know that?

15 A. I assume by that I can look at my

16 report if I'm looking for something specific, just

17 not prompting from somebody else, right?

18 Q. Absolutely, yes. Yes. Thanks for

19 the clarification.

20 A. I understand and I -- yes, I

21 understand.

22 Q. Okay. And so will you agree not to

1 communicate with anybody else besides me while

2 we're on the record? So that includes not

3 checking email or messaging apps or your phone for

4 messages while we're on the record.

5 A. Yes. That's correct. I agree to

6 that.

7 Q. Okay. Thank you.

8 I'd like to jump into -- let's mark

9 your declaration as Exhibit 2004, I believe.

10 MR. BANNER: And, Ben, if we can

11 pull that up.

12 TRIAL TECHNICIAN: Yes.

13 Introducing Exhibit 2004.

14 (Exhibit Number 2004 was

15 introduced at this time.)

16 MR. BANNER: Yes. Thank you.

17 BY MR. BANNER:

18 Q. And I guess before we get into the

19 exhibit itself, Dr. Traynor, at a high level, what

20 were you asked to do in connection with this IPR

21 proceeding?

22 A. I was asked to evaluate the

1 amendments to Dr. Rubin's prior filing and

2 evaluate whether they were patentable over -- the

3 amendments were patentable over some art that was

4 presented to me.

5 Q. Okay. Did you evaluate the claims,

6 the unamended claims?

7 A. I did not evaluate the unamended

8 claims of the Rubin patent, just the amended

9 claims.

10 Q. So you weren't asked to evaluate the

11 claims prior to the amendments?

12 A. No, I was not.

13 Q. Now, you provided one expert

14 declaration with your opinions in this IPR,

15 correct?

16 A. I apologize. The first part I didn't

17 hear. Could you repeat, please.

18 Q. Certainly. You've provided just one

19 expert declaration containing your opinions

20 related to this IPR; is that correct?

21 A. Yes, that's correct.

22 Q. And let's look at Exhibit 2004. It's

1 on the screen here. Do you see that?

2 A. Yes, I see it.

3 Q. And we're on page i of Exhibit 2004.

4 Is that your signature at the bottom of the page?

5 A. Yes. That appears to be my

6 signature.

7 Q. Did you sign this declaration,

8 Exhibit 2004?

9 A. Yes, I did.

10 Q. Did you actually put pen to paper to

11 sign the declaration?

12 A. I signed electronically, though I

13 physically took a copy of my signature and I put

14 it onto the electronic document.

15 Q. And you reviewed your declaration

16 carefully before you signed it, right?

17 A. Absolutely.

18 Q. At the time you signed your

19 declaration, you believed everything was accurate,

20 correct?

21 A. That's correct.

22 Q. And do you stand by your opinions

1 offered in your declaration?

2 A. Yes.

3 Q. There's nothing in your declaration

4 that you want to take back right now?

5 A. Nothing that I'm aware of, no.

6 Q. Nothing that you need to change?

7 A. No.

8 Q. Nothing that is missing or

9 incomplete, to your knowledge?

10 A. Given -- you know, given the task at

11 hand, I believe that this is complete. Were I to

12 be presented with additional evidence in the

13 future, I may have to evaluate that evidence, but

14 given what I had, this is my opinion.

15 Q. And as you sit here now, are there

16 any errors in your declaration that you know of

17 that you'd like to correct?

18 A. None that I know of.

19 Q. Did you write your Exhibit 2004

20 declaration yourself?

21 A. What do you mean by that?

22 Q. Did you sit down and type out the

1 entirety of the text that's found in Exhibit 2004?

2 A. So the text that is here is the

3 result of multiple conversations. Whether I typed

4 every word, I would say no, I did not. That said,

5 every word here is my opinion and my opinion

6 alone. So I haven't been asked to put something

7 in here that is not my opinion, and I stand by the

8 contents of the declaration.

9 Q. Are there parts of the declaration

10 that you actually typed in yourself?

11 A. Yeah. Absolutely.

12 Q. Do you know which parts those are?

13 A. I can't remember. It was a few

14 months ago, but absolutely.

15 Q. How much of your declaration did the

16 attorneys or Dr. Rubin or one of Dr. Rubin's

17 helpers draft?

18 A. I don't recall. All of the words and

19 opinions here, though, are mine.

20 Q. Did the attorneys participate in

21 drafting the declaration?

22 A. Do you mean did some of the words in

1 the -- were they typed by an attorney?

2 Q. Yes.

3 A. I'm sure that some were. But nothing

4 in here is not my opinion. Nobody asked me to

5 stand by something that I don't believe or I

6 didn't voice. So these are my opinions.

7 Q. Were some of the words typed by

8 Dr. Rubin?

9 A. I have no idea. I don't believe so.

10 Q. Were any of the words in your

11 declaration typed by Mr. Peeters?

12 A. I have no idea. I don't believe so.

13 All of the -- all of the opinions, as I've said

14 before, are mine.

15 Q. You're being paid at a fixed hourly

16 rate for your work on this case; is that right?

17 A. That's correct.

18 Q. What is the fixed hourly rate that

19 you've been paid for your work on this IPR?

20 A. I believe it's \$600 an hour.

21 Q. Your declaration doesn't mention that

22 you're being paid \$600 an hour, does it?

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1 A. I don't recall. If you'd like, I can
2 leaf through it and see.

3 MR. BANNER: Okay. Let's go to
4 page 4 of this document, Ben.

5 BY MR. BANNER:

6 Q. I think that might be -- paragraph 7
7 is where you talk about your -- wait. Not
8 paragraph 7. Sorry.

9 Sorry. It is paragraph 7. Is this
10 where you discuss being paid for your work in this
11 IPR?

12 A. I believe that's the only place. I
13 bill hourly. I have no compensation, you know,
14 regardless of -- sorry. My outcome -- my
15 compensation is not dependent on the outcome, so I
16 bill my hourly rate for my opinion and my expert
17 work.

18 Q. Okay. But your declaration doesn't
19 mention the \$600 per hour rate, does it?

20 A. Are you asking me to search through
21 and find the literal number 600? I don't see the
22 number here, but if you'd like, I can spend a few

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1 minutes looking through the document.

2 Q. That's okay.

3 You're being paid by Dr. Rubin for
4 your work in this case; is that correct?

5 A. That's correct.

6 Q. In total, how much time have you
7 spent on this particular IPR proceeding?

8 A. I don't have that information in
9 front of me, but probably 75 hours at this point.

10 Q. And how many hours did you spend
11 working on your Exhibit 2004 declaration?

12 A. Again, I don't have that in front of
13 me, but separate from this IPR, I mean, it's
14 probably another 60, 70 hours.

15 Q. And how many hours did you spend
16 preparing for today's deposition?

17 A. Just so that I'm clear, when you
18 mean -- what encompasses preparing? You mean
19 separate from the hours I've already listed?

20 Q. Sure.

21 A. I had a phone call maybe two weeks
22 ago for a couple of hours, and then I spent a few

Page 19

1 hours yesterday chatting with my attorney, you
2 know, going through this report.

3 Q. So a few hours, give or take?

4 A. Yeah.

5 Q. How much have you been paid to date
6 for your work on this case?

7 A. Again, without that information in
8 front of me, the summation of the hours I've given
9 you times 600, so...

10 Q. And so that would be the 70 to 75
11 hours, plus 60 to 70 hours, plus the few hours, or
12 was that about the ballpark?

13 A. That's in the ballpark.

14 Q. Okay.

15 A. Of course, I'll note that I have not
16 been paid for the hours that I spent yesterday,
17 but I have recorded them.

18 Q. Sure. Is there any work besides the
19 hours you spent yesterday that you have not been
20 paid for yet?

21 A. I don't recall. I'd have to look at
22 my billing software. But to my knowledge, I'm

Page 20

1 paid within a reasonable time frame.

2 Q. Do you have anybody working for you
3 on this IPR?

4 A. No.

5 Q. Have you received any noncash
6 compensation for your work with Dr. Rubin on this
7 proceeding?

8 A. The only thing I could say is that
9 Christian Peeters purchased lunch yesterday, if
10 that's what you mean, but outside of a meal, no.

11 Q. Have you received any noncash
12 compensation from Dr. Rubin for work on any other
13 matter?

14 A. No.

15 Q. Have you been given or told you'll be
16 given anything of value other than the cash
17 equivalent of what you charged Dr. Rubin for your
18 fees and expenses incurred while working on this
19 proceeding?

20 A. No. My compensation is strictly what
21 I bill, so my hourly rate. And it is regardless
22 of the outcome of the case.

Page 21

1 **Q. Do you have any financial interest or**
 2 **future financial interest in any affiliate of**
 3 **patent owner, Dr. Rubin?**
 4 A. I don't think so. Can you -- just so
 5 that I'm answering this clearly, what do you mean?
 6 I have no particular arrangements, you know, with
 7 Dr. Rubin.
 8 **Q. Okay. And you don't have any**
 9 **business interests with Dr. Rubin that you might**
 10 **have a financial interest in?**
 11 A. No.
 12 **Q. In the last five years, how many**
 13 **patent litigation and IPR matters have you worked**
 14 **on?**
 15 A. In the last five years, I mean, I'm
 16 just -- I'm just guessing. You know, probably in
 17 the neighborhood of ten.
 18 **Q. And have those been primarily for**
 19 **patent owners or plaintiffs or --**
 20 A. I've done a mix of both. It just
 21 depends on, you know, when I read the art and I
 22 decide if there's a position, a reasonable

Page 22

1 position, that can be taken. So it's based on the
 2 question at hand.
 3 **Q. Who first approached you to help with**
 4 **this IPR?**
 5 A. I can't recall. My guess would be
 6 Eric, but I don't recall who sent -- sorry. Eric,
 7 my attorney. But I don't recall who first sent me
 8 an email.
 9 **Q. Had you ever spoken with Dr. Rubin**
 10 **prior to being approached to work on this IPR?**
 11 A. I know Dr. Rubin professionally.
 12 **Q. In what manner?**
 13 A. I've known him as a member of my
 14 research community for over 20 years. When I was
 15 a graduate student, he was a very senior faculty
 16 member at another institution, and so met him a
 17 few times at conferences, certainly know his work
 18 by reputation. Yeah.
 19 **Q. Prior to getting involved in this**
 20 **IPR, did you know that Dr. Rubin had the '376**
 21 **patent?**
 22 A. I don't regularly go looking for my

Page 23

1 colleagues' patents, so I don't -- I don't believe
 2 so. I'm not sure what evidence I could point to
 3 that I knew about the patent ahead of time.
 4 **Q. Have you ever spent time with**
 5 **Dr. Rubin in a nonwork-related or nonprofessional**
 6 **capacity?**
 7 A. I don't believe so.
 8 **Q. Let's look back at your declaration,**
 9 **Exhibit 2004. Go to page 8 here.**
 10 A. (Complies.)
 11 **Q. The bottom of page 8 of your**
 12 **declaration, there's a section titled "MATERIALS**
 13 **CONSIDERED." Do you see that, Dr. Traynor?**
 14 A. Yes, I can see that.
 15 **Q. Does Exhibit 2004 include a complete**
 16 **list of the materials you reviewed in forming your**
 17 **opinions contained in the declaration?**
 18 A. I believe so, yes.
 19 **Q. And are those materials listed here**
 20 **on pages 8, 9 of your declaration?**
 21 A. Yes. That looks like the complete
 22 list.

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1 **Q. And how do you know that that's the**
 2 **complete list?**
 3 A. Well, again, you showed me the first
 4 page, which had my signature on it, so I believe
 5 that that's the copy of my report that I
 6 submitted. And when assembling the report itself,
 7 I created a list of all of the documents that I
 8 considered. So assuming that this is the report
 9 that I submitted, then that's the list of
 10 materials that I considered.
 11 **Q. Who provided you with all these**
 12 **documents?**
 13 A. I believe I had a zip file with these
 14 documents. I can't recall if I downloaded Zha or
 15 any of, you know, the other patents independently,
 16 but...
 17 MR. BENISEK: Brian, I should
 18 interject for a second. There was a -- when
 19 we were -- when I was meeting with Professor
 20 Traynor yesterday, I noticed on this list
 21 that Dr. Meldal's report and the petition --
 22 your original petition were not cited -- were

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1 not listed, but they're cited throughout his
2 declaration.

3 I don't know if that was just a
4 typo. Those were two documents -- those were
5 two that I noticed that Professor Traynor
6 cites in his declaration but actually forgot
7 to list in what you're showing him right now.

8 MR. BANNER: Okay.

9 BY MR. BANNER:

10 Q. So to get back to the question that I
11 asked, is, I think you were answering the question
12 about who provided you with the documents,
13 Dr. Traynor. And would you mind just giving that
14 answer again? I don't think it was complete.

15 A. Sure. I believe at one time I
16 received a zip file with these documents from my
17 attorney. You know, at other times, did I access
18 public versions where public versions exist? For
19 some of these, yes.

20 Q. At any point in the preparation of
21 this declaration, did you ask your attorneys or
22 Dr. Rubin for any documents that were not

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1 available to you?

2 A. No. If I asked for anything, I was
3 provided with it.

4 Q. Do you recall asking for specific
5 documents?

6 A. I don't.

7 Q. Do the opinions you've offered in
8 your declaration in this IPR conflict with any
9 opinions you've given in any other proceedings?

10 A. Not to my knowledge.

11 Q. And you agree it would be improper
12 for you to offer testimony in this proceeding that
13 is inconsistent with testimony offered in another
14 proceeding, right?

15 A. I understand that, yes.

16 Q. Are you familiar with the term
17 "person of ordinary skill in the art"?

18 A. Yes, I am.

19 Q. And in your declaration, you use a
20 shorthand or acronym when you refer to a person of
21 ordinarily skill in the art, correct?

22 A. Yes, I do.

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1 MR. BANNER: Okay. And if we
2 could go to page 13 of the declaration.

3 BY MR. BANNER:

4 Q. Paragraph 35, is this where that
5 shorthand appears?

6 A. Yes. I would pronounce that POSITA,
7 but -- that's my standard pronunciation, but if
8 you have a different one, I'll figure out what
9 you're talking about.

10 Q. Okay. POSITA, that's the way you
11 pronounce that?

12 A. That's correct.

13 Q. I think I typically say POSITA with a
14 hard T. If I say POSITA accidentally, will you
15 understand what I'm talking about?

16 A. Well, now that you've said that, I
17 might switch back and forth between the two. So
18 we'll agree to meet in the middle, and either/or
19 will be just fine for me.

20 Q. Okay. And now the court reporter
21 knows P-O-S-I-T-A is a term that might be thrown
22 around as well.

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1 So back to your -- we can look at, I
2 guess, paragraph 39 of your declaration. You
3 discuss the level of ordinary skill in the art
4 in your declaration, correct?

5 A. I do. And I believe that that is in
6 paragraph 39.

7 Q. And is it fair to say that with one
8 small exception, you basically agree with the
9 level of ordinary skill in the art set forth in
10 the declaration of Dr. Meldal?

11 A. Yes. That's correct.

12 Q. And what is the level of skill that
13 you assume for purposes of your declaration?

14 A. So as I say here, I would expect that
15 someone would have a Bachelor's degree in computer
16 science, a computing-related field, plus two years
17 of experience with security being crucial to
18 that -- that experience.

19 Q. So if we discuss a person of ordinary
20 skill in the art, or POSITA or POSITA, you
21 will understand that we're talking about a person
22 with this level of skill around the July 2014 time

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1 frame; is that right?

