

In the Matter Of:

APPLE INC. vs

SMITH INTERFACE TECHNOLOGIES

ANDREW COCKBURN

March 25, 2025



VOLUME 1
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

SMITH INTERFACE TECHNOLOGIES, LLC,
Patent Owner.

Case IPR2024-01089
Patent 10,671,212

DEPOSITION of ANDREW COCKBURN, PH.D.

- CONDUCTED BY VIDEOCONFERENCE -

Tuesday, March 25, 2025

12:57 p.m. Eastern Daylight Time

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13 Also Present:

14 Suvd Chinbat, Video monitor

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I N D E X

Deposition of:	Page
ANDREW COCKBURN, PH.D.	
By Mr. Leventhal	4

E X H I B I T S

PREVIOUSLY MARKED EXHIBITS

Exhibit 1001	United States Patent, Patent No.: US 10,671,212 B1	4
Exhibit 1003	Declaration of Dr. Andrew Cockburn, 181 pages without Bates numbering	5
Exhibit 1004	United States Patent Application Publication, Pub. No.: US 2006/0197753 A1	5
Exhibit 1005	United States Patent Application Publication, Pub. No.: US 2004/0051726A1	5
Exhibit 1006	United States Patent Application Publication, Pub. No.: US 2011/0252362 A1	5

** Documents quoted on the record are
transcribed as read **

P R O C E E D I N G S

ANDREW COCKBURN, PH.D.,

having been satisfactorily identified and duly
sworn by the Notary Public, was examined and
testified as follows:

EXAMINATION BY COUNSEL FOR PATENT OWNER

BY MR. LEVENTHAL:

Q. Good morning, Dr. Cockburn. I'm going to
place in the Zoom chat a series of exhibits that I
will read into the record after I've placed them
there. And obviously if there are other materials
you would like to reference as you hear a
question, please let me know and I'll do my best
to find those and get those to you.

A. Thanks.

Q. Okay. Dr. Cockburn, so I've made
available to you through the chat five documents.
The first is Exhibit 1001.

(Previously marked Exhibit 1001)

Q. That is U.S. Patent Number 10,671,212.

The second is Exhibit 1003, and that is
your declaration.

1 (Previously marked Exhibit 1003)

2 Q. The third is Exhibit 1004, which is the
3 patent publication we've referred to as
4 "Hotelling."

5 (Previously marked Exhibit 1004)

6 Q. Next is Exhibit 1005, which is the patent
7 publication referred to as "Martyn."

8 (Previously marked Exhibit 1005)

9 Q. And the final one is Exhibit 1006, which
10 is the patent publication referred to as "Cho,"
11 C-H-O.

12 (Previously marked Exhibit 1006)

13 Q. Would you please let me know once you've
14 been able to successfully download all of those.

15 A. I have them all. Thanks.

16 Q. Okay. And, Dr. Cockburn, I know you've
17 done this a number of times, so I'm not going to
18 go over all the beginning part.

19 But just to confirm, can you please
20 confirm for me the only thing you have open on
21 your computer today is the Zoom chat and the
22 documents that I've just provided to you?

1 A. The application finder is running, but it
2 has no windows. I also have an email application
3 open, but I have no windows showing. I can close
4 it if you'd prefer. I simply have it there
5 because it's the thing that has the Zoom link here
6 just in case we have a failure. I'm happy to shut
7 it down.

8 Q. Got you. Yeah, if you could shut it down,
9 please. That would be helpful.

10 A. It's now closed. So the Zoom binder, I
11 have an application preview, which is the thing
12 I'm using to view the PDFs you just sent to me.
13 And Chrome because it's the -- if you share
14 anything else, I'll need it to access the
15 documents.

16 Q. Understood. And did -- do you have any
17 paper copies of any documents in front of you
18 right now?

19 A. No. I have a blank notebook with no text
20 in it, just in case I need to take a note while
21 you're asking the question.

22 Q. And can you please confirm you're not in

1 electronic communication with anyone right now

2 other than us?

3 A. Other than the people I see on Zoom, no.

4 Q. And there's no one else in the room with
5 you right now?

6 A. No.

7 Q. And if either of those things change,
8 could you please let me know?

9 A. Will do.

10 Q. Thanks. Okay. I'd like to start, if we
11 could, in your declaration, Exhibit 1003.

12 A. Yes. I have it. Thanks.

13 Q. Are there any corrections that you would
14 like to make before we begin?

15 A. Yes. At Paragraph 71, there's one typo
16 I'm aware of.

17 Q. I'm there. Can you let me know, please,
18 what correction you'd like to make.

19 A. On the second line it says "or at last
20 render obvious." That should be "at least render
21 obvious."

22 Q. Okay. Any others that you know of right

1 now?

2 A. No.

3 Q. After submission of your declaration in
4 this case, what did you do to prepare for your
5 deposition today?

6 A. I read the materials that I refer to in my
7 declaration, I read the declaration itself, and I
8 talked with Apple counsel.

9 Q. Did you review the institution decision?

10 A. Yes, I did.

11 Q. And did you review the patent owner's
12 preliminary response?

13 A. Yes.

14 Q. If you could, please, turn to Paragraph 34
15 of your declaration. The page number at the
16 bottom is 26.

17 A. I'm there. Thanks.

18 Q. So Paragraph 34 describes your opinion as
19 to the ordinary level of skill of a POSITA. Do
20 you see that?

21 A. Yes.

22 Q. If you could just read Paragraph 34 to

1 yourself and then I want to ask a couple questions
2 on it.

3 A. I've read it. Thanks.

4 Q. In the third line of Paragraph 34, you
5 refer to a bachelor of science degree. You're not
6 considering a bachelor of science degree an
7 advanced-level degree. Correct?

8 A. That's correct.

9 Q. So there is, again -- and please feel free
10 to read the whole thing.

11 At the end of Paragraph 34 you state,
12 "additional years of experience could substitute
13 for the advanced degree."

14 I think that may -- I think that may make
15 sense without that clause and that just confuses
16 it, because an advanced degree is not required.

17 It seems what you're saying to me -- let
18 me say this and then I'll ask a better question.

19 It seems what you're saying here is there
20 are two requirements: Number 1 is a bachelor of
21 science degree in certain listed fields or degree
22 types. And that's Number 1.

1 And you have "two degrees [sic] of
2 professional experience working with graphical
3 user interfaces and applications for computers,"
4 or you could get an advanced degree instead of
5 those two years of professional experience. Is
6 that fair?

7 A. I think you misspoke during your question.
8 You said "at least two degrees of professional
9 experience." And I think you meant "at least two
10 years of professional experience."

11 Q. I did. So let me break this down into
12 parts.

13 Where it says that you have to have a
14 bachelor of science degree in one of the
15 enumerated fields, that is mandatory under any
16 flavor of meeting the POSITA definition. Correct?

17 A. I think that's fair. I think a bachelor
18 of science degree would be a minimum expected
19 requirement.

20 Q. Okay. And then the next clause states
21 "two years of professional experience working with
22 graphical user interfaces and applications for

1 computers."

2 And the final sentence appears to me to be
3 describing multiple ways in which it could meet
4 that final clause. Is that fair?

5 A. Perhaps I should modify my previous
6 answer.

7 It is possible to gain -- in certain
8 contexts to gain an advanced degree without doing
9 a bachelor's degree. So there may be possible
10 pathways to more advanced degrees that circumvent
11 the need for a bachelor's degree.

12 In general, though, I think it's fair to
13 characterize the bachelor's degree as a minimum
14 requirement.

15 Now -- sorry. That was tracking back to
16 your previous question, adding a clarification.
17 So I apologize for not answering your actual
18 question just now.

19 Could you repeat it, please?

20 Q. Sure. Absolutely. So the next clause
21 states as a second requirement having "two years
22 of professional experience working with graphical

1 user interfaces and applications for computers."

2 Do you see that?

3 A. Yes.

4 Q. And one way a POSITA could accomplish that
5 is simply being in the field, in the industry, and
6 getting those two years of experience. Correct?

7 A. Getting the experience in those particular
8 fields. Yes.

9 Q. And another way -- and this is where I
10 think your last sentence comes in. An alternative
11 way would be through research and study in a
12 graduate program. Correct?

13 A. That, or through comparable exposure
14 through industry employment.

15 Q. Correct. Okay. And I think if we just
16 put a period after "industry employment" and drew
17 a big X through "and additional years of
18 experience could substitute for the advanced-level
19 degree," we'd have a complete definition. Is that
20 fair?

21 A. I think that's fair.

22 Q. Okay. That was an easy one. All right.

1 If you could -- and obviously, please, as I go
2 along I'm going to ask you some questions about
3 the references, but obviously please feel free to
4 flip back to your declaration and your description
5 of those references. And if I'm aware of a
6 specific paragraph that may be helpful in your
7 declaration, I'll try and point you to it.

8 But if you could please go to
9 Exhibit 1004, which is the Hotelling patent.

10 A. I have it. Thanks.

11 Q. Okay. And if you could go to
12 Paragraph 70, which is on page 22.

13 A. I'm there. Thanks.

14 Q. If you could go ahead and read
15 Paragraph 70 to yourself, please.

16 A. I've read it. Thanks.

17 Q. So Paragraph 70 is describing a graphical
18 user interface that is separated into two regions,
19 one called "standard region 152" and one called
20 "control region 154." Correct?

21 A. Yes, it refers to a set of figures that
22 display those components.

1 Q. And those figures being referenced in
2 Paragraph 70 are Figures 5 through 8?

3 A. That's correct.

4 Q. I just want to make sure you're still
5 studying to answer the question that I had asked.

6 A. I didn't hear a question. I didn't know
7 there was a pending question.

8 Q. Okay. So my -- I was just making sure.
9 The question is, the figures being referenced in
10 Paragraph 70 are Figures 5 through 8. Correct?

11 A. Yes. I guess my microphone must have
12 stopped working. I answered the question straight
13 after it was asked.

14 Q. Ah. I apologize. I did not hear the
15 answer.

16 And so continuing on in Paragraph 70, the
17 standard region is described as a screen that
18 would normally be displayed using a particular
19 device. Correct?

20 MR. DARBY: Objection to form.

21 Q. Let me read that better. I'm just going
22 to read the third sentence. So I withdraw the

1 question.

2 MR. LEVENTHAL: Thank you, Mr. Darby.

3 Q. The standard region represents what
4 normally is displayed on the display when using a
5 particular device. Correct?

6 A. This is addressing the representations
7 shown in Figures 5 to 8 and in those particular
8 embodiments. That's fair.

9 Q. And then if you go two sentences further,
10 it gives one example of a standard region would be
11 "a main menu (window with a set of icons)."

12 A. The segment you are reading from
13 Paragraph 70 is -- begins with, "For example, in
14 the case of the PDA, a main menu (window with a
15 set of icons)," so that's just one example.

16 Q. Yes. So that one example of a standard
17 region is a main menu window with a set of icons.
18 Correct?

19 A. In that particular example, that's how it
20 is characterized. Yes.

21 Q. Going on one more sentence forward,
22 Hotelling describes the control region as

1 including virtual representations of physical
2 controls that would normally be physically placed
3 on a particular device. Correct?

