

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

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SAMSUNG ELECTRONICS CO., LTD.; :

SAMSUNG AMERICA, INC., : Case No.

Petitioners, : IPR2024-00006

vs. :

SLYDE ANALYTICS, LLC, :

Patent Owner. :

- - - - -X

Remote Deposition of BENJAMIN B. BEDERSON, PH.D.

Friday, May 31, 2024

10:04 a.m. (EDT)

Reported by:

Dana C. Ryan, RPR, GCCR

Job No.: 9273

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May 31, 2024
10:04 a.m. (EDT)

Remote Deposition of BENJAMIN B.
BEDERSON, PH.D., held via Zoom Videoconference,
before Dana C. Ryan, Registered Professional
Reporter, State of Georgia Certified Court
Reporter, and Notary Public.

A P P E A R A N C E S

ON BEHALF OF PETITIONER:

BRIAN COOK, Esquire

GRACE MCFEE, Esquire

O'Melveny & Myers LLP

400 South Hope Street

18th Floor

Los Angeles, California 90071

(213) 430-6000

bcook@omm.com

gmcfee@omm.com

ON BEHALF OF THE PATENT OWNER:

JULIAN PYMENTO, Esquire

Fabricant LLP

411 Theodore Fremd Avenue

Suite 206 South

Rye, New York 10580

(212) 257-5797

jpymeto@fabricantllp.com

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E X H I B I T S

(Attached to the transcript)

PATENT OWNER DEPOSITION	PAGE:
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8,588,033 B2	
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P R O C E E D I N G S

BENJAMIN B. BEDERSON, PH.D.,

having been duly sworn, testified as follows:

EXAMINATION BY COUNSEL FOR THE PATENT OWNER

BY MR. PYMENTO:

Q Good morning, Dr. Bederson.

A Good morning.

Q Could you please state your full name
for the record?

A Benjamin B. Bederson.

Q I'm Julian Pymonto, the counsel for
patent owner in this proceeding, and I'll be
taking your deposition today.

Have you had your deposition taken
before?

A Yes, I have.

Q Approximately how many times have you
had your deposition taken before?

A Over the last, I think, around 15
years, approximately 50 or 60 times.

Q About what percentage of those 50 or 60
depositions were in the context of inter partes
review?

1 A I don't have a percentage. I haven't
2 calculated or haven't added them up. I just don't
3 know.

4 Q About how many depositions of those 50
5 or 60 do you think are around -- are related to
6 IPRs in your estimation?

7 A I haven't added them up, so I don't
8 have a number to give you. If I were to estimate,
9 somewhere on the order of half, but it could
10 easily be more or less.

11 Q And in those cases, did you provide a
12 written report of your opinions like you did in
13 this proceeding with your declaration?

14 A I believe in all of the -- for all the
15 depositions that I've participated in related to
16 an IPR, I did submit a written declaration.

17 Q So sounds like you're pretty much an
18 expert at these depositions, but I'll just go over
19 the ground rules briefly. Basically I'll be
20 asking you questions. You'll be giving me
21 answers.

22 Do you understand that?

23 A Yes.

24 Q And that you're required to answer my
25 questions truthfully and fully. If you don't

1 understand my questions, just please ask me to
2 rephrase them.

3 Do you understand that?

4 A Okay.

5 Q If you do provide me with an answer,
6 I'll assume that you understood my question.

7 Is that understood?

8 A I'll do my best to clarify any concerns
9 I have about your questions, so, yes, I'll answer
10 your questions to the best I can understand them.

11 Q And I do need verbal answers, so a head
12 nod or an uh-huh doesn't show up really good on
13 the record for the court reporter, so we'll try to
14 avoid that.

15 Is that understood?

16 A Yes, that's fine.

17 Q I usually try to take breaks about once
18 an hour, but if you want a break at any other time
19 prior to me calling a break, just let me know.
20 I'm happy to go off the record for, you know, like
21 a five-minute bathroom break or to get a cup of
22 coffee.

23 If there's a question pending, just
24 provide an answer to the question before we take a
25 break; is that okay?

1 A Yes, that's fine.

2 Q Is there any reason you can't testify
3 truthfully today?

4 A No.

5 Q Have you taken any drugs or alcohol
6 that could impair your ability to testify today?

7 A No.

8 Q Where are you located right now
9 physically?

10 A At the conference room in the O'Melveny
11 offices of New York City.

12 Q Is there anyone in the room with you?

13 A Yes.

14 Q Would you let me know who's in the room
15 with you?

16 A Two O'Melveny counsel, Brian Cook and
17 Grace McFee.

18 Q And if that changes, would you let me
19 know?

20 A Yes, I'll do my best to remember to let
21 you know if that changes.

22 Q What programs do you have currently
23 running on your computer aside from the Zoom
24 meeting?

25 A This computer was provided to me. It

1 looks like -- I'm going to close some programs
2 that are not necessary, so the answer will be
3 nothing.

4 Q Okay. So just to be clear, there are
5 no communications programs opened such as Outlook
6 or any email or any chat program; right?

7 A That's correct.

8 Q Do you have any physical paper copies
9 of the exhibits or references in this proceeding
10 with you?

11 A Yes, I do. I was provided with a
12 binder with some black and white printouts of a
13 number of the documents related to this
14 proceeding.

15 Q Are those documents annotated, or are
16 they clean documents?

17 A They're clean documents with no
18 annotations.

19 Q All right. So I'm going to drop some
20 exhibits in the chatbox. Just let me know when
21 you get that. They should be on their way. There
22 is six of them.

23 A I see them.

24 Q So just for the record, Exhibit 1, I'd
25 like to mark as the '033 patent which is the

1 subject patent in this proceeding. I think I'll
2 just refer to it as the '033 patent.

3 Exhibit 2 is your declaration that was
4 submitted in this proceeding. Exhibit 3 is your
5 CV that was submitted in this proceeding.

6 Exhibit 4 is Mooring; it's one of the
7 references the petitioner used in this proceeding.
8 And Exhibit 5 is Satoshi; this was another
9 reference that was used by the petitioner in this
10 proceeding.

11 The 6th exhibit is the institution
12 decision for this proceeding.

13 (Patent Owner Exhibit 1, Patent
14 Owner 2, Patent Owner Exhibit 3, Patent Owner
15 Exhibit 4, Patent Owner Exhibit 5 and Patent Owner
16 Exhibit 6 were marked for identification and
17 attached to the transcript.)

18 BY MR. PYMENTO:

19 Q I'll just refer to them by their normal
20 names instead of the exhibit numbers if that's
21 more helpful; is that okay?