2 A. Yes. I do understand that as I've
3 described it.

4 MR. BANNER: And if we can go to
5 paragraph 36 on the previous page. There it
6 is. Same page.

7 A. My apologies. I just need to resize
8 my window briefly here.

9 BY MR. BANNER:

10 Q. So there is a -- I think this was the
11 video blocks. Was it looking --

12 A. Yes. I was able to adjust the video
13 block, so I can read this clearly now. Thank you.

14 Q. There's also on the top "View
15 Options." If you do side by side, that also
16 works. I don't know if that's -- that's what they
17 went through, and that was helpful for me.

18 A. Yeah.

19 Q. In any case -- okay. So paragraph 36
20 here of your declaration states that you
21 understand that "the '376 patent is entitled to a
22 priority date of no later than July 28, 2014." Do

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1 you see that?

2 A. I see that, yes.

3 Q. Do you rely on any date other than
4 July 28, 2014, as a priority date for purposes of
5 a person of ordinary skill in the art?

6 A. No. I don't believe I've offered
7 that as an opinion.

8 Q. So you're not aware of any other
9 priority dates for the '376 patent that would
10 affect your analysis in this IPR?

11 A. No. As I've said here, this is my
12 understanding.

13 Q. Okay. And the reason I ask is I just
14 want to make sure this -- this paragraph 36 talks
15 about a priority date that's no later than
16 July 28, 2014. And if we look at paragraph 34,
17 which is on the previous page, it discusses
18 looking at a POSITA's knowledge at the time of the
19 earliest priority date.

20 So I didn't know if you were trying
21 to make a distinction between no later than and
22 earlier than, if there were any different priority

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1 dates that you're aware of.

2 A. I'm not aware of any other priority
3 date.

4 Q. Have you asked counsel or Dr. Rubin
5 if the '376 patent is entitled to a priority date
6 earlier than July 28, 2014?

7 A. Certainly on one of our phone calls,
8 I have asked, you know, what is the priority date,
9 but I don't recall any other answer than the one I
10 had written in paragraph 36.

11 MR. BANNER: So I think we can
12 take the exhibit down, Ben.

13 BY MR. BANNER:

14 Q. Now, we were just talking about the
15 qualifications of the person of ordinary skill in
16 the art, Dr. Traynor. And you've opined on what
17 qualifications the person of ordinary skill in the
18 art would have in your expert report, right?

19 A. Yes, I have.

20 Q. And do you personally meet those
21 qualifications?

22 A. I apologize. You froze.

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1 TRIAL TECHNICIAN: Mr. Banner,
2 are you still there?

3 (No response.)

4 TRIAL TECHNICIAN: Counsel,
5 would it be all right to go off the record
6 while we get everybody back on the call?

7 MR. BENISEK: Sure.

8 TRIAL TECHNICIAN: Off the
9 record at 11:35 a.m.

10 (A recess was taken from
11 11:36 a.m. until 11:37 a.m.)

12 TRIAL TECHNICIAN: Back on the
13 record at 11:37 a.m.

14 BY MR. BANNER:

15 Q. Dr. Traynor, apologies for the brief
16 interruption. Our Internet went down temporarily.
17 So I think right before everything froze
18 up on me, I'd asked a question. I'll reask that.

19 You've opined on what qualifications
20 a person of ordinary skill in the art would have,
21 and my question was, do you personally meet those
22 qualifications?

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1 A. Yes, I do. I earned my Bachelor's
2 degree in 2002, I had a Master's in 2004, a Ph.D.
3 in 2008, all well before the priority date.

4 Q. And you're familiar with the term
5 "sensitive information," correct?

6 A. Yes, I am familiar with that term.

7 Q. And you are familiar with the term
8 "sensitive information" prior to 2014, correct?

9 A. Certainly.

10 Q. In fact, you've used that term
11 yourself, haven't you?

12 A. I would say that I talk about
13 sensitive information when I teach my graduate
14 security classes or my undergraduate courses as
15 well.

16 Q. And isn't it true that you've used
17 the term "sensitive information" in numerous
18 papers you've written?

19 A. I don't have those papers in front of
20 me, but it wouldn't surprise me if I had the term
21 "sensitive information" in one or more of them,
22 sure.

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1 Q. And would you agree that "sensitive
2 information" has an ordinary meaning in your
3 field?

4 A. I think it's context dependent. It's
5 kind of a catchall phrase. So what exactly
6 encompasses sensitive information is going to be
7 dependent on the application.

8 Q. What about in the context of mobile
9 banking, for example, using a mobile phone to
10 access bank accounts and bill payments. In that
11 context, doesn't the term "sensitive information"
12 just refer to things such as credit card and
13 social security numbers?

14 A. I just want to take that apart a bit.
15 Those are things that I would consider to be
16 sensitive information. The word "just," I'm not
17 sure that sensitive information in that
18 application context would be confined just to
19 those things, but in mobile banking, those would
20 be things I would consider to be sensitive
21 information.

22 Q. So turning to paragraph 42. This is

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1 on page 15 of your declaration, Exhibit 2004. It
2 is your opinion that a POSITA would understand the
3 term "sensitive information" means "information
4 that the application will not automatically share
5 with the first device without first seeking the
6 user's permission," correct?

7 A. So -- sorry. Just to make sure that
8 I am answering the correct question here, in the
9 context of the '376 patent, yes, I am saying that
10 sensitive information would not be shared with the
11 first device automatically.

12 Q. And why do you qualify that as being
13 in the context of the '376 patent?

14 A. Again, I wanted to be clear that
15 sensitive information in a different context may
16 encompass other information, and so I might have
17 sensitive information that one -- one conte- --
18 or, sorry, one screen context. And in that case,
19 I wouldn't be talking about a second -- a second
20 screen.

21 Q. So if we have the two-screen context,
22 if an application shares information with the

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1 first device without first seeking the user's
2 permission, is it your opinion that a POSITA would
3 not consider that information to be sensitive
4 information?

5 A. I apologize. I just want to make
6 sure. Could you reask that? There were just a
7 couple of clauses there.

8 Q. So assume an application
9 automatically shares information with the first
10 device without seeking the user's permission.

11 A. Okay.

12 Q. Based on that assumption, is it your
13 opinion that a POSITA would not consider that
14 information to be sensitive information?

15 MR. BENISEK: Object to the
16 form.

17 A. Sorry. Was that recorded? Great.

18 Again, I'm -- one could share
19 sensitive information with the first device, but
20 what the '376 patent teaches is to not do that.
21 So if the application, in the eyes of the '376
22 patent, put that information on the first device,

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1 that's not what the '376 patent is teaching.
 2 BY MR. BANNER:
 3 **Q. Okay. But I guess I'm trying to get**
 4 **at what is sensitive information, what is not**
 5 **sensitive information. So you've provided this**
 6 **construction of sensitive information. That is**
 7 **information that the application will not**
 8 **automatically share with the first device without**
 9 **first seeking the user's permission, correct?**
 10 A. Correct.
 11 **Q. So if there is information that is**
 12 **automatically shared with the first device without**
 13 **first seeking the user's permission, you would**
 14 **agree with me that that is not sensitive**
 15 **information under your proposed construction,**
 16 **correct?**
 17 A. Again, I want to just clarify here,
 18 and perhaps we can look to the text of paragraph
 19 42 for a clarifying example. So here, when we're
 20 playing a game of poker, some cards are public,
 21 some cards are private. Okay? Sensitive, if you
 22 will.

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1 The cards that would not be sent to
 2 the first terminal but only to the second terminal
 3 are those sensitive information or hole cards.
 4 Cards that are for all players to see would be
 5 sent to the first.
 6 You're asking me if the game makes
 7 some kind of mistake or if it sends all the cards
 8 to the first device. The problem there is
 9 precisely what the Rubin -- the '376 patent
 10 attempts to address in that. If you send all of
 11 those cards, some of which are sensitive, to that
 12 first device, then if the device is compromised by
 13 malware, all of the cards will be exposed.
 14 Sensitive information should not be
 15 sent to the first terminal. If a decision is made
 16 to send sensitive information, that's not -- that
 17 is the opposite of what the Rubin patent teaches.
 18 **Q. If a decision is made to send the**
 19 **hole cards to the first terminal, does that change**
 20 **whether or not those hole cards are sensitive**
 21 **information?**
 22 A. I don't --

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1 MR. BENISEK: Object to form.
 2 A. I don't believe so. In this case,
 3 they're still sensitive. Similarly, if my social
 4 security number is sent to the first terminal,
 5 it's sensitive information. It would be
 6 compromised if there was malware on that system.
 7 So information can have -- can be
 8 sensitive, and if there are, you know, mistakes or
 9 a poor security architecture, it might be sent to
 10 that first terminal.
 11 BY MR. BANNER:
 12 **Q. So in the banking example, sending a**
 13 **social security number to the first device, if**
 14 **that were to occur, would that make the social**
 15 **security number nonsensitive?**
 16 MR. BENISEK: Object to form.
 17 A. I don't believe so. In that case, it
 18 would expose it, but it doesn't all of a sudden
 19 make sensitive data nonsensitive.
 20 BY MR. BANNER:
 21 **Q. In your proposed construction,**
 22 **automatically -- it says, "the application will**

Page 40

1 **not automatically share with the first device."**
 2 **What do you mean by "automatically share"?**
 3 A. So I would imagine that short of --
 4 short of the user demanding that the sensitive
 5 data were sent to the first device or the user
 6 being kicked out of the application entirely, the
 7 data just would not end up on the first device.
 8 **Q. So automatic sharing of the data,**
 9 **does that imply some kind of action without user**
 10 **intervention?**
 11 A. Possibly. So, for instance, if I
 12 have my second device and -- my daughter's phone
 13 failed yesterday and needed a new motherboard. If
 14 that device fails the Rubin patent, '376 patent
 15 makes it clear that the application wouldn't
 16 continue.
 17 Where I'm playing poker using my
 18 daughter's phone that the hole cards wouldn't then
 19 just appear on the first device, I would expose
 20 them to the first device and the malware
 21 potentially running on it. And so that's what I
 22 mean.

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1 **Q.** In that instance that you're talking
2 about, the patent discusses asking the user if the
3 hole cards can be sent to the first device before
4 that occurs, correct?

5 A. Again, I want to go with the base
6 case, and that is, without two devices, it seems
7 that the -- you know, that the Rubin -- the claims
8 in the '376 don't apply. They don't know what a
9 one-device version of the Rubin -- of the '376
10 patent looks like.

11 So I would imagine that you'd be
12 dropped out of the application or there'd be some
13 way for you potentially to override the security,
14 but that would be, you know, outside of the -- the
15 user would have to do something intentional. The
16 system should never send that sensitive data to
17 the first terminal.

18 **Q.** So does the construction of sensitive
19 information depend on there being multiple devices
20 in the system?

21 A. I'm not sure that I understand.

22 **Q.** Well --

Page 42

1 A. The social security number is
2 sensitive information in general. The '376
3 requires two devices, one of which and only one of
4 which gets sensitive information.

5 **Q.** Now, you just said that a social
6 security number is sensitive in general, but isn't
7 it accurate to say that under your proposed
8 construction of sensitive information, information
9 is considered sensitive based on what is done with
10 the information and not based on the information
11 itself?

12 MR. BENISEK: Object to form.

13 A. I'm not sure -- I'm not sure what you
14 mean there. Can you clarify?

15 BY MR. BANNER:

16 **Q.** Certainly. I mean, if we look at,
17 again, paragraph 42 where you offer a proposed
18 construction for sensitive information, you say
19 sensitive information is "information that the
20 application will not automatically share with the
21 first device without first seeking the user's
22 permission."

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1 So isn't that definition based on
2 what is done with the information; i.e., whether
3 it is automatically shared with the first device?

4 MR. BENISEK: Object to form.

5 A. I want to make it clear that
6 mistakes, bad decisions with information, that
7 doesn't somehow make it less sensitive.

8 I'll note that, for example, the
9 existence of a card--let's say the ace of
10 spades--its existence in the deck, in a card deck,
11 does not make it sensitive. My possession of that
12 card does. But that's the context of this
13 application.

14 Something like a social security
15 number, I'm having trouble coming up with
16 scenarios in which that isn't sensitive
17 information.

18 BY MR. BANNER:

19 **Q.** But you agree with me that your
20 proposed definition of construction of sensitive
21 information is based on what is done with the
22 information and not based on the information

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1 itself, correct?

2 MR. BENISEK: Object to form.

3 A. Again, information -- if I were to
4 take something like a social security number and
5 send it to the first terminal, that doesn't make
6 it not sensitive. That's for security.

7 But there are examples of where the
8 data, its particular use, again, specific cards in
9 a specific hand of poker, the use of that data at
10 that time makes it sensitive.

11 BY MR. BANNER:

12 **Q.** Okay. Let's look at this from
13 another perspective and talk about a different
14 hypothetical. Let's talk about the live score of
15 the Super Bowl.

16 A. Okay.

17 **Q.** Would you agree that the live score
18 of a Super Bowl would generally not be considered
19 to be sensitive information?

20 A. No. The score of the Super Bowl is
21 public information, I would imagine.

22 **Q.** Right. Millions of people around the

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1 world or at least the country have that
2 information as it's being played.

3 A. Yes. Barring the NFL's notice that,
4 you know, any information about the game without
5 their expressed permission. But yes, it's public
6 information. It's available in lots of places.

7 Q. Okay. So let's think about a
8 hypothetical where we have like maybe a sports
9 betting application where it can send information
10 to a user's laptop or a phone. Are you with me
11 there?

12 A. I've heard what you said, yeah.

13 Q. And the default is to send scores to
14 the user's phone as they're updated. So the live
15 score of a Super Bowl is being sent to a user's
16 phone. Are you following there?

17 A. Yes.

18 Q. Now, the application has notice that
19 the user has logged into the system with their
20 laptop and asks the user if they want the scores
21 to be sent to the laptop instead of the phone. Do
22 you see that? Does that make sense?

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1 A. I understand the application
2 scenario, yes.

3 Q. So assuming this hypothetical in this
4 application we're talking about, would a person of
5 ordinary skill in the art understand the Super
6 Bowl score to be sensitive information under your
7 proposed construction?

8 MR. BENISEK: Object to form.

9 A. So public information that was first
10 delivered to the first terminal. So it was
11 available on the first terminal and then is also
12 available on the second terminal? Is that the
13 construction?

14 BY MR. BANNER:

15 Q. Only after asking the user's
16 permission to send it to the laptop.

17 A. So are you asking me a security
18 question or are you just asking if public
19 information on two -- if I understand that public
20 information exists potentially on two devices?

21 Q. I'm asking you to evaluate this
22 hypothetical in view of your proposed construction

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1 of sensitive information, which is application
2 will not share -- automatically share with the
3 information -- that the application will not
4 automatically share with the first device without
5 first seeking the user's permission.

6 And so my question is, in this
7 hypothetical system, the Super Bowl score will not
8 be shared with the first device unless the user
9 gives permission? Does that fit your definition
10 of sensitive information of the '376 patent?

11 MR. BENISEK: Object to form.

12 A. I apologize. The information has
13 already been shared with the first device, and
14 it's public information at that. So I'm not
15 really sure how to answer this question. The
16 first device already had the score information.
17 It was never sensitive, so it wasn't sensitive --
18 it wasn't marked as sensitive by the application.
19 It's merely showing up on two screens.

20 BY MR. BANNER:

21 Q. So maybe there's a little bit of a
22 nuance here on the hypothetical. So the user's

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1 cell phone is the second device in the system.

2 A. Okay.

3 Q. Just like in the poker example in the
4 patent, the hole cards are on the cell phone.

5 A. Okay.

6 Q. So the laptop is the first device.
7 So the information has not yet been shared with
8 the first device in this hypothetical.

9 A. But it's public information, right?

10 Q. It is the score of the Super Bowl,
11 correct.

12 A. It's public information, so I don't
13 understand the question.

14 Q. Okay. So in this hypothetical, do
15 you agree with me that it is information that the
16 application will not automatically share with the
17 first device without first seeking the user's
18 permission? Do you agree with that?

