

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

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SAMSUNG ELECTRONICS CO., LTD. and
SAMSUNG ELECTRONICS AMERICA, INC.,

Petitioner,

vs. Index No.

IPR2024-00867

MAXELL, LTD.,

Patent Owner.

IPR2024-00867

Patent 10,176,848 B2, C1

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DATE: January 23, 2025

TIME : 9:00 a.m.

DEPOSITION of BENJAMIN B. BEDERSON,
PH.D., held at the office of DLA Piper,
1251 Avenue of the Americas, New York, New
York 10020, before Roberta Caiola, a Court
Reporter and Notary Public of the State of
New York.

1 A P P E A R A N C E S:

2

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INDEX

WITNESS: BENJAMIN B. BEDERSON, PH.D.	PAGE
By Mr. Pluta	4
By Mr. Ellison	66

1 Benjamin B. Bederson, Ph.D.

2 BENJAMIN B. BEDERSON, PH.D., the witness
3 herein, having been first duly sworn, was
4 examined and testified as follows:

5 EXAMINATION BY

6 MR. PLUTA:

7 Q. Good morning, Dr. Bederson.

8 A. Good morning.

9 Q. As we discussed last week, I
10 know you're familiar with the deposition
11 process.

12 Do you agree not to speak with
13 counsel about the substance of your
14 testimony during breaks today?

15 A. At least during the breaks
16 while you're questioning me.

17 Q. Okay. Thank you.

18 I am handing you what's been
19 marked as Exhibit 1012.

20 Do you recognize this exhibit?

21 A. I do.

22 Q. And this is a paper that you
23 coauthored, correct?

24 A. That's right.

25 Q. You cite this paper in your

1 Benjamin B. Bederson, Ph.D.

2 declaration at several points; is that
3 right?

4 A. I think that's right.

5 Q. And does this paper describe an
6 imaging processing idea to automatically
7 group photos together based on temporal
8 characteristics and visual elements of the
9 photos, such as what clothes people wear,
10 were wearing?

11 A. I think that's some of what it
12 describes.

13 Q. If you could turn to page 20 of
14 Exhibit 1012.

15 I direct your attention to the
16 right-hand column on page 20, second to
17 last paragraph. You discuss some usability
18 issues that were identified in your study;
19 is that right?

20 A. I see in the second to last
21 paragraph in the right column on page 20, I
22 do describe some usability studies that we
23 observed during -- of our prototype that we
24 observed during our user study.

25 Q. In that paragraph, you

1 Benjamin B. Bederson, Ph.D.
2 reference selection mode and zoom mode; is
3 that right?

4 A. Yes, that's right.

5 Q. Dr. Bederson, what is a mode?

6 MR. ELLISON: Objection to
7 form.

8 A. Well, in this paragraph, I was
9 referring to the -- as I mentioned, the
10 prototype that I called Safari, and if we
11 refer back to page 9, Figure 3, there's a
12 screenshot of that prototype.

13 In the top left corner of that
14 screenshot, there's a box labeled "mode"
15 with two options; one is labeled "zoom" and
16 one is labeled "select."

17 So I believe, if I remember
18 correctly, that the way this Safari
19 prototype worked is, the primary mouse
20 button would do one thing if that zoom
21 button in the mode box were selected, and
22 the thing would be that the user could zoom
23 in to a group of photos.

24 And if, alternatively, the
25 select button were pressed, that same first

1 Benjamin B. Bederson, Ph.D.

2 or primary mouse button would not zoom,
3 but, rather, it would select a photo or
4 photos that the user clicked on or marquis
5 selected by dragging (inaudible).

6 (Reporter seeks clarification.)

7 A. Selected by -- I don't remember
8 exactly what I said before.

9 Q. You referenced in your answer a
10 primary mouse button.

11 What is your -- what does that
12 mean?

13 A. For right-handed users, a
14 primary mouse button is typically the left
15 button on a mouse, if it's a multi-button
16 mouse.

17 Q. Okay. So in the -- you -- you
18 reference -- you referenced in Figure 3 on
19 page 9 the mode portion of the page or the
20 graphical user interface here.

21 What does mode mean to you?

22 A. So in this case, as I had
23 mentioned, mode is a box that surrounds two
24 buttons, a zoom and select; and depending
25 on which of those buttons were chosen, the

1 Benjamin B. Bederson, Ph.D.

2 mouse would interact differently.

3 So in the Safari prototype, I
4 used the word mode to refer to what the
5 primary mouse button did, depending on
6 whether the zoom or select buttons were --
7 were pressed.

8 Q. And how does the mouse button,
9 depending on which mode one was in, affect
10 the graphical user interface, if at all?

11 A. I think I explained that in an
12 earlier answer. But if a user had pressed
13 the zoom button, as is indicated in Figure
14 3, so the little circle next to the zoom
15 button is marked, then, when the user
16 clicks on the image portion of the user
17 interface, the user face would zoom in
18 around the area that the user had clicked.

19 In this case, there's a red
20 rectangle with bolded corners, and when the
21 user clicked in this -- when the zoom
22 button had been pressed, the portion of the
23 screen highlighted by that red rectangle
24 would get zoomed in, so that red -- so that
25 portion of the screen, including those

1 Benjamin B. Bederson, Ph.D.
2 thumbnail images, would be -- would fill
3 the image portion of the user interface.

4 If, on the other hand, the user
5 had pressed the select button, then,
6 instead of zooming when the user clicks, it
7 would select images based on where the user
8 clicked.

9 Q. Okay. So if zoom mode is
10 selected, then the graphical user interface
11 operates in zoom mode, I suppose, and if
12 select mode is selected, then the graphical
13 user interface operates in select mode,
14 based on your testimony there?

15 A. I think, in this paper, I
16 referred to the user interface operating in
17 either selection mode or zoom mode. I see
18 that in the paragraph we had discussed on
19 page 20.

20 And so, yes, if the user
21 interface was in zoom mode, because the
22 user had pressed the zoom button, then the
23 mouse would cause -- using the mouse in the
24 main area of the user interface would cause
25 the interface to zoom, and if the user

1 Benjamin B. Bederson, Ph.D.
2 interface were in selection mode, because
3 the user had pressed the select button
4 within that mode box, then the user
5 interface would react to the user using the
6 mouse by selecting images.

7 Q. Okay. Thank you.

8 The paper we've been
9 discussing, Exhibit 1012, also references
10 the term "clustering."

11 Do you recall that?

12 Do you want me to guide you?

13 A. Sure.

14 Q. For example, on page 8,
15 right-hand column, there's a reference to
16 two granularity options for event
17 clustering.

18 So my question was -- well, the
19 question is, what do you mean by
20 clustering?

21 A. So again, referring to Figure 3
22 on page 9, the photos were organized in
23 groups, which can be seen in this figure.

24 Each group is a group of
25 thumbnails that are in the same rectangular

1 Benjamin B. Bederson, Ph.D.
2 region surrounded by a gray or orange box.

3 So I describe this in the
4 caption of Figure 3 where I say that
5 "photos in a collection are organized in a
6 2D zoomable space, grouped by the
7 hierarchical event identification
8 algorithm."

9 So that grouping is how I
10 described the result of the clustering.

11 So on page 8, where I describe
12 that Safari provides two granularity
13 options for event clustering, fine and
14 regular, I'm describing that the algorithm
15 can automatically process content and
16 metadata of the photos and group them
17 together, or cluster them; and then the
18 result of that clustering algorithm is
19 represented in the graphical user
20 interface, as shown in Figure 3.

21 So the text particularly refers
22 to fine and regular event clustering, and
23 that is reflected in the graphical user
24 interface that can be seen in Figure 3.

25 So just above the portion of

1 Benjamin B. Bederson, Ph.D.
2 the user interface with images are a number
3 of tabs. Reading from left to right, it
4 is -- they are event, and then in
5 parentheses fine, then event parentheses
6 regular, and month, year, directory,
7 people, parentheses clothing, and then
8 column directory, column daily, and trip.

9 So each of those tabs are --
10 represent different ways to cluster the
11 photos. And the first two, event fine and
12 event regular, are the user interface
13 elements that let a user change the
14 grouping based upon the fine and regular
15 event clustering mentioned in the text.

16 Q. Thank you.

17 I have handed you what's been
18 marked as Exhibit 1001.

19 Do you recognize this document?

20 A. I do.

21 Q. It's the '848 patent, correct?

22 A. It is the U.S. patent number
23 10,176,848 that I think I usually describe
24 as the '848 patent in my declaration.

25 Q. Thank you.

1 Benjamin B. Bederson, Ph.D.

2 If you could turn to paragraph
3 9, starting at line 20 of the '848 patent.

4 The '848 patent discusses a
5 standard reproducing mode, an express
6 reproducing mode, and a super express
7 reproducing mode; is that right?

8 A. This column starting -- well,
9 really, a column at line 10 describing
10 Figure 9 and going through the -- most of
11 the rest of the column, describes an
12 example, the chapter structure, that
13 includes standard reproducing mode and
14 express reproducing mode and a super
15 express reproducing mode.

16 Q. Okay. And the standard
17 reproducing mode reproduces all chapters,
18 regardless of the priority level.

19 Is that your understanding?

20 A. Yes, that's right.

21 Q. And the express reproducing
22 mode reproduces only the chapters having
23 the importance levels 1 to 3.

24 Is that your understanding?

25 A. I believe that's right. That's

1 Benjamin B. Bederson, Ph.D.

2 what's described in this example.

3 Q. Then, finally, the super
4 express reproducing mode reproduces only
5 the chapters having importance level 1.

6 Is that your understanding?

7 A. That's what's described in this
8 example.

9 Q. Okay. And the system described
10 in the '848 patent operates in whichever
11 mode to which it's been switched.

12 Is that your understanding?

13 MR. ELLISON: Objection to
14 form.

15 A. This column describes that the
16 user can select each of these three modes.

17 Q. Right. And when the user
18 selects one of those three modes, does the
19 system operate in whichever mode the user
20 selected?

21 MR. ELLISON: Object to the
22 form.

23 A. I don't recall the '848 patent
24 giving a lot of detailed description of
25 many of the details of how the graphical

1 Benjamin B. Bederson, Ph.D.

2 user interface is set up.

3 What I do see in this column 9
4 is that a user can start reproducing by
5 selecting one of those three reproducing
6 modes.

7 Q. Well, the user selects one of
8 those modes and then the system operates to
9 reproduce; is that right? The user isn't
10 reproducing.

11 Strike that. Let me re-ask the
12 question.

13 The user selects one of the
14 three modes and then the system operates to
15 reproduce.

16 Is that your understanding?

17 A. My hesitation with your
18 characteristic is that the system starts
19 reproducing when the user selects?

20 I don't know that the user
21 wasn't reproducing before the user did the
22 selection.

23 But what I can say is that I
24 think it's right that the system is doing
25 the reproducing of the chapters, and which

1 Benjamin B. Bederson, Ph.D.
2 chapters are reproduced depends on which of
3 these, in this example, three modes the
4 user has selected.

5 Q. If you could take a look at
6 column 10, starting at line 9. It says:
7 "Namely, as a reproducing operation start
8 command is input after the 'standard
9 reproducing mode', 'express reproducing
10 mode' or 'super express reproducing mode'
11 is selected, the system controller 5 starts
12 the chapter select reproducing process to
13 first read the chapter management
14 information of the object scene from a
15 corresponding hard disc drive 2 or DVD 3
16 (Step SP20)."

17 Do you see that?

18 A. I see that.

19 Q. And do you read that -- well,
20 in this paragraph, the '848 is describing a
21 start command is input, and you take that
22 to mean a user selection -- strike that.
23 Let me re-ask the question. It's probably
24 a little clearer here.

25 You see the start command is

1 Benjamin B. Bederson, Ph.D.

2 input.

3 Do you take that to mean a
4 selection of the reproducing?

5 A. I don't think so. It looks
6 like the start command is input after the
7 reproducing mode is selected.

8 Q. Okay. So the reproducing mode
9 is selected and then a start command is
10 input?

11 A. That appears to be what the
12 sentence is describing.

13 Q. And then the system controller
14 starts the chapter select reproducing
15 process?

16 A. Well, reading this language,
17 it's not completely clear, because it says
18 as a reproducing operation start command is
19 input, after the reproducing mode
20 selection, the system controller starts the
21 chapter select reproducing process.