4 A. Hotelling makes those statements with
5 respect to the particular embodiment shown in
6 Figures 5 to 8. Yes.

7 Q. So I want to go jump ahead to Figure 11.
8 And Paragraph 77 describes Figure 11, so you may
9 want to read that first and look at the figure.
10 And let me know once you've done both of those and
11 I'll ask my questions.

12 A. I've read that and I've looked at the
13 figure. Thanks.

14 Q. So Figure 11 also includes a region
15 labeled "standard region 152" and a region labeled
16 "control region 154." Correct?

17 A. That is in the second sentence of
18 Paragraph 77 with respect to Figure 11. Yes.

19 Q. And Figure 11 is a diagram of a graphical
20 user interface that is used in a music player
21 mode. Correct?

22 A. That's how Figure 11 is characterized in

1 the first sentence of Paragraph 77. Yes.

2 Q. Would you characterize it any differently?

3 A. Well, this relates to Figure 11 in

4 Hotelling. There are other representations of

5 music players in Hotelling.

6 Q. What other representations of music

7 players are there in Hotelling?

8 A. Well, for example, at Paragraph 85 in

9 Figure 11, Item 262C in that figure is identified

10 as a music player button.

11 Q. You said Paragraph 85?

12 A. Paragraph 85. Yes.

13 Q. Well, so let's go to -- let's go to -- so

14 Paragraph 85 is discussing Figure 18. Correct?

15 A. That's correct.

16 Q. Figure 18 is a main menu graphical user

17 interface. Correct?

18 A. That's correct. That's how it's

19 characterized in the first sentence of

20 Paragraph 85.

21 Q. Figure 18 is not a graphical user

22 interface for a music player. Correct?

1 A. I disagree with that characterization.

2 Figure 18 is an exemplary main menu of a graphical
3 user interface for a multifunction device.

4 The paragraph goes on to characterize that
5 there are virtual buttons that provide access to
6 multiple functions of this device, including a
7 music player button 262C.

8 And when a button is pressed, the main
9 page for the selected functionality is brought
10 into view on the display. That's pretty much
11 reading from Paragraph 85, skipping a couple of
12 words.

13 So a person of skill in the art reading
14 this paragraph and seeing a music player button
15 that brings a main page for the selected
16 functionality into view would understand that this
17 representation of the graphical user interface in
18 Figure 18 will launch a music player.

19 Q. It will launch a music player. It is not
20 itself a graphical user interface that is used in
21 music player mode. Correct?

22 A. A person of skill in the art would

1 understand that this graphical user interface
2 provides access to a music player.

3 Q. Figure 18 is not a graphical interface
4 that is used in a music player mode. Correct?

5 A. Figure 18 shows a button that provides
6 access to a music player mode.

7 Q. Figure 18 is not itself a graphical user
8 interface that is used in music -- in a music
9 player mode? It only provides access to go to a
10 different graphical user interface for use in a
11 music player mode. Correct?

12 A. Figure 18 provides a graphical user
13 interface that is associated with a music player.

14 And as I describe in my declaration, when
15 Figure 18 is combined with the other teachings of
16 Hotelling, including its contacts menu, and
17 Martyn's contacts menu, a person of skill in the
18 art would understand that Figure 18 provides a way
19 of launching and accessing a set of functionality
20 that provides functions of a music player.

21 MR. LEVENTHAL: Objection, nonresponsive,
22 move to strike.

1 Q. Figure 18 is not itself a graphical user
2 interface that is used in music player mode? It
3 only provides access to a different graphical user
4 interface for use in a music player mode.
5 Correct?

6 MR. DARBY: Objection, asked and answered.

7 A. I'll just repeat my previous answer.

8 Q. Then I'm going to keep asking the question
9 because you did not answer my question.

10 Figure 18 is not a graphical user
11 interface for use in a music player mode? Let me
12 withdraw that.

13 Figure 18 as disclosed in Hotelling is not
14 a graphical user interface for use in a music
15 player mode. Correct?

16 MR. DARBY: Same objection.

17 A. I'm not sure exactly what you mean by "use
18 in a music player mode."

19 The functionality provided by Hotelling's
20 Figure 18, including its music player button 262C,
21 could be considered to be a music player mode
22 because it provides functionality associated with

1 a music player. That's clearly disclosed by
2 Hotelling.

3 Q. Can you list all the functionality
4 associated with a music player that Hotelling
5 discloses in connection with Figure 18?

6 A. In Figure 18? Functionality associated
7 with a music player that is disclosed directly by
8 Hotelling includes a music player button 262C and
9 the launching of the music player when it is --
10 when that button is invoked.

11 As my declaration describes, when
12 Hotelling is combined with --

13 Q. I asked -- Dr. Cockburn, I asked you what
14 in Hotelling and now you're going to go on -- I've
15 heard your answer.

16 Please list anything else that Hotelling
17 itself describes in connection with Figure 18
18 other than a button labeled "music player" that
19 when launched will take the user to the graphical
20 user interface of Figure 11.

21 MR. DARBY: Counsel, I'm going to ask you
22 to let the witness respond, that you let the

1 witness finish before you ask another question,
2 please.

3 A. I hadn't finished my answer to the
4 previous question.

5 Hotelling discloses a context menu that is
6 available when functions are long pressed.

7 A person of skill in the art reading
8 Hotelling would understand that a context menu
9 associated with a music player button would
10 include functions associated with a music player.
11 That context menu, a person of skill in the art as
12 I describe in my declaration would understand that
13 the contents of the context menu would be
14 associated with the music player.

15 Q. Are you done?

16 A. Yes.

17 Q. You read from Paragraph 85 that states,
18 "When a button is pressed, the main page for the
19 selected functionality (e.g., as shown in FIGS.
20 9-17) is brought into view on the display."
21 Correct?

22 A. I see that.

1 Q. When the music player button 262C is
2 pressed, the exemplary UI that would correspond to
3 that button is what was shown in Figure 11.

4 A. Was that a question? That was a
5 statement.

6 Q. And there was a "correct" at the end. I
7 just want to make sure you agree with me that a
8 person of ordinary -- let me withdraw the question
9 and I'll ask it again.

10 In viewing the sentence, "When a button is
11 pressed, the main page for the selected
12 functionality (e.g., as shown in FIGS. 9-17) is
13 brought into view on the display."

14 Based on the disclosure that we already
15 saw from Figure 11, a POSITA would understand that
16 when button -- music player button 262C is
17 pressed, the user interface of Figure 11 is
18 brought into view on the display. Correct?

19 A. I think that mischaracterizes Hotelling's
20 functionality.

21 Hotelling describes at least two responses
22 to different forms of presses on virtual buttons

1 on its displays. These responses include showing
2 a context menu in response to a long press and
3 launching the application in response to a short
4 press.

5 Furthermore, the segment -- the example
6 you're referring to is just an example. It's
7 "e.g., as shown in FIGS. 9-17."

8 And a person of skill in the art would not
9 understand the button pressing to necessarily and
10 only show those particular depictions in those
11 figures. They're simply exemplary.

12 Q. My question to you is specific to the
13 sentence in Paragraph 85 that begins with "When a
14 button is pressed." Are you at that sentence?

15 A. I am.

16 Q. That sentence states, "When a button is
17 pressed, the main page for the selected" -- it
18 says "functionally," but I think we all agree it
19 means functionality -- "is brought into view on
20 the display." Correct?

21 A. That sentence says that. Yes.

22 Q. Understanding that you have views that I'm

1 not trying to exclude as to what other sentences
2 would say, the specific sentence that we just
3 discussed states that when -- interpreting when a
4 music player button 262C is pressed, a user
5 interface for a music player is brought into view
6 on the display. Correct?

7 A. A person reading Hotelling would
8 understand there are at least two ways in which --
9 apologies. My microphone is -- an alarm was going
10 off. Time to take the kids to school.

11 I'm sorry for that. I'll start my answer
12 again.

13 A person reading Hotelling, a POSITA
14 reading Hotelling would understand that when the
15 button is pressed, Hotelling discloses at least
16 two ways in which functionality associated with
17 the music player button, if it's button 262C, is
18 pressed.

19 There are two ways in which functionality
20 associated with the music player is brought into
21 view and displayed. One would be showing a
22 context menu in response to a long press. Another

1 would be launching the application.

2 MR. LEVENTHAL: Objection, nonresponsive,
3 move to strike.

4 Q. Dr. Cockburn, you understand my question.
5 I'm going to ask it again, and I'm giving you the
6 qualifier that I am not asking you and not trying
7 to exclude any disclosure outside of the paragraph
8 we are discussing. But I am asking you a very
9 specific question about one sentence in one
10 paragraph. And I would appreciate it if you could
11 listen to that question and answer my question.

12 The sentence in Paragraph 85 that begins
13 "When a button is pressed, the main page for the
14 selected"functionality" . . . "is brought into
15 view on the display."

16 Specific to that sentence, that is
17 describing that when music player button 262C is
18 pressed that a graphical user interface for use in
19 music player mode will be brought into view on the
20 display. Correct?

21 A. A person of skill in the art reading that
22 sentence and only that sentence would understand

1 that when the button is pressed, such as button
2 262C, for the music player, when it is short
3 pressed the main page for the selected
4 functionality, i.e., the music player, is brought
5 into view on the display.

6 Q. And we discussed earlier that Figure 11 is
7 something that Hotelling describes. Let me get
8 you the paragraph number.

9 In Paragraph 77, Hotelling describes
10 Figure 11 as a diagram of a graphical user
11 interface that is used in a music player mode.
12 Correct?

13 A. Paragraph 74 further characterizes those
14 figures, stating it "illustrates various examples
15 of GUIs for different states or modes of the
16 multi-functional device."

17 Figure 11 provides one example of a
18 potential music player as disclosed by Hotelling.

19 Q. Does Hotelling disclose any other examples
20 of graphical user interfaces that are used in
21 music player mode other than Figure 11 and your
22 view of how Figure 18 relates to music player

1 mode?

2 A. Hotelling has several other figures that
3 refer to music player mode and functionality
4 associated with it and music players in general.

5 Q. Can you please list those other figures
6 for me.

7 A. It includes the functionality that is
8 disclosed in Figure 27. It includes the
9 discrimination of touches as disclosed in
10 Figure 26. And I'm finished.

11 Q. Thank you. Going back briefly to
12 Figure 18. I apologize. Going a little out of
13 order, but one of your answers jumped me ahead a
14 little bit.

15 So Figure 18 again, you can look at the
16 figure itself and then if you find Paragraph 85
17 helpful, that's a description of it.

18 Hotelling does not label anything in
19 Figure 18 as a control region. Correct?

20 A. Hotelling refers to the functionality of
21 Figure 18 as including the provision of command
22 signals on the touchscreen. And a person of skill

1 in the art would understand that those command
2 signals provided through the touchscreen enable
3 control.

4 Q. Okay. I'm not sure that answers my
5 question. My question was a little more specific.

6 My question is, we talked -- you recall we
7 talked earlier about the general description of
8 what is meant by "control region" and "standard
9 region." Correct? With reference to
10 Paragraph 70?

11 A. I recall us discussing that. Yes.

12 Q. So let me ask two questions, one very
13 narrow and one slightly broader, so we can go
14 stepwise through it.

15 Figure 18 does not have any element
16 labeled with the Number 154 associated with
17 control region in other figures. Correct?

18 A. There is nothing labeled with that
19 particular number. A person of skill in the art
20 would understand that control of that graphical
21 user interface is achieved by touch.