19 MR. BENISEK: Object to form.

20 A. Again, I'm having trouble descri- --
21 I'm having trouble answering this because I think
22 the entirety of 42 explains this very clearly.

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1 You've given me a scenario in which the
2 information that was initially sent to the first
3 device was never sensitive and then it's on the
4 second device. Well, it's still not sensitive.

5 So the question of -- the question
6 you're asking doesn't make any sense to me.
7 Asking the user's permission for the first device
8 to get the not sensitive information again, is
9 that the scenario?

10 BY MR. BANNER:

11 **Q. So how do you know, under your**
12 **construction, that the live score is not**
13 **sensitive?**

14 A. Because, as we agreed, it's on every
15 television and probably every news site. By
16 definition, it's about as public as information
17 gets.

18 Alternatively, 42 does make it clear
19 in the context of poker. So if I take my hole
20 cards and let's say we're playing at a table and I
21 flip them over and show everybody what I have,
22 that's sensitive information. I've leaked my

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1 secrets. I don't understand how the Super Bowl
2 score could ever have been secret information.

3 **Q. So is it -- I'm just looking at the**
4 **construction that you proposed for sensitive**
5 **information. And you agree with me that the**
6 **purpose of having a construction of sensitive**
7 **information is so that a person of ordinary skill**
8 **in the art -- to understand what a person of**
9 **ordinary skill in the art understands that term to**
10 **mean, correct?**

11 A. Let me restate what I do agree to.
12 In the context of any application, there can be
13 sensitive information. What I'm saying -- excuse
14 me. What I'm saying in 42 is that information
15 deemed sensitive in the context of the '376 patent
16 will not be sent -- should not be sent to the
17 first terminal.

18 Here, if that sensitive information
19 is sent to the second terminal, short of the user
20 overriding the security architecture or the game
21 quitting, you're talking about exposing the
22 sensitive information.

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1 So I can't just read this last
2 sentence and say all of the parts of 42 that came
3 before are part of my opinion here, understanding
4 that I have cards that should not be on the first
5 terminal. When they're on the second terminal,
6 short of me saying, "Okay. I'm going to quit the
7 security architecture," because that information
8 is sensitive, don't send it.

9 **Q. So sensitive information is nonpublic**
10 **information?**

11 MR. BENISEK: Object to form.

12 A. It can be.

13 BY MR. BANNER:

14 **Q. Under your construction of sensitive**
15 **information, does information need to be shared**
16 **with the first device at some point in time for**
17 **the information to be considered sensitive?**

18 MR. BENISEK: Object to form.

19 A. Does it need to be -- sorry. I
20 just -- does it need to be shared with the first
21 device, is that what you're asking me?

22 BY MR. BANNER:

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1 **Q. Correct.**

2 A. No. So there are many cases where I
3 would not want it ever to be shared. There are
4 some cases -- you could think of it being
5 declassified. For example, when we finish the
6 game of poker, all right--so secrets don't matter
7 anymore--I will expose my hole cards. That's how,
8 you know, I've won. But until the game is
9 finished, that is sensitive.

10 The context of the application
11 matters. For some, they'll never be a time. I
12 can't imagine, short of me dying, when my social
13 security number will become nonsensitive, and even
14 then I don't know if it's not sensitive anymore.

15 THE WITNESS: If I could ask--I
16 think we're probably approaching an
17 hour--when it's convenient, if I could take a
18 break?

19 MR. BANNER: Sure. Let me ask
20 maybe one or two more questions and then --

21 THE WITNESS: No problem.

22 MR. BANNER: -- take a break

1 here.
 2 BY MR. BANNER:
 3 Q. So under your definition or your
 4 proposed construction of sensitive information,
 5 does the user need to be given an option to share
 6 information with the first device in order for
 7 that information to be considered sensitive
 8 information?

9 MR. BENISEK: Object to form.

10 A. No. I don't think so. Again, I
 11 believe that what I'm trying to get to at the end
 12 of this paragraph is that there'd have to be some
 13 overriding principle -- or some overriding action
 14 to force the sensitive information to not stay on
 15 the second device.

16 So the standard -- my assumption
 17 would be that if my device died, my information
 18 would not then show up on the first terminal. I
 19 might be dropped from the poker game. You know,
 20 if I -- again, if I choose, I may explicitly then
 21 say, "I'd like to override the security model and
 22 take the risk with the potentially

1 malware-infected terminal," but it -- yeah.

2 MR. BANNER: Okay. I think
 3 that's a good time for a break. Should we do
 4 ten minutes?

5 THE WITNESS: That's fine.

6 MR. BENISEK: Sounds good.

7 TRIAL TECHNICIAN: Off the
 8 record at 12:06 p.m.

9 (A recess was taken from
 10 12:06 p.m. until 12:18 p.m.)

11 TRIAL TECHNICIAN: Back on the
 12 record at 12:08 -- excuse me, 12:18 p.m.

13 BY MR. BANNER:

14 Q. After a quick break, Dr. Traynor, you
 15 understand you're still under oath?

16 A. Yes, I understand that.

17 Q. Let's go to paragraph 56 of your
 18 declaration, Exhibit 2004. And that'll be
 19 page 26.

20 A. I can see the paragraph in front of
 21 me.

22 Q. And here in paragraph 56 of your

1 declaration, you opine that the field of invention
 2 for the '376 patent relates to--and there's a
 3 quote in the middle here--"securing communications
 4 against malware by utilizing two devices with
 5 differential or application-specific component
 6 during an online session." Do you see that?

7 A. I see the highlighted text, yes.

8 Q. And it's your opinion that this is
 9 the field of invention for the '376 patent?

10 A. Yes. Generally, as I say in the
 11 first sentence of this paragraph, it's related to
 12 online security and securing transactions against
 13 malware.

14 Q. You would agree with me that the
 15 claims of the patent define the invention,
 16 correct?

17 A. In the context of the spec, yes.

18 Q. But it's the claims of the patent
 19 that actually define the metes and bounds of the
 20 invention, correct?

21 A. My understanding, and I'm not an
 22 attorney, but the claims are read with the context

1 of the spec. So terms in the claims are often
 2 informed by the spec, but the claims are the
 3 claimed invention.

4 Q. Correct. And you reviewed the
 5 amended claims; is that correct?

6 A. Yes, I did review the amended claims.

7 Q. None of the amended claims mentioned
 8 the word "malware"; is that correct?

9 A. We could go through them. I don't --
 10 off the top of my head, I didn't memorize the
 11 claims. Certainly it's discussed in the spec.

12 Q. What would be the easiest way for you
 13 to determine whether any of the amended claims
 14 mention the word "malware"? Do you want to put
 15 the claims on the screen? Do you want to search
 16 your own copy?

17 A. Sure. If you want to put them on the
 18 screen, that's fine. Will we also be able to put
 19 the spec on the screen or...

20 MR. BANNER: Let's go to the
 21 table starting on page 16 of Dr. Traynor's
 22 report.

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1 BY MR. BANNER:

2 **Q. And my question to you is whether any**
 3 **of the amended claims use the word "malware."**

4 A. If you're asking me if the literal
 5 word "malware" appears on page 16, which is all I
 6 can see so far, now I can see page 17 as well.
 7 (Reviewing.) I don't see the literal word
 8 "malware" on either of these two pages, but,
 9 again, if we could bring the spec up.

10 MR. BANNER: Can we go to look
 11 at the rest of the remaining claims on pages
 12 18 through 21.

13 BY MR. BANNER:

14 **Q. Let me know if you see the word**
 15 **"malware" anywhere there.**

16 A. (Reviewing.) I don't see the literal
 17 word "malware" here. Again, I'll ask, can we put
 18 the spec up?

19 **Q. Let me finish with this question,**
 20 **which regards the claim. So there's more claim**
 21 **terms on pages 20 to 21, if we could go there.**

22 A. No problem. I'll keep looking for

Page 58

1 the literal word. (Reviewing.) I don't see the
 2 literal word "malware" on these two pages.

3 **Q. So none of the amended claims use the**
 4 **word "malware," correct?**

5 A. So if we are talking strictly --
 6 strictly the literal words in the claims and we
 7 ignore the spec, then the literal word "malware"
 8 does not show up on any of these pages that you've
 9 presented.

10 **Q. I'm going to ask you the same**
 11 **question about the words "secure," "securing" or**
 12 **"security." Do those words show up in any of the**
 13 **amended claims?**

14 A. (Reviewing.) Could you go to the
 15 next page, please? I do not see the literal words
 16 "securing" or "security."

17 **Q. Or "secure"?**

18 A. I did not see that word either.
 19 (Reviewing.) I do see the word "authentication"
 20 in 35 related to -- which is related to security,
 21 but not the literal word. (Reviewing.) I see
 22 "sensitive information" in 37. We discussed that

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1 before. It's not the literal word you asked for.

2 Could we please go to the next page?

3 I don't see the three literal words. (Reviewing.)
 4 I again see "authentication" in 41d but not the
 5 literal words that you've requested. And I don't
 6 see the literal words you've requested in 41e.

7 **Q. So it's fair to say that none of the**
 8 **amended claims mention the words "secure,"**
 9 **"securing" or "security"; is that correct?**

10 A. Those literal words do not show up in
 11 the amended claim.

12 **Q. So patent owner's alleged invention,**
 13 **which is defined by the claims, has nothing to do**
 14 **with malware or security, correct?**

15 MR. BENISEK: Object to form.

16 A. I disagree.

17 BY MR. BANNER:

18 **Q. So even though the amended claims**
 19 **don't mention malware, is it your opinion that the**
 20 **alleged invention does relate to malware?**

21 A. Well, the field of invention that you
 22 showed before discusses this. The spec discusses

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1 this. So the spec informs how we read the claims,
 2 so reading the patent in its entirety, the patent
 3 does refer to malware and security.

4 **Q. Even though the amended claims don't**
 5 **mention security, it's your opinion that the**
 6 **alleged invention does relate to security?**

7 A. Let me be clear with that. I did
 8 mention a number of security terms that were
 9 listed, just not the literal words that you asked
 10 me to look for.

11 Beyond the specific language of just
 12 the claims, as a person of ordinary skill of the
 13 art, I look at the entire patent, fields -- the
 14 field of invention, the spec to help me interpret
 15 any of these claims, and those are very clear that
 16 this is a patent about online security,
 17 particularly when malware compromises the device.

18 **Q. Is it possible that the patent**
 19 **specification could discuss a topic but not**
 20 **include it in the claims?**

21 A. I'm sure -- again, let me note I'm
 22 not an attorney. It's my understanding that when

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1 a spec talks about things thematically, that is
2 crucial information on how we interpret the
3 claims. If there is a single line, I don't know
4 if it's -- you know, if it's not connected to
5 anything, I don't know how to interpret that.

6 But when we're talking about the
7 claimed field of invention, we're talking about
8 major portions of the exposition in the spec. I
9 just don't know how you interpret claims without
10 that information.

11 **Q. Does all security-related subject**
12 **matter necessarily include malware as its subject**
13 **matter?**

14 A. Are you asking me is malware all of
15 security?

16 **Q. No. That's not the question. The**
17 **question is, is malware coextensive with**
18 **security-related subject matter?**

19 A. So just so we're clear, "malware"
20 means malicious software. So by its very name, it
21 implies something that is potentially attempting
22 to violate the security of a system.

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1 Now, if I were to just mention a
2 security term in passing, it wouldn't necessarily
3 mean that the patent in question was security
4 related, but if I talked about it extensively, if
5 I note that it's part of my field of invention,
6 then it is absolutely relevant to the claims.

7 **Q. As you were going through the claims,**
8 **you noted a couple of terms. I think**
9 **"authenticate" was one of them when you were**
10 **searching for "security." Do you recall**
11 **mentioning that term?**

12 A. I do recall mentioning that term.

13 **Q. And why did you mention that term**
14 **when you were looking for the words "secure" or**
15 **"security"?**

16 A. Yeah. So again, let me give you an
17 answer in context. You asked me to look for
18 literal words, and those literal words did not
19 appear in the claims, as I've said before.

20 What I did see along the way were
21 hints of other security-related terms. Now, those
22 hints by themselves might not be enough for me to

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1 determine that this patent is about security, but
2 what would do that is looking at the spec. And
3 I'm looking at the field of invention.

4 So I have to consume the entire
5 document. When you asked me to only consume a
6 small amount of it, I saw a small amount of
7 evidence. If I'm allowed to look at the spec,
8 there's a lot more.

9 MR. BANNER: Let's go back a
10 couple pages to page 17. Actually, let's go
11 to 16 and 17.

12 BY MR. BANNER:

13 **Q. Just some quick housekeeping here,**
14 **Dr. Traynor. In this table that spans pages 16 to**
15 **21 of your declaration, Exhibit 2004, you see in**
16 **that third column of your table you have "TBD"**
17 **throughout the table?**

18 A. Yes, I see that.

19 **Q. You're not planning on supplementing**
20 **this declaration to fill in that TBD, are you?**

21 A. I did not evaluate the '561, so I
22 have no plans to amend.

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1 **Q. Let's look at the limitation 26c on**
2 **page 17. You would agree with me that a patent**
3 **owner --**

4 A. I'm just reading it. Would you just
5 give me a moment? I apologize. (Reviewing.)
6 Okay. I've read it. Please go ahead.

7 **Q. Actually, it might be easier if we**
8 **look at a different exhibit. I think it'll be**
9 **less confusion.**

10 MR. BANNER: Ben, if we can pull
11 up paper 19. And we don't need to mark this
12 as an exhibit. It's fine. We'll just refer
13 to it as paper 19. It's page 33 of that
14 document.

15 BY MR. BANNER:

16 **Q. And, Dr. Traynor, you've reviewed**
17 **Dr. Rubin's motion to amend; is that correct?**

18 A. Yes, that's correct.

19 **Q. And if you need more context, that's**
20 **what this document is. Paper 19, it's the motion**
21 **to amend. And we're at the back of the filing,**
22 **which had the listing of the claims. Did you look**

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1 through that listing of claims as well?

2 A. Yes. Thank you. This looks

3 familiar.

4 Q. Once again, we're looking at amended

5 claim 26. Do you see that here on the screen?

6 A. I do.

7 Q. I thought it might be easier because

8 I'm going to be talking about the new language

9 that's added in the amendment. And it's

10 underlined here, and it wasn't in your report, so

11 hopefully it makes things easier to see. Do you

12 need to time to read claim 26 here?

13 A. Yes. If you just give me a second to

14 go through it, I'd appreciate it. Sorry. Are you

15 just asking me -- I lost the page numbers. Are

16 you just asking me to read through "second

17 device," the bottom of page 3? Is that right?

18 Q. Bottom of page 3, yeah. Determining

19 that limitation there.

20 A. If you just give me a moment. Thank

21 you. (Reviewing.) Okay. I've read through the

22 bottom of page 3.

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1 Q. So the patent owner, in amending this

2 claim, has added the term "application specific

3 authentication information" to claim 26; is that

4 correct?

5 A. Yes, that's correct.

6 Q. This term, "application specific

7 authentication information," is not found in the

8 '376 patent; is that correct?

9 A. It's my understanding that in claim

10 1 -- sorry, of the original -- could you repeat

11 the question? I'm not sure I understood it.

12 Q. The term--and I'll

13 quote--"application specific authentication

14 information" is not found anywhere in the '376

15 patent; is that correct?

16 A. Again, are you asking me to search --

17 search through and find it?

18 Q. Yeah. Have you done that prior to

19 today?

20 A. Look, it's my understanding that this

21 is an amended claim, that claim 1 did not

22 previously have this language nor did it have the

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1 other underlying language. And so that this is

2 the standard notation for showing the modified

3 substituted claim.

4 Q. And that's correct. I agree with

5 that. My question to you is whether the term

6 "application specific authentication information"

7 is found anywhere else in the '376 patent.