22 A Yeah, that's fine, and I have those six
23 documents downloaded.

24 Q Great.

25 So I'd like for you to open your

1 declaration in this proceeding. Just let me know
2 when you have it open, or if you have a physical
3 copy, I mean, that's -- that's -- honestly, I'm
4 fine with that, too.

5 A Okay. I'm ready.

6 Q Do you believe that you considered any
7 other materials aside from the documents cited in
8 your declaration?

9 A (Witness reviews document.)

10 I certainly did not rely on any
11 materials that -- beyond the ones that I cited in
12 my declarations -- in my declaration, and I listed
13 in paragraph 21 a table describing the materials
14 that I considered in my preparation for this
15 declaration.

16 Q The sixth exhibit that I provided was
17 the decision granting institution in this
18 proceeding. It was created by the patent office
19 after you submitted your declaration.

20 Did you review this decision in
21 preparation for today's deposition?

22 A Yes, I did.

23 Q About how much time did you spend
24 preparing for this deposition?

25 A I didn't add up the hours, but I would

1 estimate somewhere on the order of two days.

2 Q So would you say that's somewhere
3 between 10 and 20 hours; is that fair?

4 A Again, I didn't add it up, so I can't
5 give you an exact count, but as I said, I -- if I
6 had to estimate, I would say it's somewhere in the
7 order of two days.

8 Q When do you first recall being involved
9 in this proceeding?

10 A I don't recall.

11 Q Could you give an approximation?

12 A I -- I don't -- I didn't review my --
13 any documents related to that issue, and so I just
14 don't recall when I was initially approached or
15 engaged to work on this matter.

16 Q Would you say it's about a year ago,
17 maybe, or on that approximation?

18 MR. COOK: Objection to form.

19 THE WITNESS: So I filed this
20 declaration on October 12th, 2023, and -- so I --
21 it was surely sometime before that that I started
22 working on this substantively, but I just don't
23 remember when I was contacted or engaged for this
24 matter.

25 The only thing I can tell you for sure

1 is that it was sometime before October 12th, 2023.

2 BY MR. PYMENTO:

3 Q Do you think it might have been early
4 2023, middle of 2023?

5 MR. COOK: Objection to form.

6 THE WITNESS: So, as I said, I don't
7 have a specific recollection, and I didn't review
8 any documents related to that, so any answer would
9 just be pure speculation.

10 BY MR. PYMENTO:

11 Q About how much time did you spend
12 preparing the declaration?

13 A I didn't review in my logs or any
14 information related to that. I just don't recall.

15 Q Could you provide an approximation?

16 A No. I mean, that work was, you know,
17 something that -- the time leading up to
18 October 2023, somewhere in the order of nine
19 months ago. I just don't recall how much time I
20 spent working on it.

21 Q Would you consider it to be more than
22 ten hours?

23 MR. COOK: Objection. Form.

24 THE WITNESS: Again, I don't have a
25 recollection, so any answer about how long it

1 would take would be speculation. I mean, I think
2 I typically would work more than ten hours on a
3 declaration, but I just don't have any specific
4 recollection of how long I spent doing it. So I
5 don't want to give you an answer that's just
6 speculation.

7 BY MR. PYMENTO:

8 Q Is it more likely or less likely that
9 you spent less than ten hours working on this
10 declaration?

11 MR. COOK: Objection to form.

12 THE WITNESS: So I can only answer that
13 question based on my typical practices, not based
14 on a specific recollection of how long I spent
15 working on this. But based on my typical
16 practices, it's definitely more likely that I
17 spent more than ten hours working on this
18 declaration.

19 BY MR. PYMENTO:

20 Q Do you think you spent more than 20
21 hours preparing the declaration?

22 MR. COOK: Objection to form.

23 THE WITNESS: I just don't have any way
24 to answer that question. That would just be
25 guessing. You asked me to give truthful and -- I

1 believe -- I understand I should give accurate
2 answers, and I just can't answer that question
3 based on information I don't have since I don't
4 remember specifically how long I spent working on
5 this.

6 BY MR. PYMENTO:

7 Q Aside from counsel at O'Melveny, did
8 you communicate with anyone else about your
9 deposition today?

10 A No.

11 Q Did you communicate with anyone at
12 Samsung directly about your deposition today?

13 A No.

14 Q Have you corresponded with Samsung
15 prior to today regarding your declaration or
16 deposition?

17 A No.

18 Q Aside from the attorneys at O'Melveny,
19 was anyone else involved in the preparation of
20 your declaration in this action aside from you?

21 A Not that I'm aware of.

22 Q And aside from the '033 patent, which
23 is the patent owned by Slyde, can you tell me how
24 the prior art documents were located in this case?

25 A The prior art documents that I referred

1 to in my declaration were located through a
2 combination of my search and the -- what counsel
3 provided.

4 Q Are you able to recall which ones you
5 provided?

6 A Are you referring specifically to the
7 prior art that I use in my analysis as part of the
8 grounds or more broadly the materials considered
9 list?

10 Q The prior art.

11 A (Witness reviews document.)

12 I believe I personally located some --
13 actually, you know what, as I'm thinking about it,
14 I don't know that I can give a clear answer
15 because I don't have a -- I don't have a clear
16 recollection as to which specific prior art
17 documents I am the one that found. I believe I
18 found some, but I don't remember precisely which
19 ones.

20 Q So you provided your CV as Exhibit 1003
21 in this proceeding. Could you please turn to the
22 first page of that CV?

23 A Okay.

24 Q So on the first page it says, I have
25 read the following and certify that it is a

1 current and accurate statement of my professional
2 record as of September 25th, 2023.

3 Is that right?

4 A That's what that says, yes.

5 Q Do you still think this CV is accurate?

6 A Do you mean is it accurate as of today,
7 or is it accurate as of September 25th, 2023,
8 which is the date on the CV?

9 Q Right. Is it accurate as of today,
10 meaning has there been any additions to it since
11 September 25th, 2023.

12 A (Witness reviews document.)

13 I'm not thinking of any changes between
14 September 25th, 2023 and now; although, it's
15 possible that there have been some small changes.

16 And I'll also say, when I described
17 this as referring to my professional record, I was
18 referring to this as my -- I think it was my
19 academic professional record. I didn't include on
20 this CV my work as a -- I didn't describe the
21 details of my work as an expert -- as a -- as an
22 expert witness. I do refer to it someplace, but I
23 didn't provide those details.

24 Q Do you have a bachelor's degree in
25 electrical engineering, computer science, computer

1 engineering or a related field?

2 A Yes.

3 Q Do you have experience in the research,
4 design, development or testing of touchscreen
5 applications for mobile devices?