22 Q. I'm not suggesting otherwise. That's why

1 I'm going very slow through this. I don't dispute
2 the point you're making, but that's not the
3 question I'm asking.

4 What I'm trying to get at is, what, if
5 any, of the conceptual idea of control region and
6 standard region that Paragraph 70 lays out applies
7 to Figure 18?

8 So that was not a question. I'm just
9 telling you -- I'm trying to ask bite-sized pieces
10 to see where we agree and disagree on that
11 concept. So that's not a question. Now let me
12 ask my next question.

13 So Figure 18 does not include any item
14 that is labeled -- and let me strike that and
15 withdraw it.

16 Understanding we're in agreement that
17 there is nothing labeled "control region 154" in
18 Figure 18, there is also nothing labeled "control
19 region" in Figure 18 using any other numerical
20 identifier. Correct?

21 A. I think the question was whether there was
22 anything labeled "control region" in Figure 18.

1 And there is nothing labeled as a control region.

2 There is a remote control button and there
3 are -- and this interface is clearly able to
4 receive command signals, full control.

5 Q. Understood. And again, I'm not suggesting
6 otherwise. That's why I'm going very slow through
7 these parts.

8 Now, in Paragraph 70, I'm going to read
9 you it looks like the third-to-last sentence that
10 begins "The control region 154." Let me know when
11 you're there and I'll read the whole sentence.

12 A. I'm there. Thanks.

13 Q. Okay. It states, "The control region 154,
14 on the other hand, virtually represents the
15 physical controls that would normally be
16 physically placed on a particular device."
17 Correct?

18 A. That's correct.

19 Q. Does Figure 18 include any virtual
20 representations of a physical control that would
21 normally be placed on a particular device?

22 A. Paragraph 85 states that "The various

1 buttons 262 are virtual buttons."

2 A person of skill in the art would
3 understand these virtual buttons to be buttons
4 that represent functionality that if they were not
5 virtually displayed on a touchscreen would be
6 physical buttons in some other embodiment that's
7 not considered here.

8 The purpose of virtual buttons is to
9 represent physical buttons.

10 Q. What kind of physical device would have
11 buttons that just had the name of an application
12 on them?

13 MR. DARBY: Objection to form.

14 A. Well, a vast multitude, I guess, would be
15 the answer.

16 Certainly radio players from the 1960s or
17 '50s or earlier would include buttons -- physical
18 buttons that allow you to change functionalities,
19 such as selecting AM or FM or tape player or LP
20 player, record player, and so on.

21 These are physical buttons that allow you
22 to select different substantial functionalities.

1 I think that was your question.

2 Q. That was helpful. Thank you. Now, is
3 there any -- and so just recall we had -- when we
4 were talking about Paragraph 70, we have standard
5 region and control region.

6 And the standard region is described as
7 what would normally be displayed on the display
8 when using a particular device.

9 And if you recall, we saw the example of,
10 in the case of a PDA, a main menu, which was a
11 window with a set of icons. Do you see that?

12 A. The final sentence of Paragraph 70 reads
13 "For example, in the case of the PDA, the control
14 region 154 may include virtual representations of
15 a handwriting recognition area, a navigation pad
16 and the standard function buttons."

17 A person skilled in the art reading that
18 would understand there were a multiple of devices
19 that took that particular form factor.

20 Q. I just asked if you saw the sentence, and
21 you read me a different sentence. I'm not sure
22 where you thought I was going.

1 A. I thought your question was directed to
2 that final sentence. Sorry. I obviously
3 misunderstood the question.

4 Q. I apologize as well. I was switching
5 to -- well, let me ask the next question because I
6 think you know Paragraph 70 backwards and
7 forwards.

8 Figure 18 is a main menu. Correct?

9 A. It's an exemplary main menu of a
10 multifunction device.

11 Q. So a PDA would also be an example of a
12 multifunction device, to some degree?

13 A. That's fair.

14 Q. So Figure 18 is akin to a main menu with a
15 set of icons, as described as an example of a
16 standard region in Paragraph 70. Correct?

17 A. A person of skill in the art reading
18 Hotelling, including Paragraph 70 and
19 Paragraph 85, would understand that the control
20 region 154 and the standard region 152 are on top
21 of one another.

22 That's the purpose of the touchscreen

1 disclosed in Figure 18 is to have all of the
2 functionality accessible through a large main
3 screen touchscreen.

4 Q. So let me make sure I understood that.
5 I'm not disputing. I just want to make sure I
6 understood it.

7 If as an exercise we were sitting in the
8 same room and I gave you a pen and asked you to
9 draw the control -- withdraw that.

10 If I asked you to apply the logic and the
11 definitions of standard region and control region
12 in Paragraph 70 to Figure 18, what you're saying
13 is you would draw a rectangle around the entire
14 thing for each of them?

15 MR. DARBY: Objection, form.

16 A. A person of skill in the art looking at
17 Figure 18 and the embodiments disclosed in
18 Paragraph 85 and therein and thereabout would
19 understand the full face of the device is a
20 touchscreen graphical user interface.

21 Q. Okay. Let me ask -- I'm just trying to
22 summarize what I think you said before when you

1 said that the control region -- let me just ask it
2 this way and withdraw that.

3 What did you mean when you said the
4 standard region and the control region are on top
5 of each other?

6 A. A person of skill in the art understanding
7 touchscreen devices understands that the -- a
8 normal way to present a touchscreen graphical user
9 interface to a user is to overlay the control
10 region, i.e., the touch sensor panel, on the
11 display that provides the display of the
12 underlying functionality such as virtual buttons.

13 Q. Okay. I think we may be talking past each
14 other a little, so let me try and take another
15 angle at this because I think I also understand
16 where you may be pushing back on something I don't
17 mean to be saying.

18 If you go to Figure -- let's go to
19 Figure 11. Let me know when you're there.

20 A. I'm there. Thanks.

21 Q. Okay. So the Item 190 is described as the
22 graphical user interface in Figure 11. Correct?

1 A. That's correct.

2 Q. Everywhere in 190 is a touch-sensitive
3 area in which the user can provide touch inputs.
4 Correct?

5 A. Can you repeat the question, please?

6 Q. Sure. Everywhere in -- let me withdraw
7 that question and let me ask a better question.

8 Item 152, which is labeled as the standard
9 region in Figure 11, is a touch-sensitive region
10 in which the graphical user interface can receive
11 and act upon user touches. Correct?

12 A. In the specific embodiment of Figure 11, I
13 haven't provided an opinion regarding whether
14 Item 152 must be a touch-sensitive region.

15 I think a person of skill in the art would
16 understand that it could be a touch-sensitive
17 region. I'm not certain that Hotelling discloses
18 that it must be a touch-sensitive region. And I
19 believe it does not.

20 Q. Okay. Well, let me say the flip side.
21 Let me say why. I just want to make clear I'm not
22 trying to suggest otherwise. And let me ask this

1 question.

2 Hotelling does not disclose that the only
3 touch-sensitive region in a graphical user
4 interface is the control region 154. Correct?

5 A. I think it's fair to say that Hotelling
6 does not limit the touch-sensitive region in
7 Figure 11 to be only Item 154.

8 Q. And if we go back to Paragraph 70 -- and
9 feel free to look at Figures 5 through 8 -- the
10 same would be true, that as it relates to the
11 description in Paragraph 70 and Figures 5
12 through 8, Hotelling does not require that the
13 control region be the only region that accepts
14 touch inputs. Correct?

15 A. In those particular embodiments, I think
16 that's fair. My analysis is particularly focused
17 on the disclosures related to Figure 18.

18 Q. And so that's -- I just wanted to make
19 sure we were on the same page on that because I'm
20 trying to apply Paragraph 70, if it applies at
21 all, to Figure 18.

22 And I just want to make clear that I'm not

1 saying that anything that's not the control region
2 is therefore not a touch region. That's -- I want
3 to make sure we're on the same page on that.

4 So with that background, can you explain
5 to me again what, if any, portion of Figure 18 you
6 would view as consistent with the description of a
7 standard region in Paragraph 70 and what, if any,
8 portion of Figure 18 would you view as consistent
9 with a control region as described in
10 Paragraph 70?

11 A. With respect to Figure 18, which I think
12 the question was directed to, the person of skill
13 in the art would understand the graphical user
14 interface of the main menu shown in Figure 18
15 consists of a touchscreen where the touch sensor
16 panel that allows control overlays the display of
17 the underlying virtual buttons.

18 Q. I don't think that answers my question,
19 though.

20 My question is, what, if any, region of
21 Figure 18 corresponds to what Paragraph 70
22 describes as a standard region and what, if any,

1 portion of Figure 18 corresponds to what

2 Paragraph 70 describes as a control region?

3 A. As Paragraph 70 states, "The standard
4 region" . . . "represents what would normally be
5 displayed on the display 122."

6 The best correspondence to a standard
7 region in Figure 18 is the display, which consumes
8 the entirety of Figure 18.

9 Control region is the region that is used
10 for control. And in a touch sensor panel as
11 disclosed in Figure 18, this would correspond to
12 the entirety of the display region that is covered
13 by the touch sensor panel.

14 Q. Where -- I appreciate that answer. Thank
15 you.

16 Where are you seeing in Paragraph 70 that
17 the control region is the region used for control?

18 A. It includes the sentence in Paragraph 70
19 that reads, "The control region 154, on the other
20 hand, virtually represents the physical controls
21 that would normally be physically placed on a
22 particular device."

1 Q. Isn't that narrower than what you said?

2 A. I think what I said is how a person of
3 skill in the art would understand Paragraph 70
4 with respect to the disclosure of Figure 18 and
5 Paragraph 85.

6 Q. You'd agree that in a touchscreen system,
7 control can be achieved through gestures other
8 than touch on a virtual representation of a
9 physical control. Correct?

10 A. Can you repeat the question, please?

11 Q. Sure. In a touchscreen system, control
12 can be achieved by touch gestures other than touch
13 on a virtual representation of a physical control?

14 A. This is a hypothetical. And broadly, I
15 think that's fair.

16 Q. The reason I've said it that way is
17 because I'm reading -- and please tell me if you
18 disagree.

19 I'm reading the control region of
20 Paragraph 70 as referring to a region that
21 contains a very specific graphical user interface
22 element, which is a virtual representation of what

1 was previously a physical control.

2 And that is one way to achieve control but
3 not the only way in a touchscreen system. Is that
4 fair?

5 A. A person of skill in the art would
6 understand that there are many ways to achieve
7 control in a touchscreen system.

8 Q. So getting back to Figure 18, that's why
9 I'm just pushing back. I want to make sure I
10 understand. If we disagree that's okay, but I
11 just want to make sure I understand.

12 Getting back to the application at
13 Paragraph 70 to Figure 18, again -- let me strike
14 that and withdraw it.

15 We talked about Figure 18 as a main menu.
16 And one way you can access a function on the main
17 menu is to click on a box -- a virtual button.
18 Correct? Actually, that was a bad question. I
19 apologize. Let me withdraw that.

20 MR. LEVENTHAL: You know what? We've been
21 going about an hour and I'm being very abstract.
22 I'm going to move on to Figure 27 when we get back

1 from the break, and that way we can be less
2 abstract. Why don't we take a quick break.