22 So it says, as the start
23 command is input, the system controller
24 starts.

25 So it's not completely clear to

1 Benjamin B. Bederson, Ph.D.

2 me what the temporal implication of that
3 word "as" is.

4 Q. I guess maybe we can agree on
5 that.

6 The system controller is
7 executing the reproducing process, as
8 described in this paragraph, correct?

9 A. Well, it says the system
10 controller starts that reproducing process.
11 I'm not sure that it says what is executing
12 that reproducing process.

13 Q. I'm not trying to be tricky
14 here.

15 But if you look on line 6, it
16 says the system controller 5 executes the
17 chapter's select reproducing process?

18 A. All right. Thank you. I agree
19 it does. It starts it and executes it.

20 Q. I have handed you what's been
21 marked as Exhibit 1006.

22 Do you recognize Exhibit 1006?

23 A. Yes. This is the Nozaki prior
24 art reference that I relied upon.

25 Q. If you could turn to paragraph

1 Benjamin B. Bederson, Ph.D.

2 62 of Exhibit 1006. And here, would you
3 agree that Nozaki describes a face
4 registration mode, which is a type of
5 shooting mode with which a user can shoot
6 the face of a registered person to generate
7 face-recognizing data?

8 A. Yes, that's right.

9 Q. And if you turn to paragraph
10 84, Nozaki describes a face-recognizing
11 shooting mode, which is a shooting mode in
12 which an electronic camera performs a
13 predetermined control to acquire shooting
14 image data where a specified registered
15 person is present on a shooting screen.

16 Would you agree Nozaki
17 discloses that?

18 A. Yes, I see that.

19 Q. So would you agree that Nozaki
20 differentiates between face registration
21 mode and the face-recognizing shooting
22 mode?

23 A. I think that's right.

24 Q. Is it your understanding that
25 the face-recognizing shooting mode is a

1 Benjamin B. Bederson, Ph.D.
2 type of mode that performs a different
3 function than the face registration mode?

4 MR. ELLISON: Objection to
5 form.

6 A. Well, I think each of these
7 modes have a number of components or
8 actions or functions, and some of those are
9 shared.

10 So some functions appear or
11 occur in both of those modes. But I do
12 agree that they are distinguished flow
13 charts over all sets of actions or
14 functions.

15 Q. If you can take a look at
16 figures -- well, Figure 3. Figures 3(a)
17 and 3(b) depict an example of a mode
18 selection screen displayed by the liquid
19 crystal monitor 24 of an electric --
20 electronic camera.

21 Is that your understanding?

22 A. Can you repeat the question,
23 please?

24 Q. Yeah.

25 Figures 3(a) and (b) depict an

1 Benjamin B. Bederson, Ph.D.
2 example of a mode selection screen
3 displayed on the liquid crystal monitor 24
4 of an electronic camera?

5 A. That's right.

6 Q. If you could turn to paragraph
7 63. This is a paragraph that's discussing
8 the face registration mode.

9 Paragraph 63, the second
10 sentence says: "Thereby, the CPU 26
11 displays the mode selection screen
12 (referred to 3(a)) on the liquid crystal
13 monitor 24. Then, the user operates a
14 selection frame on the mode selection
15 screen by using the operating number 23,
16 thereby designating the CPU 26 to actuate a
17 'face registration mode.' Accordingly, the
18 CPU 26 starts to conduct a series of
19 operations in the face registration mode."

20 Do you see that?

21 A. I do.

22 Q. Is that your understanding of
23 how the face registration mode in Nozaki
24 operates?

25 MR. ELLISON: Objection to

1 Benjamin B. Bederson, Ph.D.

2 form.

3 A. Well, this is one portion of a
4 description of one way that
5 face-recognizing mode operates. I think it
6 has different ways of operating. That's at
7 least part of the description of one way.

8 Q. You referenced face-recognizing
9 mode.

10 Did you mean face registration
11 mode?

12 A. I'm not sure what you're
13 referring to.

14 Q. In your answer, you reference
15 face-recognizing mode.

16 A. Yes, I meant to say face
17 registration mode. Thank you.

18 Q. Okay. And when you reference
19 the other ways of operating, are you
20 referring to the subsequent paragraphs in
21 the face registration mode section here of
22 Nozaki?

23 A. So I was referring to the fact
24 that, in the subsequent paragraphs, there
25 are variations in the way the face

1 Benjamin B. Bederson, Ph.D.

2 registration mode operates.

3 For example, some of the
4 operations can happen immediately and some
5 of them can be deferred until later.

6 Q. Okay. Is it fair to say in
7 those paragraphs, when face registration
8 mode is selected on the mode selection
9 screen, it's the CPU 26 that's operating in
10 face registration mode?

11 A. I do see that it describes the
12 CPU 26 as displaying the screen and
13 generating a group folder. There may be
14 other components of the system involved;
15 but certainly, the CPU 26 is involved.

16 Q. Let's take a look at paragraph
17 85, which is in the face-recognizing
18 shooting mode section.

19 In the second sentence of
20 paragraph 85, it says: "Thereby, the CPU
21 26 displays the mode selection screen on
22 the liquid crystal monitor 24. Then, the
23 user operates a selection frame on the mode
24 selection screen by using the operating
25 number 23 and designates the CPU 26 to

1 Benjamin B. Bederson, Ph.D.
2 actuate the 'face recognizing shooting
3 mode'. Thereby, the CPU 26 starts a series
4 of operations in the 'face recognizing
5 shooting mode'."

6 Do you see that portion of
7 Nozaki?

8 A. I do.

9 Q. Okay. So when the
10 face-recognizing shooting mode is selected
11 on the mode selection screen, do you agree
12 that the CPU 26 operates in
13 face-recognizing shooting mode?

14 A. There may be other components
15 of the system that are also operating, but
16 I agree that the CPU 26 is operating, at
17 least in part, to support the
18 face-recognizing shooting mode.

19 Q. Right. The CPU 26 actuates the
20 face-recognizing shooting mode, according
21 to Nozaki; is that right?

22 A. That's right.

23 Q. Depending on which mode is
24 selected in Nozaki, are different
25 processing operations performed by the CPU

1 Benjamin B. Bederson, Ph.D.

2 26?

3 MR. ELLISON: Objection to
4 form.

5 A. Well, certainly, some
6 operations are related. I think there are
7 probably some operations that are the same
8 and some that are probably different.

9 Actually, I just want to make
10 sure I clarify my answer because, as I
11 think about it, I'm not completely sure I
12 understood your question.

13 Were you asking me to
14 distinguish the face-recognizing shooting
15 mode from something else? I'm not sure
16 what I was actually distinguishing it from;
17 so, maybe to make sure I give you the right
18 answer, you can re-ask the question?

19 Q. Sure. Maybe I'll ask it a
20 little more specifically.

21 Depending on which mode is
22 selected as between the face-recognizing
23 shooting mode and the face registration
24 mode, are there different processing
25 operations performed by the CPU 26,

1 Benjamin B. Bederson, Ph.D.

2 depending on which of those modes is
3 selected?

4 A. I think a person of skill in
5 the art, reading this disclosure, would
6 expect that there are some operations that
7 are the same in these two different modes
8 and some that are different.

9 Q. I'm handing you what's been
10 marked as Exhibit 1008.

11 Do you recognize this document?

12 A. I do. It is the prior art
13 Graham reference that I considered in my
14 declaration.

15 Q. You utilized Graham in
16 connection with your analysis for ground 2;
17 is that right?

18 A. I would have to see my
19 declaration to tell you which grounds I
20 used Graham for, but it might be ground 2.

21 Q. Okay. So much matters for
22 these questions.

23 Would you agree that Graham
24 discloses a graphical user interface?

25 A. Yes, I believe it does.

1 Benjamin B. Bederson, Ph.D.

2 Q. That's graphical user interface
3 300 in Graham, correct?

4 A. I think element 300 in Figure 3
5 is at least one disclosure of the graphical
6 user interface in Graham.

7 Q. Yeah, fair enough. There's
8 graphical user interface 2000 in other
9 figures; we agree.

10 Take a look at paragraph 249,
11 please. And 249 states: "According to an
12 embodiment of the present invention, GUI
13 300 may operate in two modes, a full update
14 mode and a partial update mode. The user
15 of the GUI may select the operation mode of
16 the GUI."

17 Do you see that?

18 A. I do.

19 Q. Do you agree that Graham
20 discloses two modes, a full update mode and
21 a partial update mode?

22 A. I agree, Graham does disclose
23 those two modes.

24 Q. Okay. In paragraph 250, it
25 describes the full update mode. It states:

1 Benjamin B. Bederson, Ph.D.

2 "When GUI 300 is operating in 'full update'
3 mode, the positions of thumbnail viewing
4 area lens 314 and panel viewing area lens
5 322 are automatically updated to reflect
6 the position of the video played back in
7 area 340-1, of fourth viewing area 308."

8 Do you see that?

9 A. Yes.

10 Q. Does paragraph 250 describe
11 Graham when it's operating in full update
12 mode?

13 MR. ELLISON: Objection to
14 form.

15 A. It looks like paragraph 250
16 describes at least -- or that's at least
17 one portion of a description of the
18 graphical user interface 300 when it is
19 operating in full update mode.

20 Q. Okay. And likewise, does
21 paragraph 251 describe when graphical user
22 interface 300 is operating in partial
23 update mode?

24 A. Paragraph 251 is at least one
25 portion of a description of graphical user

1 Benjamin B. Bederson, Ph.D.
2 interface 300 operating in partial update
3 mode.

4 Q. So Graham -- does Graham teach
5 that GUI 300 operates in whichever mode
6 it's been switched to, whether that be full
7 update mode or partial update mode?

8 MR. ELLISON: Objection to
9 form.

10 A. Well, paragraph 249 does
11 describe that GUI 300 may operate, I would
12 say, in at least two modes, it describes
13 two of them, and it explains that the user
14 of the GUI may select the operation mode of
15 the GUI.

16 So I think the user can select
17 at least one of those two modes, and at
18 least some portion of the operation of the
19 GUI will operate, depending on which mode
20 is selected.

21 Q. I have handed you what's been
22 marked as Exhibit 1007.

23 Do you recognize this exhibit?

24 A. I do. It is the Haitani
25 reference that I considered in my analysis.

1 Benjamin B. Bederson, Ph.D.

2 Q. Okay. If you could turn to
3 Haitani at column 18, line 59. This is
4 where Haitani refers to a review mode where
5 the portable device will organize the
6 images into a virtual album; is that
7 correct?

8 A. I see that.

9 Q. If you go down to column 20,
10 line 64, this is Example 10 in Haitani; is
11 that right?

12 A. I see that.

13 Q. And the second sentence says:
14 "In a review mode that allows a user to
15 review pictures, the portable device
16 includes a scrollable array of thumbnails.
17 The review mode also displays time and
18 location filter menus that allow a user to
19 filter through the images stored by the
20 portable device."

21 Do you see that?

22 A. I do.

23 Q. Another reference to review
24 mode would be at column 21, line 22; for
25 example, in Example 12. The second line:

1 Benjamin B. Bederson, Ph.D.

2 "In a review mode, the portable device
3 allows the user to create one or more
4 virtual photo albums that use a filter
5 relating to individuals identified in the
6 images."

7 Do you see that?

8 A. I do.

9 Q. Would you agree that Haitani
10 discloses various other modes in its
11 specification?

12 MR. ELLISON: Objection to
13 form.

14 A. It may. I'm not recalling any
15 specific disclosures of other modes right
16 now --

17 Q. Sure.

18 A. -- off the top of my head.

19 Q. Take a look at column 29, line
20 61, please. At that section, Haitani
21 describes: "Device 10 may be arranged to
22 operate in one or more position
23 determination modes including, for example,
24 a standalone mode, a mobile station (MS)
25 assisted mode, and/or a MS-based mode."

1 Benjamin B. Bederson, Ph.D.

2 Do you see that?

3 A. I do.

4 Q. Do you agree that Haitani
5 discloses a standalone mode?

6 A. Yes, it does.

7 Q. And Haitani also describes a
8 mobile station-assisted mode?

9 A. Yes, it does.

10 Q. And, similarly, Haitani
11 discloses an MS-based mode?

12 A. Yes, it does.

13 Q. And these various modes
14 disclosed in Haitani describe various ways
15 device 10 operates, depending on which mode
16 is selected.