8 MR. BENISEK: Object to form.

9 A. I don't -- again, I haven't memorized

10 the patent. I could look through it if you want

11 me to see if that literal term is there.

12 BY MR. BANNER:

13 Q. Sure. And this might be a place

14 where you could do a search. Do you have the

15 searchable copy of the patent?

16 A. Let me just check. As you asked, I'm

17 going to open my iPad. Is that okay?

18 Q. Sure. Yeah.

19 A. Thank you.

20 THE WITNESS: Eric, do you

21 have --

22 MR. BENISEK: Yeah.

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1 THE WITNESS: -- my copy up?

2 A. My attorney is going to pop it up on

3 a separate screen for me, so I'm putting my iPad

4 away. He's still searching. I apologize.

5 MR. BENISEK: Yeah. Sorry. For

6 whatever reason, Dr. Rubin's patent -- I just

7 have to OCR. It wasn't actually searchable,

8 the version I had, so I thought I would

9 just...

10 A. Is it okay if I now look at this

11 screen? It just has a copy of the '376 patent.

12 BY MR. BANNER:

13 Q. (Moves head up and down.)

14 A. Thank you. (Reviewing.) So I just

15 did a quick search of the '376 patent. In the

16 search, I found the term "application specific"

17 many times, but the term "application specific

18 authentication information," I did not find those

19 literal -- that literal term.

20 Q. So the term "application

21 specific authentication information" is not found

22 in the '376 patent, other than in this amended

1 claim; is that correct?

2 A. Again, I found multiple references to
3 "application specific" but not the literal
4 "application specific authentication information."

5 Q. You have not provided a construction
6 for the phrase "application specific
7 authentication information," have you?

8 A. I'm not providing -- I'm not
9 providing any instruction. It seems that plain
10 and ordinary meaning to me.

11 Q. And you read the motion to amend and
12 you understand that patent owner has not provided
13 a construction for the phrase "application
14 specific authentication information"; is that
15 correct?

16 A. That's my understanding.

17 Q. Not including in this declaration --
18 in your declaration, this IPR, you've never used
19 the term "application specific authentication
20 information" in any of your papers, right?

21 A. I have no idea. I have well over a
22 hundred papers. I couldn't tell you every word or

1 term I did or didn't use.

2 Q. Was the term "application specific
3 authentication information" a term of art in 2014?

4 A. Again, I read this with plain and
5 ordinary meaning that it is authentication
6 information that is specific to an application.
7 It seems pretty straightforward.

8 Q. Would I be able to find the term
9 "application specific authentication information"
10 in any dictionaries?

11 A. That's not an exercise that I
12 undertook, because as a person of ordinary skill
13 in the art, it seems to be a very straightforward
14 definition.

15 Q. So I think you may have just said --
16 let me just ask the question again. So what
17 meaning of "application specific authentication
18 information" did you use in forming your opinions
19 in your declaration?

20 A. Yeah. So again, this would be
21 authentication information that is specific to an
22 application.

1 Q. Would you agree with me that
2 authentication information would not be
3 application specific if it is usually implemented
4 generically as part of many different types of
5 applications?

6 MR. BENISEK: Object to form.

7 A. I don't know what that means.

8 BY MR. BANNER:

9 Q. Well, let's use an example. So
10 you're familiar with username, password
11 authentication schemes?

12 A. Yes. That's a very common means of
13 doing authentication.

14 Q. And so the username and password, you
15 would agree that that's authentication
16 information?

17 A. It could be, yes.

18 Q. So if a username, password
19 authentication is implemented in a number of
20 applications--for example, in conjunction with an
21 online banking application, an online health care
22 application and an online gaming application--that

1 username and password authentication information
2 would not be application specific, according to
3 the '376 patent, correct?

4 A. I don't think I understand. If I
5 have a username and password, that is specific to
6 each application. So the username and password I
7 use for my bank, that's application specific. My
8 username and password that I use for social media
9 application, that's specific to that application.

10 Q. If I have the same username and
11 password for those applications, multiple
12 applications, is that application specific
13 authentication information?

14 A. So are you talking about password
15 reuse?

16 Q. Yes. I mean, I'm kind of -- I think
17 you just said if you have a username and password
18 for a gaming application, that would be
19 application specific, and if you have a username
20 and password for an online health application,
21 that would be application specific. So my
22 question is, are you saying that those have to be

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1 different username and passwords in order to be
 2 application specific?
 3 MR. BENISEK: Object to form.
 4 A. So what I'm saying is -- let's
 5 separate a few things here. First, a username and
 6 password -- one website, were I to, you know,
 7 reuse a password, wouldn't know that that would be
 8 my password for some other website. So the
 9 username and password for one application is
 10 application specific.
 11 It's well understood that you're not
 12 supposed to reuse passwords across applications,
 13 so each one of these things that I enter is
 14 application specific. It's only going to work at
 15 that application.
 16 It doesn't -- it doesn't tell another
 17 application, you know, how to get into something
 18 else. If I go to my social media application and
 19 enter my banking information, I shouldn't be able
 20 to log in.
 21 BY MR. BANNER:
 22 Q. You're familiar with CAPTCHA

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1 authentication, correct?
 2 A. I wouldn't -- so I am familiar with
 3 CAPTCHA, but I wouldn't necessarily call it
 4 authentication.
 5 Q. Would you agree that CAPTCHA is a
 6 type of security measure?
 7 A. Certainly CAPTCHA is a security
 8 measure.
 9 Q. And would you agree that CAPTCHA is
 10 known as a challenge response authentication?
 11 A. So let's be -- let's be clear.
 12 Authentication is used to establish identity, so a
 13 username and password are good examples of that.
 14 CAPTCHAs are used, excuse me, to stop automated
 15 systems bots. I'm not sure if you're familiar
 16 with that term. But it's used to stop bots from
 17 performing operations.
 18 So I can have a username and password
 19 and still be prompted for a CAPTCHA. Some
 20 services that don't require usernames and
 21 passwords may have CAPTCHAs, again to stop bots
 22 from sending large amounts of messages. So

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1 they're certainly related, but CAPTCHAs don't give
 2 you identity.
 3 Q. So you don't consider CAPTCHAs as
 4 being a type of authentication?
 5 A. No. CAPTCHA is -- and I have to
 6 think about this for just a moment. CAPTCHA is an
 7 acronym. It's a reverse turing test. Are you
 8 familiar with that concept?
 9 Q. Yeah. I think it's called -- so I
 10 think the acronym is Completely Automated Public
 11 Turing test to tell Computers Apart from -- or
 12 Computers and Humans Apart.
 13 A. Thank you. Yes, that is what it is.
 14 And so it's not for saying that it is "this
 15 person." It is for saying that, you know, they're
 16 trying to make it hard for machines to act like
 17 people. But that's -- it doesn't establish
 18 identity. I can't log into my bank account by
 19 just doing a CAPTCHA.
 20 Q. So let me -- I had a hypothetical
 21 that dealt with CAPTCHA, but since we can't agree
 22 that CAPTCHA is authentication, I think I'll just

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1 move on from there.
 2 I'm trying to get at this idea of, under
 3 your plain meaning, construction of application
 4 specific authentication information.
 5 A. Mm-hmm (affirmative).
 6 Q. Let me give a different hypo. If,
 7 say, 50 different users are given the same URL to
 8 access an application, and a URL is the only
 9 authentication information needed to access that
 10 application, would a person of ordinary skill in
 11 the art understand that URL information to be
 12 application specific authentication information?
 13 MR. BENISEK: Object to form.
 14 A. I'm not sure. I would need to know
 15 what the security goals of the application are.
 16 BY MR. BANNER:
 17 Q. The security goals in this instance
 18 are that only people with the URL are able to
 19 access the application.
 20 A. Does that mean that the concept of
 21 individual identity is not important?
 22 Q. Let's start with that assumption,

1 yes.

2 A. There are certainly some anonymous
3 authentication schemes. We can provide
4 credentials, and the system can, through some
5 fairly fancy cryptographic proofs, determine that
6 you're within a set of users that's allowed to log
7 into the system. So the mechanism you're talking
8 about would be extremely weak. But perhaps.

9 So are you familiar with crawlers,
10 web crawlers? The reason I say that it's
11 extremely weak is that, you know, depending on the
12 URL, it might be something that's guessed or found
13 or -- so it wouldn't be strong authentication
14 like -- you know, like a username or password or
15 multiple credentials. It could potentially be
16 found -- without knowing the specific system, it's
17 hard for me to say. But possibly.

18 MR. BANNER: We can take this
19 document down, Ben.
20 I want to pull up Exhibit 1001, which is the
21 '376 patent.

22 (Exhibit Number 1001 was introduced

1 at this time.)

2 TRIAL TECHNICIAN: Stand by just a
3 moment. It looks like I may have a freeze on my
4 screen share here, but I'm working on bringing
5 that up. It is in the exhibit box.

6 MR. BANNER: The freeze is not my
7 fault this time.

8 TRIAL TECHNICIAN: Right. That
9 one's on my end.

10 THE WITNESS: We're using hotel
11 wi-fi. I expected us to be the problem,
12 so...

13 MR. BANNER: Holding up pretty
14 well.

15 THE WITNESS: So, Counsel, just
16 so -- I'm waiting. Should I not be? Do you
17 want me to go and look at the box version?
18 How should I proceed here?

19 MR. BANNER: Oh, I was waiting
20 for Ben as well.

21 THE WITNESS: All right.

22 TRIAL TECHNICIAN: I should be

1 just a few more seconds. I had to rejoin the
2 call on my screen-sharing computer. But it
3 is coming back into the call now, and I
4 should have that up in just a moment.

5 Thank you for your patience.

6 BY MR. BANNER:

7 Q. Right. So we're looking at
8 Exhibit 1001. This is the '376 patent. Do you
9 see that, Dr. Traynor?

10 A. I do see it, yes.

11 MR. BANNER: Can we turn to
12 Figure 6, which is page 8 of this PDF.

13 BY MR. BANNER,

14 Q. Figure 6 of the '376 patent
15 illustrates an example of the alleged invention.
16 Do you agree with that, Dr. Traynor?

17 A. That's what it appears to be for me,
18 yeah. Sorry. I am squinting a little bit here,
19 but...

20 Q. And in this case, it's the poker game
21 example; is that correct?

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

1 Q. And you've looked at Figure 6 of the
2 patent prior to today?

3 A. Yes, I have.

4 Q. Now, is it your understanding that
5 the example shown in Figure 6 would be covered by
6 amended claim 26 of the patent?

7 A. I believe so.

8 Q. And element 611 there, kind of in the
9 middle of Figure 6, is labeled "Device 1, e.g.
10 user's computer." Do you see that?

11 A. I do, yes.

12 Q. And in the context of amended claim
13 26, element 611 in Figure 6 would correspond to
14 the first device; is that correct?

15 A. Yes. I would expect so.

16 Q. And then element 615 is labeled
17 "Device 2, e.g. user's smartphone," correct?

18 A. I see that, yes.

19 Q. And this, element 16 in Figure 6,
20 would correspond to the second device in amended
21 claim 26; is that right?

22 A. That's correct.

Page 81 1 Q. So the interface in element 611, the 2 user's computer includes the poker table showing 3 community cards and use of all the players at the 4 table; is that correct? 5 A. That's what it looks like to me. 6 Q. And the interface in element 615, 7 which is the user's smartphone, includes only the 8 user's hole cards; is that correct? 9 A. There is some additional written 10 information. I apologize. It's a bit blurry. 11 But, yes, the -- the zoom did not make it less 12 blurry, unfortunately. But there appears to be 13 some text, and the prominent thing that's 14 displayed are the hole cards. 15 Q. Yeah. My apologies for using the 16 word "only" in my question. I don't think that's 17 exactly what I meant, but thanks for being 18 precise. 19 So I just want to make sure. So the 20 interface on the first device in Figure 6 is 21 different than the interface on the second device, 22 correct?	Page 83 1 question, correct. 2 A. I don't believe that the '376 patent 3 claims to have invented Texas Hold'em poker, no. 4 Q. So dealing hole cards to a user and 5 letting the user view the hole cards is part of 6 any Texas Hold'em poker application, right? 7 A. I would imagine so, yes. It seems 8 like basic functionality of that game. 9 Q. Let's go a couple more pages into 10 page 10 and look at Figure 8 of the '376 patent. 11 Dr. Traynor -- 12 A. I see the screen. 13 Q. And, Dr. Traynor, you would agree 14 with me that Figure 8 of the '376 patent 15 illustrates another example of the alleged 16 invention; is that right? 17 A. That's my understanding, yes. 18 Q. And in this case, it's the banking 19 application example? 20 A. That's what it looks like, yes. 21 Q. And the example shown in Figure 8 22 would be covered by amended claim 26?
Page 82 1 A. I see different cards on the first 2 device, and I see, you know, again, the hole 3 cards, which are sensitive information, secret on 4 the second device. So yeah. 5 Q. So the interfaces on the two devices 6 are different, correct? 7 A. I mean, they're not exact copies of 8 each other. Yeah. 9 Q. And you would agree with me that the 10 hole cards that are shown on the user's smartphone 11 here are part of any poker application, right? 12 A. Again, that -- I'll note that I'm 13 not -- I'm not an expert in all kinds of poker, 14 and so I believe that this is Texas Hold'em. So 15 to the extent to which we're talking about Texas 16 Hold'em, yes, I believe that there are hole cards 17 involved in all games of Texas Hold'em. 18 Q. And the hole cards themselves aren't 19 unique to the '376 patent, right? 20 A. Sorry. Are you asking me if 21 Dr. Rubin's patent invented Texas Hold'em poker? 22 Q. That may be one way to view the	Page 84 1 A. That's my understanding. 2 Q. So element 812 there kind of in the 3 middle is labeled "User's computer" along with 4 some other text. Do you see that? 5 A. Yes. "User wants to perform" -- is 6 that "transfer"? 7 Q. I think so. 8 A. Yes, I can see that. 9 Q. Okay. So element 812 in Figure 8 10 would correspond to the first device in amended 11 claim 26; is that right? 12 A. That would be my interpretation, yes. 13 Q. And then element 815 is labeled 14 "User's smartphone"; is that correct? 15 A. Yes. 16 Q. And this element 815 in Figure 8 17 would correspond to the second device in amended 18 claim 26? 19 A. Yes. That's my understanding. 20 Q. So the interface in element 812, the 21 user's computer, includes options to transfer 22 funds and check balance; is that correct?

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1 A. I don't know exactly what this means.
 2 For example, I don't know -- it looks like here
 3 that -- my interpretation of this would be if I
 4 clicked -- if that were an option, if I clicked
 5 "Transfer Funds," that something would happen on
 6 the mobile device. But I see "Transfer Funds" and
 7 "Check Balance." I just don't know what the next
 8 step is just from this figure.
 9 Q. So this figure just shows kind of a
 10 user interface with these options. Would you
 11 agree with that?
 12 A. Right. Again, assuming that those
 13 are options, that they're clickable, yeah, I think
 14 that's what it is.
 15 Q. Would it help to actually go read
 16 about that, just to confirm, in the patent itself?
 17 A. That's fine. I mean, again, that
 18 appears to be what it is to me, but if you'd like
 19 me to go read, I can do that.
 20 Q. Okay. Let's just stick with this.
 21 So element 815, which is the user's
 22 smartphone, includes options to choose a transfer

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1 amount in -- it looks like a transfer recipient --
 2 A. Yeah.
 3 Q. -- correct?
 4 A. I see those fields.
 5 Q. So would you agree with me that the
 6 interface on the first device in Figure 8 is
 7 different from the interface on the second device?
 8 A. Yes. The interface does appear to
 9 look different.
 10 MR. BANNER: We've been going
 11 for about two hours. I didn't know if you
 12 wanted to do the -- you want to -- I could go
 13 a little bit longer before lunch. I didn't
 14 know if you were thinking right around
 15 1:00 o'clock your time to do lunch.
 16 THE WITNESS: I was going to say
 17 our lunch did arrive about 10 minutes ago.
 18 So, I mean, I'm --
 19 MR. BANNER: Happy to break for lunch
 20 now if that makes sense for you guys?
 21 THE WITNESS: I think so. Yes,
 22 please.