3 THE WITNESS: Sure. Thanks.

4 (Recess, 2:03 p.m. to 2:13 p.m.)

5 BY MR. LEVENTHAL:

6 Q. Dr. Cockburn, continuing on in
7 Exhibit 1004, which is the Hotelling reference, if
8 you could please go to Paragraph 38, which is on
9 page 19.

10 A. I'm there. Thanks.

11 Q. So Paragraph 38 states, "FIGS. 27A-E are
12 tables representing one example of a touch
13 vocabulary associated with a music player."

14 Did I read that correctly?

15 A. Yes.

16 Q. If now you could flip to Paragraph 151,
17 which is on page 29.

18 A. I see that.

19 Q. Paragraph 151 reads, "One example of a
20 touch vocabulary associated with a music player is
21 shown in FIGS. 27A-E."

22 Did I read that correctly?

1 A. Yes.

2 Q. And those are the only two references,
3 Paragraphs 38 and 151, to Figures 27A-E in the
4 words of the specification. Correct?

5 A. Can you repeat the question, please?

6 Q. Sure. Paragraphs 38 and 151 are the only
7 references to Figures 27A-E in the text of the
8 specification. Correct?

9 A. Paragraphs -- sorry. Figures 27A-E are
10 examples of the categories -- touch vocabularies
11 disclosed by Hotelling. And at least
12 Paragraphs 145 to 151 relate to touch
13 vocabularies. The paragraphs you mentioned, 151
14 and 38, I believe are the only two that -- well,
15 no.

16 Actually, there are more than
17 Paragraphs 151 and 38 that directly refers to
18 Paragraphs -- to Figure 27.

19 For example, Paragraph 10 refers to a set
20 of figures, says, "Various embodiments of a
21 multi-functional handheld device are discussed
22 below with reference to FIGS. 2-28."

1 So that obviously includes Figure 27.

2 So the vocabularies that are disclosed by
3 Hotelling are exemplified by Figure 28. And there
4 are multiple references to Figure 27 throughout
5 Hotelling.

6 Q. I think I understood all of that
7 explanation. I apologize for the imprecise
8 question, and I appreciate your clarification.

9 You said something is exemplified by
10 Figure 28. I'm not sure if you meant to say
11 Figure 28.

12 A. Yeah. If I referred to Figure 28 -- yeah.
13 I think I did mean to refer to Figure 28 because
14 Paragraph 10 cites to Figures 2 through 28, and
15 that obviously includes Figure 27.

16 Q. Understood. I apologize for not
17 referencing Figure 10. That was a great catch.

18 I heard you say -- you said some touch
19 vocabulary disclosed by Hotelling is exemplified
20 by Figure 28. And I think you might have meant to
21 say Figure 27.

22 A. Sorry. I obviously misspoke. I did mean

1 27 with reference to the touch vocabulary.

2 Q. Okay. And obviously the reason I phrased
3 it the way I did is there are a lot of words in
4 Figures 27 themselves, and I didn't mean to
5 exclude those.

6 So if you could go to Figure 27A, please,
7 which is page 12 of the PDF.

8 A. I'm there. Thanks.

9 Q. So what I'd like to do, Dr. Cockburn, is
10 go through the columns and make sure we're on the
11 same page in terms of understanding what they mean
12 and then discuss a few of the rows, not all of
13 them.

14 So starting on the left-hand side, we have
15 a UI mode that in Figure 27A that is labeled
16 "Basic list navigation." What is that, sir?

17 A. Well, lists are presented in many
18 graphical user interfaces. This is functionality,
19 touch vocabulary associated with basic list
20 navigation.

21 Q. And it -- so the UI mode is the basic list
22 navigation UI mode. Is that fair?

1 A. That seems fair.

2 Q. And if we look at Figure 11 to be in a UI
3 mode with basic list navigation, is it fair that
4 the list would be presented in standard
5 region 152?

6 MR. DARBY: Objection to form.

7 A. In the specific embodiment of Figure 11?

8 Q. Yes, sir.

9 A. I think a person of skill in the art would
10 understand that a list presented within that user
11 interface would be presented in the display
12 region 152.

13 Q. And given this is a music player, just an
14 example of the list could be titles of songs that
15 are available to play in the music player. Is
16 that fair?

17 A. In that particular embodiment, the list of
18 songs would be a normal list to present. Yes.

19 Q. Second column from the left says "Light
20 Touch or Tactile Click."

21 That refers to a judgment on the level of
22 pressure related to the touch being evaluated.

1 Correct?

2 A. I think Hotelling refers to both pressure
3 and force. It could be either of those two.

4 Q. But pressure and force distinguished from
5 duration because that's a different column here.

6 Right?

7 A. Duration is presented at a different
8 column. Yes.

9 Q. So the next column, I'm just going to skip
10 over, which is number of fingers used. The column
11 after that refers to movement during duration --
12 during touch or click. Correct?

13 A. It reads "Movement during touch or click."
14 Correct.

15 Q. And then the next column is described as
16 duration. Correct?

17 A. I see that.

18 Q. And the column after that refers to
19 "Touchdown location (virtual button?)." Fair?

20 A. Yes.

21 Q. So the way one would read Figure 27A is
22 this is defining logic that would evaluate user

1 touches.

2 And if each of the five criteria are met
3 by a user touch -- and what I mean by "each of the
4 five" is going from the second to the left column
5 through the next five columns.

6 If each of those are met, then a proposed
7 behavior is performed and feedback is provided.
8 Is that fair?

9 A. The segment of this touch vocabulary that
10 my analysis focuses on is the "Duration" column
11 and the "Movement" column and the proposed
12 behavior that responds.

13 Q. So what Figure 27A describes is that the
14 light touch or tactile click, the number of
15 fingers used, the movement during touch or click,
16 the duration, and the touchdown location specified
17 in a given row all need to be met for that row to
18 be active. Fair?

19 A. 27A teaches a touch vocabulary that
20 discriminates between a short and long press as
21 well as swipes. It also includes a consideration
22 of force or pressure if that's necessary.

1 Q. But all -- let me ask my question again
2 because I'm not sure this is controversial, but
3 maybe I'm just asking it imprecisely.

4 Figure 27A provides mandatory criteria for
5 each of force/pressure, number of fingers used,
6 movement during touch or click, duration, and
7 touchdown location. And each of those as
8 specified in a given row must be met for that row
9 to be active. Correct?

10 A. I disagree with the characterization of a
11 mandatory component here.

12 If you look at Paragraph 145 of Hotelling,
13 it describes, for instance, that "The z pressure
14 exerted on a touch sensing device can be combined
15 with the x and y locations" and that all or some
16 of which can be combined to form a variety of
17 behaviors and user feedback.

18 So in light of that disclosure, a person
19 of skill in the art would understand that
20 Figure 27 is disclosing an exemplary vocabulary
21 that includes the discrimination between short and
22 long click -- short and long presses and swipe

1 actions and the proposed behaviors associated with
2 them.

3 Q. My question was about Paragraph -- excuse
4 me -- was about Figure 27A. And I think you went
5 to a different paragraph, I believe to say that
6 you could have written something different than
7 Figure 27A?

8 A. Sorry. I don't understand the question.

9 Q. Let me actually get more specific so we're
10 less abstract and then I'll go back to my abstract
11 question.

12 If you count down -- in the first four
13 rows of Figure 27A for the light touch or tactile
14 click, Figure 27A specifies either light or click,
15 not both. Right?

16 A. I disagree with that characterization.

17 If you look at the fifth row of the
18 column, the element in the column "Light Touch or
19 Tactile Click" reads "light or click." So that
20 would be either of the two, so it would respond to
21 both.

22 Q. I apologize. Please keep going. I didn't

1 mean to cut you off.

2 A. I'm finished.

3 Q. Okay. I agree. That's why I only said
4 first four rows. I'm just trying to go slowly and
5 make sure we are in agreement. You went there
6 already. I was just trying to go slowly.

7 So if in Figure 27 the touch vocabulary
8 desires to indicate that light touch or tactile
9 click does not matter, then it uses the indication
10 "light or click" because that would cover all
11 conditions. Right?

12 A. In that particular row of the table,
13 that's correct. Light or click would be
14 sufficient.

15 Q. And so going back to the first row, if a
16 particular user input was a click, that would not
17 satisfy the logic for detecting user touches
18 defined by the first row of Figure 27A. Correct?

19 A. As I said before, Figure 27 is an
20 exemplary disclosure of the touch vocabularies
21 that are described at Paragraphs 145 through 151.

22 The purpose of Figure 27A, at the end of

1 that section on example of new touch vocabulary,
2 the heading that prefaces Paragraph 145,
3 Figures 27A to E are providing one example of the
4 touch vocabularies that are disclosed in that
5 section, and the figure should be read in light of
6 the specification associated with those figures.

7 MR. LEVENTHAL: Objection, nonresponsive,
8 move to strike.

9 Q. My question is specific to Row 1 of
10 Figure 27A. When a user in a particular
11 example -- excuse me. Withdrawn.

12 When a particular instance of user input
13 does not meet the light criteria for light touch
14 or tactile click, it does not meet the logic
15 defined by Row 1 of Figure 27A. Correct?

16 A. Would you repeat the question, please?

17 Q. Sure. When a particular instance of user
18 input does not meet the light criteria for light
19 touch or tactile touch, it does not meet the logic
20 defined by Row 1 of Figure 27A.

21 A. The touch vocabulary disclosed on that
22 first line of Figure 27A, the first row is

1 providing an example set of proposed behavior in
2 response to an example input.

3 The example input on the whole of the line
4 is a light touch with one finger for basic list
5 navigation of any duration at any location. In
6 response to on touchdown, do nothing. On
7 lift-off, highlight the item, if any, under the
8 touch.

9 Q. So I'm going to repeat my question again
10 because I don't disagree with what you said, but
11 you didn't answer my question.

12 When a particular instance of user input
13 does not meet the light criteria for light touch
14 or tactile touch, it does not meet the logic
15 defined by Row 1 of Figure 27A. Correct?

16 MR. DARBY: Objection, asked and answered.

17 A. Row 1 of Figure 27A discloses -- provides
18 an example of a set of touch requirements for a
19 proposed behavior. This example includes a light
20 touch, one finger, no movement, any duration, and
21 anywhere to cause the behavior that's shown on
22 that row.

1 Q. You still have not answered my question.

2 My question is, when a particular instance
3 of user input does not meet the light criteria or
4 light touch or tactile touch, it does not meet the
5 logic defined by Row 1 of Figure 27A. Correct?

6 A. This particular example includes a set of
7 criteria that must be met.

8 Q. Correct? My question is yes or no. Was
9 my statement correct? Do you need me to read my
10 statement again?

11 A. Yes, please.

12 Q. Yes or no, is this a correct statement:
13 When a particular instance of user input does not
14 meet the light criteria for light touch or tactile
15 touch, it does not meet the logic defined by Row 1
16 of Figure 27A.

17 MR. DARBY: Objection, asked and answered.

18 A. I don't think that is a yes-or-no response
19 because there are proposed behaviors in this table
20 that occur in response to a variety of different
21 gestures.

22 For example, the proposed behavior on

1 touchdown, do nothing is true both for a light
2 touch and for a click. So I think a yes or no
3 would mischaracterize the full disclosure in the
4 table.