17 Do you agree?

18 A. Haitani describes that device
19 10 can operate in at least these three
20 modes, depending on how the device has been
21 arranged.

22 Q. Go back to column 23, line 14,
23 which is under Example 22 in Haitani.

24 Would you agree that Haitani
25 describes a camera mode as well?

1 Benjamin B. Bederson, Ph.D.

2 A. Yes, it does.

3 Q. And a camera mode is described
4 as where the device obtains location name
5 information for the area in which the
6 device is located from a remote database
7 using a cellular transceiver.

8 Is that your understanding?

9 MR. ELLISON: Objection to
10 form.

11 A. Haitani does say that when the
12 device is in a camera mode, the device
13 obtains the various information, such as
14 the information you described.

15 Q. Okay. If you can turn to
16 column 34, line 9. Column 34, line 9
17 through 17, thereabouts.

18 A. Okay.

19 Q. In this -- this paragraph,
20 Haitani describes switching a smartphone
21 from one mode to another, such as switching
22 from a normal ringer mode to a meeting
23 ringer mode and a normal phone mode and a
24 speakerphone mode.

25 Would you agree with that?

1 Benjamin B. Bederson, Ph.D.

2 A. I see in this section it does
3 describe switching from a normal ringer
4 mode to a meeting ringer mode.

5 Q. Okay. So Haitani's disclosing
6 the ability to switch the handheld portable
7 computing device 600 from one mode to
8 another mode?

9 A. Yes, it does. In this case,
10 specifically, a mode related to how the
11 ringer works based on the ringer switch.

12 Q. Okay. Now, Haitani
13 additionally describes filters; is that
14 right?

15 A. I think generally it does.

16 Q. More specifically, Haitani
17 describes filtered search features?

18 A. I think Haitani describes
19 filters working in a range of ways. I
20 don't remember specifically if it refers to
21 them as filtered search features, but it
22 may.

23 Q. One of the places Haitani
24 discloses different filters is when the
25 device is operating in review mode, as

1 Benjamin B. Bederson, Ph.D.

2 shown in Figures 5 through 9.

3 Would you agree with that?

4 A. In the description of Figure 5,
5 the section described as Example 10 that I
6 think we've already looked at, starting in
7 column 20, line 63, going on to column 21,
8 line 2, I do see that it describes Figure 5
9 in a review mode and that it describes time
10 and location filter menus that allow a user
11 to filter through the images stored by the
12 portable device.

13 I will say, generally,
14 filtering is also described in Figure 3, at
15 216, and from there can progress to
16 Box 242, which then can display images,
17 which is also described throughout the
18 patent.

19 Q. Okay. In a computer context,
20 what's -- what's your understanding of what
21 filter means?

22 MR. ELLISON: Objection to
23 form.

24 A. Well, Haitani describes its use
25 of filtering, in part, starting in column

1 Benjamin B. Bederson, Ph.D.
2 10, line 61, where it says: "If large
3 numbers of image files exist, device 10 may
4 include ways to reduce the number of files
5 through which a user needs to sort to
6 select an image for sharing, viewing, or
7 taking other actions. This may include
8 filtering images 246 using generated
9 filters 244, pre-configured filters, user
10 entered filters, or some other type of
11 filter. The filters may relate to any
12 information such as any one or combination
13 of the non-image data discussed above which
14 may be associated with an image file. As
15 shown in Figures 5 through 9, a pair of
16 filters may include a location filter and a
17 time filter."

18 So, at least in these examples,
19 or this disclosure, it describes starting
20 with a large number of image files and then
21 using filters such as, for example,
22 location or time filters, which then reduce
23 the number of images displayed based on
24 that filter.

25 Q. Okay. So a filter would be a

1 Benjamin B. Bederson, Ph.D.

2 process that selects, or selectively,
3 passes or separates data?

4 MR. ELLISON: Objection to
5 form.

6 A. I think, generally, the word
7 filter is used in many different ways in
8 the computer science, but in Haitani, at
9 least in this example, it's used to take a
10 larger number of image files and display
11 only those image -- images that meet
12 certain requirements, depending on what
13 filter is selected.

14 Q. So outside the context of
15 Haitani, and just in the context of you as
16 a computer scientist, what's your
17 understanding of what a filter is?

18 A. As I said, I think it's a
19 pretty broad word that can be used in many
20 different ways and depending on the
21 context.

22 I don't have a specific
23 definition to offer you.

24 Q. I mean, we're not talking
25 about, like, band pass filters here, right,

1 Benjamin B. Bederson, Ph.D.
2 in the electrical engineering context;
3 these are different types of filters in the
4 computer context?

5 MR. ELLISON: Objection to
6 form.

7 A. I don't think I understand your
8 question, because, as I said, I think
9 filtering is a broad word that can be used
10 in many different ways.

11 So I -- to even answer that
12 question, I would need a precise definition
13 of what you mean by computing context.

14 Q. Okay.

15 A. I just don't have that.

16 Q. Would you agree with a
17 definition of filter that states: "A
18 filter is something that separates data or
19 signals in accordance with specified
20 criteria"?

21 MR. ELLISON: Objection to
22 form.

23 A. I haven't offered a
24 construction of the word filter, and I
25 haven't thought about it enough to offer or

1 Benjamin B. Bederson, Ph.D.

2 even confirm a specific definition for you,
3 sitting here today.

4 Q. So sitting here today, you
5 can't tell me that the definition I offered
6 you conforms with your understanding of
7 what a filter is, in the computer context?

8 A. Let's be clear. I think that's
9 different than the previous question.

10 The previous question, you were
11 asking me to confirm that definition.

12 What I can tell you is
13 whether -- is what Haitani's filters
14 describe, and it starts with a larger
15 number of images; you apply a filter, and
16 that results in displaying a smaller number
17 of images based on the specific filter.

18 So it sounds like Haitani's use
19 of the word filter may be consistent with
20 the definition you suggested.

21 Q. We'll go for, like, five more
22 minutes, and then we can take a break, if
23 that's okay.

24 If you can refer to Figure 5 of
25 Haitani, please. Figure 5 shows the

1 Benjamin B. Bederson, Ph.D.
2 pictures and videos interface of Haitani's
3 GUI; is that correct?

4 MR. ELLISON: Objection to
5 form.

6 A. So I think Figure 5 shows at
7 least one example of a graphical user
8 interface of Haitani showing images and
9 videos.

10 Q. And I think we discussed this
11 earlier.

12 But Figure 5, Haitani describes
13 a device operating in review mode?

14 Is that your understanding?

15 A. I think I describe that in --
16 regarding Example 10 with column 20,
17 starting at line 63.

18 Q. And Figures 6 through 9 of
19 Haitani show the same pictures and videos
20 interface.

21 Is that your understanding?

22 MR. ELLISON: Objection to
23 form.

24 A. Haitani describes Figures 5
25 through 9 in column 1, starting at line 61,

1 Benjamin B. Bederson, Ph.D.
2 where it says they are "screen shots of a
3 filter and image display function according
4 t" -- I think that means to "one
5 embodiment, which may be used with the
6 system of Figure 1."

7 So they appear to be variations
8 of a graphical user interface that all
9 support filtering and the image display
10 function.

11 Q. And Haitani also describes
12 Figures 6 through 9 as operating in review
13 mode; is that correct?

14 A. I don't remember if it
15 describes each of them operating in review
16 mode. It may.

17 Q. So for example, take a look at
18 column 22, line 41 through 51; this is
19 Example 19, and it references Figure 6.

20 Do you see that?

21 A. I see that.

22 Q. And the first line in that
23 example says: "A system works as discussed
24 above in Example 10."

25 Is that correct?

1 Benjamin B. Bederson, Ph.D.

2 A. Yes, it does.

3 Q. And Example 10 describes the
4 portable device in review mode, correct?

5 A. Yes, it does.

6 Q. So would you agree that Haitani
7 discloses that Figure 6 is also
8 representing the system operating in review
9 mode?

10 A. That appears to.

11 Q. If you could take a look at
12 column 22, line 23, Example 17, which spans
13 from line 23 to 29.

14 Do you see this is in relation
15 to Figure 7 of Haitani?

16 A. I see that.

17 Q. And the first line says: "A
18 system works as discussed above in Example
19 10."

20 Do you see that?

21 A. I do.

22 Q. Would you agree that Haitani
23 discloses that Figure 7 is also
24 representing the system operating in review
25 mode?

1 Benjamin B. Bederson, Ph.D.

2 A. That appears to.

3 Q. Take a look at the top of the
4 column, column 22, lines 3 through 9.

5 Do you see this is in relation
6 to Figure 8 of Haitani?

7 A. I see that.

8 Q. And the first line states: "A
9 system works as discussed above in Example
10 10."

11 Do you see that?

12 A. I do.

13 Q. Would you agree that Haitani
14 discloses that Figure 8 is also
15 representing the system operating in review
16 mode?

17 A. I think that's right.

18 Q. Okay. And finally, take a look
19 at column 23, 34 through 40.

20 Would you agree this is in
21 relation to Haitani Figure 9?

22 A. Yes, it is.

23 Q. The first line states: "A
24 system works as discussed above in Example
25 10."

1 Benjamin B. Bederson, Ph.D.

2 Do you see that?

3 A. I do.

4 Q. Would you agree that Haitani
5 discloses that Figure 9 is also
6 representing the system that is operating
7 in review mode?

8 A. Yes, I think that's right.

9 Q. If you look at Figures 5
10 through 9, collectively.

11 Would it appear to you that all
12 the pictures that you can see in Figures 5
13 through 9 are in the same location or
14 folder?

15 MR. ELLISON: Objection to
16 form.

17 A. I think the way a person of
18 skill in the art would understand this
19 figure is that these -- it includes the 12
20 displayed thumbnails, as well as,
21 presumably, many more that are scrolled off
22 the page.

23 And I think the person reading
24 this would understand that these 12
25 thumbnails are the first 12, as I said, of

1 Benjamin B. Bederson, Ph.D.

2 many, and so that these figures start off
3 by describing a large collection of images,
4 and then, as you filter them by location or
5 time, the number of displayed images would
6 decrease.

7 So Figure 5, which starts off
8 with images of any place and any time, I
9 think, would be understood by a person
10 reading this -- a person of skill in the
11 art reading this to see that it discloses
12 images from many places and many times.

13 And then in the subsequent
14 figures, as you filter to specific places
15 and times, it would display fewer thumbnail
16 images, corresponding to the selected
17 filter location and time.

18 Q. So as the filters filter down,
19 so to speak, the number of photos, would
20 those be, nonetheless, still within the
21 same location like the pictures and videos
22 interface that Haitani describes?

23 A. I may not be understanding your
24 use of the word location, because, in my
25 answer, I think I was referring to the

1 Benjamin B. Bederson, Ph.D.
2 filtered location, such as any place;
3 California, France, or Fredonia, New York.

4 But is that what you're
5 referring to by location, or are you
6 referring to the position on the screen --

7 Q. The position of the --

8 A. -- or something else?

9 Q. I was referring to the position
10 of the photos on the screen or within the
11 interface pictures and videos, as described
12 in Haitani.

13 So with that understanding, as
14 you -- as you filter down the number of
15 photos, would those photos be, nonetheless,
16 still within the same pictures and videos
17 interface as Haitani describes?

18 A. I think a person of skill in
19 the art, looking at Figures 5 through 9,
20 would expect that which thumbnails that are
21 displayed would change, so there would be
22 fewer of them, and the position on the
23 screen that they are displayed in would be
24 in a similar position on the screen.

25 I think this would probably be

1 Benjamin B. Bederson, Ph.D.
2 expected to be a scrolling or scrollable
3 user interface, so you might have,
4 conceptually, a very long list of
5 thumbnails, even though perhaps 12 of them
6 are displayed at a time that you could
7 scroll through, and, as you filter, there
8 would be fewer thumbnails available, and so
9 you would be able to scroll through fewer
10 of them in the same position on the screen.