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1 MR. BANNER: Okay. So --
 2 TRIAL TECHNICIAN: Off the
 3 record at -- sorry. Off the record at
 4 1:07 p.m.
 5 (A luncheon recess was taken
 6 from 1:07 p.m. until 1:42 p.m.)
 7 TRIAL TECHNICIAN: Back on the
 8 record at 1:42 p.m.
 9 BY MR. BANNER:
 10 Q. Welcome back, Dr. Traynor after a
 11 quick lunch break. You understand you're still
 12 under oath?
 13 A. Yes, I understand that.
 14 Q. Okay. Have you discussed today's
 15 testimony with your attorneys or Dr. Rubin or
 16 anyone else?
 17 A. No. Your line of questioning brought
 18 up a conversation about the Super Bowl as in
 19 Eric's from California, so I assumed he was a
 20 49er's fan.
 21 Q. Other than that, you haven't
 22 discussed the substance of your testimony?

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1 A. (Moves head from side to side.)
 2 Q. Sorry. Was that a no?
 3 A. I'm so sorry. I thought you heard
 4 me. The answer was no.
 5 Q. Okay. I thought the audio cut out,
 6 but then I looked at the realtime and it looked
 7 like no one heard you. So I just wanted to make
 8 that clear. Thank you.
 9 A. No problem.
 10 Q. I want to go back real quick. We
 11 were discussing this term "application specific
 12 authentication information." You recall our
 13 discussion about that term that's now part of
 14 amended claim 26?
 15 A. Yes. Sure, I recall our discussion.
 16 Q. And in forming your opinions in your
 17 declaration, you used the plain meaning of that
 18 term "application specific authentication
 19 information"; is that correct?
 20 A. Yes. Given that I'm a person of
 21 ordinary skill of the art, I read it and applied
 22 my background. It was very straightforward read.

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1 Q. Okay. And then we started to talk
2 about CAPTCHA and the CAPTCHA security. Do you
3 recall that?

4 A. Yes. I remember that.

5 Q. Okay. And I don't want to put words
6 in your mouth, but I went back through the
7 transcript and I think you stated that CAPTCHA is
8 not authentication because it doesn't establish
9 the identity of the user. Is that a correct
10 statement?

11 A. Thematically, yes. I don't log into
12 a system using CAPTCHA. It's an antibot,
13 antiautomation technology. One might use it as a
14 part of authentication, but it doesn't establish
15 identity.

16 Q. So is CAPTCHA the information that
17 comes from a CAPTCHA system? Could that be
18 considered authentication information?

19 A. Again, I don't think that it's
20 authentication.

21 Q. Okay. And that would be in light of
22 a POSITA's understanding of the plain meaning of

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1 authentication; is that correct?

2 A. Yes.

3 Q. Let me ask you about another
4 hypothetical. I'll try to replace my CAPTCHA,
5 which didn't quite work. So are you familiar with
6 like security fobs or security dongles for logging
7 into applications?

8 A. Are you talking broadly about
9 two-factor authentication?

10 Q. Broadly, where you have a hardware
11 device that is used in the authentication process.

12 A. Yes, I am familiar with that.

13 Q. Along the same veins, is the
14 information that is provided by a security fob to
15 help authenticate, is that authentication
16 information?

17 A. So I would say that it could be
18 authentication information. But I would say that
19 it's not application specific authentication
20 information.

21 Q. What's the distinction there?

22 A. Well, these services are, you know,

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1 run by other parties. They're agnostic to
2 whatever the application is. It's just, you know,
3 another number. It has nothing to do with the
4 application in question, like the username,
5 password. So I could use it as part of an
6 authentication process, but it's not application
7 specific.

8 Q. What about a hypothetical where the
9 security fob was not -- that aspect was not
10 provided by a third party. It was provided by the
11 application itself, would that be application
12 specific authentication information?

13 A. Could you tell me more? So you're
14 asking me to perform a security analysis here, and
15 this is sort of what I do professionally, so I
16 need more information. This might be a longer
17 conversation.

18 Q. Okay. So I just asked you -- you
19 said that, you know, the security fob information
20 would not be application specific, and I asked you
21 why. And I thought your answer was, "Well, that's
22 typically handled by a third party, so the third

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1 party is agnostic as to the application that's
2 using the fob device or, you know, that part of
3 the authentication."

4 And so I'm basically trying to -- I
5 guess I'm giving you a hypothetical to kind of
6 understand if that answer that you gave had --
7 there's more nuance to that.

8 So if the security fob was not
9 provided by a third party and the security fob was
10 actually, you know -- that part of the
11 authentication process was built into an
12 application so that the provider of the
13 application didn't use a third party, would that
14 information then become application specific?

15 A. So just so we're clear here, you're
16 talking about, at least as I understand it, a
17 scenario which is not -- sort of not very common
18 in that these fobs are manufactured.

19 But, you know, can I come up with a
20 scenario in which the application also gives me a
21 PIN and it's directly from that application that
22 might be application specific. Yeah.

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1 Q. Without the PIN, just say I have a
2 security fob and I enter the code that's on the
3 security fob.

4 A. Again, who made the security fob?
5 Where did it come from? I think, as I've said
6 before, these are agnostic to the application, and
7 so without that direct tie to the application, I
8 struggle with it.

9 Q. So in order to be application
10 specific, there has to be a direct tie to the
11 application?

12 A. I think it needs to be tied to the
13 application.

14 Q. And in your opinion, the standard
15 security fob authentication is not tied to the
16 application?

17 A. In the manner I've spoken of. It
18 has -- it's not -- the PIN that's provided to me
19 is not provided by the application. It's some
20 other third party. I don't think that the Rubin
21 invention is claiming to have invented the field
22 of two-factor authentication.

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1 Q. Do you have an understanding as to
2 whether a PIN that is provided by a security fob
3 is different from one application to another?

4 A. I'm not sure I understand the system
5 that you're talking about.

6 Q. So, for example, are you familiar
7 with, let's say, like an authenticator app. Are
8 you familiar with authenticator apps?

9 A. Sure. I have Google Authenticator on
10 my phone.

11 Q. Okay. And a user can use an
12 authenticator app for multiple different
13 applications; is that correct?

14 A. The point of that application is to
15 be application agnostic.

16 Q. And the authentication PIN for one
17 application is not the same as for another
18 application, correct?

19 A. I don't know.

20 Q. When you set up your authentication
21 app for different applications, doesn't it keep
22 them separate?

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1 A. I don't know. My experience is that
2 there is one number on three. So were I to log
3 into two accounts that use the same authenticator
4 within the same -- I think it's roughly a minute,
5 I could probably use that same number in logging
6 into both accounts. So I don't -- yeah. And it's
7 because it's application agnostic.

8 Q. So application agnostic is one way to
9 determine if authentication information is
10 application specific; is that correct?

11 A. I think they're just two
12 classifications. Again, we've talked about a PIN
13 that's been given to me by the application. We've
14 talked about a username and password. Those are
15 both application specific. But if some other
16 party is giving me the PIN, that seems to be
17 agnostic of the application but not specific to
18 the application.

19 Q. Even though the application requires
20 that form of authentication?

21 A. The application didn't generate it,
22 came from somewhere else. It's agnostic to the

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1 application.

2 UNIDENTIFIED SPEAKER: Hello.

3 THE WITNESS: That was not me.
4 I'm not sure where that noise came from.

5 MR. BANNER: I don't think that
6 was me either. Seems to have gone away, so
7 probably not an issue.
8 Let's turn to Exhibit 1004, if we could get
9 that up, Ben.

10 (Exhibit Number 1004 was introduced
11 at this time.)

12 BY MR. BANNER:

13 Q. This is the Zha reference. Do you
14 see that, Dr. Traynor?

15 A. Yes, I can see it.

16 Q. And when was the last time you
17 reviewed Zha?

18 A. Probably reread it last night, was
19 the most recent time. I'm certainly familiar with
20 it.

21 Q. How much time have you spent
22 reviewing Zha prior to submitting your

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1 declaration?

2 A. I mean, I couldn't say. You could
3 look back at the record and it was certainly some
4 portion of the -- however many hours I estimated.

5 Q. But you don't know specifically?

6 A. No. I don't keep track of time spent
7 on individual pieces of evidence.

8 Q. Is it your opinion that Zha does not
9 mention or disclose the use of authentication
10 information to determine if a first user is logged
11 into the application?

12 A. Can you -- sorry. Are you making a
13 reference to something specific in my report?

14 Q. Sure.

15 MR. BANNER: If we can pull up
16 Exhibit 2004. We can take Zha down.
17 Page 24, paragraph 52.

18 BY MR. BANNER:

19 Q. There's a sentence there after the
20 Appendix A that says, "Zha does not mention or
21 disclose the use of authentication information to
22 determine if a first user is logged into the

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1 application." Sitting here today, is that your
2 opinion?

3 A. That's my understanding.

4 Q. Now, you agree that Zha discloses a
5 user logging into the application, correct?

6 A. I believe there's mention of login.

7 Q. And that's the first sentence of
8 paragraph 53 below?

9 A. Yes.

10 Q. It says Zha discloses a user logging
11 into the application; is that correct?

12 A. It looks like "user may login to a
13 microblog in the laptop computer," yeah.

14 Q. So doesn't Zha's disclosure of
15 logging into an account on the application a
16 disclosure of the application using authentication
17 information?

18 A. So I would say that logging in
19 requires the use of authentication information,
20 but it's not clear to me what information Zha
21 uses, simply says that you might log in.

22 Q. In 2014, is it fair to say that a

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1 person of ordinary skill in the art would
2 understand one way of logging into an account on
3 an online application, such as Zha's microblog,
4 would be to provide a username and password?

5 A. I think that that's reasonable.

6 Q. And requiring a username and password
7 is a type of authentication, correct?

8 A. It's one, yes.

9 Q. And, in fact, at least by 2006,
10 passwords were the dominant authentication
11 mechanism in computing systems; is that fair?

12 A. Sure. Passwords are well-known in
13 the art.

14 Q. And it's also well-known at the time
15 of the patent that passwords are a way to provide
16 authentication security for an application, right?

17 A. That's one way, yes.

18 Q. In 2014, a person of ordinary skill
19 in the art would understand that Zha's disclosure
20 of logging into an account could include logging
21 in with a password, correct?

22 A. Yes.

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1 Q. Okay. So Zha does disclose or teach
2 the use of authentication information to determine
3 if a first user is logged into an application,
4 doesn't it?

5 A. My point here was that the specifics
6 weren't detailed, not that login and
7 authentication are separate actions.

8 Q. Okay. So if we look at -- maybe
9 you're talking about the next sentence there in
10 paragraph 52 where you say, "More specifically"
11 and you make further distinctions: "Zha does not
12 mention or disclose the use of authentication
13 information that is 'application specific' and
14 that the application specific authentication
15 information is different." Is that what you're
16 referring to?

17 A. Yes.

18 Q. Okay. I'm going to think about
19 another hypothetical here with respect to Zha.
20 It's just a simple modification of Zha requiring
21 different passwords. So assume that Zha enforces
22 password authentication, which was known in 2014.

1 Okay?

2 A. I understand so far.

3 Q. Okay. And additionally assume that
4 Zha requires a user to enter different passwords
5 when logging into the application using different
6 devices. Okay?

7 A. Why am I assuming that? I don't see
8 that anywhere in Zha.

9 Q. Oh, I'm not talking about Zha. It's
10 clear that this is a hypothetical. I'm asking you
11 a hypothetical.

12 A. Okay. I understand you're asking me
13 a hypothetical.

14 Q. Do you understand the hypothetical?

15 A. I believe so, yes.

16 Q. In this hypothetical, would you agree
17 that the different passwords represent
18 authentication information?

19 A. In this hypothetical example, yes,
20 the different -- the different passwords could be
21 authentication specific -- sorry, application
22 specific authentication information.

1 Q. Let me ask you a slightly different
2 hypothetical. Are you familiar with the term
3 "bootstrap authentication"?

4 A. Yes.

5 Q. And what's your understanding of
6 bootstrap authentication?

7 A. The first authentication and
8 enrollment process, is that what you're getting
9 at?

10 Q. Yeah. Actually, let me just give you
11 a little more detail. So are you familiar with
12 the type of application where a user logs in on a
13 first device and receives a onetime PIN or token
14 that it can use on a second device to authenticate
15 the second device as well? Have you ever run
16 across that type of authentication?

17 A. Generically, I'm familiar.

18 Q. So I want to have a hypothetical and
19 assume Zha uses this type of authentication scheme
20 when a user accesses the account from two devices.

21 A. May I just -- but very quickly. But
22 we're in agreement that Zha definitely doesn't.

1 So this is just a hypothetical.

2 Q. Absolutely, this is just a
3 hypothetical.

4 A. Okay.

5 Q. So you understand the hypothetical?

6 A. I believe so.

7 Q. Okay. Just to be more specific, so
8 the user in this hypothetical enters login
9 credentials, such as a username and password, on
10 the first device, and then the application
11 authenticates the user on the first device and
12 sends credentials, such as a onetime PIN or
13 password, to the user's laptop or the other
14 device, right?

15 The user can then use that onetime
16 password or PIN to authenticate the second device
17 with the application. Do you follow that? Do you
18 understand the hypothetical?

19 A. I understand so far.

20 Q. So in this case, do you agree that
21 different authentication information is used for
22 the user's two devices? In the first instance,

1 it's the password, username. In the second
2 instance, it's the onetime password or PIN?

3 A. So without additional information, I
4 can agree that there is different authentication
5 information being used. I don't know who
6 generated the PIN. I don't know -- you know, can
7 it be used again? So I can certainly say that
8 that could be authentication information.

9 Q. And if we assume that the application
10 itself generated the PIN, would that information
11 be application specific authentication
12 information?

13 A. I think that's possible.

14 Q. It's possible? Is there anything
15 missing from the hypothetical that you need to
16 know to actually determine if it's application
17 specific?

18 A. I apologize. You're asking me to
19 reason about a full system here, and so as a
20 security person I'm very cautious to deal in
21 absolutes here. So I have limited information.
22 It seems reasonable. I'd have to think -- I'd

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1 have to think about it a lot longer to think about
 2 all of the possible cases in which it might not
 3 be, but it seems possible.
 4 MR. BANNER: Let's pull up
 5 Exhibit 1010, Ben.
 6 (Exhibit Number 1010 was introduced
 7 at this time.)
 8 BY MR. BANNER:
 9 Q. Dr. Traynor, do you see Exhibit 1010
 10 on the screen?
 11 A. Yes. This appears to be the Tsushima
 12 patent, as I've been calling it.
 13 Q. And when was the last time you looked
 14 at the Tsushima patent?
 15 A. As recently as last night.
 16 Q. And you provided opinions with
 17 respect to Tsushima in your declaration?
 18 A. Yes. My declaration refers to this
 19 document specifically.
 20 MR. BANNER: I think if we now,
 21 Ben, go back to Exhibit 2004, page 32.
 22 BY MR. BANNER:

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1 Q. Looking at paragraph 69 of your
 2 report, Dr. Traynor, do you see it there?
 3 A. I do. Would you give me a moment
 4 just to read it?
 5 Q. Certainly.
 6 A. Thank you. (Reviewing.) Okay. I've
 7 read it.
 8 Q. Is it your opinion that Tsushima does
 9 not disclose the use of authentication information
 10 to log into the application?
 11 A. So Tsushima, there is authentication
 12 information. It appears to be logging into the
 13 server. So is it application specific? That was
 14 unclear to me.
 15 Q. So you agree that Tsushima discloses
 16 authentication information. You're just not clear
 17 on whether that authentication information is
 18 application specific; is that correct?
 19 A. That's correct. If there are
 20 multiple applications running on the server, which
 21 is common in the cloud, it's not clear to me that
 22 this is necessarily application specific.