5 Q. I asked you about a specific row, not the
6 table. My question once again -- actually, let me
7 say it this way: Please describe for me the user
8 touch that could meet Row 1 where the light touch
9 or tactile click meets the click criteria.

10 A. Well, for example, on touchdown, part of
11 the response of a light click is on touchdown, do
12 nothing. Part of the response to a click is on
13 touchdown, do nothing. So both of these
14 interactions have at least a component of similar
15 response.

16 Q. That was not my question. My question
17 was -- look, this is simple. This is background.
18 This is not anything that is in dispute.

19 My question is, when -- and I'm going to
20 ask it again.

21 When a particular instance of user input
22 does not meet the light criteria for the light or

1 tactile touch column, it does not meet the logic
2 defined by Row 1 of Figure 27A. Correct?

3 MR. DARBY: Objection, asked and answered.

4 A. As the proposed behavior on Row 1 is a
5 multitude of responses, I think it's
6 mischaracterizing that row to say that there is no
7 other row that contains the same components of
8 response.

9 Q. Dr. Cockburn, where in my question did I
10 mention any other row?

11 A. Your question referred to meeting the --
12 the possibilities of situations in which there are
13 elements of response that are similar with other
14 gestures.

15 Q. That was not my question. I'm going to
16 ask my question yet again.

17 When a particular instance of user input
18 does not meet the light criteria for the light or
19 tactile touch column, it does not meet the logic
20 defined by Row 1 of Figure 27A. Correct?

21 MR. DARBY: Same objection.

22 A. I have to give the same answer. There are

1 elements of similarity of the proposed behavior
2 shown on that first row that are the same in
3 response to different forms of clicks.

4 So there are situations in which a gesture
5 that does not meet the light criteria would cause
6 some of the same proposed behavior.

7 Q. But it would not meet Row 1, the criteria
8 set forth in Row 1 of Figure 27A. Correct?

9 A. It would not meet the full set of criteria
10 disclosed on those rows if it was not light.

11 Q. That's all I was trying to get at.

12 The action -- excuse me. The proposed
13 behavior in Row 1 states, "On lift-off highlight
14 item (if any) under touch." Do you see that?

15 A. I do.

16 Q. So the item here is going to refer to an
17 item in the list of items that we've been
18 describing in this basic list navigation.
19 Correct?

20 A. If any, yes.

21 Q. And here, the movement during touch or
22 click column states "none." Correct?

1 A. Correct.

2 Q. So Figure -- Row -- I'm sorry. Go ahead.

3 A. No. I'm sorry. I interrupted you. I
4 assume we're still directed only at Row 1?

5 Q. Yes, sir.

6 And again, directed only to Row 1, the
7 duration lists any. Correct?

8 A. Yes.

9 Q. So in this case, if a user provides a
10 light touch with one finger, no movement of any
11 duration on an item on the list, the behavior is
12 to highlight that item. Correct?

13 A. In this particular row of the exemplary
14 touch vocabulary of Figure 27A, there are a set of
15 proposed behaviors. And those proposed behaviors
16 include on lift-off, highlight item if any.

17 Q. And so if the touch is on the item, then
18 this would -- this Row 1 of Figure 27A, the logic
19 would highlight the item upon which the touch has
20 occurred. Correct?

21 A. To be clear, in this exemplary vocabulary,
22 the highlighting would occur on lift-off.

1 Q. And the highlighting on lift-off would be
2 of the item upon which the touch was on before the
3 lift-off. Fair?

4 A. If any.

5 Q. And so in this case, Row 1 of Figure 27A
6 provides a user gesture to highlight an item in a
7 list without performing a slide or swipe gesture.
8 Correct?

9 A. On Row 1 of this exemplary vocabulary,
10 there is no movement and on lift-off the item
11 under the touch, if any, would be highlighted.

12 Q. Let's go down to Row 4 of Figure 27A.

13 A. I see it. Thanks.

14 Q. In this one -- and again, let me -- now
15 that we've given a very abstract example -- excuse
16 me.

17 Now that we've given some specific
18 examples, let me make sure I can state the
19 abstract principle fairly.

20 The logic generally in Figures 27A-E
21 refers to the five categories that we've been
22 talking about in terms of light touch or tactile,

1 number of fingers, movement during touch or click,
2 duration and touchdown location.

3 But a given row can exclude any of those
4 five as having a narrow criteria by specifying for
5 that row anything will do or more than one option
6 will do. Is that fair?

7 MR. DARBY: Objection to form.

8 A. That was a very long, compound question
9 with many components. It included a reference to
10 tactile, which I assume is referring to tactile
11 click, as in Column 2 of the table.

12 I'm actually not sure what the question
13 was.

14 Q. Let me see if I can -- let me see if I can
15 say what I'm getting at. And I'd really prefer to
16 just hear it in your words because I don't want
17 to -- I don't want you to be beholden to the
18 particular way I'm saying it. I just want to make
19 sure we're in agreement. So this is not a
20 question that I'm just doing my best to explain
21 the concept.

22 We have these five categories that if

1 there are -- if a given row of the touch
2 vocabulary specifies specific criteria for each of
3 those categories, all of them are required.

4 But the touch vocabulary permits
5 eliminating one as requiring a specific criteria,
6 five for a given category, saying something like
7 anywhere or any. So that's not a question.

8 Now let me see if I can go down to some
9 specific examples. And if you're able to
10 generalize, we can just move on, on that point. I
11 think you have said it already. I just wasn't
12 ready to go to it at this point.

13 Going back to Row 1 of Figure 27A for
14 touchdown location -- actually, that's a bad one
15 because then proposed behavior then says the
16 location. Let's do duration.

17 For Row 1 in Figure 27A the duration is
18 listed as "any." Do you see that?

19 A. I see that.

20 Q. And so that means that a particular
21 duration of touch is not going to exclude a given
22 user input from meeting the criteria specified in

1 Row 1. Fair?

2 A. On Row 1, it's directed to a touch of any
3 duration.

4 Q. And when we talk about duration here,
5 that's a time period that begins when the touch
6 begins. Right?

7 A. A person of skill in the art would
8 understand that duration is measured from the time
9 that the touch begins.

10 Q. And if the touch is ongoing when the logic
11 executes, then it would -- then it would evaluate
12 the duration from the current time at which the
13 logic executes. Or if the touch has concluded,
14 then the duration concludes on lift-off. Is that
15 fair?

16 MR. DARBY: Objection to form.

17 A. A person of skill in the art would
18 understand that duration refers to the time
19 between the touch going down, continually measured
20 while the touch remains in contact, and it is also
21 measured when the touch is released.

22 Q. Said much better than me. Thank you.

1 Now, if we go to the fifth item down on
2 Figure 27A, this refers to a movement that is
3 labeled "up/down." Do you see that?

4 A. I see that.

5 Q. And if we look at the proposed behavior,
6 the second sentence of the proposed behavior says,
7 "Scroll list up/down depending on up/down distance
8 moved" and then it continues on. Do you see that?

9 A. I see that.

10 Q. And so the words "scroll list" in this
11 case is referring to the idea of moving some items
12 that were visible off of the visible display area
13 and adding in other items from the list that were
14 previously not visible in the display area. Is
15 that fair?

16 A. That is one form of scrolling. There are
17 other forms of scrolling too.

18 Q. And that is different than scrolling a
19 highlight, is another form of scrolling. Correct?

20 A. I would disagree with that.

21 Q. Well, let me put it this way: Row 5, the
22 proposed behavior refers to scrolling a list, not

1 scrolling a highlight. Correct?

2 A. I disagree with that characterization.

3 The final sentence of the behavior on this
4 particular row of this exemplary vocabulary
5 states, "If highlighted, item slides off visible
6 screen, change highlighted item to one that is
7 visible."

8 The "if" clearly contemplates scrolling
9 without items sliding off the display.

10 Q. It starts with "if item slides off" --
11 well, let me ask you this: How do you scroll --
12 it's not necessary to scroll a list if all items
13 in the list are currently visible. Fair?

14 A. You can scroll a selection through a set
15 of items without moving the set of items.

16 Q. Okay. But my question was, can you
17 scroll -- would there be any need to scroll the
18 items of the list, not the selection but scroll
19 the list itself if all items are visible?

20 A. There are contexts in which that would be
21 a sensible thing to do.

22 Q. What would be a sensible thing to do?

1 A. For example, rubber banding is a technique
2 in which all of the items -- a scrolling list
3 where all of the items are displayed.

4 You can pull or tear the scrolled list off
5 the top to provide feedback to the user that their
6 contact is being detected. Without the rubber
7 banding scrolling effect, users may incorrectly
8 perceive that the system is dead or not
9 responsive.

10 Q. Let's go to Figure 27C.

11 A. I'm there. Thanks.

12 Q. Figure 27C, in the top left-hand corner do
13 you see the words "Now Playing" under "UI Mode"?

14 A. I see that.

15 Q. So again with reference to Figure 11, in a
16 now playing UI mode, what is shown in 152 would no
17 longer be a list of items but instead information
18 about the one song that is playing. Is that fair?

19 A. Can you repeat the question, please?

20 Q. Sure. With reference to Figure 11, which
21 is our exemplary music player UI, when you are in
22 now playing UI mode, the area designated by 152

1 would no longer be a list of songs, for example,
2 but instead would be information about the one
3 song that is being played. Is that fair?

4 A. Figure 11 provides one embodiment of a
5 music player, and Figure 27C includes a superset
6 of information other than that directly related to
7 the currently playing song.

8 Q. Well, let me ask it this way: In UI mode,
9 now playing, what would be displayed in Box 152 of
10 Figure 11?

11 A. One thing that a person of skill in the
12 art would understand to be included would be a
13 volume slider which Row 6 shows moving up and
14 down.

15 Q. Anything else?

16 A. Well, this is a hypothetical of how a
17 person of skill in the art would understand a
18 music player user interface to be constructed,
19 given that this includes left/right swiping
20 motions to go to the previous or next song.

21 I think a person of skill in the art would
22 reasonably understand that there would be some

1 information associated with the next or previous
2 song.

3 Q. Over the current song?

4 A. In addition to the current song.

5 Q. So if we now go to Figure 27D.

6 A. I'm there. Thanks.

7 Q. Again, the -- actually, I'm sorry. I
8 forgot to ask one question on 27C. If we could go
9 back to that. I apologize.

10 A. I'm there.

11 Q. So if you recall in 27A we looked
12 specifically at Row 4 in which duration was
13 designated as long. Do you recall that?

14 A. I don't recall discussing that particular
15 row in response to the long press on a virtual
16 button. Hotelling discloses after the delay
17 bringing up a context-sensitive menu.

18 Q. Right. So that -- but the duration column
19 in Row 4 indicates long. Correct?

20 A. Correct.

21 Q. In Figure 27C, none of the rows indicate
22 long as the required duration. Correct?

1 A. In the vocabulary exemplified in
2 Figure 27C, there is no mention of a long-duration
3 press.

4 Q. And then now if we could go to Figure 27D.
5 My question is the same, sir. In Figure 27D, none
6 of the rows indicate long as the required
7 duration. Correct?

8 A. In the example vocabulary shown in
9 Figure 27D, there is no mention of a long
10 duration.

11 Q. I'm going to switch to Martyn. We are at
12 about 55 minutes or so. Do you want to take a
13 break since we're switching references?