11 Q. Okay. I'm probably not asking
12 my question properly, so let me try again.

13 So -- and maybe I'll try with a
14 hypothetical in the context of Haitani.

15 So the pictures and videos, is
16 that fair to characterize as, like, a
17 folder? Like, pictures and videos would
18 include a collection of photos and videos?

19 MR. ELLISON: Objection to
20 form.

21 A. I actually don't remember how
22 Haitani describes the source of these
23 pictures and videos. It might be a folder
24 or collection. I would just have to look
25 to see specifically how Haitani describes

1 Benjamin B. Bederson, Ph.D.
2 where they originate from within the
3 system.

4 MR. PLUTA: Let's take a break.

5 (Whereupon, a recess was
6 taken.)

7 BY MR. PLUTA:

8 Q. All right. I've handed you
9 what's marked as Exhibit 1005, which I
10 think you will recognize as your
11 declaration in this proceeding?

12 A. Yes, it appears to be.

13 Q. I would like to turn your
14 attention to paragraphs 95 through 99. In
15 general, those paragraphs set forth your
16 opinions with respect to Claim Element
17 11(a), correct?

18 A. Yes, that's right.

19 Q. 11(a) includes a reproducing
20 mode set from one of a first reproducing
21 mode and a second reproducing mode.

22 Would you agree with that?

23 A. Yes, limitation 11(a) does
24 include that language.

25 Q. In paragraph 95, the last

1 Benjamin B. Bederson, Ph.D.
2 sentence -- well, the last substantive
3 sentence of that paragraph, it says: "For
4 example, the filtered search of Haitani
5 resembles the 'standard reproducing mode'
6 and 'express reproducing mode' disclosures
7 of the '848 patent."

8 Do you see that?

9 A. I do.

10 Q. And that's still your opinion
11 today?

12 A. Yes.

13 Q. Okay. Would you agree that
14 Haitani distinguishes between filters and
15 modes?

16 A. I think that's right in that it
17 describes the graphical user interface,
18 including both filters and using modes.

19 Q. Does the filter and the search
20 feature in Haitani separate data based on
21 user input?

22 MR. ELLISON: Objection to
23 form.

24 A. I'm not sure what you mean by
25 separate data. I think, as I described

1 Benjamin B. Bederson, Ph.D.
2 earlier, Haitani describes the filtering to
3 reduce the number of images that can be
4 viewed.

5 Q. Okay. So would you -- does the
6 filtering search feature in Haitani reduce
7 data based on user input?

8 A. Well, it reduces the number of
9 files that can be viewed. That's at least
10 one way it describes its filtering.

11 Q. Okay. And by reducing the
12 number of files that can be viewed, you're
13 reducing the data that's presented to the
14 user; is that fair?

15 A. I'm not sure exactly what you
16 mean by reducing the data. As I said, it
17 does reduce the number of files that are
18 viewed.

19 Q. Let's take a look at paragraph
20 100 of your declaration, which is, I
21 believe, your opinion with respect to Claim
22 Element 11(b).

23 About halfway down that
24 paragraph, you state: "A POSITA would have
25 understood that the reproducing time for

1 Benjamin B. Bederson, Ph.D.
2 the first mode (i.e., a 'narrower' search
3 that combines multiple filters) would be
4 shorter than a reproducing time for a
5 second mode (i.e., a 'broad' search that
6 uses a single filter) as this limitation
7 recites, because the first mode reproduces
8 fewer image/video files than the second
9 mode, and search results that generate
10 fewer image/video files will encompass a
11 shorter 'reproducing time' than search
12 results that generate a larger number of
13 image/video files."

14 Is that your opinion?

15 A. Yes, it is.

16 Q. So in this paragraph, you're
17 characterizing the first mode as a narrower
18 search; is that right?

19 Let me rephrase that question.

20 You're characterizing the first
21 mode as a mode that performs a narrower
22 search?

23 A. That's certainly an example of
24 how the first mode works, or can work.

25 Q. Can the first mode also perform

1 Benjamin B. Bederson, Ph.D.

2 a broad search?

3 A. Well, the requirement in
4 limitation 11(b) is that the reproducing
5 time in the first mode is shorter than the
6 reproducing time for the second mode. And
7 I explained that performing a narrower
8 search, as disclosed in Haitani, that
9 displays fewer items, would result in a
10 shorter reproducing time.

11 Q. Okay. But that first mode that
12 you identify, you testified that the
13 narrower search of the first mode is
14 certainly an example of how the first mode
15 works, or can work.

16 So, to me, that suggests that
17 maybe it could work in other ways; is that
18 fair?

19 A. Well, the claim limitation, as
20 I said, is that the first mode has a
21 reproducing time that is shorter than the
22 reproducing time of the second mode. So
23 that's the requirement.

24 And I explained how I believe
25 Haitani meets that by performing a filtered

1 Benjamin B. Bederson, Ph.D.
2 search that results in fewer video image
3 items being displayed, which would
4 encompass a shorter reproducing time.

5 Q. You're relying on, as the first
6 mode, Haitani's narrow search -- strike
7 that.

8 You're relying on, as the first
9 mode, Haitani's filter that performs a
10 narrow search; is that right?

11 A. Yes, that's right.

12 Q. You're relying on, as a second
13 mode, Haitani's filter that performs a
14 broad search; is that correct?

15 A. Generally, that's right. So
16 for example, Haitani's Figure 5, when
17 there's no filtering at all, that you just
18 initially display this screen, that would
19 be an example of a broader search.

20 And then if you were to change
21 the place filter to New York, as disclosed
22 in Figure 9, that would be an example of a
23 narrower search.

24 Q. Does Haitani disclose any
25 evidence that demonstrate that one filter

1 Benjamin B. Bederson, Ph.D.

2 would be quicker than the other, when
3 applied?

4 MR. ELLISON: Objection to
5 form.

6 A. Well, my opinion is about
7 whether Haitani discloses a shorter or
8 longer reproducing time, and, for the
9 reasons I explained in my declaration, for
10 example, paragraph 100, I explained that a
11 person of skill in the art reading Haitani
12 would understand that when a narrower
13 filter was applied that displayed fewer
14 items, such as fewer videos, they -- POSITA
15 would understand that would result in a
16 shorter reproducing time than when many
17 more videos were displayed.

18 Q. Okay. But would you agree that
19 Haitani does not indicate any reproduction
20 speed of the filtering operations in the
21 specification or in the disclosure of
22 Haitani?

23 A. Well again, my opinion is about
24 how a person of skill in the art would
25 understand the disclose of Haitani, and I

1 Benjamin B. Bederson, Ph.D.
2 think a person of skill in the art would
3 understand many aspects of the reproducing
4 time would be shorter under a narrower
5 search. That would take less time to
6 display the thumbnail on the screens of
7 Figures 5 through 9, it would take less
8 time to play the videos.

9 So I think a person of skill in
10 the art reading Haitani would understand
11 those, that the shorter reproducing time is
12 disclosed.

13 Q. Okay. But there's nothing
14 expressed in Haitani to indicate the
15 reproduction speed of the filtering
16 operations; agreed?

17 MR. ELLISON: Objection to
18 form.

19 A. As I said, Haitani does
20 disclose displaying more or fewer image or
21 video files in this context. I think it
22 would be abundantly clear to a person of
23 skill that it takes more time to display
24 more items, but I don't recall if
25 Haitani or I don't recall a specific place

1 Benjamin B. Bederson, Ph.D.
2 where Haitani expressly says that it would
3 take more time to display more items.

4 Q. Let's take a look at paragraph
5 101, which I believe is your opinion
6 relating to limitation 11(c). 11(c)
7 states: "The image information reproduced
8 under the second mode includes the image
9 information reproduced under the first
10 reproducing mode and other of the image
11 information not reproduced under the first
12 reproducing mode."

13 Is that your understanding of
14 that limitation?

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

16 Q. And you characterize the second
17 reproducing mode as -- in this limitation
18 as the face-recognizing filter; is that
19 correct?

20 MR. ELLISON: Objection to
21 form.

22 A. As I said in my earlier answer
23 regarding Claim 11, my opinion is -- relies
24 on Haitani's general disclosures of the use
25 of filters, and there are many different

1 Benjamin B. Bederson, Ph.D.

2 particular filters that could be applied.

3 So you could have one filter
4 that is broader, and having a second filter
5 which would make it narrower, or you could
6 have no filter, for example, as in Figure
7 5, which would be an example of a broad
8 display, and then apply one filter, which
9 would make it narrower.

10 The use of the face-recognizing
11 data that I described in paragraph 101 was
12 clearly an example.

13 Q. So with respect to the second
14 mode, as described in paragraph 101, you're
15 not limiting yourself to a particular
16 filter; is that a correct understanding of
17 your opinion?

18 A. That's right.

19 Q. And similarly, in paragraph
20 101, with respect to the first mode, you're
21 not limiting yourself to a particular
22 filter in Haitani?

23 A. That's right. I was describing
24 specific filters as examples.

25 Q. Okay. In paragraph 101, you

1 Benjamin B. Bederson, Ph.D.

2 use, as an example of the second mode,
3 face-recognizing data; is that right?

4 A. Yes, that's right. As an
5 example, the second mode, face-recognizing
6 data, and then went on to describe the
7 narrower first mode as face-recognizing
8 data plus a date/time range.

9 Q. Okay. So could the first mode,
10 which you identify as comprising the
11 face-recognizing data, plus a date/time
12 range, comprise the entire universe of
13 face-recognizing images in the second mode?

14 MR. ELLISON: Objection to
15 form.

16 A. I'm not sure I understand your
17 question. Could you try again?

18 Q. I'll try it in a -- in a kind
19 of an exemplary way. So one mode you say
20 is the face-recognizing feature, right,
21 which presumably would show all the
22 pictures with face recognition and maybe
23 all of the same person; is that fair?

24 A. That would be one example.

25 Q. Okay. And then the other mode

1 Benjamin B. Bederson, Ph.D.
2 would be those recognized faces, and then
3 dates and time ranges associated with those
4 photos?

5 A. Right. So an example might be
6 a second mode that has all of the photos of
7 a particular person. The first mode might
8 be all the photos and videos of just that
9 person that I say I took last week, but
10 would not include pictures from before last
11 week.

12 So the second mode would be
13 broader, it would have all of the photos of
14 a particular person, that would be more.
15 And the first mode would be narrower,
16 because it would be a subset; it would be
17 only those photos of that person within the
18 last week or within a particular time
19 period.

20 Q. And that would be dependent
21 upon which particular photos are comprising
22 that dataset of photos, correct?

23 A. Yeah, for sure. Any particular
24 display or filter would be dependent on
25 what photos were in the dataset that were

1 Benjamin B. Bederson, Ph.D.

2 being played.

3 Q. But there could be a situation
4 where you've got, in the dataset of photos,
5 photos of one person, and you would filter
6 that same dataset by date and time, and it
7 could be the same dataset of all those
8 photos, correct?

9 For example, if all those
10 photos of that particular person were taken
11 on the same date?

12 A. Sure. I think that's right.
13 If you -- you can do any kind of filtering.
14 This is a general user interface. So you
15 could perform an additional filter that did
16 not change the set of photos or videos
17 displayed.

18 But then, on the other hand,
19 I'm looking at what Haitani teaches, and it
20 also teaches very clearly that you could
21 also perform an additional filter that
22 would change the set of photos and videos
23 to display so that there were fewer of
24 them.

25 That's a key motivation of

1 Benjamin B. Bederson, Ph.D.

2 Haitani and the description of how it
3 works.

4 Q. Okay. But there could be a
5 situation in Haitani's description where
6 there'd be complete overlap between the two
7 sets of images, even when applying a
8 particular filter?

9 A. Sure. I mean, there are all
10 kinds of degenerate cases. Like, maybe
11 I've never been to Italy and never taken
12 any pictures in Italy, but I had a filter
13 of -- to show only those pictures in Italy,
14 and there were none of them.

15 And then I said, now show me
16 the filters in Italy from last week, and
17 there's also none of them.

18 Q. Okay. Let's move on to
19 paragraphs 102 through 104, which is Claim
20 12, and specifically 12(a), paragraph 103,
21 describes your opinions with respect to
22 Claim Element 12(a), correct?