6 A I -- can you clarify if you're
7 referring to a particular time period?

8 Q Generally. First, let's start
9 generally.

10 A Generally, yes.

11 Q Could you describe those experiences?

12 A Could you just repeat the question
13 about which experiences you're asking about?

14 Q Sure.

15 So I -- I previously asked if you had
16 experience in the research, design, development or
17 testing of touchscreen applications, and so now
18 I'm just asking you to describe that experience.

19 A So I have quite a lot of experience
20 with touchscreen applications in all aspects of
21 them, I would say, going back to 1998. 1998, I
22 believe that's the time I can think of when I
23 first attached a touchscreen to a computer that I
24 was doing software development on, and I used it
25 to test a photo browser that I had been writing to

1 see how that worked in the touchscreen.

2 Then in -- do you want me to refer
3 specifically to the elements of my CV that
4 describe these things, or do you want me to just
5 tell you generally?

6 Q Either way you wish to proceed is fine
7 with me.

8 A (Witness reviews document.)

9 So in or about 2000- -- well, in 2001,
10 I started applying some of the graphic user
11 interface design work I'd been doing for years on
12 zoomable user interfaces to touchscreen mobile
13 devices. And particular in 2001, I started
14 working with Microsoft's Pocket PC platform and
15 started developing a mobile photo browser, a
16 mobile calendar on a touchscreen.

17 That's reflected on my CV on page --
18 it's listed on the bottom as page 10, 0010. If
19 you look at -- item 44, refers to a paper titled A
20 Fisheye Calendar Interface for PDAs: Providing
21 Overviews in Small Displays.

22 So that's an example of a paper that I
23 wrote describing some of that work.

24 (Witness continues reviewing document.)

25 If you go to page 6 of my CV, another

1 example listed is item 18 which refers to a paper
2 called Pocket PhotoMesa: A Zoomable Image Browser
3 for PDAs.

4 That describes some of that work I just
5 finished describing, which again showed a graphic
6 user interface for Microsoft Pocket PC platform,
7 which is a touchscreen device. This was for a
8 photo browser.

9 Then the item right above that, item
10 17, describes a 2005 paper that was nominated for
11 Best Paper award at the CHI conference, which is
12 the premier international conference in
13 human-computer interaction. That paper is titled
14 AppLens and LaunchTile: Two Designs For One-Handed
15 Thumb Use on Small Devices.

16 That describes two touchscreen-based
17 graphical user interfaces that I developed in
18 collaboration with a person at Microsoft Research
19 that's listed here, John SanGiovanni, as well
20 graduate student Amy Karlson. And that provided a
21 way to manage and navigate through a number of
22 applications on a mobile home screen using a touch
23 interface.

24 On that page, item 13, there's a paper
25 from 2006 called Target Size Study for One-Handed

1 Thumb Use on Small Touchscreen Devices, and that
2 analyzed the -- I describe some of our work
3 analyzing how people used small touchscreen
4 devices, and in particular if they're holding it
5 with one hand and use their thumb to touch the
6 screen to select things, how effectively they
7 could touch those items on the screen depending on
8 size of those items and where on the screen those
9 were.

10 Items 11 and 12 on this page -- sorry,
11 not -- sorry, just item 11 on this page describes
12 a 2007 paper called ThumbSpace: Generalized
13 One-Handed Input for Touchscreen-Based Mobile
14 Devices, which describes a design approach for
15 graphical user interface on a mobile touchscreen
16 device to improve users' abilities to access all
17 parts of the screen when they're holding it
18 with -- the device with one hand, even those parts
19 of the screen that are far away from your fingers.

20 On that same page, item 9 describes a
21 2008 paper titled One-Handed Touchscreen Input for
22 Legacy Applications, which I think is a
23 continuation of that work described in the
24 previous paper about making elements on
25 touchscreen accessible even when holding it with

1 one hand and the items you want to touch are far
2 away from your thumb.

3 I can keep on going. Let me ask you,
4 just to, like, give you an -- answer your question
5 the way you like, would you like me to
6 comprehensively go through every single item in my
7 professional career where I've done work on
8 touchscreen devices or --

9 Q No, I think it's sufficient. I mean, I
10 have a couple of follow-up questions on what you
11 did mention.

12 A Okay. I guess my point is there's
13 quite a bit more than the ones I've just
14 described.

15 Maybe I'll say one other item which
16 maybe is particularly relevant, and then I'll stop
17 and let you follow up.

18 Q Sounds good.

19 A On the front page of my CV, I mentioned
20 that I co-founded a company called Zumobi in 2006
21 and worked with them until 2014. That was a
22 company that I created with John SanGiovanni, the
23 person I had mentioned I wrote a paper with back
24 in 2005.

25 That company commercialized some of my

1 research on mobile touchscreen graphical user
2 interfaces, particularly -- in particular we
3 developed a -- an approach for accessing a range
4 of applications on a mobile touchscreen, and we
5 ended up selling a number of products based on
6 that research for end use.

7 And I should maybe just add the reason
8 the company's name is Zumobi, it was short for
9 zoomable interfaces on mobile devices.

10 Q Just a couple of follow-up questions on
11 the papers that you did mention. So on page 6,
12 it's marked 0006, you mentioned item number 13
13 which was titled Target Size Study for One-Handed
14 Thumb Use on Small Touchscreen Devices.

15 Do you see that?

16 A I do.

17 Q What small touchscreen devices were you
18 referring to?

19 A I believe we were considering a range
20 of form factors in common commercial use for
21 mobile phones, and so we studied several different
22 form factors including a -- what we called slam
23 form factor, which is common today as flat mobile
24 phone market. We also looked at flip phones and
25 what we call candy bar-sized form factor.

1 There may have been more, but I
2 remember at least those three form factors that we
3 studied.

4 Q Do you have any experience related to
5 touchscreen applications for wristwatches?

6 A Well, as a professional in the design
7 and development and analysis of graphical user
8 interfaces for all devices, I examine and consider
9 and study really all electronic interfaces that I
10 use. I've used touchscreen watch interface myself
11 for a number of years, so at least in that context
12 I have studied and thought about graphical user
13 interfaces on watches.

14 Q Have you ever designed a touchscreen
15 application for a wristwatch?

16 A I have designed touchscreen
17 applications for a wide range of small mobile
18 devices including iPod Touches from Apple in the
19 2000s. I used to go running with that device and
20 attached it to my arm.

21 So I guess it depends on exactly how
22 you define wristwatch, but I certainly have
23 defined interfaces for touchscreen devices that I
24 wore on my arm, so at least in that way I have.

25 Q Have you ever tested graphical user

1 interfaces for wristwatches?

2 A So as I gave in an earlier answer, as a
3 professional of the design and development and
4 study of graphical user interfaces of really all
5 devices, I consider how I -- how devices work in
6 my personal life because that supports my analysis
7 as my professional work. And, so, I certainly
8 have tested my touchscreen on the watch that I
9 wear personally that supports my professional
10 understanding.