14 A. Sure. That would be good.

15 (Recess, 3:02 p.m. to 3:14 p.m.)

16 BY MR. LEVENTHAL:

17 Q. Dr. Cockburn, as promised, can we
18 transition to Exhibit 1005, which is the Martyn
19 reference.

20 A. I have it. Thanks.

21 Q. If you could please turn to Paragraph 16,
22 which is on page 4.

1 A. I'm there. Thanks.

2 Q. You could read that whole paragraph to
3 yourself, but my question is going to be about the
4 last sentence.

5 A. Okay.

6 Q. Actually, I have a general question first
7 and then I'll get into Paragraph 16.

8 You're not contending that Martyn
9 discloses a touchscreen input device. Correct?

10 A. Martyn is substantially agnostic regarding
11 the input devices it uses. A person of skill in
12 the art understanding small-form-factor devices at
13 the time would have understood that that includes
14 touchscreens.

15 Q. Martyn doesn't describe any touchscreen
16 inputs explicitly. Correct?

17 A. There is no explicit mention of
18 touchscreens. But Martyn describes PDAs and
19 mobile devices, smartphones, and so on, and it was
20 well known at the time that those included
21 touchscreens.

22 Q. So back to Paragraph 16, the final

1 sentence says, "At this point, the user may take
2 conventional navigation steps, such as scrolling,
3 to move the highlight and using the available
4 select function to navigate to the required
5 highlighted application."

6 Did I read that correctly?

7 A. You did. The paragraph begins, "As an
8 example." So this is one example of the
9 instantiations -- potential instantiations of
10 Martyn's disclosures.

11 Q. And to give everyone the full context,
12 even though you read it, this is referring to a
13 main view of an application launcher where you
14 have a screen that has the name and an icon for a
15 number of applications, one per row. Correct?

16 A. In that particular example, yes.

17 Q. And in that particular example, what is
18 shown in Figure 1 is that a highlight is over the
19 application messages. Correct?

20 A. In Figure 1, Item 2 points to the icon
21 relating to messages and the word "messages"
22 itself, and there is a highlight identified as 2

1 that surrounds that item.

2 Q. And so the last sentence of Paragraph 16
3 that I read is to move the highlight from messages
4 to another application. Correct?

5 A. The sentence is directed to moving the
6 highlight and using the available select function
7 to navigate to the required highlighted
8 application.

9 Q. Okay. Fair. Okay.

10 So let's talk about the first half of
11 that, which is "move the highlight."

12 It states, "You take conventional
13 navigation steps, such as scrolling, to move the
14 highlight." Correct?

15 A. That's what it says. Yes.

16 Q. So in this case the word "scrolling" is
17 used to describe moving a highlight from one
18 application that is shown in the application
19 launcher view to another application that is shown
20 in the application launcher. Correct?

21 A. I don't think that's what -- I think
22 that's too limited in the context of the

1 disclosure of Figure 16.

2 The example begins with a multitude of
3 applications such as messages, contacts, calendar,
4 and phone. That's a superset -- oh, a person of
5 skill in the art would understand that there could
6 be more applications other than those and that the
7 user would be able to scroll to those as well.

8 Q. Dr. Cockburn, I think you said "the
9 disclosure of Figure 16." I believe you meant the
10 disclosure at Paragraph 16.

11 A. Yes.

12 Q. I just wanted to make sure your answer is
13 clear.

14 So Paragraph 16 lists four applications.
15 Correct?

16 A. In that particular example, in
17 Paragraph 16 there are four applications. Yes.

18 Q. And all four of those applications are
19 shown in Figure 1. Correct?

20 A. All four of those applications are shown
21 in Figure 1. Yes.

22 Q. So Paragraph 16 does not explicitly

1 describe an additional application available but
2 not shown in Figure 1. Correct?

3 A. Paragraph 16 and Figure 1 show those four
4 applications. A person of skill in the art would
5 understand that there could be many more.

6 MR. LEVENTHAL: Move to strike the final
7 part of that as not responsive to my question.

8 Q. Now going back to the final sentence of
9 Paragraph 16, the scrolling that Paragraph 16
10 describes moves the highlight from messages to
11 another application. Correct?

12 A. That final sentence reads, "At this point,
13 the user may take conventional navigation steps,
14 such as scrolling, to move the highlight and"
15 et cetera.

16 Q. So you would agree with me that the
17 reference to scrolling in Paragraph 16 is moving
18 the highlight from one application to another.
19 Correct?

20 A. That disclosure includes moving the
21 highlight from one application to another. A
22 person of skill in the art would understand that

1 it could also bring further applications into
2 view.

3 Q. It doesn't say that in Paragraph 16.
4 Correct?

5 A. It refers to "conventional navigation
6 steps, such as scrolling." Scrolling items
7 outside of the view into the view was exceedingly
8 well known as part of scrolling.

9 Q. The words of the sentence in Paragraph 16
10 is "the user may take conventional navigation
11 steps" . . . "to move the highlight." Correct?

12 A. The words refer to moving the highlight.
13 Correct.

14 Q. There's not any word in Paragraph 16 that
15 describes changing the applications that are
16 visible in the application launcher. Correct?

17 A. Scrolling is exceedingly well known, as
18 you referred to in an earlier question, to refer
19 to bringing items outside of the current view into
20 the current view.

21 A person of skill in the art reading
22 "scrolling, to move the highlight" would

1 understand that that highlight would move between
2 the items that are displayed and that scrolling
3 could bring further items into the display and
4 move the highlight to them.

5 Q. The only type of scrolling that
6 Paragraph 16 describes is scrolling to move the
7 highlight. Correct?

8 A. The only type of scrolling that
9 Paragraph 16 describes particularly in that
10 sentence is to move the highlight.

11 And a person of skill in the art would
12 understand that moving the highlight includes
13 moving the highlight to items that are not
14 previously displayed by scrolling.

15 MR. LEVENTHAL: Objection, nonresponsive,
16 move to strike the second half of the answer.

17 Q. Now, you mentioned earlier -- again,
18 focusing on that same sentence, it says "move the
19 highlight" -- well, before we go on to that, a
20 conventional navigation step on a non-touchscreen
21 device to move a highlight would be an example --
22 let me withdraw that.

1 An example of one conventional navigation
2 method to move a highlight would be to depress a
3 physical button on the device that causes that
4 highlight to move up or down. Correct?

5 A. One way to cause scrolling to move a
6 highlight would be to use a physical button, but
7 it's certainly not the only way.

8 Q. And another way to cause scrolling of a
9 highlight would be a kind of side scroll
10 physical -- is there a better technical term for a
11 kind of slide scroll like a BlackBerry had, sir,
12 so I can ask you a good question?

13 A. A roller physical input device would allow
14 scrolling too. There are many, many ways to
15 implement scrolling that a person of skill in the
16 art would be aware of.

17 Q. And another physical device that could
18 cause scrolling of a highlight would be a circular
19 click wheel. Correct?

20 A. A circular click wheel, such as one on a
21 mouse, would be a way to enact scrolling.

22 Q. And I'm actually -- I very much appreciate

1 that answer.

2 What would you call a circular device that
3 sits flat via the surface and goes like that,
4 physically moving?

5 A. A touch wheel perhaps.

6 Q. Okay.

7 A. Or a touch-sensitive screen could also
8 support circular motions.

9 Q. Okay. And you could, for example -- so
10 you could have a physical touch wheel on a
11 non-touch-sensitive screen or you could have a
12 virtual representation of a touch wheel on a
13 touch-sensitive screen to allow for that circular
14 motion for the highlighting?

15 A. You wouldn't -- I mean, in this
16 hypothetical, you wouldn't necessarily need the
17 circular wheel to be displayed on a touchscreen to
18 enable circular motions to enable scrolling.

19 Q. Okay. Now, to the point you referenced
20 earlier on Paragraph 16, which is that the
21 first -- the first shoe is moving the highlight,
22 and the second shoe is using the available select

1 function to navigate to the required highlighted
2 application. Correct?

3 A. I wouldn't characterize them as shoes, but
4 there is moving of the highlight and there is
5 using the select function to navigate to the
6 required highlighted application.

7 Q. And so the select function could be
8 depressing a different physical button than was
9 used to accomplish the scrolling or depressing the
10 same physical button that was used to accomplish
11 the scrolling in a non-touchscreen device. Fair?

12 A. In a non-touchscreen device, that person
13 would understand that there would be a variety of
14 ways of issuing the select function.

15 On a touchscreen device, a person of skill
16 in the art would understand that one way would be
17 to tap on or otherwise press on the function
18 itself, the virtual representation of the
19 function.

20 Q. You jumped ahead of me. That was my next
21 question.

22 So my next question is, on a touchscreen

1 device, it's not necessary to first scroll and
2 have a highlight and then execute a select? It's
3 sufficient with a tap at the location to
4 accomplish both the identification of the desired
5 application and the desire to select in a single
6 tap. Correct?

7 A. It depends on context. There's a variety
8 of ways that a system could respond to the touch
9 vocabulary on the device. One, move the
10 highlight; and two, select the item.

11 Q. But it's not necessary to highlight an
12 item prior to selecting it on a touch device when
13 you can simply touch the visual representation of
14 the item, as you said. Right?

15 A. It's not necessary to highlight it. The
16 person of skill in the art would understand that
17 it would be common practice to highlight the item
18 under the finger to confirm to the user the item
19 that is being touched. So highlighting and
20 selection are commonly coupled in touchscreen
21 interaction.

22 Q. So we talked about Figure 1. I now want

1 to move on to Figures 2 and 3, which begins at
2 Paragraph 17. So let me . . .

3 So Figures 2 and 3 of Martyn show two
4 different examples of an app launcher. Correct?
5 Excuse me. I said that wrong. Let me withdraw
6 it.

7 Figures 2 and 3 show an example of a
8 graphical user interface that includes part of the
9 app launcher but also the app snapshot. Correct?

10 A. I think that's fair. There's the app
11 launcher. Parts of it remain displayed. And the
12 app snapshot is -- the menu is also shown in both
13 Figures 2 and 3.

14 Q. And Figure 2 includes one version of the
15 app snapshot where Figure 3 is described as a
16 slightly longer app snapshot. Correct?

17 A. That's correct.

18 Q. And just the visual difference is the
19 Figure 2 version has three rows whereas the
20 Figure 3 version has five rows. Correct?

21 A. The app snapshot includes the messages
22 icon at the top.

1 Q. That's fair. Our counting is slightly
2 off. I understand your point. And let me
3 withdraw my question. It's not important. I was
4 just setting it up.

5 Martyn does not suggest either the app
6 snapshot shown in Figure 2 or the app snapshot
7 shown in Figure 3 includes additional content not
8 available on screen. Correct?

9 A. Can you repeat the question, please?

10 MR. DARBY: Objection to form.

11 Q. Sure. Martyn does not disclose that
12 either the app snapshot shown in Figure 2 or the
13 app snapshot shown in Figure 3 includes additional
14 content not visible on the screen. Correct?

15 MR. DARBY: Objection to form.

16 Q. Dr. Cockburn, I apologize.

17 MR. LEVENTHAL: Mr. Darby, what's the
18 basis of your objection?

19 MR. DARBY: I object to the form of the
20 question.

21 MR. LEVENTHAL: I know. But I'm asking
22 you -- when you object to the form and then I ask

1 you what is your specific basis, you need to give
2 it to me.