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1 Q. And if we can look at paragraph 67 of
 2 your report on page 31. See that there?
 3 A. Sorry. Paragraph 67 was that?
 4 Q. Yes.
 5 A. Okay. If you just give me a moment.
 6 Q. Sure.
 7 A. (Reviewing.) Okay. I see the text.
 8 I've read it.
 9 Q. Do you agree that Tsushima discloses
 10 a user logging into the application, correct?
 11 A. So I'm saying that the user appears
 12 to be logging into a service provision, a service.
 13 Whether it's a specific application on top of a
 14 service, it's not clear to me.
 15 Q. You're making a distinction between a
 16 service and an application here; is that correct?
 17 A. Yes.
 18 Q. And what's the distinction?
 19 A. There might be multiple applications
 20 running in this service. And so it's not clear to
 21 me, because Tsushima mentions this in a very
 22 passing fashion what precisely the user is logging

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1 into.
 2 Q. Does Tsushima disclose multiple
 3 services or multiple applications?
 4 A. It's talking about a service. And
 5 again, you know, with my understanding of the
 6 cloud, many applications run on top of individual
 7 services, so it wasn't clear to me explicitly what
 8 Tsushima was logging into.
 9 MR. BANNER: So if we can go
 10 back to Exhibit 1010.
 11 BY MR. BANNER:
 12 Q. Look at page 9 of Tsushima, and look
 13 at paragraph 22, please.
 14 THE WITNESS: Apologies, Ben.
 15 Would you -- thank you so much. Thank you
 16 for zooming in.
 17 A. (Reviewing.) Okay. I've read
 18 paragraph 22.
 19 BY MR. BANNER:
 20 Q. Does this give you more information,
 21 refresh your recollection about the type of
 22 application that Tsushima is describing?

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1 A. Looks like there's a server 200
2 distributing game content. So again, he could be
3 logging into the server. Is it the game? It's
4 not -- it's not immediately clear.

5 MR. BANNER: Go down to
6 paragraphs 56 and 57 of Tsushima
7 Exhibit 1010.

8 BY MR. BANNER:

9 Q. If you would read those paragraphs,
10 Dr. Traynor.

11 A. (Reviewing.) Okay. I've finished
12 this page. Should I continue reading 57 on the
13 next page?

14 Q. Sure.

15 A. (Reviewing.) Okay. All right. I've
16 finished reading.

17 Q. Does this give you any more
18 information about the type of application that
19 Tsushima is describing as being logged into?

20 A. This looks like it's logging into the
21 server.

22 THE WITNESS: Can you go -- Ben,

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1 could you please go back to the beginning of
2 57.

3 A. (Reviewing.) Here, whether or not
4 login to a service provided by the server has
5 succeeded. So I'm reading that as -- that the
6 server is what I'm logging into.

7 BY MR. BANNER:

8 Q. And you don't understand that that is
9 an application; is that correct?

10 A. Again, the server -- my reading of
11 this patent was that after this happens, then
12 applications happen. So it wasn't clear to me
13 that I was actually logging into applications,
14 logging into the server.

15 MR. BANNER: Let's go to
16 Exhibit 1001, the '376 patent. If we could
17 turn to -- let's go to page 14, column 3.

18 BY MR. BANNER:

19 Q. In that first paragraph on column 3,
20 the '376 patent says, "Texas Holdem is often
21 played online, where the players are in remote
22 locations, using the Internet to communicate with

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1 a centralized game server." Do you see that,
2 Dr. Traynor?

3 A. I see that.

4 Q. In the context of the '376 patent,
5 players communicate with a server, correct?

6 A. Sorry. Just for clarification, are
7 you asking me about something in my report or are
8 you asking me for a new opinion here?

9 Q. Well, I'm trying to follow up on the
10 last line of questioning in which you made a
11 distinction between an application and a server.
12 I'm trying to understand what your distinction is,
13 and I'm looking at the Rubin patent in particular
14 now to try and ask questions about that
15 distinction.

16 A. I think I understand. So, yes, all
17 applications run on servers, certainly all digital
18 applications. My point earlier was that the
19 Tsushima patent seems to have a service in which
20 multiple applications are downloaded and used by
21 the user here. Yes, like Tsushima, there is a
22 centralized server, but the application is Texas

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1 Hold'em.

2 Q. Okay. Where in Tsushima does it
3 mention multiple applications being downloaded?

4 A. Could we go back to that patent,
5 please?

6 Q. Exhibit 1010?

7 A. (Reviewing.)

8 THE WITNESS: So please correct
9 me if I'm wrong, but could you go to the very
10 first page of this patent?

11 A. So the applicant here is a company
12 named Square Enix. Are you familiar with that
13 company? It's a game company so they have many
14 applications. So the process here is that someone
15 logs onto -- a user logs onto the service. My
16 reading was to the Square Enix server.

17 And then from there, because they're
18 a game company, one of any of their applications
19 could potentially -- could potentially come next.
20 It wasn't clear my authenticating to the server.
21 And then an application is coming down. It just
22 says that there's login. So my reading of this

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1 patent tried to take into account the context for
 2 who made this invention.
 3 BY MR. BANNER:
 4 **Q. So other than your reliance on the**
 5 **applicant being Square Enix Holdings, is there**
 6 **anything else in Tsushima that discloses that**
 7 **there are multiple applications?**
 8 A. So I'd like to search through the
 9 document.
 10 **Q. Sure.**
 11 A. I have a computer next to me. Is it
 12 okay to use that?
 13 **Q. Absolutely.**
 14 A. Very good. Thank you. (Reviewing.)
 15 So I would point to paragraph 63 in Tsushima.
 16 "Specifically, the server CPU201, after causing
 17 the server rendering unit to render a game screen
 18 according to state information indicated by the
 19 current game procedure, causes encoded video
 20 data."
 21 So here the current game procedure
 22 implies that, you know, there are other noncurrent

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1 game procedures. And so this is additional
 2 support in my reading that there could be multiple
 3 games on this service -- on the server. Sorry.
 4 **Q. It doesn't say that explicitly.**
 5 **That's an implication?**
 6 A. That was my read. (Reviewing.)
 7 Paragraph 0009 also talks about games, plural,
 8 giving additional context that more than one game
 9 exists.
 10 **Q. Paragraph 0009 is not talking about**
 11 **the invention in Tsushima, right? That's just**
 12 **talking about games in general.**
 13 A. It's part of the spec. Again, I
 14 imagine a company that makes games would make
 15 games available.
 16 **Q. I guess we got here by talking about**
 17 **Tsushima's disclosure of logging in, and you made**
 18 **a distinction between logging into a service and**
 19 **an application. I think we can both agree that**
 20 **Tsushima discloses a system that provides gaming**
 21 **to the user. Is that correct?**
 22 A. Yes.

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1 **Q. And so as a user logging into**
 2 **Tsushima, Tsushima doesn't disclose logging in for**
 3 **any other purpose than playing a game, correct?**
 4 A. I believe it also talks about the
 5 distribution of the game. Did I -- I apologize.
 6 Let me take a -- yeah. I'm looking at the word
 7 "distribution" in the field of invention. So,
 8 yes, the distribution in playing of games.
 9 **Q. So a user would log in to play games?**
 10 A. I would imagine also to get the
 11 games.
 12 **Q. Let me ask you this: In the context**
 13 **of Rubin's patent, the '376 patent, it provides an**
 14 **example of a poker game, correct?**
 15 A. That's correct.
 16 **Q. And that poker game is run by a**
 17 **server; is that correct?**
 18 A. As I said before, software does run
 19 on a server, yes.
 20 **Q. And if the Rubin game server also**
 21 **provided another game, such as backgammon, so it**
 22 **would have multiple games, would that mean that**

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1 **users are not logging into an application when**
 2 **they log into that server?**
 3 MR. BENISEK: Object to form.
 4 A. So again, it depends. When they log
 5 onto the server, are they logging into the
 6 application specifically? Is that where the
 7 authentication information is provided? That's
 8 unclear to me.
 9 MR. BANNER: Let's look at
 10 Takahashi, Exhibit 1007.
 11 (Exhibit Number 1007 was introduced
 12 at this time.)
 13 BY MR. BANNER:
 14 **Q. Do you see Takahashi on the screen,**
 15 **Dr. Traynor?**
 16 A. I do, yes. Excuse me.
 17 **Q. And you've reviewed Takahashi as part**
 18 **of your declaration?**
 19 A. Yes, I did.
 20 **Q. And when was the last time you**
 21 **reviewed Takahashi?**
 22 A. As I stated before, probably last

1 night.

2 **Q. Do you recall Takahashi using user ID**
3 **and password authentication information?**

4 A. I believe that Takahashi does mention
5 that.

6 **Q. And you would agree that password**
7 **protection of an online account is a form of**
8 **online security?**

9 A. Sorry. That's a very broad question.
10 The use of passwords could potentially be one
11 mechanism by which we attempt to achieve some
12 security properties.

13 **Q. So in the context of Takahashi, the**
14 **user ID and password would be authentication**
15 **information for the Takahashi application,**
16 **correct?**

17 A. Yes. Username and password are
18 authentication information.

19 **Q. Takahashi discloses authenticating a**
20 **user using the authentication information,**
21 **correct?**

22 A. So can you point to me -- are you

1 asking me about a specific claim?

2 **Q. Well, we can -- we can look at --**

3 MR. BANNER: Let's go to --
4 let's actually go to your report,
5 paragraph 92 on page 41, Exhibit 2004.
6 Page 41, I believe.

7 A. And I apologize. What was the
8 paragraph again?

9 BY MR. BANNER:

10 **Q. Paragraph 92.**

11 A. Okay. (Reviewing.) Okay. I've read
12 92.

13 **Q. Okay. So the question was, Takahashi**
14 **discloses authenticating a user using**
15 **authentication information, correct?**

16 A. Takahashi discloses something a
17 little bit different. Takahashi proposes login
18 and then some kind of other authentication.

19 **Q. In paragraph 92 of your report,**
20 **unless I'm reading it wrong, you indicate that**
21 **Takahashi discloses an authentication process that**
22 **uses identification information or the user ID and**

1 **password to authenticate the user, correct?**

2 A. So perhaps I can clarify this. Could
3 we go to the Takahashi patent so I could explain?
4 I want to just go to a figure just to show you
5 what I mean here. I think it's Figure 12. That's
6 it, Figure 11.

7 Okay. So what Figure 11 says is
8 "Processing after user logon" -- "logins."
9 Apologies. So a user logging in is
10 authentication. So authentication is happening,
11 and then there appears to be this second
12 authentication step beyond it.

13 So certainly Takahashi has a user
14 logging in, which is authentication, and then it
15 looks like some other additional login after that
16 as well.

17 **Q. Where in Takahashi does it say that**
18 **user login is authentication?**

19 A. Login -- as a person of ordinary
20 skill in the art, I don't know how one logs in
21 without authenticating.

22 **Q. If you look at paragraph, I think,**

1 **110 of Takahashi Exhibit 1007.**

2 MR. BANNER: Can you go there,
3 Ben?

4 BY MR. BANNER:

5 **Q. And this is paragraph 110 in**
6 **Takahashi where it describes the flow chart that**
7 **we were just looking at in Figure 11, correct,**
8 **Dr. Traynor?**

9 A. That's my understanding of
10 paragraph 110, yes.

11 **Q. Okay. Takahashi discloses**
12 **identification information. That's part of the**
13 **authentication process; is that correct?**

14 A. If you'll just give me a moment to
15 just read the full paragraph. (Reviewing.) Yes.
16 There's mention of identification information.

17 **Q. And that identification information**
18 **is used in the authentication process; is that**
19 **correct?**

20 A. Which one?

21 **Q. Step S12, authentication processing?**

22 A. So after there's already a login --

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1 and again, I'm going to assume that in the first
 2 login there's authentication, because you can't
 3 have login without authentication. Then it looks
 4 like identity -- or, sorry, identification
 5 information is sent again for some other
 6 identification processing. That's what I see
 7 here.

8 **Q. Okay. So the identification**
 9 **information that Takahashi discloses is used in**
 10 **that authentication processing in Step S12. Do**
 11 **you agree with that?**

12 A. Again, yes, after some login process
 13 has already happened.

14 **Q. Would you agree with me that the**
 15 **authentication -- sorry. Let me start that over.**
 16 **Would you agree with me that the**
 17 **identification information that Takahashi uses in**
 18 **authentication is authentication information,**
 19 **according to the amended claim 26?**

20 A. I'm sorry. Could you repeat that?
 21 There were a lot of "authentications" in that
 22 question.

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1 **Q. It's a mouthful.**
 2 **So I'm asking if Takahashi's**
 3 **identification information--that's a term**
 4 **Takahashi uses--**

5 A. Understood.

6 **Q. -- would be considered authentication**
 7 **information.**

8 A. It could be. I mean, again, I
 9 have -- I agree that a user ID and password are
 10 authentication information. And that could be
 11 used here. What I see is one authentication in
 12 the form of a login, followed by a second
 13 authentication to which the rest of 110 discusses.

14 **Q. And for purposes of that second**
 15 **authentication, Takahashi discloses that the**
 16 **identification information is used for that**
 17 **authentication; is that correct?**

18 A. It appears in 110 that it says, "user
 19 ID and a password." So it sounds like -- yeah.
 20 Pardon me. That sounds like identification
 21 information.

22 **Q. Okay. Let me go a few sentences down**

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1 **in 110. Then right after the "(Step S12)," it**
 2 **says, "In the authentication processing, the**
 3 **identification information, or the user ID and the**
 4 **password, which are included in the HTTP request,**
 5 **are identified first."**

6 A. I see that text.

7 **Q. Yeah. So my question is, your**
 8 **understanding of this text is identification**
 9 **information. Is that equivalent with user ID and**
 10 **password or is that some other thing?**

11 A. No. I believe I've been consistent.
 12 I'm saying that this is user ID and password.
 13 This is authentication information, and it's part
 14 of some secondary authentication after a first
 15 authentication in the login, so...

16 MR. BANNER: Can we turn to
 17 Figure 6.

18 THE WITNESS: So just one more
 19 request. We're at about an hour again. When
 20 it's --

21 MR. BANNER: Sure.

22 THE WITNESS: If we could take a

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1 break.

2 MR. BANNER: I'm happy to take a
 3 break right now.

4 THE WITNESS: Okay.

5 TRIAL TECHNICIAN: Off the
 6 record at 2:46 p.m.

7 (A recess was taken from
 8 2:46 p.m. until 3:00 p.m.)