11 Q Okay. Let's turn to paragraph 38 of
12 your declaration. Just let me know when you're
13 there.

14 A Okay.

15 Q So it says here, A person of ordinary
16 skill in the art at the relevant time (POSITA)
17 would have had a bachelor's degree in electrical
18 engineering, computer science, computer
19 engineering or related field and two to three
20 years of experience in the research, design,
21 development or testing of touchscreen applications
22 and graphical user interfaces for mobile devices
23 with additional education substituting for
24 experience and vice versa; correct?

25 A And what paragraph are you referring

1 to?

2 Q It's paragraph 38.

3 A Oh, 38. Sorry. I thought I had -- I
4 went to page 38. My apologies.

5 Q No worries.

6 A Right. I see that paragraph.

7 Q Did you draft that paragraph in the
8 declaration yourself?

9 A This paragraph, like my entire report,
10 reflects my opinions, and I stand by those
11 opinions. I wrote the entire report in
12 collaboration with counsel, but I don't have a
13 specific recollection of which particular words I
14 wrote myself and which I wrote -- you know, maybe
15 have been provided to me and I commented on. But
16 in any case, they all reflect my opinion,
17 including this one.

18 Q Would you describe the process you used
19 in order to arrive at this understanding of what a
20 person of ordinary skill in the art is?

21 A (Witness reviews document.)

22 I describe that in paragraphs 35 and 36
23 of my declaration where I explain, in part, that
24 the art is the field of technology to which the
25 patent is related. And I go on to explain some of

1 the factors that I considered in determining the
2 level of skill, and those include the types of
3 problems countered in the art, prior art solutions
4 to those problems, the rapidity with which
5 innovations are made and sophistication of the
6 technology, as well as the educational level of
7 active workers in the field.

8 Q In that first -- in that paragraph 35,
9 you mentioned that art is the field of technology
10 to which the patent is related.

11 In your opinion, what is the art in --
12 as related to the '033 patent?

13 A (Witness reviews document.)

14 Well, I described the '033 patent in my
15 declaration in paragraphs 44 through 51, and in
16 paragraph 44 I explain that the '033 patent is
17 directed to simulating mechanical watch movement
18 on the electronic display of a wristwatch.

19 MR. PYMENTO: I think actually before I
20 move to the next line of questioning, it may be a
21 good time for a break. But, I mean, unless you
22 want to keep going. I'm fine either way.

23 THE WITNESS: That's fine. Shall we
24 say five minutes?

25 MR. PYMENTO: Five minutes sounds good.

1 (Recess -- 10:45 a.m.)

2 (After recess -- 10:53 a.m.)

3 BY MR. PYMENTO:

4 Q So, Dr. Bederson, could you please turn
5 to Mooring. It's Figure 1A on PDF page 2, I
6 believe.

7 A Okay.

8 Q What does Figure 1A show?

9 A Mooring describes Figure 1A through
10 (indiscernible) of the paragraph 34; for instance,
11 Figure 1A shows embodiment --

12 (The Reporter asks for clarification.)

13 THE WITNESS: Mooring describes
14 Figure 1A through parts of the paragraph 34 where
15 it says, Figure 1A shows an embodiment where the
16 receptacle 22 is formed as an opening on the top
17 or front of the case 14 and the modular movement
18 12a is inserted into the front of the case 14
19 through the open receptacle 22.

20 Further, it describes this figure in
21 paragraph 38, the second sentence where it says,
22 Figure 1A may illustrate an embodiment where the
23 (indiscernible).

24 (Reporter asks for clarification.)

25 THE WITNESS: I'll just read that part.

1 Figure 1A may illustrate an embodiment
2 where the modular movement 12a is implemented as a
3 (indiscernible) movement.

4 (Reporter asks for clarification.)

5 THE WITNESS: Mechanical.

6 Can we go off the record for a moment?

7 THE COURT REPORTER: Is that okay for
8 everybody?

9 MR. PYMENTO: Yeah, that's fine with
10 me. It's coming up garbled for me as well.

11 (Discussion off the Record.)

12 BY MR. PYMENTO:

13 Q So I think we got -- we stopped where
14 you were saying that Figure 1A illustrates an
15 embodiment where the modular movement 12a is
16 implemented as a mechanical movement; right?

17 A That's as far as I got. Just to be --
18 I'm not sure -- actually, I may have missed a word
19 you said. It starts by saying, Figure 1A may
20 illustrate an embodiment.

21 Q Okay. But I didn't want to cut you
22 off. I didn't know if you were continuing. I'll
23 let you continue.

24 A I'm done for the moment.

25 Q Okay. What's your understanding of a

1 modular movement?

2 A (Witness reviews document.)

3 Well, Mooring describes modular
4 movement in part in the abstract where it says,
5 The modular movement has a body housing a
6 plurality of layers that include a top layer of
7 glass and a movement subassembly for displaying
8 information, including time, where the modular
9 movement includes all parts necessary for power
10 and operation, including the displaying of the
11 information such that the modular movement is
12 fully functional standalone.

13 And then I'll add that -- as I have
14 described, that Mooring says in paragraph 38 that
15 the modular movement is implemented as a
16 mechanical movement. In the next paragraph, 39,
17 it also describes that the modular movements can
18 be implemented as electronic movements.

19 I guess I'll just add further that in
20 paragraph 39, Mooring also describes that the
21 modular movement, which is an electronic movement,
22 may include a computer-based movement with a
23 touchscreen or LCD display and battery.

24 Q So that paragraph you just referred to,
25 paragraph 39 of Mooring, describes different

1 examples of electronic movements; correct?

2 A I think that's right. It explains, for
3 example, that the electronic movement can include
4 a touchscreen or LCD display.

5 So those are some examples of
6 variations of the electronic movement, and that
7 display might display a digital display of the
8 clock such as displaying digital numbers, or it
9 might use the display to display analog hands.

10 Q Paragraph 39 of Mooring also describes
11 a different electronic movement of a quartz
12 movement; right?

13 A I would say that Mooring explains that
14 an electronic movement may include a quartz
15 movement.

16 Q So the quartz movement itself is not an
17 electronic movement; is that right?

18 A The quartz movement in paragraph 39 is
19 described more fully in paragraph 58 that
20 describes the clock 620. Where paragraph 55
21 explains that Figure 6 is a block diagram
22 illustrating computer components on the PCB
23 comprising the modular movement 12b according to
24 an exemplary embodiment.

25 So Figure 6 is a block diagram

1 explaining some of the details of modular movement
2 12b which is a component of Figure 1B.