23 A. It does.

24 Q. And to dispense with reading
25 the limitation, would you agree that 12(a)

1 Benjamin B. Bederson, Ph.D.

2 adds a third reproducing mode to the first
3 and second reproducing modes from Claim 11?

4 A. Yes, it does.

5 Q. In your opinion, halfway down
6 paragraph 103, is that Haitani discloses
7 three search modes that use different
8 filters and that would generate different
9 sets of image/video files; is that correct?

10 A. Yes, that's right.

11 Q. And then you talk about a first
12 mode, a second mode and a third mode.

13 Am I correct to -- well, strike
14 that.

15 When you're discussing the
16 various modes in paragraph 103, similar to
17 your testimony with respect to Claim 11,
18 you're not limiting yourself to a
19 particular filter as applied to each
20 respective mode?

21 A. That's right. I'm relying on
22 Haitani's general use of filtering, and I
23 provide some examples of possible filters
24 that a person of skill in the art reading
25 Haitani would understand.

1 Benjamin B. Bederson, Ph.D.

2 Q. Okay. Let's look at paragraph
3 104. This is another limitation that talks
4 about the time for reproducing.

5 Is that a generalization of
6 that limitation?

7 A. It does include aspects about
8 the reproducing time.

9 Q. Okay. I'm sorry to jump back
10 and forth here. But in paragraph 103,
11 you -- you give an example. The first mode
12 uses face registration data as a filter; is
13 that correct?

14 A. I do give that as an example.

15 Q. And as an example, the second
16 mode, you state that it might add date and
17 time as an additional filter?

18 A. I do give that as an example.

19 Q. When you say it might add date
20 and time as an additional filter, is that
21 additive to the face registration data as a
22 filter?

23 A. Yes, that's right. So in this
24 example, you would -- second mode would
25 have face registration data and then also,

1 Benjamin B. Bederson, Ph.D.

2 additionally, a filter on date and time.

3 Q. I think I heard you --
4 wouldn't?

5 A. I'm sorry, would.

6 Q. Would.

7 And then the third mode would
8 have the face registration data as a
9 filter, the date and time as an additional
10 filter, and a location or events as an
11 additional filter?

12 A. Those are exemplary filters
13 that I provide in paragraph 103.

14 Can I just add something to
15 clarify my previous answer?

16 Q. The answer you just were
17 giving?

18 A. Yeah.

19 Q. Sure.

20 A. So in paragraph 103, when I
21 talk about these three modes and three
22 successive sets of filters that have
23 additional filtering, and I describe those
24 as the first mode, second mode and third
25 mode, those, I think, accurately describe

1 Benjamin B. Bederson, Ph.D.

2 my opinion as examples of filtering that
3 meet limitation 12(a).

4 And for limitation 12(b), where
5 it adds a specific requirement that the
6 third mode is longer, in my opinion in
7 paragraph 104, I explain that each of the
8 modes I've -- each of these filtering modes
9 could be -- generate broader or narrower
10 results.

11 The three modes I gave examples
12 for regarding limitation 12(a) would
13 actually have to be reversed to meet the
14 limitation 12(b).

15 So the longer one, the third
16 mode, would be only one filter, not all
17 three filters.

18 I just want to make it clear
19 that filters 1, 2 and 3 from 12(a) were
20 examples that met 12(a), but if you want to
21 use those same examples for 12(b), then the
22 third mode would have to apply to the
23 example where there was only one filter,
24 not all three filters.

25 Q. Okay. So in 12(a), you

1 Benjamin B. Bederson, Ph.D.
2 characterize the first mode as a face
3 registration data, but that would have to
4 be the third mode in element 12(b)?

5 A. If we wanted to use those
6 particular examples in 12(b), then, yes,
7 that's right.

8 MR. PLUTA: Okay.

9 I pass the witness.

10 EXAMINATION BY

11 MR. ELLISON:

12 Q. Dr. Bederson, can you please
13 retrieve Exhibit 1006, which is the Nozaki
14 reference.

15 Can you go to paragraph 62,
16 please, and let me know when you're there?

17 A. Okay.

18 Q. Do you recall being asked about
19 Nozaki's face registration mode?

20 A. I do.

21 Q. And do you recall testifying
22 during that questioning that, I quote:
23 "There are variations in the way that face
24 registration mode operates. For example,
25 some of the operations can happen

1 Benjamin B. Bederson, Ph.D.
2 immediately and some of them can be
3 deferred until later"?

4 A. Yes, I recall that.

5 Q. What did you mean by that?

6 MR. PLUTA: Object to form.

7 A. Well, for example, in paragraph
8 65, in the description of Operation S104,
9 Nozaki describes: "Where 'new' is selected
10 in S102, the CPU 26 generates a group
11 folder of a newly registered person (a
12 registered person to be shot this time) in
13 the face registration memory 27. Then, the
14 CPU 26 displays 'detailed information
15 screen of registered person' (refer to
16 Figure 5) on the liquid crystal monitor 24,
17 prompting a user to input information on
18 the 'name of registered person' and
19 'processing setting on face recognition'."

20 So that's one example of how
21 Nozaki operates.

22 But then if we continue to the
23 next paragraph, paragraph number 66, it
24 says: "In addition, a user is able to omit
25 the input of the 'name of registered

1 Benjamin B. Bederson, Ph.D.
2 person' and 'processing setting on face
3 recognition'. In this case, the user is
4 able to start up 'detailed information
5 screen of registered person' in Figure 5
6 from an item of editing in Figure 3(b) and
7 again input the information into the face
8 registration memory 27 later."

9 So that's an example of a
10 variation where the user can either enter
11 the registered person's name earlier in the
12 process, for example, in step S1 before, or
13 not until much later, by using Figure 3(b),
14 to use the edit button and then later enter
15 the detailed information -- sorry -- to
16 then later enter the information about the
17 registered person.

18 Q. So in that variation you're
19 describing, where the registration
20 information of the person's name is entered
21 later, is that before or after the
22 photograph of the person is captured?

23 A. That's after.

24 MR. ELLISON: Thank you.

25 No further questions.

1 Benjamin B. Bederson, Ph.D.

2 MR. PLUTA: No questions.

3 THE REPORTER: Would you state
4 your order on the record, please?

5 Do you want a rough draft or...

6 MR. ELLISON: Yes, a rough
7 draft would be good.

8 THE REPORTER: Okay. Regular
9 delivery of the transcript?

10 MR. ELLISON: Yes.

11 THE REPORTER: Thank you.

12

13 (Time Noted: 11:09 a.m..)

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DECLARATION

I HEREBY CERTIFY that having been
first duly sworn to testify to the truth, I
gave the above testimony.

I FURTHER CERTIFY that the foregoing
transcript is a true and correct transcript
of the testimony given by me at the time
and place specified hereinbefore.

BENJAMIN B. BEDERSON, PH.D.

Subscribed and sworn to before me
this _____ day of _____ 20____.

NOTARY PUBLIC

CERTIFICATE

STATE OF NEW YORK)

: ss

COUNTY OF BRONX)

I, ROBERTA CAIOLA, a Certified
Shorthand Reporter, do hereby certify:

That BENJAMIN B. BEDERSON, PH.D., the
witness whose deposition is hereinbefore
set forth, was duly sworn by me and that
such deposition is a true record of the
testimony given by the witness.

I further certify that I am not
related to any of the parties to this
action by blood or marriage, and that I am
in no way interested in the outcome of this
matter.

IN WITNESS WHEREOF, I have hereunto
set my hand on January 23, 2025.

Roberta Caiola

ROBERTA CAIOLA

(	104 61:19 63:3 65:7	21 30:24 35:7	3
(b) 20:25	11 56:23 62:3, 17	216 35:15	3 6:11 7:18 8:14 10:21 11:4, 20, 24 13:23 16:15 20:16 27:4 35:14 43:4 65:19
1	11(a) 48:17, 19, 23	22 30:24 32:23 41:18 42:12 43:4	3(a) 20:16, 25
1 13:23 14:5 40:25 41:6 65:19	11(b) 50:22 52:4	23 21:15 23:25 32:22 42:12, 13 43:19	3(b) 20:17 68:6, 13
10 13:9 16:6 30:10 31:21 32:15, 19 35:5 36:2, 3 40:16 41:24 42:3, 19 43:10, 25	11(c) 56:6	24 20:19 21:3, 13 23:22 67:16	300 27:3, 4, 13 28:2, 18, 22 29:2, 5, 11
10, 176, 848 12:23	11:09 69:13	242 35:16	308 28:7
100 50:20 54:10	12 30:25 44:19, 24, 25 47:5 61:20	244 36:9	314 28:4
1001 12:18	12(a) 61:20, 22, 25 65:3, 12, 19, 20, 25	246 36:8	322 28:5
1005 48:9	12(b) 65:4, 14, 21 66:4, 6	249 27:10, 11 29:10	34 33:16 43:19
1006 18:21, 22 19:52 66:13	14 32:22	250 27:24 28:10, 15	340-1 28:7
1007 29:22	17 33:17 42:12	251 28:21, 24	
1008 26:10	18 30:3	26 21:10, 16, 18 23:9, 12, 15, 21, 25 24:3, 12, 16, 19 25:2, 25 67:10, 14	4
101 56:5 57:11, 14, 20, 25	19 41:19	27 67:13 68:8	40 43:19
1012 4:19 5:14 10:9	2 16:15 26:16, 20 35:8 65:19	29 31:19 42:13	41 41:18
102 61:19	20 5:13, 16, 21 9:19 13:3 30:9 35:7 40:16	2D 11:6	5 16:11 17:14 18:16 35:2, 4, 8 36:15 39:24, 25 40:6, 12, 24 44:9, 12 45:7
103 61:20 62:6, 16 63:10 64:13, 20	2000 27:8		

46:19 53:16 55:7 57:7 67:16 68:5 51 41:18 59 30:3	14:10,23 16:20 49:7 85 23:17,20	actuate 21:16 24:2 actuates 24:19 add 63:16,19 64:14 addition 67:24 additional 60:15,21 63:17,20 64:9,11,23 additionally 34:13 64:2 additive 63:21 adds 62:2 65:5 affect 8:9 agree 4:12 18:4,18 19:3,16,19 20:12 24:11, 16 26:23 27:9,19,22 31:9 32:4, 17,24 33:25 35:3 38:16 42:6,22 43:13,20 44:4 48:22 49:13 54:18 61:25 agreed 55:16 album 30:6 albums 31:4 algorithm 11:8,14,18 allow 30:18 35:10 allows 30:14 31:3	alternatively 6:24 analysis 26:16 29:25 and/or 31:25 answer 7:9 8:12 22:14 25:10, 18 38:11 45:25 56:22 64:15,16 appears 17:11 42:10 43:2 48:12 applied 54:3,13 57:2 62:19 apply 39:15 57:8 65:22 applying 61:7 area 8:18 9:24 28:4,7 33:5 around 8:18 arranged 31:21 32:21 array 30:16 art 18:24 26:5, 12 44:18 45:11 46:19 54:11,24 55:2,10 62:24 asked 66:18 asking 25:13 39:11 47:11 aspects 55:3 63:7
6 6 18:15 40:18 41:12,19 42:7 600 34:7 61 31:20 36:2 40:25 62 19:2 66:15 63 21:7,9 35:7 40:17 64 30:10 65 67:8 66 67:23 U.S. Legal Support www.uslegalsupport.com	9 9 6:11 7:19 10:22 13:3, 10 15:3 16:6 33:16 35:2 36:15 40:18, 25 41:12 43:4,21 44:5,10,13 46:19 53:22 55:7 95 48:14,25 99 48:14 A a.m 69:13 ability 34:6 able 47:9 67:24 68:4 above 11:25 36:13 41:24 42:18 43:9,24 abundantly 55:22 accordance 38:19 accurately 64:25 acquire 19:13 actions 20:8,13 36:7		
7 7 42:15,23 8 8 10:14 11:11 43:6,14 84 19:10 848 12:21,24 13:3,4			