9 TRIAL TECHNICIAN: Back on the
 10 record at 3:00 o'clock p.m.

11 BY MR. BANNER:

12 **Q. Dr. Traynor, after a short break, you**
 13 **understand you're still under oath?**

14 A. Yes, I do.

15 **Q. So we have Figure 6 of**
 16 **Takahashi--it's Exhibit 1007--on the screen. Do**
 17 **you see it there?**

18 A. Yes, I can see it.

19 **Q. And you've seen this figure before**
 20 **today?**

21 A. Certainly. I've read this patent
 22 many times.

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1 Q. Okay. And this is a figure of the
2 database that is used by the Takahashi system.
3 Would you agree with that?
4 A. That's my understanding.
5 Q. And these would be database records,
6 if you will; is that accurate?
7 A. That appears to be what is being
8 depicted.
9 Q. And you would agree that Takahashi
10 uses this information found -- or that's depicted
11 in Figure 6 as part of the authentication process?
12 A. Can you -- I'm sorry. Is there a
13 more specific question? It was just very broad.
14 Q. Sure. So Figure 6 shows records that
15 pertain to a user's user ID and password and
16 identification information. Do you agree with
17 that?
18 A. Sure. This seems to have a username
19 and password and maybe a device identifier.
20 Q. Where do you see the device
21 identifier?
22 A. As a -- for instance, in

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1 identification information.
2 Q. And Takahashi uses a user ID and a
3 password as part of the authentication; isn't that
4 correct?
5 A. I believe that is an option.
6 Q. Is there another option in Takahashi?
7 A. I believe that Takahashi -- I may
8 have to just give it a look. I believe it also
9 allows for a device-specific identifier.
10 Q. Where would you need to look for
11 that?
12 A. May I open my iPad? Is that okay?
13 Q. Sure.
14 THE WITNESS: So paragraph 74,
15 Ben, would you mind turning to paragraph 74.
16 A. Under the heading identification
17 information talks about the device serial number.
18 So that would correspond to the identification
19 information in the previous database entry that
20 you were talking about wherein identification
21 information may be a serial number of a mobile
22 terminal. That's what I'm referring to.

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1 BY MR. BANNER:
2 Q. So Takahashi discloses this
3 authentication information called identification
4 information; is that correct?
5 A. Takahashi talks about
6 identification -- identification information in
7 the form of a mobile device's serial number.
8 Q. And Takahashi discloses that
9 authentication information is unique for each
10 mobile terminal; is that correct?
11 A. A serial number would be something
12 that the manufacturer creates. When Apple or
13 Google makes a phone, it comes with a -- the
14 serial number is known as an IMEI. That is
15 supposed to be unique, but it's device specific.
16 Q. Okay. And Takahashi itself -- the
17 first sentence of paragraph 74 says it's unique,
18 right?
19 A. Yes.
20 Q. And you'd agree with me that
21 Takahashi's application actually uses the
22 identification information provided by the user,

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1 correct?
2 A. Takahashi allows a scenario in which
3 the user can provide application specific
4 identification information using the password and
5 then in this case a device specific authentication
6 information here the serial number of the second
7 device.
8 Q. And the application in Takahashi, if
9 provided with the serial number of a second
10 device, is actually used by the application,
11 right?
12 A. Yes. That appears to be the case.
13 It will allow the use of the device --
14 device-specific identifier.
15 Q. And Takahashi's application, as we
16 were looking at Figure 6, actually stores that
17 device identification information in its database,
18 correct?
19 A. That's what appeared to be happening
20 in Figure 6.
21 Q. And then how does -- what's the
22 purpose of storing that information, do you

1 recall?

2 A. So let me take a step back here and
3 be clear. So this identification information is
4 not application specific. This identification
5 information was created by another manufacturer,
6 somebody else, Google or Apple or whomever
7 manufactured the phone.

8 It's used, you know, potentially in
9 many applications so it's application agnostic
10 so -- if you recall from our earlier discussion of
11 two-factor authentication. So the fact that it's
12 stored here and used by the application doesn't
13 make it application specific. It's just specific
14 to the device. That's stored.

15 Q. So you agree that the application
16 does use this information, correct?

17 A. The application uses device-specific
18 information, yes, it can.

19 Q. And what does the application use
20 that information for?

21 A. Specifically to tie me to a specific
22 device. So if I'd try and use a second terminal

1 to log in, I can't do that because that device
2 will have a different serial number.

3 Q. Because Takahashi requires
4 registration of your device; is that correct?

5 A. It would appear so.

6 Q. Takahashi discloses different
7 authentication information used by different
8 devices, doesn't it?

9 A. I'm going to answer the way I think I
10 understand the question. In this case, a device
11 serial number could be used by lots of different
12 applications. Like two-factor authentication, it
13 is application agnostic. So, yes, Takahashi does
14 explicitly consider the use of an application
15 agnostic; in this case, device-specific
16 identifier.

17 Q. I guess my question was a little
18 different than that. Takahashi discloses the use
19 of password information in one instance for
20 authentication. In a second instance, it
21 discloses this identification information serial
22 number as authentication information from a

1 different device, right?

2 A. So Takahashi certainly considers the
3 use of a username and password on a first terminal
4 and then device-specific identification, again the
5 serial number of the mobile device, on that second
6 terminal. So you have something that's
7 application specific in the first case and
8 something that is application agnostic in the
9 second.

10 Q. And in the first and second cases,
11 Takahashi is using different authentication
12 information, correct?

13 A. Takahashi in the first case is using
14 application specific authentication information, a
15 username and a password, and then Takahashi is
16 using device specific authentication information.
17 So they're not both application specific
18 authentication information. One is and one is
19 not.

20 Q. Okay. I don't think you're really
21 answering my question. I'm just asking a pretty
22 simple question. When you look at the two cases

1 and you look at the information that is being used
2 by the application, it's not the same, right?
3 It's different.

4 A. My apologies if I was unclear. I
5 agree that the information is different. What it
6 embodies is what I was trying to clarify. A
7 device -- a device identifier is not a username.
8 It's not a password. It's a device specific
9 identifier.

10 Q. So in these two different
11 authentications that Takahashi discloses,
12 different authentication information is used.
13 It's not the same, correct?

14 A. Right. One is specific to the user
15 and one is specific to the device. So they are --
16 they are different, but they are of different
17 forms.

18 Q. And you would agree with me that the
19 password is a user-specific thing, a form of
20 authentication, correct?

21 A. Yes. You would need the password
22 combination, yes.

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1 Q. Okay. And so you've made a
2 distinction between application specific and
3 device specific, correct?

4 A. Yes.

5 Q. And that's in the context of
6 authentication information, right?

7 A. Correct.

8 Q. In your opinion, can information that
9 is device specific ever be application specific?

10 MR. BENISEK: Object to form.

11 A. So my apologies. I think we covered
12 this a bit earlier in our discussion of two-factor
13 authentication. So I want to make sure that I
14 stay consistent.

15 Here, it's my assumption that
16 Takahashi didn't also create the mobile device.
17 And the mobile device came from, gosh, any of the
18 possible cell phone manufacturers. Nothing about
19 the device is specific to Takahashi and so it's
20 device -- sorry. Nothing about the identifier is
21 specific to the application. It's just specific
22 to the device.

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1 So consistently with what I said
2 earlier, you know, this is a device made by
3 somebody else. It was given a serial number
4 without any knowledge of the existence of the
5 application.

6 Multiple applications could also, you
7 know, pull this device information, meaning that
8 it's just not device specific. Sorry. My
9 apologies. It's just not application specific.
10 It's definitely device specific. I apologize.

11 BY MR. BANNER:

12 Q. So I guess my question -- that was a
13 long explanation. I'm trying to understand from
14 your perspective and your opinions, could there
15 ever be any overlap between device specific
16 authentication information and application
17 specific authentication information or are those
18 two completely mutually exclusive sets of
19 information, in your opinion?

20 MR. BENISEK: Object to form.

21 A. It's not clear to me -- given the
22 reading of this, it certainly doesn't look like

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1 the device has anything to do with the
2 application, so there isn't a tie there.
3 I'm not coming up with any examples
4 immediately. But, you know, you're asking me for
5 an exhaustive search here so I'm not coming up
6 with any examples immediately of cases where
7 device specific is application specific.

8 BY MR. BANNER:

9 Q. What if the information used to
10 authenticate was the username, password, and a
11 serial number of the device all combined. Is that
12 application specific?

13 A. I'm not sure about -- I'm sorry.
14 We're sort of just cramming a bunch of different
15 things together and I don't know -- I haven't
16 considered a case in which I have n things stuck
17 together.

18 In Takahashi, these are two separate
19 things. I don't combine them. So I can only know
20 what Takahashi has written here. Username and
21 password are one thing and device identifier is
22 another.

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1 Q. Let me pose a hypothetical with
2 respect to Takahashi. And again, this is just a
3 hypothetical. So let's assume that Takahashi
4 requires the user to enter different passwords
5 when logging into the application using different
6 devices. Okay?

7 A. I hear you so far.

8 Q. So that's the extent of the
9 hypothetical. You understand that hypothetical?

10 A. I do. And we're clear that Takahashi
11 doesn't do that.

12 Q. Right. This is just a hypothetical.

13 A. Okay.

14 Q. Under this hypothetical, do you agree
15 that the different passwords would represent
16 application specific authentication information?

17 A. May I ask -- I assume when we say
18 different pass- -- we're talking about username
19 and password, just the standard construction we've
20 been talking about before?

21 Q. That's correct.

22 A. Yes. Using -- again, assuming that

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1 those were associated with the application, a user
2 using one username and password and having a
3 second password, that would seem to fit the
4 definition of having two -- or two different
5 application specific authentication information.

6 Q. If we could -- actually, let me just
7 ask you. You said assuming those passwords were
8 associated with the application, still talking
9 about the hypothetical. What did you mean by
10 that?

11 A. Right. I was just making sure that
12 it wasn't the password to a game service and then,
13 you know, my username and password to my bank
14 somehow gets me into my gaming service so that I
15 have two passwords for my game service. I believe
16 that's the hypothetical, and I was just trying to
17 make sure that my answer stuck to that exercise.

18 Q. Okay. So yes. So just to make sure
19 we're all clear on it, so I guess we have Figure 6
20 of Takahashi up on the screen where it has, you
21 know, the application, storing the username and
22 password. We have one username and password.

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1 So do you agree Takahashi's disclosure of
2 the single username and password is associated
3 with the application, that that's an application
4 specific authentication?

5 A. Yes, I believe so.

6 Q. So the hypothetical, then, is, I
7 guess, essentially adding another row to this, you
8 know, table 6 that has, you know, the same user ID
9 with a different password and potentially a
10 different -- identification information for the
11 different device. Does that make sense?

12 A. I understand what you're saying.
13 Takahashi just doesn't get there. It doesn't --

14 Q. Correct.

15 A. -- go anywhere near that. So...

16 Q. But that's the hypothetical. And so
17 I just want to make -- I just want to ask the
18 question again. You understand that hypothetical?

19 A. I understand your hypothetical.

20 Q. And in that hypothetical, do you
21 agree that the different passwords represent
22 application specific authentication information?

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1 A. If we have two different pieces of
2 application specific authentication information,
3 then yes, and the username and password is one
4 example, one -- that's one version.

5 MR. BANNER: Can we go back to
6 Exhibit 2004, your declaration. And let's
7 look at paragraph 46.

8 BY MR. BANNER:

9 Q. And if you look at paragraph 103
10 here, Dr. Traynor. In particular, I'm -- you can
11 let me know when you've read it and I'll ask my
12 question.

13 A. Thank you so much. I'll just take a
14 moment. (Reviewing.) I see -- I see it. I've
15 read it.

16 Q. And so the second to the last
17 sentence there where you say, "The '376 Patent
18 discloses that 'sensitive information' is at a
19 minimum," do you see that sentence there?

20 A. I do.

21 Q. So my question to you is, this
22 sentence appears to provide a definition of

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1 sensitive information that is inconsistent with
2 what you provided in your claim construction
3 section.

4 And if you want to take a look at
5 that and put them side by side, that would be on
6 paragraph 30 -- I'm sorry. Sorry. Paragraph 42,
7 page 15 or 16. It's actually on page 16.

8 A. I'm waiting. I assume that Ben is
9 going to bring this up.

10 Q. Yes. I think so.

11 A. Great.

12 MR. BANNER: So, Ben, that
13 paragraph on 16, it's that last sentence of
14 the top paragraph: "It is clear that a
15 POSITA would understand 'sensitive
16 information,'" that entire sentence.

17 A. (Reviewing.) So I see the
18 highlighted. What is your question exactly?

19 BY MR. BANNER:

20 Q. My question is, paragraph 42 is in
21 your claim construction section of your
22 declaration, and I understand you offer that

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1 construction of "sensitive information." In
 2 paragraph 103, it appears that perhaps you're
 3 offering a second definition of sensitive
 4 information; is that correct?
 5 A. No.
 6 MR. BENISEK: Object to form.
 7 A. Paragraph 103 should just be read as
 8 a "because." So if you look at the language that
 9 I've used in 42, why will it not automatically
 10 share with the first device? Because the concern,
 11 the first device is compromised by malware.
 12 BY MR. BANNER:
 13 Q. So 103 is not a proposed
 14 construction. Is that what you're confirming?
 15 A. I'm not an attorney. I apologize.
 16 I've offered my construction in 42. The text in
 17 103 is just con- -- is context. Why would we not
 18 share it? Because concern that that first device
 19 is compromised by malware.
 20 MR. BANNER: Ben, can you pull
 21 up page 16 of Exhibit 2004. And I'm going to
 22 do a side-by-side. Yeah. And can we get

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1 Exhibit 1001, the patent, and look at
 2 Figure 8, which is page 10. There you go.
 3 Zoom in to Figure 8 maybe a little bit.
 4 There we go.
 5 BY MR. BANNER:
 6 Q. So, Dr. Traynor, earlier we talked
 7 about a few of these elements in Figure 8. You
 8 may recall that conversation. We talked about 812
 9 and 815 with respect to the claim language. Do
 10 you recall that?
 11 A. I recall that discussion, yes.
 12 Q. So I just want to go a little bit
 13 further and just talk about Figure 8 with respect
 14 to the amended claim 26 that you evaluated for
 15 purposes of your declaration.
 16 MR. BANNER: And so, Ben, in
 17 page 16 of his report, amended claim 26, the
 18 text starts down at the bottom. Can we
 19 scroll down a little bit so we can see the
 20 text? Perfect.
 21 BY MR. BANNER:
 22 Q. So my question for you, Dr. Traynor,

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1 is, do you agree that Figure 8 depicts a method
 2 for transmitting information to multiple
 3 electronic devices?
 4 A. So my apologies.
 5 MR. BENISEK: Object to form.
 6 Sorry.
 7 A. My apologies. I don't talk about
 8 this figure in my report, so I haven't expressed
 9 any kind of official opinion. I haven't mapped it
 10 specifically to the claims. So that's an exercise
 11 I have not done before this.
 12 BY MR. BANNER:
 13 Q. Okay.
 14 A. So you're sort of asking me to do
 15 something that I have not done prior to this.
 16 It's just outside of my report.
 17 Q. You evaluated the claim language for
 18 purposes of your report, correct?
 19 A. Certainly.
 20 Q. And you understand or formed an
 21 opinion as to the meaning of the amended claims
 22 for purposes of your report?

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1 A. Certainly.
 2 Q. Claim 26a recites, "electronically
 3 storing a set of information at a server,"
 4 correct?
 5 A. So again, I can see those literal
 6 words on the page. I haven't offered an exact
 7 mapping of all of the applications here, but I see
 8 those literal words on the left-hand side of my
 9 screen.
 10 Q. Okay. So if we're looking at the
 11 application in Figure 8 -- which is part of the
 12 patent that you evaluated, correct?
 13 A. Yes, that's correct.
 14 Q. What portion of Figure 8 would carry
 15 out the electronically storing a set of
 16 information at a server?
 17 A. Again, I haven't been asked to
 18 perform a specific mapping of the features of each
 19 figure to the claims, so I don't have anything
 20 about that in my report.
 21 Q. Sitting here today, you can't tell me
 22 what portion of Figure 8 would be responsible for

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1 electronically storing a set of information at a
2 server?

3 A. Again, I explained to you in the
4 first hour of this call that I spent many hours
5 carefully evaluating all these documents, and so I
6 would not hazard to present a new opinion here
7 today, especially given the amount of time and
8 care I've put in already doing this mapping. You
9 know, I'd want time to do it, and I'd ask that for
10 any arbitrary example.