3 So going back to the clock description
4 in paragraph 58, it explains at the bottom that in
5 one embodiment clock 620 comprises a silicon clock
6 oscillator implemented using a
7 micro-electro-mechanical systems (MEMS)
8 technology. In another embodiment, clock 620 may
9 utilize a quartz crystal oscillator.

10 Q I just want to go back to paragraph 39
11 where it says, Figures 1B and 1C illustrate
12 example embodiments where the modular movements
13 12b and 12c are implemented as an electronic
14 movement.

15 And then it goes on to say that the
16 examples of an electronic movement may include a
17 quartz movement, some additional language. And
18 then the following sentence says, Another example
19 of an electronic movement may include a
20 computer-based movement.

21 Are the quartz movements and the
22 electronic movement -- sorry. Scratch that.

23 Are the quartz movement and the
24 computer-based movement different types of
25 electronic movements based on paragraph 39?

1 A I think a person of skill in the art
2 reading paragraph 39 would see these as slight
3 variations of the electronic movement, so the
4 electronic movement may include a quartz movement.

5 But, as I explained, that paragraph 58
6 explains that the clock might also be a silicon
7 clock oscillator, so that would be a variation
8 from a quartz oscillator or quartz movement.

9 And this electronic movement can
10 include analog or a digital display that is analog
11 or digital hands -- analog hands or -- or a
12 digital clock on an electronic display, and that
13 display might have a touchscreen or an LCD
14 display.

15 So those are all minor variations that
16 are all within the scope of the electronic
17 movement of Figure 1B in modular -- labeled
18 modular movement 12b within Figure 1B.

19 Q What is your understanding of the term
20 "simulation"?

21 A So the '033 patent, I think, describes
22 what it means by simulation quite clearly in
23 column -- multiple places, but in part in column 8
24 between lines 28 and 56.

25 So at the beginning of that section at

1 line 28, it explains what it means by simulation
2 where it says, In one advantageous embodiment, the
3 movement represented is a real simulation of
4 mechanical movement. The represented simulated
5 components thus have a virtual mass, and the
6 simulated torques or forces are transmitted from
7 one component to another, for example, by means of
8 the gear train.

9 It goes on with further discussion of
10 the details of those requirements or
11 characteristics of the simulation.

12 And then starting at line 50, it
13 explains the alternative, something that's not a
14 simulation. It says, It is also possible, in a
15 variant embodiment that is simpler to execute but
16 less realistic, to display a pure image of a
17 movement on the screen with the position of each
18 component and of the hands that is directly
19 determined according to the time of the quartz.

20 This last embodiment did not seem to be
21 claimed, but I think the key distinction or a key
22 distinction here is that the simulation displays
23 time based on simulating components of a
24 mechanical movement as opposed to the
25 nonsimulation embodiment where the displayed time

1 just represents the underlying time determined
2 according to the time of the quartz.

3 Q In your opinion, is there a difference
4 between a simulated movement versus an actual
5 movement?

6 A I don't recall the '033 patent using
7 the term "actual," and I don't recall having a
8 specific opinion about the term "actual" in my
9 declaration, so I don't have any opinion about
10 that.

11 Q So I'm just asking you in terms of your
12 understanding in the field of the art, not
13 necessarily the '033 patent.

14 But in your opinion, do you think
15 there's a difference between a simulated movement
16 versus an actual movement as it pertains to a
17 graphical user interface generally?

18 A Again, that is not something I formed
19 an opinion about, and so I'm not prepared to form
20 an opinion about it sitting here today.

21 What I can tell you is that the '033
22 patent describes the simulation of a mechanical
23 movement that is then displayed on an electronic
24 display which is what I have shown that Mooring
25 discloses -- well, Mooring discloses the -- that

1 part, the electronic display of the analog hands
2 of the watch, at least.

3 Q Is it your testimony that you don't
4 have an opinion on whether simulated movement is
5 different than an actual movement?

6 A What I said is that's not something
7 that I formed an opinion about in my declaration,
8 and I don't feel comfortable forming a new opinion
9 sitting here at the moment without having
10 considered how that term might be used in the art
11 and how -- I don't think that it is necessary to
12 understand my opinions which are not -- which
13 focus on simulation of mechanical movement.

14 Q If I have a watch with physical hour
15 hands and minute hands that move, is that a
16 simulated movement?

17 A I -- I don't know. I don't know what
18 the full extent of the watch is that you're
19 talking about.

20 Q Let's just say for this hypothetical
21 that that is the full extent. It's a watch with
22 physical hands for hours and minutes, and they
23 move in accordance with the time. They may even
24 have a quartz oscillator that determines the
25 movement.

1 Is that a simulated movement?

2 A I don't know based on the information
3 that you said.

4 Q What additional information would you
5 need?

6 A I would need full understanding of
7 details of how that watch works in order to form
8 an opinion about it.

9 Q Would you provide some examples of what
10 details you would need on how a watch works in
11 order to form that opinion?

12 A I would need details about how the
13 watch works, which you have not provided. You
14 only described a little bit about -- that there
15 are mechanical hands that move, but I don't know
16 anything about what is causing those mechanical
17 hands to move, for example.

18 Q In your experience, what are some
19 exemplary causes of movement for mechanical hands
20 in a watch?

21 A So one thing that can cause a --
22 mechanical hands to move on a watch is an entirely
23 mechanical movement including springs and gears,
24 for example.

25 Q So if you have a wristwatch that

1 mechanically moves -- hour hands, minute hands --
2 based on springs and gears, would you consider
3 that a simulated movement?

4 A There's no computer involved, and it's
5 entirely mechanical and physical with gears and
6 springs? Then it sounds like it probably would
7 not be result of sim- -- the movement of the hands
8 would probably not be a result of a simulation,
9 but, again, I don't fully understand the details
10 of this hypothetical, so I can't give you a full
11 opinion. But it sounds like that probably would
12 not be a simulation.

13 Q Is it your understanding that a
14 computer needs to be involved in order to have a
15 simulated movement?

16 A I don't think that's what I said. What
17 I said was that the scenario that we just
18 described, I think it probably would not be a
19 simulation.

20 Q Right.
21 You started off by saying there's no
22 computer involved, and it's entirely mechanical
23 and physical with gears, and it sounds like it
24 would probably not be a simulated movement.

25 So I was just wondering is the presence

1 of a computer implicated in determining whether a
2 movement is simulated or not?

3 A Well, the '033 patent, the simulation
4 involves an electronic display and a
5 microcontroller, so at least to practice the '033
6 patent, I think the simulation would require those
7 components.