assisted 31:25	49:1 50:1 51:1 52:1	69:1	cellular 33:7
associated 36:14 59:3	53:1 54:1 55:1 56:1	bolded 8:20	certain 37:12
attention 5:15 48:14	57:1 58:1 59:1 60:1	box 6:14, 21 7:23 10:4 11:2 35:16	certainly 23:15 25:5 51:23 52:14
automatically 5:6 11:15 28:5	61:1 62:1 63:1 64:1 65:1 66:1, 12 67:1 68:1 69:1	break 39:22 48:4	change 12:13 46:21 53:20 60:16, 22
available 47:8	believe 6:17 13:25 26:25 50:21 52:24 56:5	breaks 4:14, 15	chapter 13:12 16:12, 13 17:14, 21
B	Benjamin 4:1, 2 5:1 6:1 7:1 8:1 9:1 10:1 11:1 12:1 13:1 14:1 15:1 16:1 17:1 18:1 19:1 20:1 21:1 22:1 23:1 24:1 25:1 26:1 27:1 28:1 29:1 30:1 31:1 32:1 33:1 34:1 35:1 36:1 37:1 38:1 39:1 40:1 41:1 42:1 43:1 44:1 45:1 46:1 47:1 48:1	broad 37:19 38:9 51:5 52:2 53:14 57:7	chapter's 18:17
back 6:11 28:6 32:22 63:9		broad 37:19 38:9 51:5 52:2 53:14 57:7	chapters 13:17, 22 14:5 15:25 16:2
band 37:25		broader 53:19 57:4 59:13 65:9	characteristi c 15:18
based 5:7 9:7, 14 12:14 34:11 36:23 39:17 49:20 50:7		button 6:20, 21, 25 7:2, 10, 14, 15 8:5, 8, 13, 15, 22 9:5, 22 10:3 68:14	characteristi cs 5:8
Bederson 4:1, 2, 7 5:1 6:1, 5 7:1 8:1 9:1 10:1 11:1 12:1 13:1 14:1 15:1 16:1 17:1 18:1 19:1 20:1 21:1 22:1 23:1 24:1 25:1 26:1 27:1 28:1 29:1 30:1 31:1 32:1 33:1 34:1 35:1 36:1 37:1 38:1 39:1 40:1 41:1 42:1 43:1 44:1 45:1 46:1 47:1 48:1		buttons 7:24, 25 8:6	characterize 47:16 56:16 66:2
		c	characterizin g 51:17, 20
		California 46:3	charts 20:13
		called 6:10	chosen 7:25
		camera 19:12 20:20 21:4 32:25 33:3, 12	circle 8:14
		caption 11:4	cite 4:25
		captured 68:22	claim 48:16 50:21 52:19 56:23 61:19, 22 62:3, 17
		case 7:22 8:19 34:9 68:3	clarification 7:6
		cases 61:10	

clarify 25:10 64:15	combines 51:3	control 19:13	data 19:7,14
clear 17:17,25 39:8 55:22 65:18	command 16:8,21,25 17:6,9,18,23	controller 16:11 17:13, 20,23 18:6, 10,16	36:13 37:3 38:18 49:20, 25 50:7,13, 16 57:11
clearer 16:24	complete 61:6	corner 6:13	58:3,6,8,11 63:12,21,25 64:8 66:3
clearly 57:12 60:20	completely 17:17,25 25:11	corners 8:20	database 33:6
clicked 7:4 8:18,21 9:8	components 20:7 23:14 24:14	correct 4:23 12:21 18:8 27:3 30:7 40:3 41:13,25 42:4 48:17 53:14 56:19 57:16 59:22 60:8 61:22 62:9,13 63:13	dataset 59:22,25 60:4,6,7
clicks 8:16 9:6	comprise 58:12	correctly 6:18	date 60:6,11 63:16,19 64:2,9
clothes 5:9	comprising 58:10 59:21	corresponding 16:15 45:16	date/time 58:8,11
clothing 12:7	computer 35:19 37:8, 16 38:4 39:7	counsel 4:13	dates 59:3
cluster 11:17 12:10	computing 34:7 38:13	CPU 21:10,16,18 23:9,12,15, 20,25 24:3, 12,16,19,25 25:25 67:10, 14	declaration 5:2 12:24 26:14,19 48:11 50:20 54:9
clustering 10:10,17,20 11:10,13,18, 22 12:15	conceptually 47:4	create 31:3	decrease 45:6
coauthored 4:23	conduct 21:18	criteria 38:20	deferred 23:5 67:3
collection 11:5 45:3 47:18,24	confirm 39:2,11	crystal 20:19 21:3, 12 23:22 67:16	definition 37:23 38:12, 17 39:2,5, 11,20
collectively 44:10	conforms 39:6	daily 12:8	degenerate 61:10
column 5:16,21 10:15 12:8 13:8,9,11 14:15 15:3 16:6 30:3,9, 24 31:19 32:22 33:16 35:7,25 40:16,25 41:18 42:12 43:4,19	connection 26:16		delivery 69:9
combination 36:12	considered 26:13 29:25		demonstrate 53:25
	consistent 39:19		dependent 59:20,24
	construction 38:24		depending 7:24 8:5,9 24:23 25:21 26:2 29:19
	content 11:15		
	context 35:19 37:14, 15,21 38:2, 4,13 39:7 47:14 55:21		
	continue 67:22		

32:15,20 37:12,20 depends 16:2 depict 20:17,25 deposition 4:10 describe 5:5,22 11:3, 11 12:23 28:10,21 29:11 32:14 34:3 39:14 40:15 58:6 64:23,25 described 11:10 14:2, 7,9 18:8 33:3,14 35:5,14,17 46:11 49:25 57:11,14 describes 5:12 13:11 14:15 19:3, 10 23:11 27:25 28:16 29:12 31:21 32:7,18,25 33:20 34:13, 17,18 35:8, 9,24 36:19 40:12,24 41:11,15 42:3 45:22 46:17 47:22, 25 49:17 50:2,10 61:21 67:9 describing 11:14 13:9 16:20 17:12 45:3 57:23 68:19 description 14:24 22:4,7 28:17,25	35:4 61:2,5 67:8 designates 23:25 designating 21:16 detailed 14:24 67:14 68:4,15 details 14:25 determination 31:23 device 30:5,15,20 31:2,21 32:15,18,20 33:4,6,12 34:7,25 35:12 36:3 40:13 42:4 different 12:10 20:2 22:6 24:24 25:8,24 26:7,8 34:24 37:7,20 38:3,10 39:9 56:25 62:7,8 differentiate s 19:20 differently 8:2 direct 5:15 directory 12:6,8 disc 16:15 disclose 27:22 53:24 54:25 55:20 disclosed 32:14 52:8 53:21 55:12	discloses 19:17 26:24 27:20 31:10 32:5,11 34:24 42:7, 23 43:14 44:5 45:11 54:7 62:6 disclosing 34:5 disclosure 26:5 27:5 36:19 54:21 disclosures 31:15 49:6 56:24 discuss 5:17 discussed 4:9 9:18 36:13 40:10 41:23 42:18 43:9,24 discusses 13:4 discussing 10:9 21:7 62:15 dispense 61:24 display 35:16 37:10 41:3,9 45:15 53:18 55:6, 23 56:3 57:8 59:24 60:23 displayed 20:18 21:3 36:23 44:20 45:5 46:21, 23 47:6 53:3 54:13,17 60:17 displaying 23:12 39:16 55:20	displays 21:11 23:21 30:17 52:9 67:14 distinguish 25:14 distinguished 20:12 distinguishes 49:14 distinguishin g 25:16 document 12:19 26:11 doing 15:24 draft 69:5,7 dragging 7:5 drive 16:15 duly 4:3 DVD 16:15
E			
earlier 8:12 40:11 50:2 56:22 68:11 edit 68:14 editing 68:6 either 9:17 68:10 electric 20:19 electrical 38:2 electronic 19:12 20:20			

21:4 element 27:4 48:16 50:22 61:22 66:4 elements 5:8 12:13 ELLISON 6:6 14:13, 21 20:4 21:25 25:3 28:13 29:8 31:12 33:9 35:22 37:4 38:5, 21 40:4, 22 44:15 47:19 49:22 54:4 55:17 56:20 58:14 66:11 68:24 69:6, 10 embodiment 27:12 41:5 encompass 51:10 53:4 engineering 38:2 enter 68:10, 14, 16 entered 36:10 68:20 entire 58:12 event 10:16 11:7, 13, 22 12:4, 5, 11, 12, 15 events 64:10 evidence 53:25 exactly 7:8 50:15 EXAMINATION 4:5 66:10 examined 4:4	examples 36:18 57:24 62:23 65:2, 11, 20, 21 66:6 executes 18:16, 19 executing 18:7, 11 exemplary 58:19 64:12 exhibit 4:19, 20 5:14 10:9 12:18 18:21, 22 19:2 26:10 29:22, 23 48:9 66:13 exist 36:3 expect 26:6 46:20 expected 47:2 explain 65:7 explained 8:11 52:7, 24 54:9, 10 explains 29:13 express 13:5, 6, 14, 15, 21 14:4 16:9, 10 49:6 expressed 55:14 expressly 56:2 F face 8:17 19:3, 6, 20 20:3 21:8, 17, 19, 23 22:10, 16,	21, 25 23:7, 10 24:2, 4 25:23 58:22 63:12, 21, 25 64:8 66:2, 19, 23 67:13, 19 68:2, 7 face- recognizing 19:7, 10, 21, 25 22:5, 8, 15 23:17 24:10, 13, 18, 20 25:14, 22 56:18 57:10 58:3, 5, 7, 11, 13, 20 faces 59:2 fact 22:23 fair 23:6 27:7 47:16 50:14 52:18 58:23 familiar 4:10 feature 49:20 50:6 58:20 features 34:17, 21 fewer 45:15 46:22 47:8, 9 51:8, 10 52:9 53:2 54:13, 14 55:20 60:23 figure 6:11 7:18 8:13 10:21, 23 11:4, 20, 24 13:10 20:16 27:4 35:4, 8, 14 39:24, 25 40:6, 12 41:6, 19	42:7, 15, 23 43:6, 14, 21 44:5, 19 45:7 53:16, 22 57:6 67:16 68:5, 6, 13 figures 20:16, 25 27:9 35:2 36:15 40:18, 24 41:12 44:9, 12 45:2, 14 46:19 55:7 file 36:14 files 36:3, 4, 20 37:10 50:9, 12, 17 51:8, 10, 13 55:21 62:9 fill 9:2 filter 30:18, 19 31:4 35:10, 11, 21 36:11, 16, 17, 24, 25 37:7, 13, 17 38:17, 18, 24 39:7, 15, 17, 19 41:3 45:4, 14, 17, 18 46:14 47:7 49:19 51:6 53:9, 13, 21, 25 54:13 56:18 57:3, 4, 6, 8, 16, 22 59:24 60:5, 15, 21 61:8, 12 62:19 63:12, 17, 20, 22 64:2, 9, 10, 11 65:16, 23
--	--	--	--

filtered 34:17,21 46:2 49:4 52:25 filtering 35:14,25 36:8 38:9 41:9 50:2,6, 10 53:17 54:20 55:15 60:13 62:22 64:23 65:2,8 filters 34:13,19,24 36:9,10,11, 16,21,22 37:25 38:3 39:13 45:18 49:14,18 51:3 56:25 57:2,24 61:16 62:8, 23 64:12,22 65:17,19,24 finally 14:3 43:18 fine 11:13,22 12:5,11,14 first 4:3 6:25 12:11 16:13 41:22 42:17 43:8,23 44:25 48:20 51:2,7,17, 20,24,25 52:5,11,13, 14,20 53:5,8 56:9,11 57:20 58:7,9 59:7,15 62:2,11 63:11 64:24 66:2 five 39:21	flow 20:12 folder 23:13 44:14 47:17,23 67:11 follows 4:4 form 6:7 14:14,22 20:5 22:2 25:4 28:14 29:9 31:13 33:10 35:23 37:5 38:6,22 40:5,23 44:16 47:20 49:23 54:5 55:18 56:21 58:15 67:6 forth 48:15 63:10 fourth 28:7 frame 21:14 23:23 France 46:3 Fredonia 46:3 full 27:13,20,25 28:2,11,19 29:6 function 20:3 41:3,10 functions 20:8,10,14 G gave 65:11 general 48:15 56:24 60:14 62:22	generalization 63:5 generally 34:15 35:13 37:6 53:15 generate 19:6 51:9,12 62:8 65:9 generated 36:8 generates 67:10 generating 23:13 give 25:17 63:11, 14,18 giving 14:24 64:17 going 13:10 35:7 good 4:7,8 69:7 Graham 26:13,15,20, 23 27:3,6, 19,22 28:11 29:4 granularity 10:16 11:12 graphical 7:20 8:10 9:10,12 11:19,23 14:25 26:24 27:2,5,8 28:18,21,25 40:7 41:8 49:17 gray 11:2 ground 26:16,20 grounds 26:19	group 5:7 6:23 10:24 11:16 23:13 67:10 grouped 11:6 grouping 11:9 12:14 groups 10:23 guess 18:4 GUI 27:12,15,16 28:2 29:5, 11,14,15,19 40:3 guide 10:12 H Haitani 29:24 30:3, 4,10 31:9,20 32:4,7,10, 14,18,23,24 33:11,20 34:12,16,18, 23 35:24 37:8,15 39:25 40:8, 12,19,24 41:11 42:6, 15,22 43:6, 13,21 44:4 45:22 46:12, 17 47:14,22, 25 49:4,14, 20 50:2,6 52:8,25 53:24 54:7, 11,19,22,25 55:10,14,19, 25 56:2 57:22 60:19 61:2 62:6,25
---	--	--	---