3 MR. DARBY: Sure. Vague.

4 MR. LEVENTHAL: Okay. I'm going to
5 withdraw that and reask it. I'm going to ask it
6 in two parts.

7 Q. Martyn does not disclose that the app
8 snapshot shown in Figure 2 includes any additional
9 content not visible on the screen as illustrated
10 in Figure 2. Correct?

11 MR. DARBY: Objection to form.

12 A. Can you rephrase the question with fewer
13 negatives?

14 Q. I will do my best. Give me a second.

15 Martyn does not disclose that the app
16 snapshot shown in Figure 2 includes anything other
17 than what is visible on the screen as illustrated
18 in Figure 2. Correct?

19 A. The example of the app snapshot shown in
20 Figure 2 contains or includes the number of
21 messages, which is zero, and links to the two most
22 common functions in that particular example.

1 Q. So my question is, Martyn does not
2 disclose that the app snapshot shown in Figure 2
3 includes anything other than the number of
4 messages, which is zero, and links to the two most
5 common functions. Correct?

6 A. In Figure 2, those are the elements that
7 are shown to be included in the app snapshot.

8 Q. I'm going to ask my same question for
9 Figure 3.

10 Martyn does not disclose that the app
11 snapshot shown in Figure 3 includes anything other
12 than the number of unread emails, the number of
13 new SMS messages, the number of chats ongoing, and
14 links to the two most common functions. Correct?

15 A. Specifically in Figure 3, it shows a
16 particular set of items. The paragraphs within
17 Martyn disclose scrolling functions within the app
18 snapshot.

19 Q. And the scrolling that is described within
20 the app snapshot is to move a highlight among the
21 items that are displayed. Correct?

22 A. The scrolling in Martyn includes moving

1 the highlight through the displayed items. A
2 person of skill in the art with Martyn would
3 understand that scrolling has other forms,
4 including moving items not currently displayed
5 into the display.

6 Q. You just -- I apologize. I didn't mean to
7 cut you off. I apologize.

8 A. In particular, Martyn at Paragraph 19
9 clarifies that the window can take other forms.

10 Q. Okay. So your testimony is that
11 Paragraph 19 describes an app snapshot that
12 includes content -- let me withdraw that.

13 Your testimony is that Paragraph 19 of
14 Martyn would disclose to a person of ordinary
15 skill a version of the app snapshot that also
16 includes items that are not visible on the screen?

17 A. A person of skill in the art would
18 understand --

19 MR. DARBY: Objection.

20 A. -- that windows in many contexts,
21 including on mobile devices and PDAs, can be
22 scrolled.

1 Q. But my question is specific as to the app
2 snapshot.

3 Is it your testimony that Paragraph 19 or
4 any other part of Martyn would disclose to a
5 person of ordinary skill in the art a version of
6 the app snapshot that also includes items that are
7 not initially visible on the screen?

8 A. A person of skill in the art reading
9 Martyn would understand that its disclosures of
10 scrolling include moving a highlight and scrolling
11 includes moving to items that are not previously
12 displayed.

13 Q. I'm not asking in the abstract. I'm
14 asking specifically to Martyn and the app
15 snapshot.

16 Is it your opinion that any portion of
17 Martyn discloses to a person of ordinary skill in
18 the art a version of the app snapshot that
19 includes items that are not initially visible on
20 the screen?

21 MR. DARBY: Objection, asked and answered.

22 A. A person of skill in the art understands

1 comprehensively what scrolling is. That includes
2 moving highlights through selected items, and it
3 includes moving the display such that new items
4 are displayed.

5 Martyn, including at Paragraph 21, refers
6 to scrolling down through the app snapshot, and
7 off the end moves the highlight to the next
8 application of the list.

9 This is consistent with scrolling of a
10 highlight and scrolling to the end of a list that
11 includes scrolling to items that were not
12 previously displayed.

13 Q. So it's your testimony that Paragraph 21
14 would disclose to a person of ordinary skill in
15 the art a version of the app snapshot that
16 includes items that are not initially visible on
17 the screen?

18 MR. DARBY: Objection to form. Not a
19 question.

20 A. A person of skill in the art has
21 comprehensive understanding of scrolling.

22 And reading Martyn and its disclosures,

1 including Paragraph 21, would include scrolling of
2 a highlight through a set of displayed items and
3 moving items that were not previously displayed
4 into the display.

5 Q. Did you intentionally omit the word "app
6 snapshot" from your last answer?

7 A. No.

8 Q. Okay. So what I want to do is -- again,
9 if we disagree, we disagree. That's fine. I just
10 want to understand where we agree and disagree.
11 So I'm going to reread your answer and add the
12 word "app snapshot" and ask if that's your opinion
13 that that's disclosed. Fair?

14 A. Sure.

15 Q. Okay. Is it your opinion that a person of
16 ordinary skill in the art reading Martyn,
17 including Paragraph 21, would understand that
18 disclosure to include scrolling through the app
19 snapshot to highlight displayed items as well as
20 previously undisplayed items within that app
21 snapshot?

22 A. Paragraph 21 includes a sentence that

1 reads, "Scrolling down through the App Snapshot
2 and off the end moves the highlight to the next
3 application in the list."

4 A person of skill in the art understands
5 comprehensively what scrolling is. And that
6 includes moving a highlight through items that are
7 already displayed and moving the list such that
8 items off the end of the display are brought into
9 the display.

10 Q. You didn't answer my question. And you
11 again intentionally or unintentionally removed the
12 word "app snapshot."

13 A. I read -- my understanding is that I read
14 the sentence that says "App Snapshot." My answer
15 included, "Scrolling down through the App Snapshot
16 and off the end moves the highlight."

17 I'm reading from Paragraph 21 of Martyn.

18 Q. Are you saying -- is it your opinion that
19 a POSITA would understand Martyn to disclose
20 scrolling through initially nonvisible items in
21 the app snapshot?

22 MR. DARBY: Objection, asked and answered.

1 MR. LEVENTHAL: Please limit your
2 objections to form.

3 A. I don't know how I can clarify my previous
4 answer. I'm reading from Martyn. It says,
5 "Scrolling down through the App Snapshot and off
6 the end moves the highlight to the next
7 application in the list."

8 To a person of skill in the art, that
9 scrolling includes both moving the highlight
10 through the displayed items and moving the
11 highlight such that it brings previously
12 nondisplayed items in the app snapshot into the
13 app snapshot's view.

14 Q. Thank you. You added that last part. If
15 that's your opinion, that's your opinion. I will
16 move on. I just wasn't sure if you were not
17 saying that for a reason.

18 I'm going to flip over, Dr. Cockburn, to
19 your declaration, which is Exhibit 1003.

20 A. I have it. Thanks.

21 Q. Give me one second.

22 So, Dr. Cockburn, I want to go over your

1 understanding of the relation between the elements
2 of Claim 1, which I think page 5 is a good place
3 to go over that.

4 But just to refresh your recollection, you
5 may want to look at Paragraph 33 of your
6 declaration, which is where you summarize your
7 view of that, and then I'll go to page 5.

8 A. Okay. Page 5?

9 Q. Yes, sir. And that's just all of the
10 numbered elements of Claim 1, just so we can be on
11 the same page. So claim element 1.a describes --
12 recites "display indicia associated with an
13 application, utilizing the touchscreen." Do you
14 see that?

15 A. Yes.

16 Q. One example of an indicia that would be
17 associated with an application would be an icon
18 for the application. Right?

19 A. That would be one example. Yes.

20 Q. And I don't mean to exclude -- that's one
21 example.

22 What would you call these boxes in

1 Figure 17 of Hotelling?

2 A. I believe Hotelling refers to them as
3 virtual buttons.

4 Q. And in your opinion, those are also
5 indicia associated with an application. Correct?

6 A. Yes.

7 Q. Is it fair to call these icons as well, in
8 Figure 18?

9 A. I think that would be fair.

10 Q. So if we now go to Step 1 -- excuse me.
11 Not step. Element 1.b. It refers to "a touch
12 being applied to the touch screen," and I'm
13 skipping a part, and then it says "in connection
14 with the indicia." Do you see that?

15 A. Those words are contained with 1.b. It's
16 not Element 1.b.

17 Q. Understood. That was certainly not all of
18 Element 1.b.

19 The words "in connection with the indicia"
20 also appear in 1.c, 1.d, 1.e, and 1.f. Correct?

21 A. Those words are there. Yes.

22 Q. So a touch -- one example, not limiting it

1 to this, but one example of a touch in connection
2 with an indicia would be a touch at the location
3 of the indicia. Correct?

4 A. That would be one example. Yes.

5 Q. Now, 1.b and 1.c each begin with "when."
6 Correct?

7 A. That's correct.

8 Q. And just so we don't have to do this
9 several times, if I could direct you very quickly
10 to a footnote you have on page 29.

11 A. I'm there.

12 Q. Do you see in Footnote 9 on page 29 you
13 say, "the conditional 'based on'" is what's used
14 in Claim 84 and "the conditional 'when'" is used
15 in 1. And that does not change your analysis or
16 conclusions. Correct?

17 A. That's correct.

18 Q. So both whether it's the word "when" or
19 "based on," you've characterized those as a
20 conditional. Is that fair?

21 A. That's fair.

22 Q. And so what's being described here is

1 an -- that's a bad question. What is being
2 described in each of -- sorry. I'm just looking
3 for the third independent claim so I can ask this
4 once.

5 What's being described in each of
6 Claims 116 and 84 in these consecutive elements
7 are conditional logic that when a given user touch
8 meets that logic, the rest of that element will be
9 performed. Is that fair?

10 A. They recite conditions under which the
11 remainder of the claim must be performed in order
12 to meet the claim limitations.

13 Q. If you look at 1.b, going back to page 5
14 now, sir, you've detected that the touch has
15 ceased.

16 And then in 1.c, you detect that the touch
17 has continued after the first duration through a
18 second duration. Is that fair?

19 A. I heard the question refer to 1.d and then
20 1.c. Did I mishear it?

21 Q. I apologize. I meant 1.b and 1.c. Let me
22 reask it for that purpose.

1 So in 1.b, you detected the touch has
2 ceased. And in 1.c, you've detected the touch
3 continued after the first duration that's
4 referenced in 1.b through a second duration. Is
5 that fair?

6 A. That's fair. As I describe it,
7 Paragraph 13, this is basically contemplating two
8 scenarios, a first scenario where the user's touch
9 is applied for a first duration, and the device
10 performs an operation.

11 And a second scenario where the user's
12 touch is applied for a second duration, which may
13 be longer than the first duration, and the device
14 outputs tactile feedback and displays at least one
15 menu.

16 Q. Do you need to grab a drink?

17 A. Yes, please. Sorry.

18 Okay. That should be better, hopefully.

19 Q. And an individual instance of user touch
20 would not meet both of these because they're
21 mutually exclusive conditions. Right?

22 A. As I describe in Paragraph 13, it's

1 contemplating two scenarios, one where the touch
2 ceases and a second condition where the touch is
3 applied for a second duration that is different
4 and longer than the first.

5 Q. And both in what you just described when
6 you used the word "the," "the touch," and also in
7 the claim language the word "the" is referring to
8 instances of user touch that are being evaluated
9 by the logic described in the claim. Is that
10 fair?