8 Q Would you please turn to Satoshi,
9 paragraph 87? Tell me when you're there.

10 A Okay.

11 Q The second sentence of paragraph 87 of
12 Satoshi reads: That is, based on an operation by
13 the user, the current time can be read from the
14 clock function of the mobile phone 1 and
15 corresponding to the hour, minute, and second that
16 was read, a process is performed in which the hour
17 hand 9a, the minute hand 9b, and the second hand
18 9c are respectively set to an angle for the
19 current hour, an angle for the current minute, and
20 an angle for the current second (steps S23, 24 and
21 25).

22 Do you see that?

23 A I do.

24 Q Is it fair to say that one scenario of
25 Satoshi is describing a user looking at the time

1 on a mobile phone and then arranging gears on a
2 display so that the hour, minute, and second hand
3 match the time the user was looking at?

4 A That's not -- if I understood your
5 question, I don't think that's how I would
6 characterize what Satoshi describes here. I think
7 in paragraph 87, it is explaining that based on
8 the operation of the user, Satoshi adjusts the
9 hands of the clock, that is the time represented
10 by the simulation, to match the underlying clock
11 of the mobile phone.

12 That's supported through my reading not
13 only of 87 but also the following paragraph, 88,
14 where it provides additional detail where in
15 further description of the synchronization
16 process, it says, in part, outline 4 of
17 paragraph 88, that when drawing the hands 9, the
18 hands 9 advance to the current time and are
19 redrawn, which tells me there was a process by
20 which the hands advanced to the current time.
21 That's not describing them all being adjusted
22 individually by the user.

23 And the last sentence of paragraph 88
24 further supports that understanding when it says
25 that it is possible to adjust -- I'm going to

1 paraphrase -- to adjust the angles of the hands in
2 the short time described above.

3 So a short time to adjust the hands is
4 something where it is synchronized by the watch as
5 opposed to a slow or long manual adjustment
6 process.

7 I'll also add that even -- if Satoshi's
8 disclosure were understood to mean only manual
9 adjustment of individual hands by a user, which
10 would operate by a user dragging or interacting
11 with the touchscreen, which would be mediated or
12 arranged by the microcontroller, that would still
13 meet the requirements of Claim 1 of the '033
14 patent.

15 Q Let's go to that paragraph that you
16 just mentioned. So that's paragraph 88. You
17 mentioned that, however, upon opening the editing
18 mode, the clock can actually be seen, and it may
19 be a long time until the angles of the hands 9
20 change. There may be a big difference between the
21 time when the editing mode is opened and the time
22 on the clock when the hands 9 are adjusted.

23 What is your understanding of why there
24 would be a big difference between a time when the
25 editing mode is opened by a user and a time on the

1 clock when the hands are adjusted?

2 A Well, I think in these two paragraphs,
3 87 and 88, Satoshi is describing what appears to
4 be two ways to synchronize the simulation with the
5 underlying mobile phone clock. One is the thing
6 that I described in my earlier answer where in
7 response to a user action, Satoshi updates the
8 hands in a short time to advance to the current
9 time.

10 And another way might be thought of
11 more as a manual editing process where a user can
12 adjust the individual hands, the hour hand, the
13 minute hand, and the second hand.

14 And that latter kind of adjustment,
15 then, to your question, there might be a big
16 difference between the time when the editing mode
17 is open and the time on the clock when the hands
18 are adjusted. It may take some time for the user
19 to adjusted hands.

20 Q Okay. If I'm understanding you
21 correctly, the previous sentence talking about the
22 big difference between the time refers to a manual
23 adjustment, and then the last sentence describing
24 a short time is referring to an automatic
25 synchronization; is that right?

1 A I don't think I used the term
2 "automatic synchronization" because it would be at
3 least in response to a user action. But I am
4 reading these two paragraphs, 87 and 88, as a
5 whole to disclose these two kinds of
6 synchronization: one where a user could manually
7 adjust the individual hands, and the other where
8 the system would advance the hands to the current
9 time.

10 In that example, it would be a short
11 time as opposed to a -- a big difference in the
12 time during manual editing by adjusting hands.

13 Q In the sentence that I initially read
14 in paragraph 87, the one beginning with, That is,
15 based on an operation by the user, what is your
16 understanding of the operation by the user?

17 What operation is that referring to?

18 A Well, it doesn't give a lot of detail
19 describing specifically what that operation is, so
20 I -- I can't tell you precisely what it is.

21 But as I said, I think these two
22 paragraphs as a whole describe there's an
23 operation by a user that can result in either a
24 synchronization where the system advances the
25 hands to the current time and another where there

1 is an editing mode where the user can adjust the
2 individual hands.

3 Q And the second sentence of the same, I
4 guess, mini-paragraph that begins with, "That is,"
5 it says, Furthermore, each change operation can be
6 repeated, but by operating the set key, the angles
7 of the hands 9 are fixed and the process ends.

8 Do you see that?

9 A I do.

10 Q In your opinion, does the use of the
11 word "operation" and "operating" refer to the
12 previous sentence's use of operation by the user?

13 A They may in part. I don't know that
14 they are necessarily referring to precisely the
15 same operations.

16 Q Do you have any idea if change
17 operation might be referring to something
18 different?

19 A Well, as I said, I think there are a
20 number of activities going on here that are being
21 described, and it doesn't give a lot of detail
22 about what the precise interaction is by the user.
23 It says that there is an operation.

24 So, as I said, I think the change
25 operations may refer at least in part to the

1 previously described operation, but I don't know
2 if they are necessarily exactly the same ones.

3 Q And in paragraph 88, there are
4 references to an editing mode and an execution
5 mode; correct?

6 A (Witness reviews document.)

7 I see that.

8 Q In the sentence beginning with,
9 "However," there's a phrase that says, There may
10 be a big difference between a time when the
11 editing mode is opened. And then later on in the
12 sentence, it says, while the execution mode is
13 opened.

14 Do you see that?

15 A I do.

16 Q Who is opening the editing mode or what
17 is opening the editing mode in your opinion?

18 A I'm not sure that this paragraph
19 specifically says. It may be in response to user
20 action, but I don't see it specifically describing
21 what results in editing mode being entered.

22 Q And do you have an opinion on who or
23 what is opening the executing mode -- execution
24 mode? Sorry.

25 A Well, it seems that at least one

1 possibility of the way this operates is that when
2 editing mode occurs, the execution mode -- it
3 sounds like, sorry, that execution mode may be in
4 a stopped state or may be -- essentially, the
5 simulation may be off while you're editing.

6 So, again, I don't think it says
7 precisely which elements or which components are
8 responsible for turning on and off these
9 components or these modes, but it looks like it
10 envisions, at least in part, that the execution
11 mode can be off or in a stopped state while it is
12 being edited -- while the simulation is being
13 edited.