Haitani's 34:5 39:13, 18 40:2 53:6, 9, 13, 16 56:24 61:5 62:22 halfway 50:23 62:5 hand 9:4 60:18 handed 12:17 18:20 29:21 48:8 handheld 34:6 hanging 4:18 26:9 happen 23:4 66:25 hard 16:15 head 31:18 heard 64:3 hesitation 15:17 hierarchical 11:7 highlighted 8:23 hypothetical 47:14	52:12 58:10 image 8:16 9:3 19:14 36:3, 6, 14, 20 37:10, 11 41:3, 9 53:2 55:20 56:7, 8, 10 image/video 51:8, 10, 13 62:9 images 9:2, 7 10:6 12:2 30:6, 19 31:6 35:11, 16 36:8, 23 37:11 39:15, 17 40:8 45:3, 5, 8, 12, 16 50:3 58:13 61:7 imaging 5:6 immediately 23:4 67:2 implication 18:2 importance 13:23 14:5 inaudible 7:5 include 36:4, 7, 16 47:18 48:24 59:10 63:7 includes 13:13 30:16 44:19 48:19 56:8 including 8:25 31:23 49:18 indicate 54:19 55:14 indicated 8:13	individuals 31:5 information 16:14 33:5, 13, 14 36:12 56:7, 9, 11 67:14, 17 68:4, 7, 15, 16, 20 initially 53:18 input 16:8, 21 17:2, 6, 10, 19, 23 49:21 50:7 67:17, 25 68:7 interact 8:2 interface 7:20 8:10, 17 9:3, 10, 13, 16, 21, 24, 25 10:2, 5 11:20, 24 12:2, 12 15:2 26:24 27:2, 6, 8 28:18, 22 29:2 40:2, 8, 20 41:8 45:22 46:11, 17 47:3 49:17 60:14 invention 27:12 involved 23:14, 15 issues 5:18 Italy 61:11, 12, 13, 16 item 68:6 items 52:9 53:3 54:14 55:24	56:3 J jump 63:9 K key 60:25 kind 58:18 60:13 kinds 61:10 know 4:10 15:20 66:16 L labeled 6:14, 15, 16 language 17:16 48:24 large 36:2, 20 45:3 larger 37:10 39:14 51:12 left 6:13 7:14 12:3 lens 28:4 level 13:18 14:5 levels 13:23 likewise 28:20 limitation 48:23 51:6 52:4, 19 56:6, 14, 17 61:25 63:3, 6
I i.e 51:2, 5 idea 5:6 identification 11:7 identified 5:18 31:5 identify			

65:3,4,12,14 limiting 57:15,21 62:18 line 13:3,9 16:6 18:15 30:3, 10,24,25 31:19 32:22 33:16 35:7,8 36:2 40:17, 25 41:18,22 42:12,13,17 43:8,23 lines 43:4 liquid 20:18 21:3, 12 23:22 67:16 list 47:4 little 8:14 16:24 25:20 located 33:6 location 30:18 33:4 35:10 36:16, 22 44:13 45:4,17,21, 24 46:2,5 64:10 long 47:4 longer 54:8 65:6,15 look 16:5 18:15 20:15 23:16 27:10 31:19 41:17 42:11 43:3,18 44:9 47:24 50:19 56:4 63:2	looked 35:6 looking 46:19 60:19 looks 17:5 28:15 lot 14:24 M main 9:24 make 25:9,17 57:5,9 65:18 management 16:13 marked 4:19 8:15 12:18 18:21 26:10 29:22 48:9 marquis 7:4 matters 26:21 mean 7:12,21 10:19 16:22 17:10 22:10 37:24 38:13 49:24 50:16 61:9 67:5 means 35:21 41:4 meant 22:16 meet 37:11 65:3, 13 meeting 33:22 34:4 meets 52:25 memory 67:13 68:8	mentioned 6:9 7:23 12:15 menus 30:18 35:10 met 65:20 metadata 11:16 minutes 39:22 mobile 31:24 32:8 mode 6:2,5,14,21 7:19,21,23 8:4,9 9:9, 11,12,13,17, 21 10:2,4 13:5,6,7,13, 14,15,17,22 14:4,11,19 16:10 17:7, 8,19 19:4,5, 11,21,22,25 20:2,3,17 21:2,8,11, 14,17,19,23 22:5,9,11, 15,17,21 23:2,8,10, 18,21,23 24:10,11,13, 18,20,23 25:15,21,23, 24 27:14,15, 20,21,25 28:3,12,19, 23 29:3,5,7, 14,19 30:4, 14,17,24 31:2,24,25 32:5,8,11, 15,25 33:3, 12,21,22,23, 24 34:4,7,8, 10,25 35:9 40:13 41:13,	16 42:4,9,25 43:16 44:7 48:20,21 49:5,6 51:2, 5,7,9,17,21, 24,25 52:5, 6,11,13,14, 20,22 53:6, 9,13 56:8, 10,12,17 57:14,20 58:2,5,7,9, 13,19,25 59:6,7,12,15 62:2,12,20 63:11,16,24 64:7,24,25 65:6,16,22 66:2,4,19,24 mode' 16:9,10 24:3,5 modes 14:16,18 15:6,8,14 16:3 20:7,11 26:2,7 27:13,20,23 29:12,17 31:10,15,23 32:13,20 49:15,18 62:3,7,16 64:21 65:8, 11 monitor 20:19 21:3, 13 23:22 67:16 month 12:6 morning 4:7,8 motivation 60:25 mouse 6:19 7:2,10, 14,15,16
--	---	--	--

8:2,5,8 9:23 10:6 move 61:18 MS-BASED 31:25 32:11 multi-button 7:15 multiple 51:3	66:13 67:9, 21 Nozaki's 66:19 number 12:2,22 20:7 21:15 23:25 36:4,20,23 37:10 39:15, 16 45:5,19 46:14 50:3, 8,12,17 51:12 67:23 numbers 36:3	17:8 22:18 23:6 24:9 26:21 27:24 28:20 30:2 33:15,18 34:5,12 35:19 36:25 38:14 39:23 43:18 47:11 49:13 50:5, 11 52:11 54:18 55:13 57:25 58:9, 25 61:4,18 63:2,9 65:25 66:8,17 69:8 omit 67:24 one 6:15,16,20 8:9 14:18 15:5,7,13 22:3,4,7 27:5 28:17, 24 29:17 31:3,22 33:21 34:7, 23 36:12 40:7 41:4 48:20 50:10 53:25 57:3,8 58:19,24 60:5 65:15, 16,23 67:20 operate 14:19 27:13 29:11,19 31:22 32:19 operates 9:11,13 14:10 15:8, 14 21:13,24 22:5 23:2,23 24:12 29:5 32:15 66:24 67:21 operating 9:16 21:15	22:6,19 23:9,24 24:15,16 28:2,11,19, 22 29:2 34:25 40:13 41:12,15 42:8,24 43:15 44:6 operation 16:7 17:18 27:15 29:14, 18 67:8 operations 21:19 23:4 24:4,25 25:6,7,25 26:6 54:20 55:16 66:25 opinion 49:10 50:21 51:14 54:6, 23 56:5,23 57:17 62:5 65:2,6 opinions 48:16 61:21 options 6:15 10:16 11:13 orange 11:2 order 69:4 organize 30:5 organized 10:22 11:5 originate 48:2 outside 37:14 overlap 61:6
N			
name 33:4 67:18, 25 68:11,20 narrow 53:6,10 narrower 51:2,17,21 52:7,13 53:23 54:12 55:4 57:5,9 58:7 59:15 65:9 need 38:12 needs 36:5 never 61:11 newly 67:11 non-image 36:13 nonetheless 45:20 46:15 normal 33:22,23 34:3 Noted 69:13 Nozaki 18:23 19:3, 10,16,19 21:23 22:22 24:7,21,24	0 object 14:21 16:14 67:6 Objection 6:6 14:13 20:4 21:25 25:3 28:13 29:8 31:12 33:9 35:22 37:4 38:5,21 40:4,22 44:15 47:19 49:22 54:4 55:17 56:20 58:14 observed 5:23,24 obtains 33:4,13 occur 20:11 offer 37:23 38:25 offered 38:23 39:5 okay 4:17 7:17 9:9 10:7 13:16 14:9		

P page 5:13, 16, 21 6:11 7:19 9:19 10:14, 22 11:11 44:22 pair 36:15 panel 28:4 paper 4:22, 25 5:5 9:15 10:8 paragraph 5:17, 21, 25 6:8 9:18 13:2 16:20 18:8, 25 19:9 21:6, 7, 9 23:16, 20 27:10, 24 28:10, 15, 21, 24 29:10 33:19 48:25 49:3 50:19, 24 51:16 54:10 56:4 57:11, 14, 19, 25 61:20 62:6, 16 63:2, 10 64:13, 20 65:7 66:15 67:7, 23 paragraphs 22:20, 24 23:7 48:14, 15 61:19 parentheses 12:5, 7 part 22:7 24:17 35:25 partial	27:14, 21 28:22 29:2, 7 particular 57:2, 15, 21 59:7, 14, 18, 21, 23 60:10 61:8 62:19 66:6 pass 37:25 66:9 passes 37:3 patent 12:21, 22, 24 13:3, 4 14:10, 23 35:18 49:7 people 5:9 12:7 perform 51:25 60:15, 21 performed 24:25 25:25 performing 52:7, 25 performs 19:12 20:2 51:21 53:9, 13 period 59:19 person 19:6, 15 26:4 44:17, 23 45:9, 10 46:18 54:11, 24 55:2, 9, 22 58:23 59:7, 9, 14, 17 60:5, 10 62:24 67:11, 12, 18 68:17, 22 person' 67:15 68:2, 5	person's 68:11, 20 Ph.d. 4:1, 2 5:1 6:1 7:1 8:1 9:1 10:1 11:1 12:1 13:1 14:1 15:1 16:1 17:1 18:1 19:1 20:1 21:1 22:1 23:1 24:1 25:1 26:1 27:1 28:1 29:1 30:1 31:1 32:1 33:1 34:1 35:1 36:1 37:1 38:1 39:1 40:1 41:1 42:1 43:1 44:1 45:1 46:1 47:1 48:1 49:1 50:1 51:1 52:1 53:1 54:1 55:1 56:1 57:1 58:1 59:1 60:1 61:1 62:1 63:1 64:1 65:1 66:1 67:1 68:1 69:1 phone 33:23 photo 7:3 31:4 photograph 68:22 photos 5:7, 9 6:23 7:4 10:22 11:5, 16 12:11 45:19 46:10, 15	47:18 59:4, 6, 8, 13, 17, 21, 22, 25 60:4, 5, 8, 10, 16, 22 pictures 30:15 40:2, 19 44:12 45:21 46:11, 16 47:15, 17, 23 58:22 59:10 61:12, 13 place 45:8 46:2 53:21 55:25 places 34:23 45:12, 14 play 55:8 played 28:6 60:2 please 20:23 27:11 31:20 39:25 66:12, 16 69:4 PLUTA 4:6 48:4, 7 66:8 67:6 69:2 points 5:2 portable 30:5, 15, 20 31:2 34:6 35:12 42:4 portion 7:19 8:16, 22, 25 9:3 11:25 22:3 24:6 28:17, 25 29:18 POSITA 50:24 54:14
---	--	---	--