11 A. The logic in the claim described by the
12 claim is enacting these two scenarios, at least
13 these two scenarios.

14 Q. And so the touch, that kind of antecedent
15 basis, it's just referring to everything that is
16 being analyzed by the logic described by the
17 claim. Right?

18 A. The logic described by the claim is
19 enacting these two scenarios: the first scenario
20 where the user's touch is applied for a first
21 duration and it performs an operation; and a
22 second scenario where the user's touch is applied

1 for a second duration that may be longer than the
2 first duration; and the device outputs haptic
3 feedback and displays a menu.

4 Q. If you could flip to page 18, please.

5 A. I'm there. Thanks.

6 Q. Would you read Footnote 1 to yourself,
7 please.

8 A. Yes.

9 Q. The first sentence you state you "do not
10 concede that the '212 patent is entitled to its
11 earliest claimed priority date." Correct?

12 A. Correct.

13 Q. And then you state "the combination of
14 features recited by independent claims 1, 16, and
15 84 is not described in the specification of the
16 '212 patent." Correct?

17 A. They're not described in the detailed
18 written description of the specification.

19 Q. Do you provide any analysis to support
20 that assertion in the second sentence of
21 Footnote 1?

22 A. Not there, no.

1 Q. Anywhere? Excuse me. I asked a bad
2 question. That's fair.

3 Do you provide any analysis anywhere in
4 Exhibit 1003 to support the assertion made in the
5 second sentence of Footnote 1?

6 A. No. It's a footnote. It's an additional
7 note.

8 Q. I'm going to direct you to page 21 of your
9 report.

10 A. I'm there. Thanks.

11 Q. So in Paragraph 27, you state you reviewed
12 the '212 patent and its prosecution history.
13 Correct?

14 A. That's correct.

15 Q. And if you could now please open
16 Exhibit 1001, which is what you reference as the
17 '212 patent.

18 A. Yes. I have it.

19 Q. So the PDF version of Exhibit 1001 is 104
20 pages. Correct?

21 A. Yes.

22 Q. If you scroll down to page 104, what is

1 shown is kind of the last of the claim listing in
2 the '212 patent. Correct?

3 A. There's a series of asterisks that mark
4 the end of the patent.

5 Q. If you could please turn to PDF page 40,
6 and this is Column 1.

7 A. Yes. I'm there.

8 Q. So you see the first paragraph of Column 1
9 of the specification of the '212 patent lists a
10 number of other applications, starting at line 8
11 and going through line 24? Do you see that?

12 A. Yes.

13 Q. And you see starting at line 18 there are
14 four -- there's a listing of four provisional
15 applications. Do you see that?

16 A. Yes.

17 Q. And you see on lines 23 and 24 that
18 paragraph concludes with "the entire contents of
19 all of which are incorporated herein by
20 reference"? Do you see that?

21 A. I do.

22 Q. If you could please go back to your

1 declaration and back to page 21 where we were.

2 A. I'm there.

3 Q. So we established that Exhibit 1001 itself
4 does not include any of the four provisionals that
5 are listed in Column 1 of the '212 patent. Right?
6 Just the '212 patent itself.

7 A. Can you repeat that statement?

8 Q. Sure. Let me say that differently.

9 You understand that a provisional
10 application is a separate document from the
11 published patent?

12 A. Yes.

13 Q. And you understand that the published
14 patent may copy in language from that provisional
15 application, but it doesn't necessarily have to
16 copy all of it. Right?

17 MR. DARBY: Objection, relevance.

18 MR. LEVENTHAL: Sir, form. There is no
19 relevance objections here.

20 MR. DARBY: I'm allowed to object to the
21 relevance of a question. If you want to talk
22 offline about the objections, I'm happy to do

1 that.

2 Q. Dr. Cockburn, did you hear my question or
3 would you like me to reask it?

4 A. Reask it, please.

5 Q. You understand that the published patent
6 may copy in language from a provisional
7 application, but it doesn't necessarily have to do
8 so? It could copy part of it or none of it.
9 Right?

10 MR. DARBY: Same objection.

11 A. I described my understanding of the law,
12 the pertinent parts of the law for my analysis in
13 my declaration.

14 I think the permissibility of
15 incorporation into a patent is probably outside
16 the bounds of my legal understanding, so I don't
17 know what may be permitted by the Patent Office in
18 terms of incorporation of provisionals or
19 published patents.

20 Q. Understood, sir. So if you could go and
21 flip for me, please, on the list of materials you
22 say you analyzed on pages 21 through 23.

1 Could you please confirm for me that none
2 of the four provisional applications that the '212
3 patent states it incorporates by reference are
4 among the materials you considered?

5 A. My understanding is the file history can
6 sometimes incorporate elements of prior
7 applications. I don't -- I have reviewed the file
8 history. I don't recall it incorporating those
9 elements. And on the assumption that it does not,
10 I have not reviewed those provisional
11 applications. I think that addresses your
12 question.

13 Q. It does, sir. Thank you. And that was a
14 very fair clarification as well.

15 MR. LEVENTHAL: I think I'm about done.
16 If we could take a five-minute break and come back
17 on and confirm that, or I may have one or two more
18 things. But I think I'm about done.

19 (Recess, 4:04 p.m. to 4:10 p.m.)

20 MR. LEVENTHAL: Dr. Cockburn, I have no
21 further questions at this time. I appreciate your
22 time this afternoon and pass the witness.

1 MR. DARBY: No redirect.

2 (Off the record at 4:11 p.m.)

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1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2 I, Michelle Keegan, Registered Merit
3 Reporter and Notary Public within and for the
Commonwealth of Massachusetts, do hereby certify:

4 That ANDREW COCKBURN, PH.D., the witness
5 whose deposition is hereinbefore set forth, was
6 duly sworn by me before the commencement of such
deposition and that such deposition was taken
before me and is a true record of the testimony
given by such witness.

7
8 I further certify that the adverse party
was represented by counsel at the deposition.

9 I further certify that the deposition of
10 ANDREW COCKBURN, PH.D. occurred remotely via Zoom
on Tuesday, March 25, 2025, commencing at
11 12:57 p.m. to 4:11 p.m.

12 I further certify the inspection, reading,
and signing of said deposition was waived on the
record by agreement of all parties.

13
14 I further certify that I am not related to
any of the parties to this action by blood or
marriage, I am not employed by or an attorney to
15 any of the parties in this action, and that I am
in no way interested, financially or otherwise, in
16 the outcome of this matter.

17 I declare under penalty of perjury that
18 the foregoing is true and correct. Executed on
25th day of March, 2025.
My commission expires May 15, 2026.

19 

20
21 NOTARY PUBLIC IN AND FOR THE
COMMONWEALTH OF MASSACHUSETTS

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E R R A T A S H E E T

I, ANDREW COCKBURN, PH.D., do hereby certify
that I have read the foregoing transcript of my
testimony, and further certify that said
transcript is a true and accurate record of my
testimony (with the exception of the following
corrections listed below):

Page	Line	Correction
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Signed under the pains and penalties of perjury
this day of , 2025.

ANDREW COCKBURN, PH.D.

1 1 9:20,22 53:9,15,20 54:15,17 55:5,15 56:8 57:2,4,20 58:7,8,13 59:4,6,18 60:5,9 62:13,17 63:1,2 71:18,20 73:19,21 74:2,3 80:22 91:2,10 92:10 93:15 97:6,14,21 98:5 99:6,8 100:5 1.a 91:11 1.b 92:11,15,16,18 93:5 94:13,21 95:1,4 1.c 92:20 93:5 94:16,20,21 95:2 1.d 92:20 94:19 1.e 92:20 1.f 92:20 10 44:19 45:14,17 10,671,212 4:20 1001 4:18,19 98:16,19 100:3 1003 4:21 5:1 7:11 90:19 98:4 1004 5:2,5 13:9 43:7 1005 5:6,8 69:18 1006 5:9,12 104 98:19,22 11 16:7,8,14,18,19,22 17:3,9 21:20 23:3,15,17 27:6,10,17,21 36:19,22 37:9,12 38:7 47:2,7 66:15,20 67:4,10 116 94:6 12 46:7 122 40:5 13 95:7,22 145 44:12 50:12 52:21 53:2 151 43:16,19 44:3,6,12,13,17 52:21 152 13:19 16:15 34:20 37:8,14 47:5, 12 66:16,22 67:9 154 13:20 16:16 29:16 30:17 31:10, 13 33:14 34:20 38:4,7 40:19 16 69:21 70:7,22 72:2 73:1,9,10,14, 17,22 74:3,9,17 75:3,9,14 76:6,9 78:20 97:14 17 81:2 92:1 18 17:14,16,21 18:2,18 19:3,5,7,12, 15,18 20:1,10,13,20 21:5,6,17 27:22 28:12,15,19,21 29:15 30:7,13,18,19, 22 31:19 34:8,14 35:1,12,17 38:17,21 39:5,8,11,14,21 40:1,7,8,11 41:4	42:8,13,15 92:8 97:4 99:13 19 43:9 85:8,11,13 86:3 190 36:21 37:2 1960s 32:16 2 2 45:14 61:11 71:20,22 81:1,3,7,13, 14,19 82:6,12 83:8,10,16,18,20 84:2, 6 2-28 44:22 21 87:5,13 88:1,17,22 89:17 98:8 100:1 101:22 212 97:10,16 98:12,17 99:2,9 100:5,6 102:2 22 13:12 23 99:17 101:22 24 99:11,17 26 8:16 28:10 262 32:1 262C 17:9 18:7 20:20 21:8 23:1,16 25:4,17 26:17 27:2 27 28:8 42:22 44:18 45:1,4,15,21 46:1,4 50:20 52:7,19 98:11 27A 46:6,15 48:21 49:13,19 50:4 51:4,7,13,14 52:18,22 53:3,10,15,20, 22 54:15,17 55:5,16 57:2,20 58:8 59:14,18 60:5,12 62:13,17 64:2 68:11 27A-E 43:11,21 44:3,7,9 60:20 27C 66:10,12 67:5 68:8,21 69:2 27D 68:5 69:4,5,9 28 45:3,10,11,12,13,14,20 29 43:17 93:10,12 2:03 43:4 2:13 43:4 3 3 81:1,3,7,13,15,20 82:7,13 84:9,11, 15 33 91:5 34 8:14,18,22 9:4,11 38 43:8,11 44:3,6,14,17 3:02 69:15	3:14 69:15 4 4 60:12 68:12,19 69:22 40 99:5 4:04 102:19 4:10 102:19 4:11 103:2 5 5 14:2,10 15:7 16:6 38:9,11 64:21 91:2,7,8 94:13 50s 32:17 55 69:12 6 6 67:13 7 70 13:12,15,17 14:2,10,16 15:13 29:10 30:6 31:8 33:4,12 34:6,16,18 35:12 38:8,11,20 39:7,10,21 40:2,3, 16,18 41:3,20 42:13 71 7:15 74 27:13 77 16:8,18 17:1 27:9 8 8 14:2,10 15:7 16:6 38:9,12 99:10 84 93:14 94:6 97:15 85 17:8,11,12,14,20 18:11 22:17 24:13 26:12 28:16 31:22 34:19 35:18 41:5 9 9 93:12 9-17 22:20 23:12 24:7 A Absolutely 11:20
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