14 Q In your opinion, is it possible to open
15 up both the editing mode and execution mode at the
16 same time?

17 A It looks like it may be possible.
18 Line 7 it says, Even if the angles -- sorry,
19 line 7 of paragraph 88, it says, Even if the
20 angles of the hands 9 when the editing mode is
21 open while the execution mode is opened advance to
22 the angles of the hands based on current time, and
23 so on.

24 It's not clear whether the execution
25 mode is turned off in this scenario when the

1 editing mode is open, so I think it's not
2 completely clear.

3 Q In the last sentence, which you
4 referred to earlier, talking about the short time
5 described above, where is the short time described
6 above?

7 A Well, as I said, I think 87 --
8 paragraphs 87 and 88 are collectively describing
9 multiple ways of describe -- of explaining
10 synchronization -- ways to synchronize the
11 simulation with the underlying clock. And one way
12 is for the system or the watch to set the hands of
13 the clock to represent the time of the clock
14 function of the mobile phone, and that would
15 happen in response to a user action.

16 And I believe that is a -- appears to
17 be what it is referring to, at least in part, when
18 it describes setting the hands in the short time.

19 Q Does Satoshi describe a quartz
20 oscillator?

21 A (Witness reviews document.)

22 In paragraph 64 of Satoshi, at around
23 the sixth line from the bottom of that paragraph,
24 it says, Therefore, the up count of the numerator
25 of the fraction of the rotation rate is unrelated

1 to the display timing per frame and corresponds to
2 a clock having a clock function based on an
3 oscillator in the mobile phone 1 and is performed
4 every hundred msec.

5 So given this disclosure of Satoshi's
6 use of an oscillator in a clock, a person of skill
7 in the art would understand that given that there
8 are a small number of well-known technologies for
9 clock oscillators in mobile devices, such as
10 quartz oscillator like the one I pointed to in
11 Mooring, a person of skill in the art would
12 understand Satoshi's disclosure to include a
13 disclosure of a quartz oscillator when it
14 describes a clock function based on an oscillator.

15 Q Could you turn to the second page of
16 Satoshi? And it's the section that's titled
17 Problem -- or Abstract Problem.

18 A Okay.

19 Q Do you see where it says, To enable a
20 plurality of gears synchronously rotatable at
21 different rotation rates to be arbitrarily
22 arranged and displayed in rotated states even in
23 environment where arithmetic processing capability
24 is limited?

25 A I see that.

1 Q What is your understanding of the
2 phrase "arbitrarily arranged and displayed"?

3 A (Witness reviews document.)

4 Well, I think that's described, in
5 part, in Satoshi in paragraph 4, which is the
6 beginning of the section Disclosure Of The
7 Invention, Problems To Be Solved by The Invention.

8 And in his first sentence it says, The
9 present applicants set out to develop, as content
10 provided on a mobile phone having an Internet
11 connection environment, a program for displaying
12 an animation of interactively operable gears of
13 any number for mobile phone users to arrange and
14 display in a plurality of combinations, wherein
15 rotation is performed by a user operation at
16 separate rotation rates according to the rotation
17 rates of the gears on the drive side of each gear
18 displayed on the display screen and the ratio of
19 the number of teeth on each gear.

20 So what that's explaining is that a
21 user can arrange and display the years in multiple
22 combinations; in other words, they can configure
23 the simulation as they choose -- as a user chooses
24 so that then when the simulation runs, there is a
25 drive gear which will then cause the gears to

1 rotate as combined or arranged by a user and then
2 simulated resulting in the display of the time.

3 Q Is it your understanding that Satoshi
4 describes that a user can directly implement
5 arranging gears and hands on a screen to match the
6 desired time?

7 A (Witness reviews document.)

8 I address this issue about directly
9 interacting with the screen to adjust the time of
10 the simulation -- the time displayed by a
11 simulation, in part, in my analysis of Ground 2.

12 So, for example, in describing the '033
13 dependent Claim 2, I explain my opinion about a
14 combination with prior art Lee where my
15 paragraph 193 point to Figures 6 and 7 of Lee
16 which directly support a user touching and moving
17 a displayed hand on the screen to meet this
18 limitation.

19 So for at least -- because I combined
20 with Lee to show such a disclosure, I don't recall
21 specifically having an opinion one way or another
22 about whether Satoshi discloses that.

23 Q Can users select mechanical movements
24 in Satoshi to simulate?

25 A Well, as I described in the earlier

1 answer, Satoshi does describe users have the
2 ability to configure the simulation and arrange
3 different ways that gears are displayed and work
4 together.

5 Q What is your understanding of how users
6 may select mechanical movements in Satoshi?

7 A (Witness reviews document.)

8 Well, in part, I describe one way that
9 Satoshi supports having users control the
10 combination of gears in my analysis of Claim 19 in
11 paragraphs 206 through 209. In paragraph 208 I
12 explain that Satoshi allows -- supports
13 downloading -- describes the downloading of a file
14 to the device that lets the user configure
15 particular display of gears. So that's at least
16 one example that I pointed to of Satoshi allowing
17 a user to configure a combination of gears.

18 Q What is your understanding of how the
19 graphical user interface looks like when a user is
20 selecting mechanical movements in Satoshi?

21 A I'm not sure I understand your
22 question. Will you help me understand what it is
23 you're specifically looking for?

24 Q Sure.

25 So are there tiles on the screen in

1 Satoshi in which a user can select the various
2 gears and hands that he or she wants in their
3 simulation, or is there some other graphical user
4 interface that enables the selection of those
5 gears and hands for user simulation?

6 A (Witness reviews document.)

7 Well, Figure 5 of Satoshi describes --
8 well, illustrates a number of screenshots that
9 show menu options for creating and editing gears
10 and hands, so that is at least part of the
11 disclosure of Satoshi that describes one way that
12 a user can configure gears and hands. That is --

13 Q I just have a couple --

14 A Sorry.

15 Q Sorry. Go ahead.

16 A That is described in the text of
17 Satoshi, in part, at least, starting in
18 paragraph 67, where -- and in the next few
19 paragraphs it describes quite a lot of detail
20 including the use of an editing mode that can be
21 selected at a menu.

22 So I guess that's at least two ways
23 I've now described that Satoshi describes the
24 configuration of gears. One is through loading a
25 file from the Internet, and the other is through a

1 menu structure.

2 Q Let's say I could combine certain
3 features of Mooring and Satoshi so it's a watch
4 where I could simulate the gears of a physical
5 watch, but the watch also has an accelerometer.

6 If I run or accelerate with the watch
7 on my wrist, would you expect the gears of the
8 simulation to move just by virtue of having an
9 accelerometer?