23 22:10, 17, 21 23:2, 7, 10 25:23 63:12, 21, 25 64:8 66:3, 19, 24 67:13 68:8, 19 regular 11:14, 22 12:6, 12, 14 69:8 relate 36:11 related 25:6 34:10 relating 31:5 56:6 relation 42:14 43:5, 21 relied 18:24 relies 56:23 relying 53:5, 8, 12 62:21 remember 6:17 7:7 34:20 41:14 47:21 remote 33:6 repeat 20:22 rephrase 51:19 reporter 7:6 69:3, 8, 11 represent 12:10 represented 11:19 representing 42:8, 24 43:15 44:6	reproduce 15:9, 15 reproduced 16:2 56:7, 9, 11 reproduces 13:17, 22 14:4 51:7 reproducing 13:5, 6, 7, 13, 14, 15, 17, 21 14:4 15:4, 5, 10, 19, 21, 25 16:7, 9, 10, 12 17:4, 7, 8, 14, 18, 19, 21 18:7, 10, 12, 17 48:19, 20, 21 49:5, 6 50:25 51:4, 11 52:4, 6, 10, 21, 22 53:4 54:8, 16 55:3, 11 56:10, 12, 17 62:2, 3 63:4, 8 reproduction 54:19 55:15 requirement 52:3, 23 65:5 requirements 37:12 resembles 49:5 respect 48:16 50:21 57:13, 20 61:21 62:17 respective 62:20 rest 13:11 result 11:10, 18 52:9 54:15	results 39:16 51:9, 12 53:2 65:10 retrieve 66:13 reversed 65:13 review 30:4, 14, 15, 17, 23 31:2 34:25 35:9 40:13 41:12, 15 42:4, 8, 24 43:15 44:7 right 4:24 5:3, 4, 19, 21 6:3, 4 12:3 13:7, 20, 25 14:17 15:9, 24 18:18 19:8, 23 21:5 24:19, 21, 22 25:17 26:17 30:11 31:15 34:14 37:25 43:17 44:8 48:8, 18 49:16 51:18 53:10, 11, 15 57:18, 23 58:3, 4, 20 59:5 60:12 62:10, 21 63:23 66:7 right-hand 5:16 10:15 right-handed 7:13 ringer 33:22, 23 34:3, 4, 11 rough 69:5, 6	S S1 68:12 S102 67:10 S104 67:8 Safari 6:10, 18 8:3 11:12 says 16:6 17:17, 22 18:9, 11, 16 21:10 23:20 30:13 36:2 41:2, 23 42:17 49:3 56:2, 15 67:24 scene 16:14 science 37:8 scientist 37:16 screen 8:23, 25 19:15 20:18 21:2, 11, 15 23:9, 12, 21, 24 24:11 41:2 46:6, 10, 23, 24 47:10 53:18 67:15 68:5 screens 55:6 screenshot 6:12, 14 scroll 47:7, 9 scrollable 30:16 47:2 scrolled 44:21
--	---	--	---

scrolling 47:2	7,12,13 10:3 14:16 16:12 17:14,21 18:17 27:15 29:14,16 36:6	setting 67:19 68:2	skill 26:4 44:18 45:10 46:18 54:11,24 55:2,9,23 62:24
search 34:17,21 49:4,19 50:6 51:2,5,9,11, 18,22 52:2, 8,13 53:2,6, 10,14,19,23 55:5 62:7	selected 6:21 7:5,7 9:10,12 14:20 16:4, 11 17:7,9 23:8 24:10, 24 25:22 26:3 29:20 32:16 37:13 45:16 67:9	several 5:2	smaller 39:16
second 5:16,20 21:9 23:19 30:13, 25 48:21 51:5,8 52:6, 22 53:12 56:8,16 57:4,13 58:2,5,13 59:6,12 62:3,12 63:15,24 64:24	selecting 10:6 15:5	sharing 36:6	smartphone 33:20
section 22:21 23:18 31:20 34:2 35:5	selection 6:2 9:17 10:2 15:22 16:22 17:4, 20 20:18 21:2,11,14 23:8,21,23, 24 24:11	shoot 19:5	sort 36:5
see 5:20 9:17 15:3 16:17, 18,25 19:18 21:20-23:1 Support www.uslegalsupport.com 24:6 26:18 27:17 28:8 30:8,12,21 31:7 32:2 34:2 35:8 41:20,21 42:14,16,20 43:5,7,11 44:2,12 45:11 47:25 49:8	selectively 37:2	shooting 19:5,11,13, 15,21,25 23:18 24:2, 5,10,13,18, 20 25:14,23	source 47:22
select 6:16,25 7:3, 24 8:6 9:5,	selects 14:18 15:7, 13,19 37:2	shorter 51:4,11 52:5,10,21 53:4 54:7,16 55:4,11	SP20 16:16
	sentence 17:12 21:10 23:19 30:13 49:2,3	shot 67:12	space 11:6
	separate 49:20,25	shots 41:2	spans 42:12
	separates 37:3 38:18	show 40:19 58:21 61:13,15	speak 4:12 45:19
	series 21:18 24:3	showing 40:8	speakerphone 33:24
	set 15:2 48:15, 20 60:16,22	shown 11:20 35:2 36:15	specific 31:15 37:22 39:2,17 45:14 55:25 57:24 65:5
	sets 20:13 61:7 62:9 64:22	shows 39:25 40:6	specifically 25:20 34:10, 16,20 47:25 61:20
		signals 38:19	specification 31:11 54:21
		similar 46:24 62:16	specified 19:14 38:19
		similarly 32:10 57:19	speed 54:20 55:15
		single 51:6	standalone 31:24 32:5
		sitting 39:3,4	standard 13:5,13,16 16:8 49:5
		situation 60:3 61:5	

start 15:4 16:7, 21, 25 17:6, 9, 18, 22 45:2 68:4	substance 4:13	43:9, 15, 24 44:6 48:3	text 11:21 12:15
starting 13:3, 8 16:6 35:6, 25 36:19 40:17, 25	substantive 49:2	T	Thank 4:17 10:7 12:16, 25 18:18 22:17 68:24 69:11
starts 15:18 16:11 17:14, 20, 24 18:10, 19 21:18 24:3 39:14 45:7	successive 64:22	tabs 12:3, 9	there'd 61:6
state 50:24 63:16 69:3	suggested 39:20	take 16:5, 21 17:3 20:15 23:16 27:10 31:19 37:9 39:22 41:17 42:11 43:3, 18 48:4 50:19 55:5, 7 56:3, 4	thereabouts 33:17
states 27:11, 25 38:17 43:8, 23 56:7	suggests 52:16	taken 48:6 60:10 61:11	thing 6:20, 22
station 31:24	super 13:6, 14 14:3 16:10	takes 55:23	think 5:4, 11 8:11 9:15 12:23 15:24 17:5 19:23 20:6 22:5 25:6, 11 26:4 27:4 29:16 34:15, 18 35:6 37:6, 18 38:7, 8 39:8 40:6, 10, 15 41:4 43:17 44:8, 17, 23 45:9, 25 46:18, 25 48:10 49:16, 25 55:2, 9, 21 60:12 64:3, 25
station- assisted 32:8	support 24:17 41:9	taking 36:7	third 62:2, 12 64:7, 24 65:6, 15, 22 66:4
step 16:16 68:12	suppose 9:11	talk 62:11 64:21	thought 38:25
stored 30:19 35:11	sure 10:13 18:11 22:12 25:10, 11, 15, 17, 19 31:17 49:24 50:15 58:16 59:23 60:12 61:9 64:19	talking 37:24	three 14:16, 18 15:5, 14 16:3 32:19 62:7 64:21 65:11, 17, 24
strike 15:11 16:22 53:6 62:13	surrounded 11:2	talks 63:3	thumbnail 9:2 28:3
structure 13:12	surrounds 7:23	teach 29:4	
studies 5:22	switch 34:6, 11	teaches 60:19, 20	
study 5:18, 24	switched 14:11 29:6	tell 26:19 39:5, 12	
subsequent 22:20, 24 45:13	switching 33:20, 21 34:3	temporal 5:7 18:2	
subset 59:16	sworn 4:3	term 10:10	
	system 14:9, 19 15:8, 14, 18, 24 16:11 17:13, 20, 23 18:6, 9, 16 23:14 24:15 41:6, 23 42:8, 18, 24	testified 4:4 52:12	
		testifying 66:21	
		testimony 4:14 9:14 62:17	

45:15 55:6 thumbnails 10:25 30:16 44:20, 25 46:20 47:5, 8 time 30:17 35:9 36:17, 22 45:5, 8, 17 47:6 50:25 51:4, 11 52:5, 6, 10, 21, 22 53:4 54:8, 16 55:4, 5, 8, 11, 23 56:3 59:3, 18 60:6 63:4, 8, 17, 20 64:2, 9 67:12 69:13 times 45:12, 15 today 4:14 39:3, 4 49:11 top 6:13 31:18 43:3 transceiver 33:7 transcript 69:9 tricky 18:13 trip 12:8 try 47:12, 13 58:17, 18 trying 18:13 turn 5:13 13:2 18:25 19:9 21:6 30:2 33:15 48:13	two 6:15 7:23 10:16 11:12 12:11 26:7 27:13, 20, 23 29:12, 13, 17 61:6 type 19:4 20:2 36:10 types 38:3 typically 7:14 U U.S. 12:22 understand 38:7 44:18, 24 54:12, 15, 25 55:3, 10 58:16 62:25 understanding 13:19, 24 14:6, 12 15:16 19:24 20:21 21:22 33:8 35:20 37:17 39:6 40:14, 21 45:23 46:13 56:13 57:16 understood 25:12 45:9 50:25 universe 58:12 update 27:13, 14, 20, 21, 25 28:2, 11, 19, 23 29:2, 7 updated 28:5	usability 5:17, 22 user 5:24 6:22 7:4, 20 8:10, 12, 15, 16, 17, 18, 21 9:3, 4, 6, 7, 10, 13, 16, 20, 22, 24, 25 10:3, 4, 5 11:19, 23 12:2, 12, 13 14:16, 17, 19 15:2, 4, 7, 9, 13, 19, 20, 21 16:4, 22 19:5 21:13 23:23 26:24 27:2, 6, 8, 14 28:18, 21, 25 29:13, 16 30:14, 18 31:3 35:10 36:5, 9 40:7 41:8 47:3 49:17, 21 50:7, 14 60:14 67:17, 24 68:3, 10 users 7:13 utilized 26:15 V variation 68:10, 18 variations 22:25 41:7 66:23 various 31:10 32:13, 14 33:13 62:16 video 28:6 53:2 55:21	videos 40:2, 9, 19 45:21 46:11, 16 47:15, 17, 18, 23 54:14, 17 55:8 59:8 60:16, 22 viewed 50:4, 9, 12, 18 viewing 28:3, 4, 7 36:6 virtual 30:6 31:4 visual 5:8 W want 10:12 25:9 65:18, 20 69:5 wanted 66:5 way 6:18 22:4, 7, 25 44:17 50:10 58:19 66:23 ways 12:10 22:6, 19 32:14 34:19 36:4 37:7, 20 38:10 52:17 wear 5:9 wearing 5:10 week 4:9 59:9, 11, 18 61:16 went 58:6 whichever 14:10, 19
--	--	--	---

29:5
witness
4:2 66:9
word
8:4 18:3
37:6,19
38:9,24
39:19 45:24
work
51:24 52:15,
17
worked
6:19
working
34:19
works
34:11 41:23
42:18 43:9,
24 51:24
52:15 61:3

Y

Yeah
20:24 27:7
59:23 64:18
year
12:6
York
46:3 53:21

U.S. Legal Support | www.uslegalsupport.com

Z

zoom
6:2,15,20,22
7:2,24 8:6,
13,14,17,21
9:9,11,17,
21,22,25
zoomable
11:6
zoomed
8:24
zooming
9:6