11 Q. Figure 8 discloses a bank server,
12 element 813, correct?

13 A. I see an 813 that is a bank server,
14 yes.

15 Q. And Figure 8 relates to a banking
16 application, correct?

17 A. That's my understanding.

18 Q. So when the claim recites,
19 "electronically storing a set of information at a
20 server," could 813, the bank server, be the
21 portion of Figure 8 where electronically storing a
22 set of information at a server is carried out?

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1 A. Servers often store things, so it's
2 possible.

3 MR. BANNER: Okay. What about
4 if we can go to page 17 of Exhibit 2004.

5 BY MR. BANNER:

6 Q. Now, you understand 26b, limitation
7 of the claim, as recited here in your report,
8 requires identifying a first subset of information
9 and identifying a second subset of information,
10 correct?

11 A. I see those literal words in front of
12 me, yes.

13 Q. And "the first and second subsets of
14 information are generated by the same application
15 at the server and are specific to that
16 application," correct?

17 A. That is the rest of that clause, yes.

18 Q. So when we look at Figure 8, we have
19 bank server 813, again, correct?

20 A. It is still there, yes.

21 Q. So is bank server 813 where the
22 identifying the first subset of information and

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1 second subset of information will be performed in
2 this example?

3 MR. BENISEK: Object to form.

4 A. Again, as I've said before, I haven't
5 been asked to do this mapping. Could it be there?
6 Certainly possible.

7 BY MR. BANNER:

8 Q. Do you see any other servers in
9 Figure 8 where it could happen?

10 MR. BENISEK: Object to form.

11 A. I see the bank website. That's
12 probably run on a server. Could happen there.
13 Could be in the back end. There are lots of
14 places where this could happen. I just -- I
15 haven't been asked to do this mapping, and so it
16 could be the bank server.

17 BY MR. BANNER:

18 Q. So if we look at element 26c of the
19 amended claim 26. If you want to read that and
20 let me know when you've read that element starting
21 with "determining at the server"?

22 A. Sure. (Reviewing.) Okay. I've read

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1 26c.

2 Q. Okay. Again, this is a step that is
3 performed by the server. Would you agree with
4 that?

5 A. I'd just like to bring up all of my
6 previous caveats and notes. I haven't been asked
7 to do this mapping. That's a server. That seems
8 like the kind of thing that would happen at a
9 server, so it's possible.

10 Q. Doesn't the claim language itself
11 require this to happen at the server? That's my
12 first question.

13 A. I mean, it says, "determining at the
14 server." So 813 looks like a good candidate.
15 That said, haven't been asked to do the mapping,
16 so the best I can say for you right now on the
17 spot is it's possible.

18 MR. BANNER: Okay. What
19 about -- let's actually go to -- will you
20 scroll down and get the element 26d from the
21 claim.

22 BY MR. BANNER:

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1 Q. And, Dr. Traynor, if you can read
2 element 26d that starts with "if and only if."

3 A. No problem. One moment, please.
4 (Reviewing.) Okay. I've read it.

5 Q. Okay. And there are a few things
6 that happen in 26d, including "transmitting the
7 first subset of the information to the first
8 device from the server." Do you see that?

9 A. Yes, I do see those words.

10 Q. And I think previously we identified
11 812, the user's computer and the candidate for the
12 first device. Do you agree with that?

13 MR. BENISEK: Object to form.

14 A. I see the words "user's computer"
15 underneath it. Again, informally it seems
16 possible.

17 BY MR. BANNER:

18 Q. So is there an indication in Figure 8
19 of the server transmitting a first subset of
20 information to the first device?

21 A. Again, I haven't been asked to do
22 this mapping, you know, previously. I see

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1 high-level descriptions here about interaction,
2 but I don't have an opinion here. It's not in my
3 report.

4 Q. Do you agree with me that the server
5 provides the bank website information that's shown
6 in 812 in Figure 8?

7 MR. BENISEK: Objection.

8 A. That's what it looks like to me. I
9 don't know where else the bank -- the website
10 would get it. But that said, I haven't been asked
11 to do this mapping. It's not in my report.

12 COURT STENOGRAPHER: Excuse me.
13 This is the reporter.

14 Just, Mr. Benisek, make sure your objections
15 are a little louder. I'm seeing your mouth
16 move but not hearing you.

17 MR. BENISEK: My mouth's not
18 moving. Sorry. I wasn't speaking.

19 COURT STENOGRAPHER: No. I'm
20 talking about two questions ago.

21 MR. BENISEK: Understood.

22 BY MR. BANNER:

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1 Q. All right. So element 26d on page 17
2 of your report also recites, "transmitting the
3 second subset of the information to the second
4 device from the server." Do you see that?

5 A. Yes. I do see those words.

6 Q. Okay. And you agree that the element
7 815, which is the user's smartphone, is a second
8 device in this example shown in Figure 8 of the
9 patent?

10 A. Again, as I said before, that's what
11 it looks like. I haven't been asked to do this
12 mapping in my report. This is not in my report.
13 So it looks like it here in this diagram.

14 Q. And transmitting the second subset of
15 information to the second device from the server,
16 is that depicted here on this diagram in Figure 8?

17 A. I haven't provided an opinion on that
18 before.

19 Q. How about the arrow down towards the
20 bottom that says, "Bank communicates with user's
21 smartphone"?

22 A. That's possible.

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1 Q. And the information that's shown in
2 815, the "Transfer Amount" and the "Transfer to,"
3 would you agree that that is the second subset of
4 information that was sent to that second device?

5 A. Again, I don't have this mapping in
6 my report. That seems like one possible
7 instantiation, but I haven't done this analysis or
8 mapping.

9 Q. You've read the '376 patent in its
10 entirety, correct?

11 A. Yes, of course.

12 Q. Maybe we can go to column 7 where
13 Figure 8 is discussed and you can refresh your
14 recollection on how the patent describes Figure 8.
15 So I think at the bottom of column 7, going over
16 to the top of column 8, if you want to look at
17 that and just let me know when you've read that.

18 A. (Reviewing.)

19 THE WITNESS: Could you please
20 go to the top of the next column.

21 A. (Reviewing.) Okay. I've finished
22 reading the paragraph.

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1 BY MR. BANNER:

2 Q. And if we can go back to that
3 side-by-side, does that refresh your recollection
4 as to what's being depicted in Figure 8,
5 Dr. Traynor?

6 A. Yes. But I'll note again I haven't
7 provided any opinions on this in my report. My
8 report is specifically focused on the amendments,
9 so I'm not sure how I can help you today. I'll
10 try.

11 MR. BANNER: We can get back
12 to -- I think it's page 17 of his report,
13 Exhibit 2004.

14 BY MR. BANNER:

15 Q. Again, on limitation 26d as called
16 out on page 17 of your report, Dr. Traynor,
17 there's another -- the very last part of that
18 limitation "wherein the second subset of the
19 information includes information not transmitted
20 to the first device." Do you see that?

21 A. I see that.

22 Q. Is that also depicted in Figure 8?

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1 A. Again -- and I apologize that I'm
2 repeating myself here. It's possible. I haven't
3 been asked to do this mapping nor did I provide
4 any opinions in my report. So possibly.

5 Q. Would the transfer amount be
6 information that is available on the smartphone
7 that is not transmitted to the user's computer?

8 A. Again, I haven't offered an opinion
9 on this before, and I'm not going to offer one on
10 the fly. It just requires careful consideration
11 just like everything else I've done, and the
12 opinions that I've actually expressed in my
13 report.

14 Q. So you're not willing to say whether
15 the transfer amount shown in Figure 8 is
16 information that was not transmitted to the user's
17 computer?

18 A. I'm willing to say that it could be.
19 This figure seems relevant, but then I haven't
20 been asked to perform the mapping explicitly. And
21 so given that it's not in my report, I'm not going
22 to do that mapping here in realtime.

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1 Q. So we've gone through all the
2 limitations of claim 26. Sitting here today,
3 you're not willing to tell me whether or not
4 Figure 8 is an embodiment of the claims or the
5 amended claims; is that correct?

6 A. What I'm saying is that this is
7 the -- this figure comes from the original patent.
8 I was asked to look at the amendments. I wasn't
9 asked to perform a specific mapping to this or any
10 of the other figures, and so I haven't done that.

11 My understanding is that I'm here to
12 talk about what's in my report and so I don't have
13 anything else to offer other than what I have.
14 This looks relevant, but without the time to
15 actually go through and perform the mapping and to
16 be very careful, I wouldn't be, you know,
17 performing the service of an expert.

18 Q. So sitting here today, you can't tell
19 me one way or the other, then; is that correct?

20 A. I'm telling you I haven't done this.

21 MR. BANNER: Ben, if we could go
22 to Figure 9 on the right-hand side, one more

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1 page.

2 BY MR. BANNER:

3 Q. Dr. Traynor, have you seen Figure 9
4 of the '376 patent before today?

5 A. Yes. As I've said before, I've read
6 the '376 patent.

7 Q. Do you have an opinion as to whether
8 Figure 9 is an embodiment of the amended claims?

9 A. So as I've said before, this
10 certainly looks relevant. I haven't been asked to
11 do that task. And so it's not in my report and,
12 therefore, I don't really have anything to add to
13 this.

14 Q. So you can't tell me one way or the
15 other today whether this is an embodiment of the
16 claims in Figure 9?

17 A. I can tell you I was never asked to
18 do that, and so it's not in my report.

19 Q. And you're not going to do it on the
20 fly today; is that correct?

21 A. As I mentioned, being an expert
22 requires very careful work, often over many hours

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1 and certainly in a compressed time slot. I
2 couldn't give this the proper treatment that it
3 deserves.

4 MR. BANNER: Let's go down to
5 Figure 10, Ben.

6 BY MR. BANNER:

7 Q. Figure 10 of the '376, Dr. Traynor,
8 you've seen this before today?

9 A. Yes. I've read the patent before.

10 Q. Does this figure relate to the
11 amended claims that you analyzed?

12 A. So again, just to be specific, this
13 is not in my report. This is not part of the
14 amendments. I was not asked to analyze or map
15 this, and so I don't have anything to add here.

16 Q. So what portions of the amended
17 claims were you asked to consider for purposes of
18 preparing your declaration?

19 A. I'm not sure what you mean. I
20 evaluated the claims here on the left, as listed
21 in my report, and my understanding of my
22 assignment -- would you mind if I just take a

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1 second? I'm going to open up my iPad with my
2 report on it just so I can pull out the exact
3 words. Is that all right?

4 Q. Yeah. Absolutely.

5 A. Thank you. One moment, please.
6 (Reviewing.) So as I say in paragraph 6, I've
7 been asked to evaluate the patent owner's --
8 sorry. There was some feedback there. Okay. The
9 motion to amend. And in particular, I'm looking
10 specifically at the substitute claims. So in 6 I
11 note, "Patent Owner's proposed Substitute Claims."
12 So my analysis was limited to those.

13 Q. Okay. Were you asked to consider
14 whether the proposed substitute claims were
15 supported by the specification?

16 A. I certainly considered the
17 specification as part -- as part of my analysis so
18 that I had the context to understand the claims.

19 Q. But you didn't consider whether
20 Figures 8 or 9 provide support for the amended
21 claims?

22 A. I wasn't asked -- I was asked -- I

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1 apologize. I was not asked to perform an explicit
2 mapping between those things and the substitute
3 claims.

4 Q. What about Figure 10. Were you asked
5 to consider whether that figure provides support
6 for the amended claims?

7 A. I was not -- no. My exercise was
8 focused on the claims themselves. And as I said
9 before, I read the spec so that I could understand
10 the substitute claims.

11 MR. BANNER: I may have a few
12 more questions, but I'm getting close today
13 and I just want to take a quick break and
14 make sure I'm not missing anything. So if
15 you don't mind we go off the record?

16 TRIAL TECHNICIAN: Off the
17 record at 3:51 p.m.

18 (A recess was taken from
19 3:51 p.m. until 4:02 p.m.)

20 TRIAL TECHNICIAN: Back on the
21 record at 4:02 p.m.

22 BY MR. BANNER:

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1 Q. After a quick break, Dr. Traynor, you
2 understand you're still under oath?

3 A. Yes, I still understand I'm still
4 under oath.

5 Q. And the good news is I'm wrapping up,
6 so it'll be a short one today. I appreciate you
7 hanging in here with me.

8 I do like to just kind of do a few closing
9 questions to wrap things up and just confirm: At
10 any time after the deposition began today, have
11 you discussed your testimony or my questions with
12 anyone off the record?

13 A. No, I have not.

14 Q. And throughout this deposition, you
15 had access to your declaration if you wanted to
16 review anything, correct?

17 A. Yes, that's correct.

18 Q. And I didn't ever stop you from
19 reviewing any documents when you asked to review
20 them; is that correct?

21 A. No, you did not stop me.

22 Q. And you were able to review those

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1 documents that you needed to review? 2 A. Yes, I was. 3 Q. Do you stand by the opinions offered 4 in your declaration? 5 A. Yes, I do. 6 Q. There's nothing in your declaration 7 that you want to take back, correct? 8 A. No, I do not. 9 MR. BANNER: I pass the witness. 10 MR. BENISEK: Yeah. No 11 questions. So we can wrap up and go off the 12 record. 13 TRIAL TECHNICIAN: Thank you. 14 Counsel, is there anything else to put on the 15 record before we close today? 16 MR. BANNER: I don't think so. 17 TRIAL TECHNICIAN: Okay. Thank 18 you. Then we are off the record at 4:04 p.m. 19 20 (Time noted: 4:04 p.m.) 21 22 * * * * *	1 ERRATA SHEET 2 Case: KAHOOT! ASA & KAHOOT! EDU, INC. v. AVIEL D. RUBIN 3 I, PATRICK TRAYNOR, have read the entire 4 transcript of my deposition taken in this pending 5 matter, or the same has been read to me. I request 6 that the following changes be entered into the 7 record for the reasons indicated. I have dated and 8 signed my name to this Errata Sheet. <table border="1"> <thead> <tr> <th>Page/Line</th> <th>Correction or Change</th> <th>Reason</th> </tr> </thead> <tbody> <tr><td>9</td><td></td><td></td></tr> <tr><td>10</td><td></td><td></td></tr> <tr><td>11</td><td></td><td></td></tr> <tr><td>12</td><td></td><td></td></tr> <tr><td>13</td><td></td><td></td></tr> <tr><td>14</td><td></td><td></td></tr> <tr><td>15</td><td></td><td></td></tr> <tr><td>16</td><td></td><td></td></tr> <tr><td>17</td><td></td><td></td></tr> </tbody> </table> 18 Date _____ Signature of Witness _____ 19 Mr. Benisek: 20 1. Please have the deponent review this 21 transcript and make any changes on this sheet 22 2. Return the original executed sheet to 3. e-mail a copy to our court reporting office: erratas@myrina.com.	Page/Line	Correction or Change	Reason	9			10			11			12			13			14			15			16			17		
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1 CERTIFICATE 2 3 I, Myrina A. Kleinschmidt, 4 Registered Merit Reporter, a Remote Notary 5 Public, hereby certify that I reported the 6 deposition as noted on the first page, and 7 that the witness was by me first duly sworn 8 to tell the whole truth; 9 That the testimony was 10 transcribed under my direction and is a true 11 record of the testimony of the witness; 12 That I am not a relative or 13 employee or attorney or counsel of any of the 14 parties or a relative or employee of such 15 attorney or counsel; 16 That I am not financially 17 interested in the action and have no contract 18 with the parties, attorneys, or persons with 19 an interest in the action that affects or has 20 a substantial tendency to affect my 21 impartiality; 22 That we charge the same rate for copies of the same transcript to all parties; WITNESS MY HAND AND SEAL this 18th day of February 2024.  Myrina A. Kleinschmidt Registered Merit Reporter Certified Realtime Reporter																															

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