10 A (Witness reviews document.)

11 So I address the use of an
12 accelerometer in a simulation in my declaration in
13 Ground 5 that addresses Claim 6, and I address
14 Claim 6, in part, in paragraphs 271 through 283.

15 And I explain here that Mooring
16 discloses an accelerometer which generally can be
17 used as a sensor to provide input to the system,
18 and in this breakdown I explain how a person of
19 skill in the art would combine Mooring and
20 Satoshi, in further view of Tam and Ruchonnet.

21 And Tam teaches a very deep, physical
22 simulation of the entire gear train and many
23 elements that a person of skill in the art would
24 understand especially given Tam's disclosure of
25 the simulation of kinetics and dynamics of the

1 internal watch components that using the disclosed
2 data from the -- sorry, the data from the
3 disclosed accelerometer would result in teachings
4 of the dependent Claim 6, as I explained.

5 Q In your opinion, do Tam and Ruchonnet
6 disclose simulated internal components?

7 A I think Tam very clearly discloses the
8 simulation of internal components through its
9 simulation of the gear train and various related
10 other components.

11 THE WITNESS: I notice it's now
12 12 o'clock here, and we've been going for over an
13 hour. I don't know if this is a good time to take
14 a break.

15 MR. PYMENTO: Actually, it is up to
16 you. I really don't have that many more questions
17 remaining. We can power through and just finish
18 if you want. That's the reason I was pushing
19 ahead. I do realize the time, so it's up to you
20 if you really want a break, though, but I have,
21 like, a couple of questions, like, two.

22 THE WITNESS: All right. If you really
23 just have a few, then let's get done.

24 BY MR. PYMENTO:

25 Q So in terms of design, which is really

1 sort of what I was trying to aim for with my
2 question, how would you connect the accelerometer
3 to the proposed combination of Mooring and
4 Satoshi?

5 What other components would you need to
6 enable the actual acceleration of the simulated
7 components?

8 A Well, since Mooring discloses an
9 accelerometer as part of the system, a person of
10 skill in the art would understand that that
11 technical computing system would be engineered to
12 allow the microcontroller to access the data from
13 the accelerometer. Once the microcontroller has
14 access to that data, then Tam's simulation could
15 use that data to -- as input to affect the
16 simulation of the components that it was
17 simulating.

18 Q Let's say I could combine certain
19 features of Mooring and Satoshi in the same way,
20 so it's a watch where I could simulate the gears
21 of a physical watch, but this time the watch has
22 an external button. You can either turn it or you
23 can push it.

24 By turning or pushing the external
25 button, would you expect the gears or some other

1 component in the simulation to also move in the
2 simulation?

3 A (Witness reviews document.)

4 So I describe something like the
5 scenario you are asking about in my Ground 4,
6 which describes my analysis of Claims 4 and 5. I
7 bring that up because Claim 4 addresses a crown
8 with a position of the displayed crown stem
9 potentially being detected so that it can effect
10 the simulation. And Claim 5 similarly addresses
11 the use of a push button to effect the simulation.

12 For these Claims 4 and 5, I discuss my
13 opinion regarding the combination of Mooring and
14 Satoshi, in further view of Inoue and Tam, in
15 paragraphs 254 through 270.

16 And similar to my previous answer about
17 acceleration, I think a person of skill in the art
18 would understand that once you have such a system
19 with inputs such as a crown that might be rotated
20 and push buttons that can be pushed that provide
21 input to the microcontroller, given the various
22 teachings of simulation, including those by
23 Satoshi and Tam, a person of skill in the art
24 would understand that those inputs could be used
25 to effect the simulation within the ways that I've

1 described.

2 Q And similar to the previous question,
3 what additional components would you need from a
4 design perspective in order to expect the
5 simulated gears or other simulated components to
6 move commensurately with the external button?

7 A So as I said, once you have a device
8 that has these physical inputs, such as a stem or
9 a push button, and those are connected up to the
10 system so that the microcontroller can receive
11 data indicating user interaction with those --
12 with that crown and push button, then I think it
13 would be well within the skill of a POSITA to use
14 the teachings of the various simulations, for
15 example, by Satoshi and Tam, to take those inputs
16 and impact or use those inputs in the simulation
17 to cause an action or direct action to that
18 simulation.

19 Q You mentioned earlier that you reviewed
20 the institution decision prior to this deposition.
21 Based on reviewing that decision, did you want to
22 revise anything in your declaration?

23 A No, I do not.

24 MR. PYMENTO: I do not have any further
25 questions.

1 MR. COOK: Could you give us about --
2 can we take a quick break, and I'll just review my
3 notes and see if I have any questions.

4 MR. PYMENTO: Sounds good.

5 MR. COOK: So we'll just take
6 five minutes.

7 (Recess -- 12:10 p.m.)

8 (After recess -- 12:13 p.m.)

9 MR. COOK: So we have no questions.

10
11
12 (Signature having not been waived, the
13 Remote Deposition of BENJAMIN B. BEDERSON, PH.D.
14 ended at 12:13 p.m.)
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1 REPORTER'S CERTIFICATE

2 I, Dana C. Ryan, Registered Professional
3 Reporter, hereby certify that the deponent was by
4 me first duly sworn and the foregoing testimony
5 was reported by me and was thereafter transcribed
6 with computer-aided transcription; that the
7 foregoing is a full, complete, and true record of
8 said proceedings to the best of my ability.

9 I further certify that I am not of counsel or
10 attorney for either or any of the parties in the
11 foregoing proceedings and caption named or in any
12 way interested in the outcome of the cause in said
13 caption.

14 The dismantling, unsealing, or unbinding of
15 the original transcript will render the reporter's
16 certificate null and void.

17 In witness whereof, I have hereunto set my
18 hand this day: June 7 2024.

19 ___X___ Reading and Signing was requested.

20 _____ Reading and Signing was waived.

21 _____ Reading and Signing was not requested.

22
23
24 _____
25 Dana C. Ryan, RPR

1 E R R A T A S H E E T
2 IN RE: SAMSUNG ELECTRONICS CO., LTD.; SAMSUNG
3 AMERICA, INC. v. SLYDE ANALYTICS, INC.
4 RETURN BY: _____

5	PAGE	LINE	CORRECTION AND REASON
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25 (DATE) (SIGNATURE)

ACKNOWLEDGMENT OF DEPONENT

I, Benjamin B. Bederson, Ph.D., do
 hereby acknowledge that I have read and examined
 the foregoing testimony, and the same is a true,
 correct and complete transcription of the
 testimony given by me and any corrections appear
 on the attached Errata sheet signed by me.

 (DATE) (SIGNATURE)

CERTIFICATE OF NOTARY PUBLIC

Sworn and subscribed to before me this
 _____ day of _____,

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